# Car Pool Rest-A

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# CAR POOL RESTA


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This report is submitted in partial fulfillment of the requirements for the
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UNIVERSITI TEKNIKAL MALAYSIA MELAKA


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2021

# DECLARATION

I hereby declare that this project report entitled

**[CarPool RestA]**

is written by me and is my own effort and that no part has been plagiarized

without citations.

STUDENT : _____ Date : 11/09/2022

([HABEEB E SADEED])

I hereby declare that I have read this project report and found

this project report is sufficient in term of the scope and quality for the award of

Bachelor of [Computer Science (Software Development)] with Honours.

SUPERVISOR : _____ Date : 11/09/2021
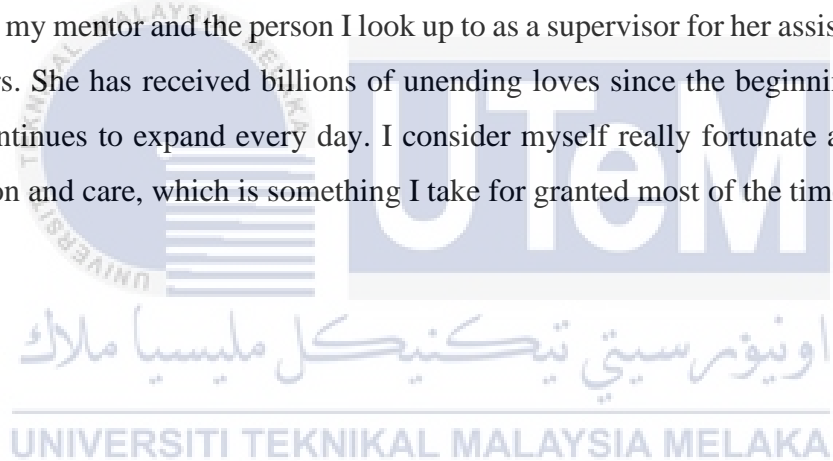
([NOR HAFEIZAH HASSAN])

# DEDICATION

Everyone who has given me the support, inspiration, and passion for seeing this project through to its end deserves to have their names included in this Final Year Project dedication page. First and foremost, I would like to thank my loving parents, who have provided me with unfailing love and encouragement throughout my whole life. Throughout the past two months, they have been continually on the lookout for me, at all hours of the day and night, on a daily basis. Thank you very much for your help and support.I am eternally thankful for my parents' love and support, especially my mother, who never stopped lovingme while simultaneously doubting me and pushing me to my limits and beyond. As a result, I am glad for their existence, as well as for engaging me to assist them in navigating challenging situations and learning how to deal with them effectively. In order to achieve my goals, I must aim to be a hardworkingindividual with a strong sense of purpose and the capacity to develop into an outstanding type of individual. I would also like to convey my gratitude and appreciation to Nor Hafeizah Binti Hassan, and she has acted as my mentor and the person I look up to as a supervisor for her assistance and guidance throughout the years. She has received billions of unending loves since the beginning of time, and the number of them continues to expand every day. I consider myself really fortunate and honoured to be under his supervision and care, which is something I take for granted most of the time.

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**ABSTRACT**

The purpose of this project is to investigate the outcome of a new type of ride sharing app application which we named as Car Pool RestA . This application will be available for use for the users within a particular range. In this report , we have discussed the build of this application in terms of its importance among other ride sharing applications. This thesis will discuss the practical demonstration of some of the new features that the application will uniquely offer and these very features will be the highlight of the new kind of application or the Car Pool RestA as we named it to be in light of solving a problem in  a particular scenario serving the ride needs of a given population lying in  a particular range ensuring a top quality service to all the residents in a particular community .

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| | |
|---|---|
| **API** | **Application Programming Interface** |
| **FYP** | **Final Year Project** |
| **UI** | **User Interface** |
| **IOS** | **iPhone Operating System** |
| **Mac** | **Media Access Control** |

# CHAPTER 1:   INTRODUCTION

## 1.1 Introduction

Car Pool RestA will be available as a cross-platform mobile application service on both the Android and iOS platforms, and its database will be accessible via the web. Through this program, we have observed that it is usually difficult for some residents of a specific location to get to their destinations on time, particularly in the lack of continuous on-going bus service in the neighborhood, which we hope to address. On the other hand, the Car Pool RestA programme will make an attempt to address the situation. Any person who resides in a certain geographic area where this application is in use, regardless of their employment status or background, has the choice to become a licensed driver as a result of the implementation of this programme. CarPool RestA is an easy programme from the driver's point of view in terms of its user interface. Every homeowner in a certain neighborhood does not have the same schedules and habits as the others. Aside from that, they can register with the government and provide their services to other residents in times of need at an exorbitant fee when the situation calls for it.

Business analysts believe that the demand for emergency transportation will continue to grow in price, causing costs to rise further and further. This allows the rider to save their reputation by not missing crucial deadlines, and it also allows the rider to benefit from the experience by riding in the opposite way. It is possible that drivers will use this application because of the high demand for services during critical hours, which may result in drivers being required to exclude ride requests from other clients who do not have urgent deadlines. As a result of the high demand, clients with scheduled appointments will be prioritized first, which may encourage drivers to use this application.

## 1.2 Problem Statements

Concerning current scenarios in Malaysia and other parts of the world where GrabCar and other ridesharing applications do hold a monopoly in the business, we have acknowledged that we find organizational blunders and managerial behind every ride-sharing app's initial successes mistakes, and growth hurdles that must be overcome. One such setback is being overly business-oriented and failing to provide services to clients based on their needs and priorities. Customers who use ride-sharing programs regularly may have their requirements at specific periods in their schedules. The worldwide ridesharing sector is dominated by large corporations such as Uber and Lyft.

CarPool RestA, on the other hand, is not primarily concerned with making a profit but rather with providing noble services to a certain community of people who live in a specific location. For want of a better expression, the goal is to fully eradicate any prospect of customers being forced to wait in a line. Furthermore, the pool of drivers accessible is adequate in terms of size, which will be useful in giving service to everyone who falls within a specific range of distances from the terminal.

We frequently miss the bus that transports us to and from our university or your company, which is always planned to run on a strict schedule. What we have observed in the present Malaysian circumstances is that, at various times, Grab services are extremely crowded at the same time, and one cannot afford to wait any longer than necessary because his meeting is scheduled to begin in around 30 to 45 minutes in some cases. It is extremely inconvenient for people who do not have access to their own transportation. If one has his or her own transportation, it is possible that his or her own transportation will not be adequate at all times.

## 1.3   Objectives

The project has the following objectives:

1. Launch alternative ride system ensuring ease of availability during class hours/office hours withinan area restricted.

2. Open alternative income opportunities for anyone within a preferred region/area by helping other students/workers who are in need of transport.

3. Students/workers or anyone can register in the app as being drivers offering noble services topeople having exams or important appointments,

4. Car Pool System will be dedicated to a restricted area only, so less waiting time of customers asseen in the Grab or MyCar services and thereby serving the needs of friends and families.

## 1.4  Project Scopes

### 1.4.1        *Target Users*

#### 1.4.1.1 *Drivers*

Driving will have a flexible earning opportunity. It's a great alternative to full-time driver jobs, part-time driver jobs, or other part-time gigs, temp jobs, or seasonal employment. Or maybe someone who is already a rideshare driver and wants to supplement your income by becoming a driver using the Uber platform. Drivers who use CarPool RestA come from all backgrounds and industries, setting their own schedule to make work fit into their lives, not the other way around.

### 1.4.1.2 *Riders*

The riders of this application are residents of a particular community. These local residents do not possess their own transports, and they might face problems in critical moments of their livesdue to lack of transport. They come from all walks of lives, and a portion of them may not be able toafford transport of their own. However, the fact is that they too have a necessity at certain times of theday. The carpool rest application comes with all the features required to fulfill the needs of people coming from all backgrounds.

### 1.4.1.3 *Modules and functionalities*

1. Registration Module: Both riders and drivers can register into the system using the mobile application platforms.
2. Login Module: Upon registration, both riders and drivers can log into the system.
3. Payment Module: As a startup application, the mode of payment will be cash. Once the riderhas arrived at his destination, he will pay the cash, while the driver will confirm the receipt of thecash.
4. Set range Module: The user of this application will be able to scan if his preferred area falls within the radius set.
5. Priority-based ride: The rider can let the drivers know the sheer urgency of the ride.
6. Earnings module: All the earnings will be computed and saved in the backend. These data can be viewed in the driver's UI.
7. Trip History module: All the trips will be recorded and saved in the database table.
8. Upon completion of each ride, the riders will be able to rate the driver out of 5.0. The driverswill be able to view the average of all the ratings incurred from serving all his clients.

## 1.5 Project Significance

The Uber/Grab/MyCar services are business oriented-and these services are very busy during certain times in the day. They do not have a way to look at the priorities of the customers, whether they are in some sort of rush or not. Mostly, they follow the orders on a first-come, first-servebasis. Most organizations have a conventional bus scheduling system, and this does not meet the demand of the people living in one particular area at run time. On the other side, Grab, Uber, andMyCar Services are business-oriented. The critical hours for students and workers requiring transportare taken care of. So, therefore, there is a need for a system to be built that will give ensure that thestudents/workers/ clerks or anyone regardless of whatever professions they belong to do not miss out on exams/important classes just because they cannot afford to purchase transport of their own. This is possible if the service is implemented within the restricted area in the first place.

Now a proposed solution could be as we analyze the aforesaid scenarios could be only and only if an area provides an alternative ride system that is available at run-time and does not follow the scheduled timing as other conventional ride services and is made to prioritize the transport needs of the people staying within that area only. If one has his own transport and then hecan use his transport to deliver his fellow classmates or office clerks helping them reach the exam venue and apparently opening doors of opportunities for these people to earn some extra cash whiledoing a noble service to the people in a particular area. It is because Grab, Uber, or MyCar services offer their services in various different locations, so they will never prioritize the needs of studentsand office clerks or anyone in need in a particular area.

## 1.6 Expected Output

- The system will be limited to target locations only set by the application system inthe backend.

- The application will feature priority-based ride is featured in the application.

## 1.7 Conclusion

Throughout the first segment, I went into great detail about each obstacle. There was a clear understanding of the project's objectives, scope, and solution to each difficulty. It also explains the significance of the project so that the benefits that may be reaped from using this strategy can be demonstrated. A favorable outcome can be achieved by employing this strategy toalleviate the problems of the hostel's pupils. A more in-depth discussion of the Project Methodology,the Project Schedule, and the Milestones will be covered in greater detail in Chapter 2 of this paper.

# CHAPTER 2: LITERATURE REVIEW AND PROJECT METHODOLOGY

## 2.1 Introduction

Travelers in metropolitan areas can now gather transportation information via smartphone applications (apps), which have recently gained popularity as a method of gathering information. There may be further use for these apps in addition to simply providing consumers with travel information. Conventional MyCar Services and Grabs provided transportation for businesses in Malaysia; however, the availability of these services could not be guaranteed. An extensive verification process must be completed before a grab driver can be hired, which limits the likelihood of job easiness on the part of the employer. In order to address employment and availability difficulties, the only answer is to provide a pool of cars within a defined geographic area. In order to better comprehend this new application, we conduct a thorough literature review that includes smartphone applications, travel, literary review, and transportation implications. We've conducted interviews with a variety of Malacca residents who don't have access to an automobile for various reasons. In the last stage, users of Android and iOS applications were polled in order to gain an understanding of how (usually) multimodal applications are used and how (generally speaking) multimodal trip aggregators can influence travel behavior. The findings of this study, which are summarised in this paper, contribute to a better understanding of multimodal travel through smartphone apps.

## 2.2 Facts and Findings

*Table 2-1 A brief illustration of findings based on realistic perspective*

| Facts | Findings | Proposed Solution |
|---|---|---|
| Local residents cannot book a ride during peak hours. | These residents have important appointments or meetings to attend. | The drivers must be committed to offering their service within a specified community in a region-restricted. |
| Surge of price is very high during peak hours. | Riders will not have any second option apart from opting for the ride. | A pool of dedicated car drivers in a particular locality and these driversshould price the price computed by the application system based on the distance. |
| There is no way for the riders to let the drivers know the sheer importanceof the ride during critical hours while the booking ofthe ride is in progress and might consume a bulk of the rider's valuable time. | These riders might be patients, and the inability to book an instant ride might risk their lives.<br><br>These riders might also be students and might at times fail to reach the exam venue in a timely manner. | The system should be developed and must comewith a priority-based ride-sharing module. |

Now, we will consider a sample of analysis of ride-hailing services in Penang, considering the residents of Penang as a population to be sampled.

The table below also demonstrates that there is a huge difference in the public's opinion of the waiting time for taxi and ride-hailing services; for example, 61 percent of respondents believe that the waiting time for ride-hailing service is short, while only 28 percent believe the same for taxi service. Taxi riders usually have to wait longer because it takes time to hail a passing taxi or call a cab company to dispatch a taxi to their location.

**Table 2-2-Outcome of a survey conducted from local residents in Penang**

| Features of cab service | Survey Findings | Taxi Service (%) | Ride-Hailing Service (%) |
|---|---|---|---|
| The cab charges are fair | Agree | 8.2 | 71.1 |
| | Neutral | 22.6 | 17.0 |
| | Disagree | 66.9 | 4.8 |
| | No response | 2.3 | 7.1 |
| The waiting time is short | Agree | 28.1 | 61.0 |
| | Neutral | 34.0 | 26.7 |
| | Disagree | 35.6 | 5.0 |
| | No response | 2.3 | 7.3 |
| The service is easy to access | Agree | 23.3 | 66.9 |
| | Neutral | 28.7 | 22.2 |
| | Disagree | 45.7 | 3.6 |
| | No response | 2.3 | 7.3 |

**Table 2-3 Profile of users and non-users of conventional ride-hailing services**

| Factors | Categories | Overall Sample (percent) | Ride-Hailing Non-Users (percent) | Ride-Hailing Users (percent) | Incidence ofUsing Ride-Hailing |
|---|---|---|---|---|---|
| Gender | Female | 49.7 | 43.7 | 58.0 | 49.0 |
| | Male | 50.3 | 56.3 | 42.0 | 35.0 |
| Ethnicity | Malay | 44.9 | 50.2 | 37.5 | 35.1 |
| | Chinese | 44.2 | 39.0 | 51.5 | 48.8 |
| | Indian & others | 10.9 | 10.8 | 11.0 | 42.3 |
| Educational Background | Primary & below | 2.7 | 4.3 | 1.5 | 7.7 |
| | Secondary & Pre-U | 46.5 | 56.7 | 32.5 | 29.3 |
| | Tertiary and above | 50.7 | 39.0 | 67.0 | 55.4 |
| Professions | Not working | 21.2 | 19.9 | 23.0 | 45.5 |
| | Self-employed workers | 10.9 | 12.6 | 8.5 | 32.7 |
| Income Profiles | Lower middle class | 70.0 | 70.0 | 70.0 | 41.9 |
| | Middle class. | 26.0 | 26.7 | 25.0 | 40.3 |
| | Rich or upper class | 4.0 | 3.3 | 5.0 | 52.6 |
| Car Ownership | Non-car owners | 21.0 | 18.4 | 24.5 | 49.0 |
| | Car owners | 79.0 | 81.6 | 75.5 | 40.5 |
| Smartphone Ownership | Users | 95.2 | 92.8 | 98.5 | 43.4 |
| | Non-users | 4.8 | 7.2 | 1.5 | 13.0 |

Key findings from Table 2-2 and Table 2-3:

i)      Table 2-3 data shows about 21% percent of this population do not own cars.

ii)     Table 2-3 data shows that the population sampled in Penang constitutes of 95.2% of smartphone users.

iii)    Table 2-2 data suggests that the majority of the users disagree with the regular cab charges being fair.

iv)     The data from Table 2-3 suggests that with the increasing number of customers and drivers of ride-hailing services, a driver is more likely not to be found in peak hours.

v)      The data from Table 2-3 suggests that adults with decent educational backgrounds opt to use ride-sharing services.

vi)     The data from Table 2-3 suggests that about 74.4% of this population questions the ease of use of all the ride-sharing applications which are now in use.

### 2.2.1 *Existing System*

After reviewing some of the various ride-sharing systems in Malaysia, the result was a few existing ride-sharing application systems. Besides, some research papers have highlighted various flaws in conventional ridesharing systems. Most of these ridesharing applications intend to run a business monopoly .

We will discuss the operation of some of these ride-sharing applications in brief.

#### 2.2.1.1 *MyCar*

In 13 major Malaysian cities, MyCar Asia, a Malaysian-developed e-hailing taxi app, provides on-demand passenger transportation services. Malaysian e-hailing rides now account for 15% of the market, with over 1 million passengers served each month.

*(a)*     MyCar Order Processes:

1.  Launch the MyCar app.

2.  Enter your dropp off address.

3.  Choose delivery or pick up.

4.  Board on to the car.

5.  Ride to your destination

6.  Complete the order and payment.

*(b)*     Payment:

Payment can be through the application's payment gateway using a debit card or credit card

or by cash.

*(c)*	Cost:

The amount of the ride cost charged MyCar is dependent on a variety of operational factors, including yourlocation and the restaurant from which you are ordering. When placing your purchase, you may always double-check the ride fee to make sure it is correct. However, it is well-known that the bare minimum feeis RM 7 or more for each transaction.

*(d)*	Operating hours:

The current operational hour for the aforementioned ride service is 9:30 am to 6 pm due to covid.

*(e)*	Pros:

i)	They are comparatively cheaper than grab.

ii)	They are mostly available while Grab car is not. However, even these services areat times busy.

*(f)*	Cons:

1.	The pool of drivers serving MyCar Malaysia is comparatively is when compared to other car services.

2.	The price for the ride is sometimes unexpectedly high.

3.	These drivers might take a lot of time to reach their clients from the pickup location.

2.2.1.2 *Grab*

Grab Car is Southeast Asia's fastest-growing car services service that brings great to the residents throughoutMalaysia. It provides everyday services like Deliveries, Mobility, Financial Services, and More.

*(a)*     Grab Car Order Processes:

1. Launch the Grab app.

2. Enter your drop off address.

3. Choose delivery or pick up.

4. Board on to the car.

5. Ride to your destination.

6. Complete the order and payment.

*(a)*     Payment:

Payment can be through the application's payment gateway using a debit card or credit card or by cash.

*(b)*     Cost:

The order's total cost includes the price of the ride plus a very small amount of tax fee.

*(c)*     Operating hours

The current operational hour for the aforementioned ride service is 9:30 am to 6 pm due to covid.

*(d)*     Pros:

1.    Earn GrabRewards based on the amount you spend and use them to redeem further incentives.

*(e)*    Cons:

1. The price hike during peak hours is very common.

2. They are not always available in remote locations or in places where it is not much crowded. The perspective is to serve areas with a large pool of riders due to business perspective. For example, the grab car or grab taxi is hardly found between 11:00 am to 1 pm in UTeM campus, Malacca, Malaysia.

### 2.2.1.3 *Riding pink*

The Pink Service is one of Malaysia's first women-only transportation services, whichwas created by women for other women in the country. Personalized rides, pre-booked rides, and recurrent rides are the primary focus of thiscompany's operations. The Pink Service is one of Malaysia's first women-only transportation services created by women for other women in the country.

*(b)*    Ride Pink Order Processes:

1. Launch the Ride Pink app.

2. Enter your drop-off address.

3. Choose delivery or pick up.

4. Board on to the car.

5. Ride to your destination.

6. Complete the order and payment.

*(c)*    Payment can be through the application's payment gateway using a debit card or by cash.

*(d)*    Operating hours

The current operational hour for the aforementioned ride service is 9:30 am to 6 pm due to covid.

*(e)*    Pros:

1.  Easy-to-use mobile platform.

2.  The customer service is highly cooperative.

3.  The response time for customer assistance is relatively rapid.

*(f)*    Cons:

1.  Exclusively available for women only.

2.  Longer waiting time.

The table below views the comparison between the systems reviewed above. From the table, a few differences will be identical.

**Table 2-4 Comparison of functions between the systems**

| Features | MyCar | Grab | Ride Pink | CarPool RestA |
|---|---|---|---|---|
| Target User | All | fAll | Residents of certain regions, mostly Klang valley | All-Hower, the service is available to residents within a particular radius. |
| Target Areas | All places in Malaysia | All places in Malaysia | Specified regions are mostly Klang Vally, but the business will expand to offer services in other areas. | Specified regions, but the drivers are restricted to offer their service in certain regions. |
| Affordability | Medium-cost | Medium-cost | Medium-cost | Low-cost |
| Priority-based ride | No | No | No | Yes |
| Price surge time | During peakhours | During peak hours | During peak hours | Never |

After all, there is no "one size fits all" solution. You must take into consideration the cost of the ride, the service range, and what they have to offer in addition to simply providing rides. Each has its own set of advantages and disadvantages, which are ultimately selected by customers.

<center>2.2.1.4 *Domain*</center>

The domain of this project is considered under all forms of ridesharing systems. This system targets residents of Malaysia, where they can order an instant ride without any delay. This system focuses on particular types of residents in various students in Malaysia. For example, Malaysia is known to host a large number of international  students. Most of these international students residing in Malaysiado possess their own transport and might face the aforesaid problems. The residents mightface the same issues as well.

<center>2.2.1.5 *Technique*</center>

It is critical to gather information and determine the system's requirements before beginning any work. In order to gather information and conditions for the system, several ways can be employed,including comparisons with existing research, evaluations of previous research and requirements, questionnaires, interviews, and the internet. The prerequisites for CarPool RestA are acquired through interviews with residents of the UTeM and the company's workers.

## 2.3 Project Methodology

This system is being developed according to the Agile SDLC methodology concept, which is being utilized as a guide for developing this system. Iterative and incremental process models are combined in the Agile SDLC model, focusing on process adaptability and customer satisfaction through the delivery of a workable software product at a faster rate than traditional SDLC models. Agile approaches divide the product into small incremental builds, which are then combined. Iterations of these builds are made available to you. In most cases, each repetition lasts between one and two weeks in length. Every iteration entails cross-functional teams working on a variety of tasks simultaneously, including planning, requirements analysis, design, coding, unit testing, and acceptance testing, among other things. A working product is presented to the customer and other key stakeholders                after each iteration. Each of the steps will be completed later.

**Figure 2-1 Agile Development Model**

2.3.1 *Requirements Analysis*

This is the process of identifying and deciding the requirements and project objectives duringthe first phase, which is called requirements analysis. In the following weeks, information was gathered to gain a deeper understanding of the system and help it evolve further.

During the process of compiling data, research has been carried out on various ride-sharing mobile applications to identify improvement opportunities that may be used to develop a new concept for the new system during the gathering, assessing, and to compare the information. Through the process of interviewing, the most critical requirements were determined. The interviews are performed with the participants, who are all Universityof Technology, Malaysia students. While conducting interviews, it was discovered that the requirements of the users using the convention ride-sharing applications were not met, whichmade it impossible to estimate the benefits of implementing this system.

It is vital to set project objectives and assess the information needs of end-users when workingon this phase to guarantee that they are addressed. Those features will be supported fromthe start of the project, as well as those that will not be supported. One of the system's purposes is to make it easier for residents to book a ride without any hassle. The system is designed to compute the total amount of money that must be paid depending on the priorities of the rides. The live tracking and alerting features will be included as standard features when the programme is released in its first edition. However, all of the data must be processed in orderfor the project to meet the demand that was predicted at the outset of the project. For the project to be successful, the project requirements must be followed in the most precise manner.

### 2.3.2  *Design*

The design phase is primarily concerned with how the system will interact with the user, howthe system will function individually, and what interface design and database design will berequired for this system. During the first iteration, the developer goes over the requirementsfrom the previous stage again. The developer then meets with the supervisor to discuss howto best address the requirements and offers the tools that will be used to get the best possibleoutcome. Because the majority of our users will be on the Android and IOS platforms, we will develop our project using the Flutter framework. This also means that the programminglanguage used in the Flutter framework is a dart. In addition, To have a clear image of the system, it is also necessary to look at the illustration and flowchart. The most crucial thing to remember is that the system must be user-friendly and should not cause confusion among those who use it.

### 2.3.3  *Development and Coding*

When it comes to software development, the development phase comprises the actual writing of code and the translation of design documentation into actual software products (also known as the implementation phase). Because it serves as the foundation of the entire process, this phase of the SDLC is frequently the most time-consuming step of the entire procedure. When it comes to the construction phase of this system, the tools that were proposed in the previous phase are put to use in the development of this system. In this technique, there are several processes that must be completed, including system installation and the application of codes to the system. First and foremost, it is important to complete the installation of the software that will be used to execute and arrange the system before any code can be written for integration and Testing

It is the responsibility of this stage to ensure that the application is free of problems and thatit is compatible with everything else that the developer has previously created. It is the testing team's

responsibility to make certain that the code is clean and that the system is provided, mitigating all the requirements, including those for its intended usage. To do so, they apply both black box and white box testing methodologies in order to carry out a series of tests. While going through the iterations and revisions of the SDLC stage, the testing becomes more extensive as the stage develops. Functional testing, systems integration testing, interoperability testing, and user acceptance testing are all included in this category, in addition to system integration testing.

### 2.3.4 *Implementation and Deployment*

If the CarPool RestA system has obtained positive feedback from users, it may be viable to make it available to the general public. As a result of the deployment of the programme, however, the project does not come to an abrupt end. Once the system has been deployed in the client's environment, the client may encounter new issues, which the developer will need to address and resolve as soon as possible after the system has been installed.

### 2.3.5 *Review*

The work achieved toward achieving the requirements is reviewed by the CarPool RestA supervisor once all previous development phases have been finished to confirm that the requirements are being met. After hearing the developer's suggestions for resolving difficulties that arose during the previous phases, the supervisor examines and approves those suggestions before moving forward with implementation. Following that, the steps of the Agile software development lifecycle are re-started in order to begin a new iteration of the project.

**2.4 Project Requirements**

2.4.1     *Software Requirements*

Table 2-2 Software Requirements

| Name | Description |
| --- | --- |
| Operating System | Windows/Mas OS |
| Google Cloud Platform | Reliable and high performance cloud service with scalable infrustucture. |
| Android Studio | Andriod Stuidio version 9.0 |
| JDK | Minimum JDK version requirement is 8.0 |
| Android Emulators | API 22 and above |
| Database Server | Firebase Real time DB |
| Adobe Photoshop | Adobe Photoshop 2021 |

2.4.2     *Hardware Requirements*

Table 2-3 Hardware requirements

| Name | Description |
| --- | --- |
| Operating System | MacOS/Windows |
| Processor | 3.6 GHz Dual-Core Intel Core i5 |
| Memory | 16 GB 1600 MHz DDR5 |
| Hard Disk Driver | 1 TB SSD |

2.4.3    *Other Requirements*

## 2.5 Project Schedule and Milestones

**Table 2-5 Gannt Chart**

| Week / Activity | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Discussion on the PSM Proposal | ■ | ■ | | | | | | | | | | | | | |
| Evaluation and verification of the proposal | | ■ | | | | | | | | | | | | | |
| Corrections and/or improvements to the proposal | | | ■ | | | | | | | | | | | | |
| List of supervisor/title | | | | ■ | | | | | | | | | | | |
| Presentation and summary of the proposal | | | | ■ | | | | | | | | | | | |
| Chapter 1 | | | | | ■ | | | | | | | | | | |
| Chapter 2 | | | | | ■ | | | | | | | | | | |
| Chapter 3 | | | | | ■ | | | | | | | | | | |
| First Demo of the project | | | | | | ■ | ■ | | | | | | | | |
| Chapter 4 | | | | | | | | ■ | | | | | | | |
| Second Demo of the project | | | | | | | | ■ | | | | | | | |

| Task | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Presentation schedule | | | | | | | | | ■ | | | | | | | |
| Project Demonstration | | | | | | | | | ■ | ■ | ■ | | | | | |
| PSM1 Report | | | | | | | | | | | ■ | | | | | |
| Final Project Demonstration and Presentation | | | | | | | | | | | ■ | | | | | |
| The PSM1 Report has been submitted. | | | | | | | | | | ■ | ■ | | | | | |
| Final Project Demonstration and Presentation | | | | | | | | | | | | ■ | | | | |
| Chapter 5 | | | | | | | | | | | | ■ | | | | |
| Chapter 6 | | | | | | | | | | | | ■ | | | | |
| Chapter 7 | | | | | | | | | | | | | ■ | | | |
| PSM2 Report | | | | | | | | | | | | | ■ | ■ | ■ | |
| Final Presentation | | | | | | | | | | | | | | | ■ | |
| The PSM2 Report has been submitted. | | | | | | | | | | | | | | | ■ | |
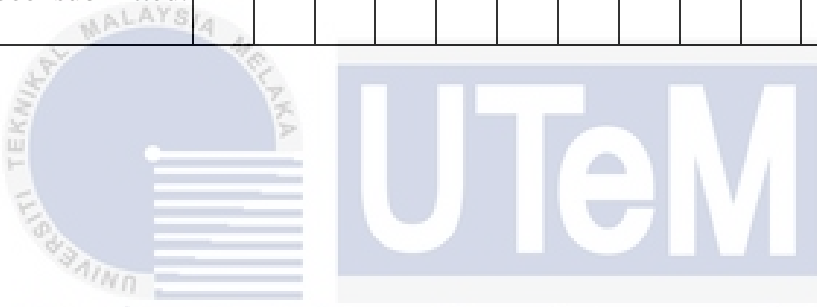
## 2.6 Conclusion

An in-depth discussion of the project's methodology and planning is provided in Chapter 2, which also contains an explanation of the venture-related stages. In order to highlight the milestones and responsibilities connected with the activity, a clearly defined Project Schedule and Milestones are supplied. When it comes to creating and building the finest potential product, project methodology is a highly effective strategy to use.It is possible to create and demonstrate capabilities in a short period of time. We find the management technique to be highly beneficial because it helps us to review and improve our project as it advances throughits various phases and stages. Problem analysis, enhancements/solutions, and functional and non-functional requirements, among other topics, will be covered in detail in Chapter 3.

# CHAPTER 3: ANALYSIS

## Introduction

A mobile application called CarPool RestA is discussed in this chapter in a bit of depth, as well as the method of examining the creation of the application. Before developing a new system, it is critical to do a thorough analysis of the existing and proposed systems to guarantee that the new system can address the shortcomings of the existing system. It will be necessary to discuss in full the difficulties with the current system in order to do problem analysis. The topic of data needs will be covered in the analysis of requirements, which is the data that should be used as the system's input and output, as well as the data that should be held internally by the system itself. Data Structure will be utilised to demonstrate this, and then a Data Flow Diagram (DFD) will be used to demonstrate data movement between external entities, procedures, and data stores in order to meet the functional requirement. Non-functional requirements will then specify how the system will carry out the desired functionality described in the functional requirements. the other requirements, there are three sub-requirements that contain specifications for software, hardware requirements, and network requirements, respectively.

## 3.1 Problem Analysis

As we investigate the issue, we discover that the first and most serious issue is the lack of availability of the ride at specific times of the day. Second, the drivers must be able to be alerted to the fact that their journeys are being prioritized. In order to address this issue, we have implemented an emergency ride request system. To incentivize these drivers to arrive at the rider post and take urgent requests, these drivers who accept requests on matters of emergency are entitled to a higher price than the rest of the drivers. In light of the aforementioned issues, there is an urgent need to make an attempt to develop an application because some students/office workers from less affluent families may not have

Access to their own transportation, and as a result, they have had to suffer for long periodsof time in order to get to the examination hall/office locations on time because the grab orMyCar services were too busy at certain times of the day to respond to their calls. After missing the scheduled bus service provided by the university or office and subsequently being forced to request friends and family's cars, this was a common scenario. However, these closest friends and family members were likely to be busy and thus unable to providean assistive service in this situation.
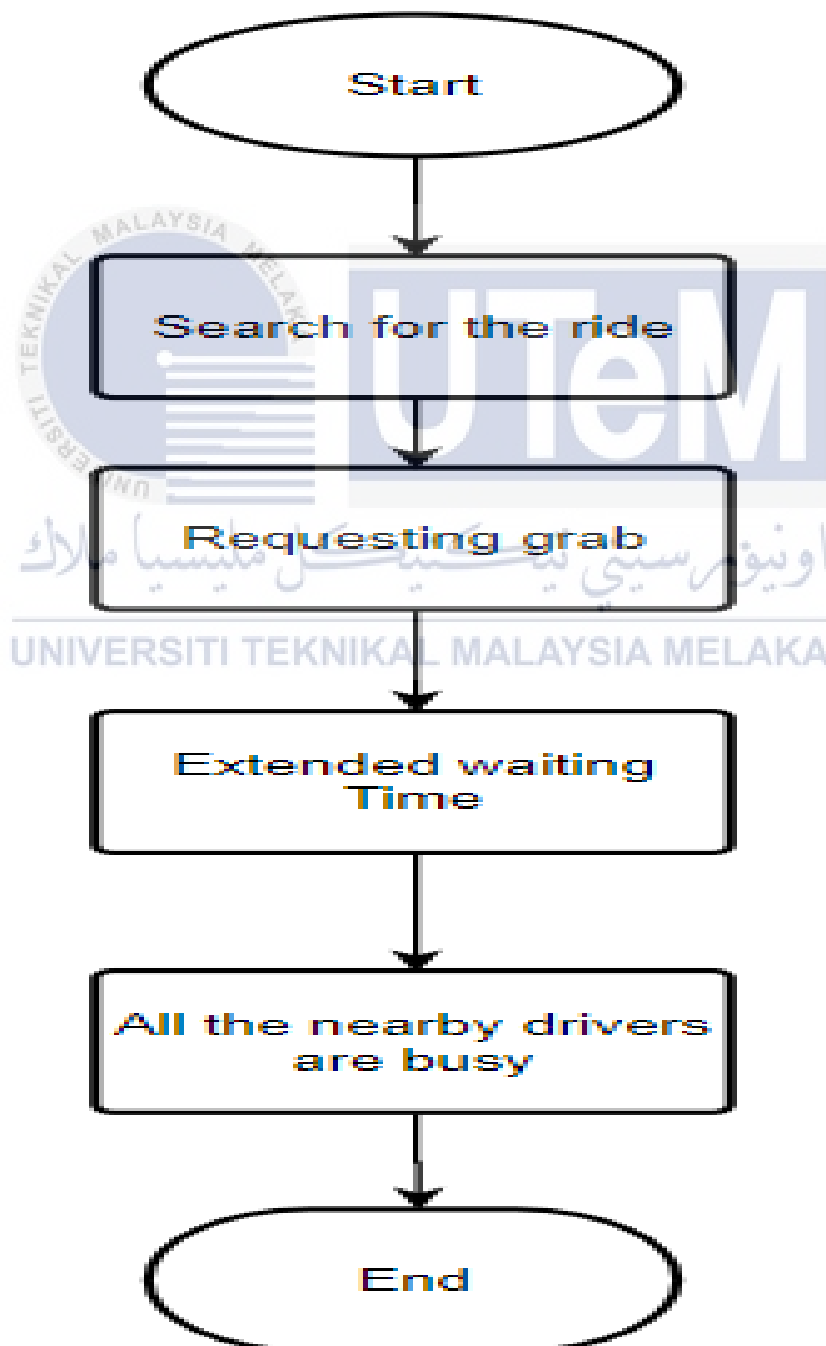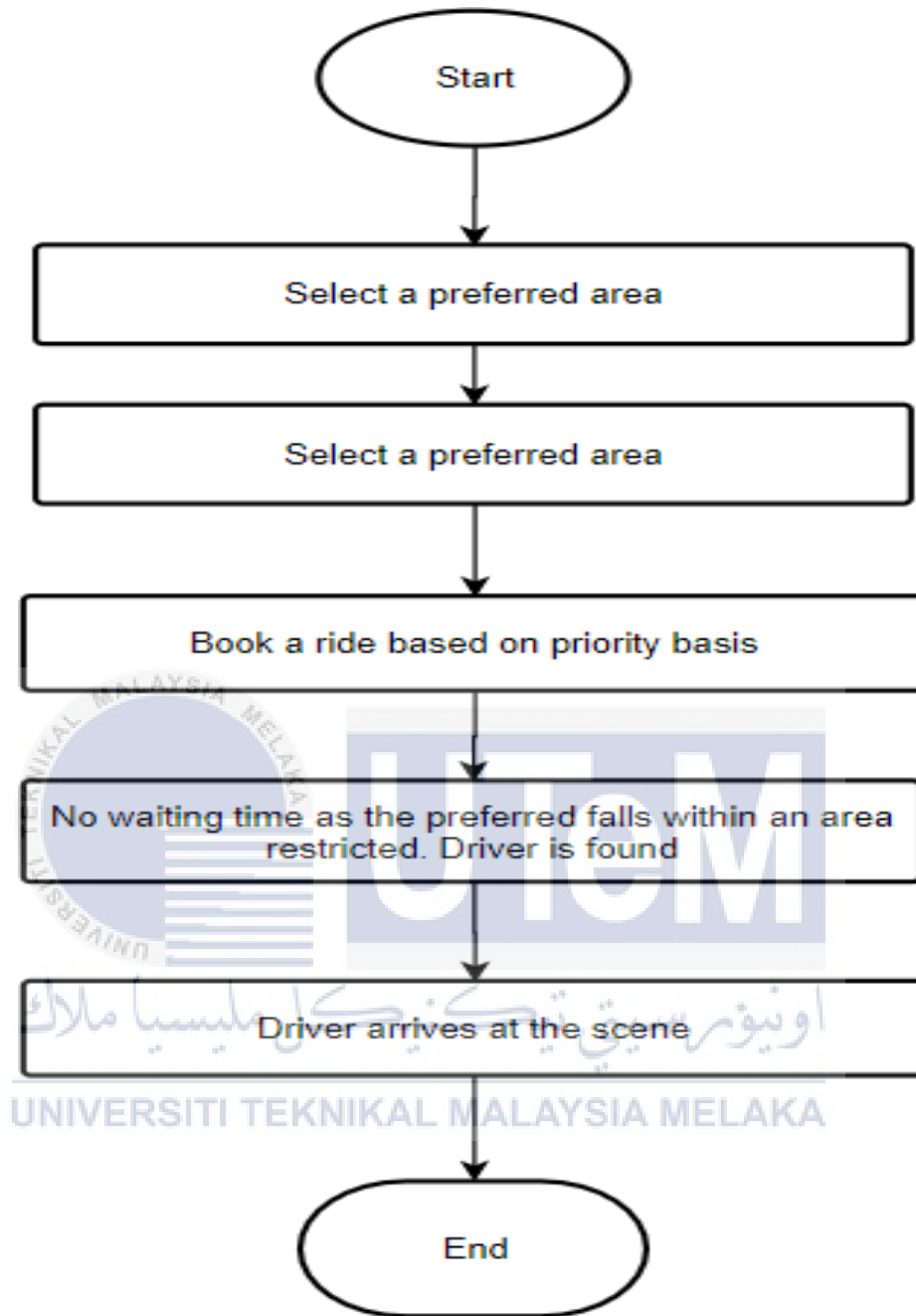


**Figure 3-1    Current Problem Flow Chart**

**Figure 3-2   Solution Flow Chart**

## 3.2 Requirements Analysis

### 3.2.1　　*Data Requirements*

In order to become aware of and report the entities within the project scope as well as basic information characteristics to ensure having a clear impact on the definition of the technology infrastructure, it is necessary to collect and store the necessary data. There are numerous considerations that must be made when defining information requirements, including defining entities and their attributes, determining the relationship between entities, determining the scale and volume of each entity, and defining facts safety for a number of the attributes, among others.

**Table 3-1　Data structure of user table**

```
Users" : {
"BwK3OACkmHTWdEoMDkkXwlNy9H73" : {"email" : "",
"name" : "",
"phone" : ""
}
```

**Table 3-2　Data structure of driver table**

```
"drivers" : { "4gj8A2vnZmXDDIPccvRYpiXfDGg1" : {"car_details" : {
"car_color" : "",
"car_model" : "",
"car_number" : "",
"type" : ""
},
"email" ",
"name"  ",
"newRide" ","phone" : " ",
"token" : " "
```

},

**Table 3-3    Data structure of Client Request Table**

"Client Requests" : {

"-McyzlNJ 1CkJjnpjmc" : { "detailTS_of_the_car" : " ",

"record_created_at" : " ",

"driver_id" : " ",

"driverTS_name" : " ",

"driverTS_phone" : " ",

"driverTS_location" :

{ "latitude" : " ",

"longitute" : " "

},

"dropOffLocation" : {"latitude" : " ",

"longitude" : " "

},

"dropOff_address" : " ",

"payment_method" : " ",

"pickup" : {

"latitude" : " ",

"longitude" : " "

},

"pickup_address" : " ",

"type_of_ride" : " ",

"riderTS_name" : " ",

"riderTS_phone" : " ",

"status" : " "

},

**Table 3-4  Data structure of History Table**

Trip_History" : {

"-McEqKMk8Hdsuw0EIkPZ" : true,

"-McEv7i8l8bKdU8GvOvU" : true,

"-McG2F1aC_G5TxBMLAsE" : true,

"-McG2gizkWFyG9Dt7hER" : true,

"-McGE10nMupevknzQ7tX" : true,

"-McJ62NPz1YqvrqW7iFq" : true,

"-McJ6Phkx9qR1fxN3QE7" : true,

"-McJ7ER-qvuLMHp7cJKw" : true,"

-McJ97SFcGMLcf3noAhS" : true,

"-McJA3fvhRLS3j9QJ9qj" : true,

"-McJARKtDXs80HysKxAJ" : true,"

-McJAz9BJnjB7e0Q1O3D" : true, "

-McJccEKGkkrzD87Sm6C" : true,"

-McJmQVt2x-5zkMehOhz" : true, "-

McJqfU5RFOi9cFGCuCI" : true, "

-McJubh9N6owHnNw-bje" : true, "

-Mc_8MlMxv6sQxaRPkrH" : true,

"-McjLS8YXGNaFT4kBEbO" : true,"

-McjSalB9bViZWvBjXvx" : true

},

### 3.2.2     *Functional Requirements*

Functional requirements are statements that describe the services that a systemshould be able to provide. The system's functional needs are described in this area, as wellas how the system should respond to various inputs and the system's current performance state. It is the driving force behind the design of a system. The System's functional requirements will be demonstrated through the use of the Use Case.
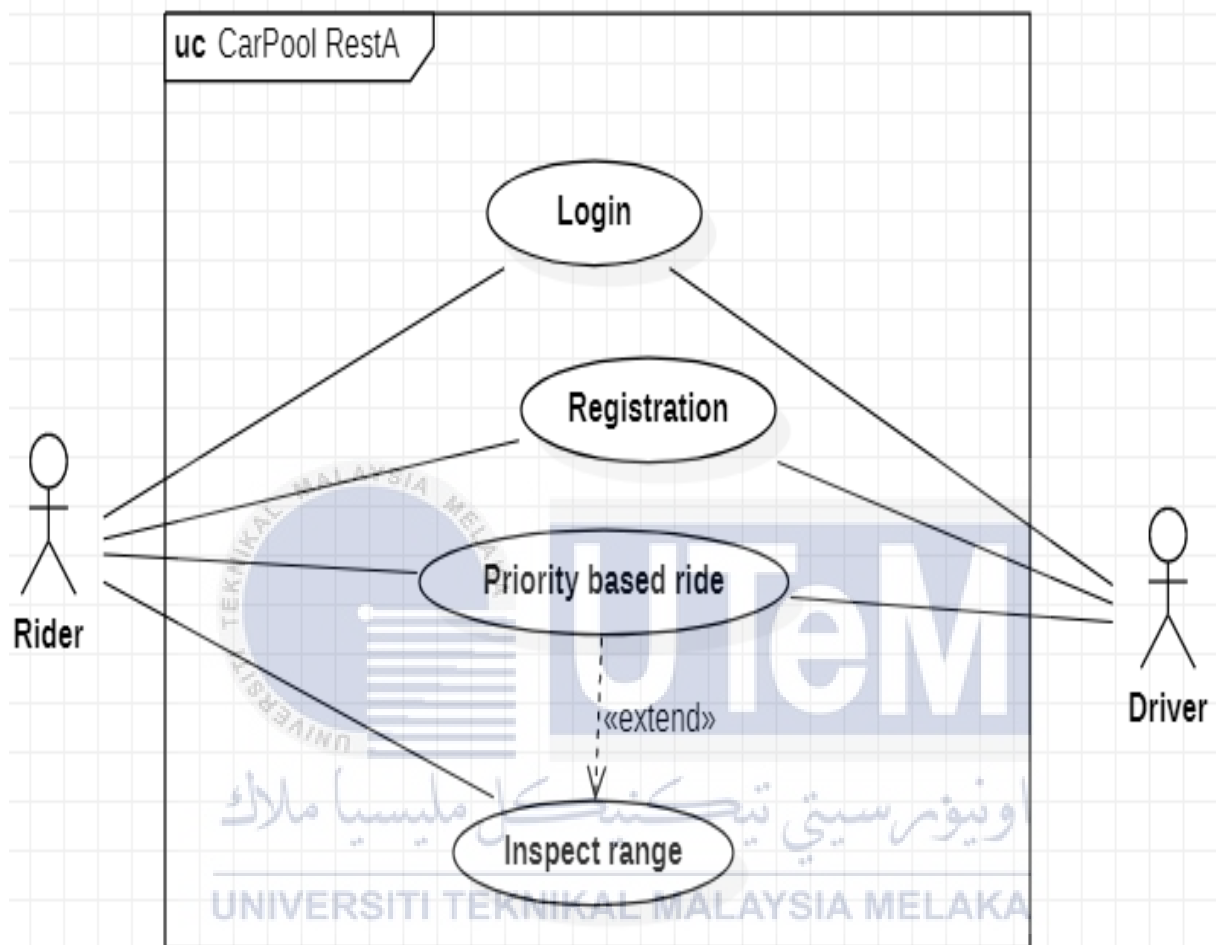
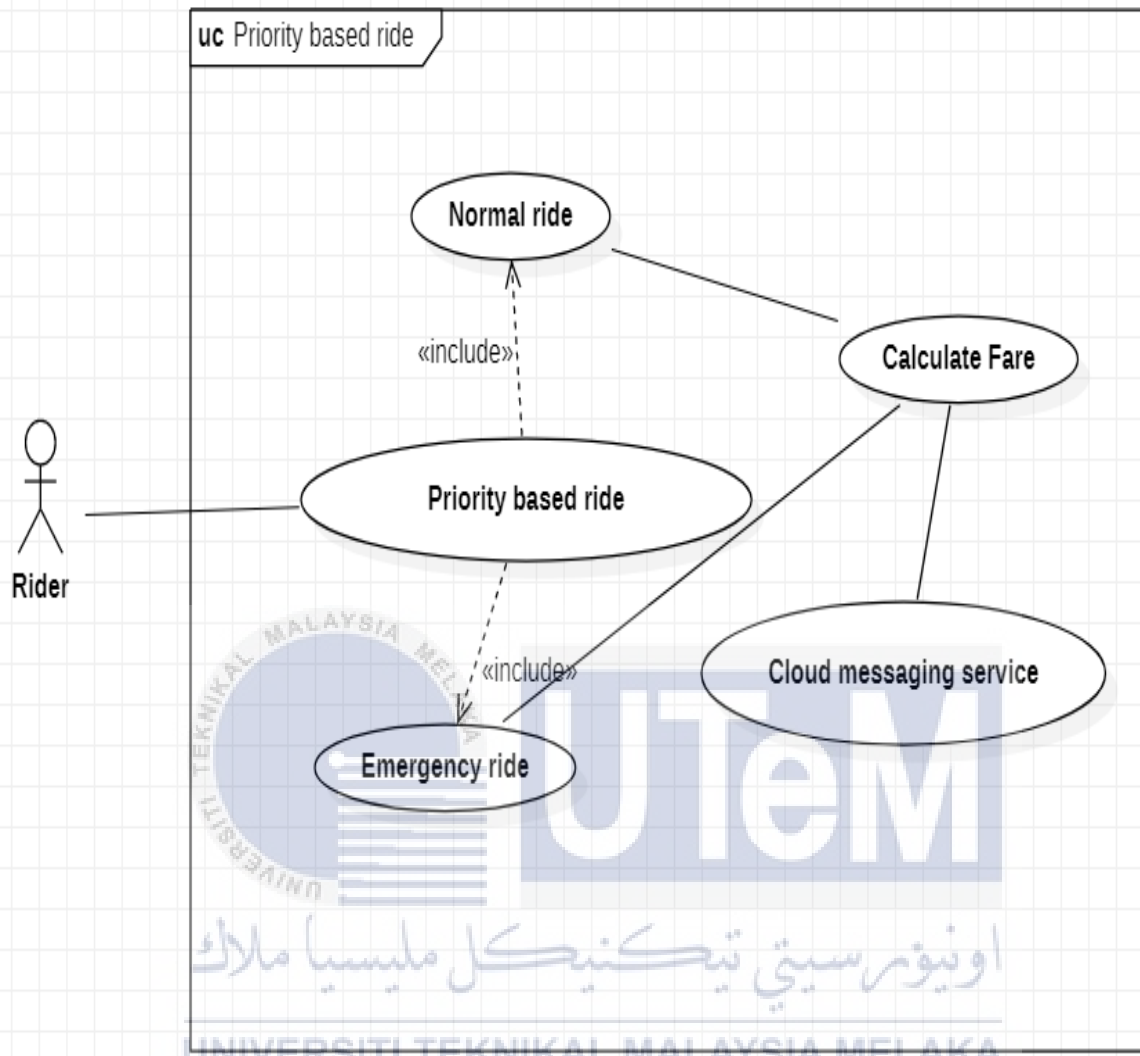**Figure 3-3- Log in and Registration use case diagram**

**Figure 3-4  Priority-based ride Use Case Diagram for Rider**
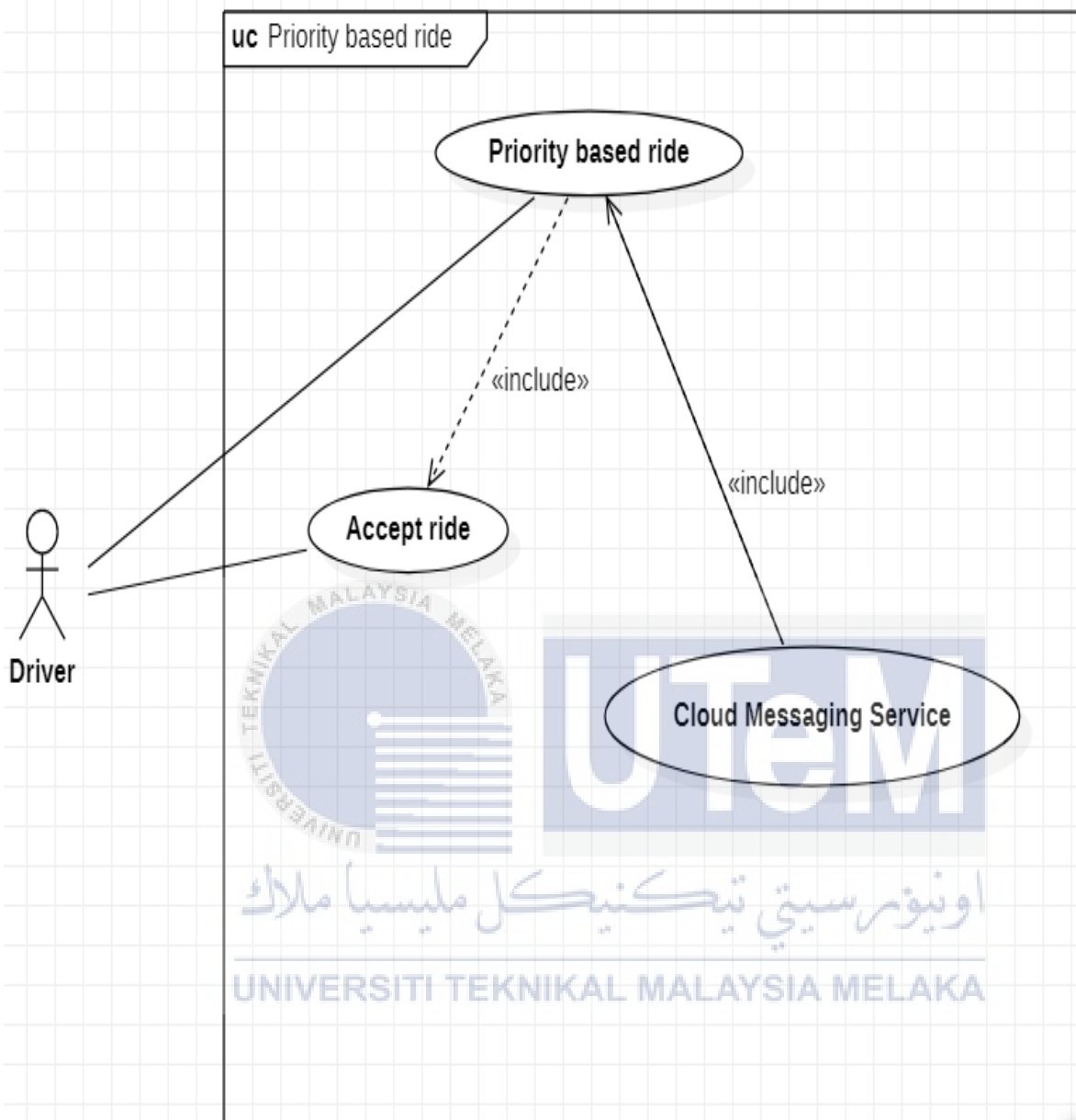
**Figure 3-5   Priority-based ride Use Case Diagram for Driver**

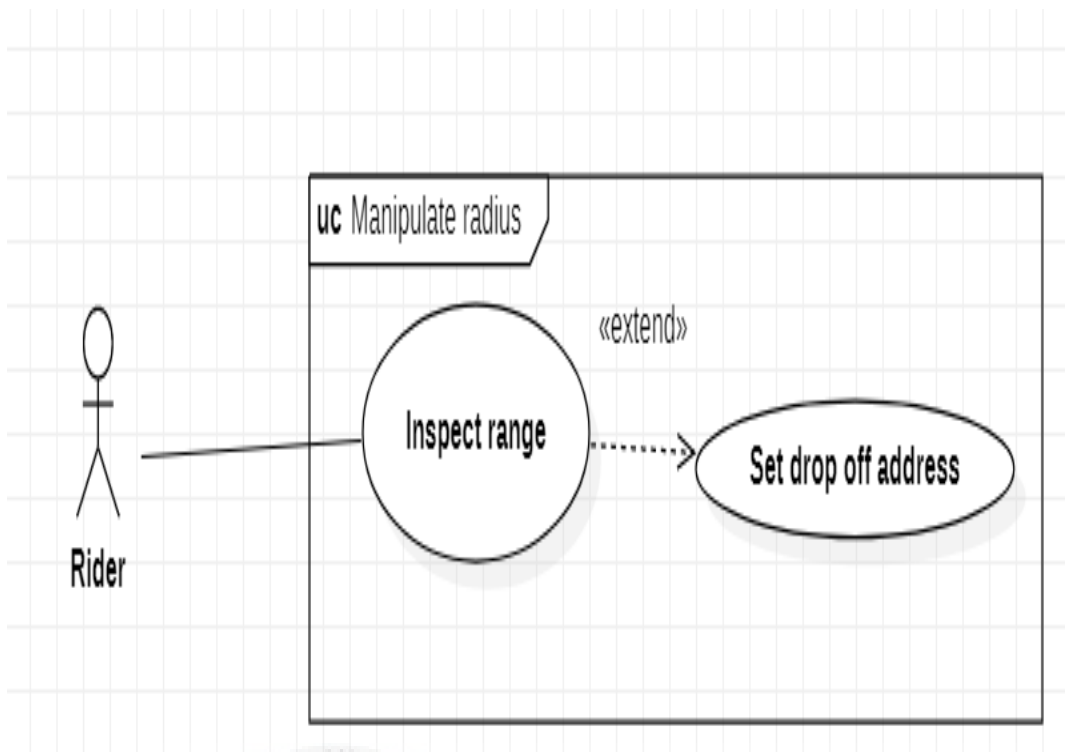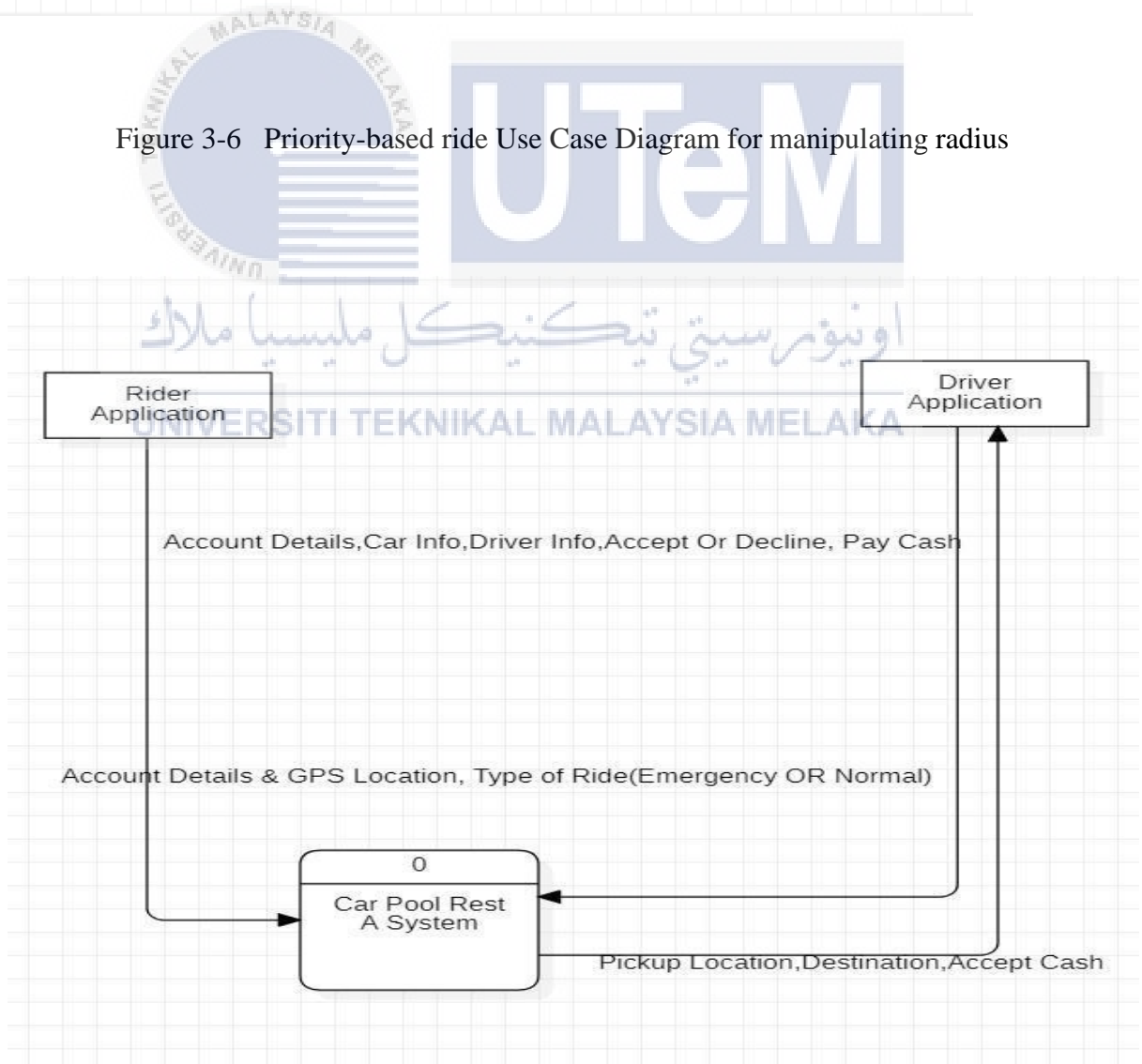Figure 3-6   Priority-based ride Use Case Diagram for manipulating radius
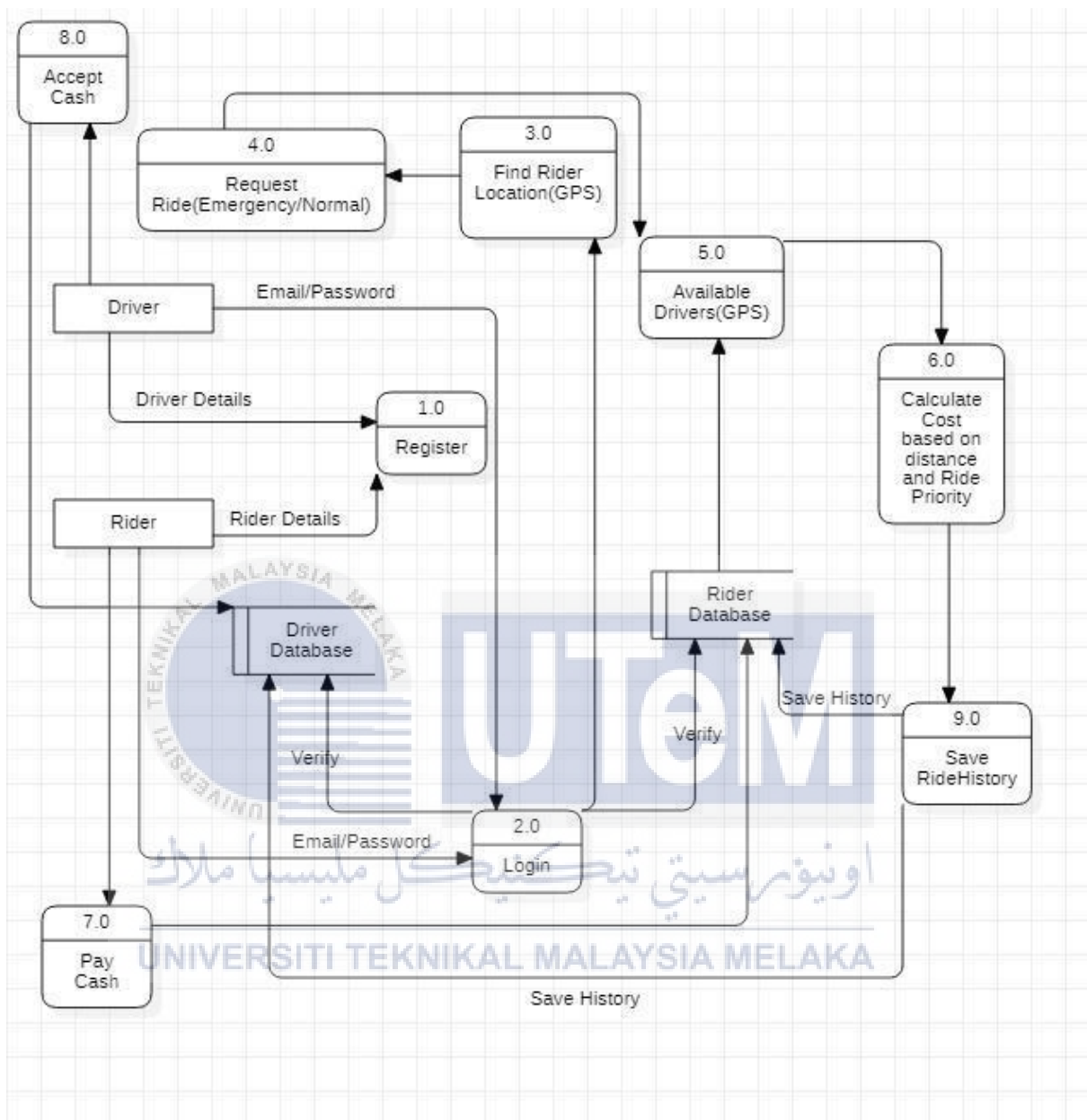


**Figure 3-7  Level 0 Context Diagram**

**Figure 3-8  Level 1 Context Diagram**

**Table 3-5  Functional Requirements**

| Functional Requirements | | |
| --- | --- | --- |
| FR No. | Requirement | Description |
| FR 1.1 | Login | The system will allow users to log into thesystem. |
| FR 1.2 | Registration | The system both the riders and the users toregister into the system |
| FR 2.1 | Priority-based ride | The system will allow users to book a ride on a priority basis. |
| FR 2.2 | Inspect range | The system will allow users to check if the preferred location falls within the restricted range. |
| FR 3.1 | Emergency ride | The system will allow the admin to add, edit and delete hostels. |
| FR 3.2 | Normal ride | The system will book a normal ride to the destination. |
| FR 4.1 | Calculate fare | The system will calculate fares based on the distance. |
| FR 4.2 | Cloud messaging | The cloud messaging service will be used to establish communication between a driver app and rider apps by generation tokens. |
| FR 5.1 | Accept ride | The system will allow drivers to accept a ride. |
| FR 5.3 | Set drop off address | The system will to set a drop off address. The pickup address will be derived using google autromplete url. |

### 3.2.3 *Non-functional Requirements*

This type of requirement specifies how a system should behave and limits its functionality. The non-functional criteria are also sometimes referred to as system attributes. Stakeholders care about certain aspects of the system, which will have an impact on their degree of satisfaction with the system.Other criteria are those that have yet to be completed.

**Table 3-6  Non-functional Requirements**

| Non-FR No. | Requirement | Description |
|---|---|---|
| Non-FR 1 | Performance | The system's response time should be as quick as possible. |
| Non-FR 2 | Availability | The system must be free of errors in order to function properly. |
| Non-FR 3 | Usability | The system is simple and straightforward to use. |
| Non-FR 4 | Data Integrity | The information should be completely consistent. |

### 3.2.4 *Other Requirements*

- Other requirements include usage support for the software, hardware, and network requirements that will be employed in the creation of this system, as well as other technical requirements.

- This application manages passenger bookings in the quickest and most efficient manner possible. The passenger can order a vehicle with just one click on the button. Thedriver accepts or denies requests with another click and that too, on a priority basis. This workwill not be controlled by a third party. All the data will be saved in the NoSql database in firebase.

## 3.3 Conclusion

In a nutshell, this CarPool RestA system is mainly made for students who is staying in a particular locality without the assurance of ride availability at all times of a day.CarPool RestA application is quite cost-effective in comparison to other ride-sharing applications and it does provide a marketing solution for small entrepreneurs in the long run.

## CHAPTER 4:   DESIGN

### 4.1 Introduction

It will be discussed in-depth in this chapter how the system development design will be implemented. The overall flow of the system will be discussed in this section. Following the collection of all information from the analysis phase, the developer can build the system in accordance with the requirements that were gathered previously.

### 4.2 High-Level Design

#### 4.2.1    *System Architecture*

CarPool RestA is a system made up of servers run by an organisation as well as individuals who are linked to the system through Google cloud computing servers.In this system, all users express an interest in collaborating, which allows the system to provide authentication services. In this case, data will synchronise between users because the Cloud server connects them through the usage of Google cloud services. The following diagram depicts the fundamental architecture of this system.
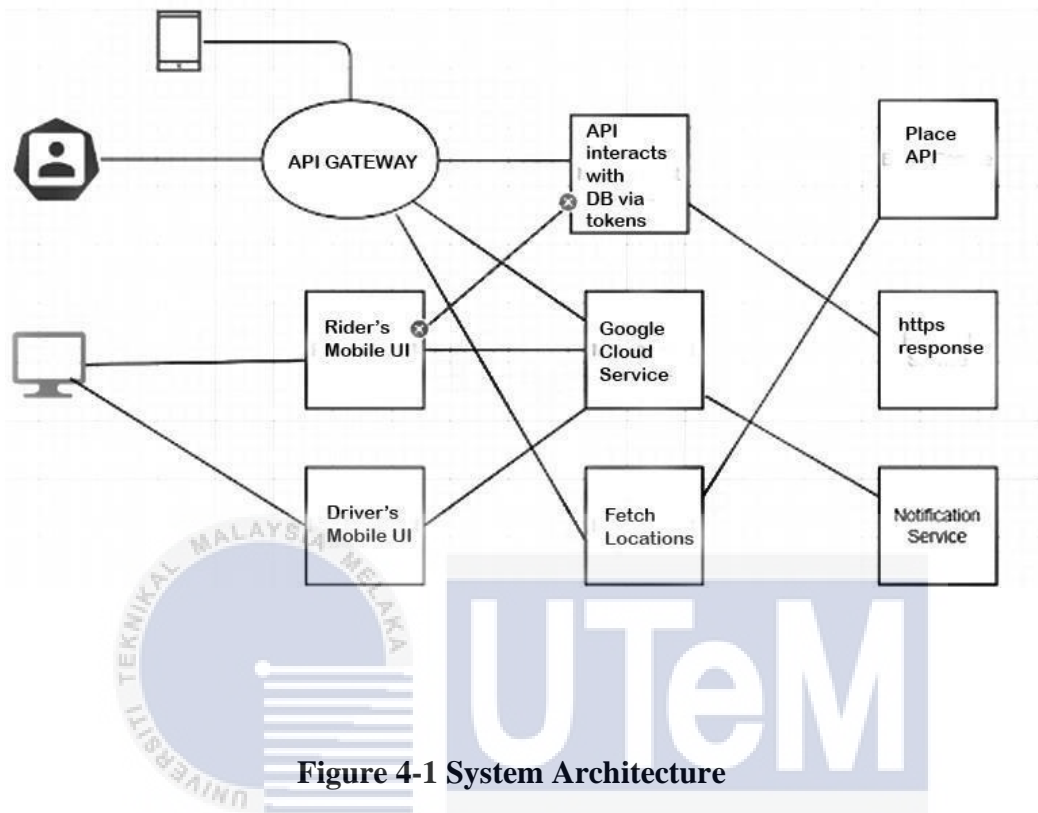
**Figure 4-1 System Architecture**

The CarPool RestA system architecture is based on a three-tier design, with the client tier, middle tier, and database tier all being components of the system. Three- tier applications are utility software or systems that are divided into three primary portions that are each distributed to a separate location or phase of a computer network.In the case of the client tier, the user seeks to access the application system using his or her phone. Google cloud server is the middle-tier component that allows the user to interface with the database server and generate a token for the user device. This token is then used to do various other operations that are available through this application.
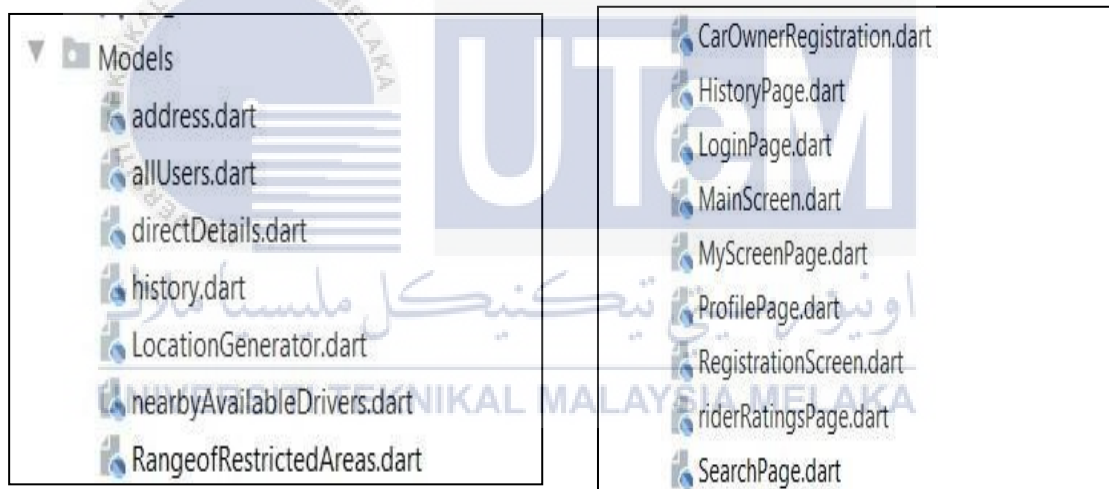
4.2.2    *Design Architechture*

4.2.2.1 *MVC Design Pattern for Rider Application:*

**Figure 4-2-MVC Design architecture view for the Rider**

| Model-Model Class contains all getters and setters | View- View class contains all the codes for screen pages |
|---|---|



Controller –

- ControllerFunctions.dart -This class contains method implementations.
- GeoFire Controller.dart-This class contains methods for finding nearby drivers.
- jsonAssistant.dart- This class fetches data for places dynamically.

**Figure 4-3 MVC Design architectural view for the Driver**

| Model-Model Class contains all getters and setters | View- View class contains all the codes for screen pages |



Controller –

- ControllerFunctions.dart -This class contains method implementations.
- GeoFire Controller.dart-This class contains methods for finding nearby drivers.
- jsonAssistant.dart- This class fetches data for places dynamically.
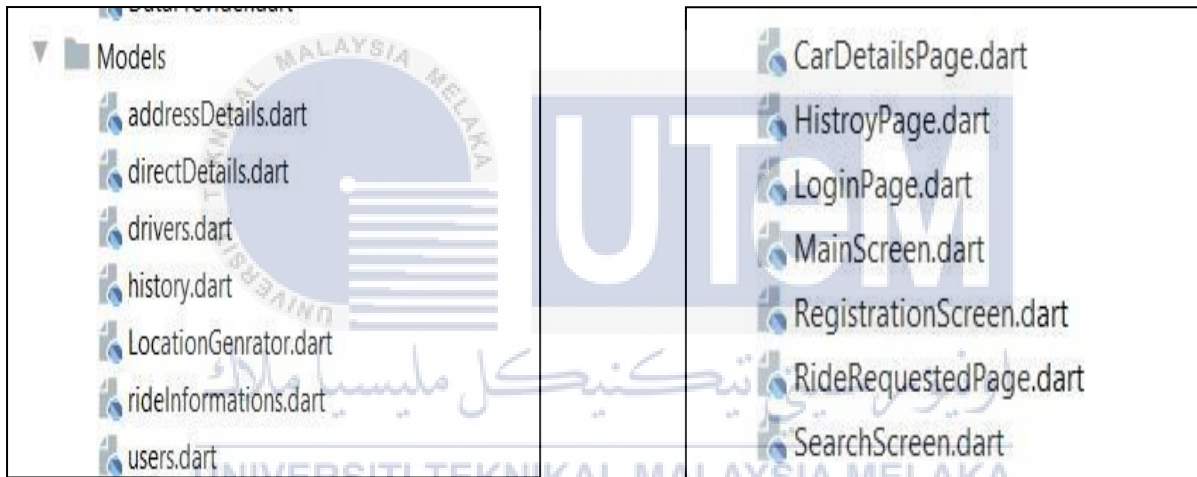
**4.3 User Interface Design**

4.3.1 *Screen designs*

The following are the UI designs for both the rider and the diver.
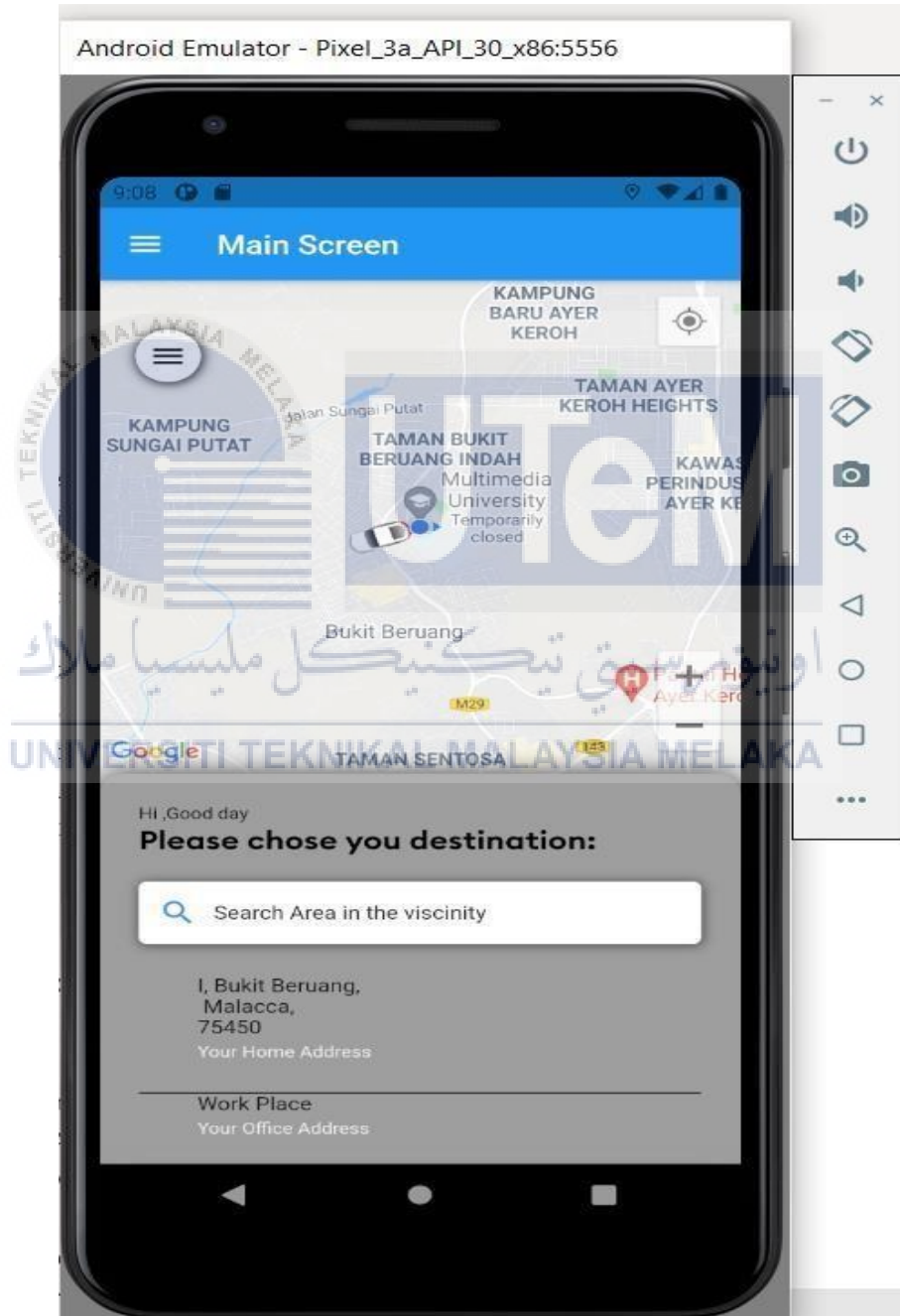


**Figure 4-4  Rider's Home Page with  Maps**
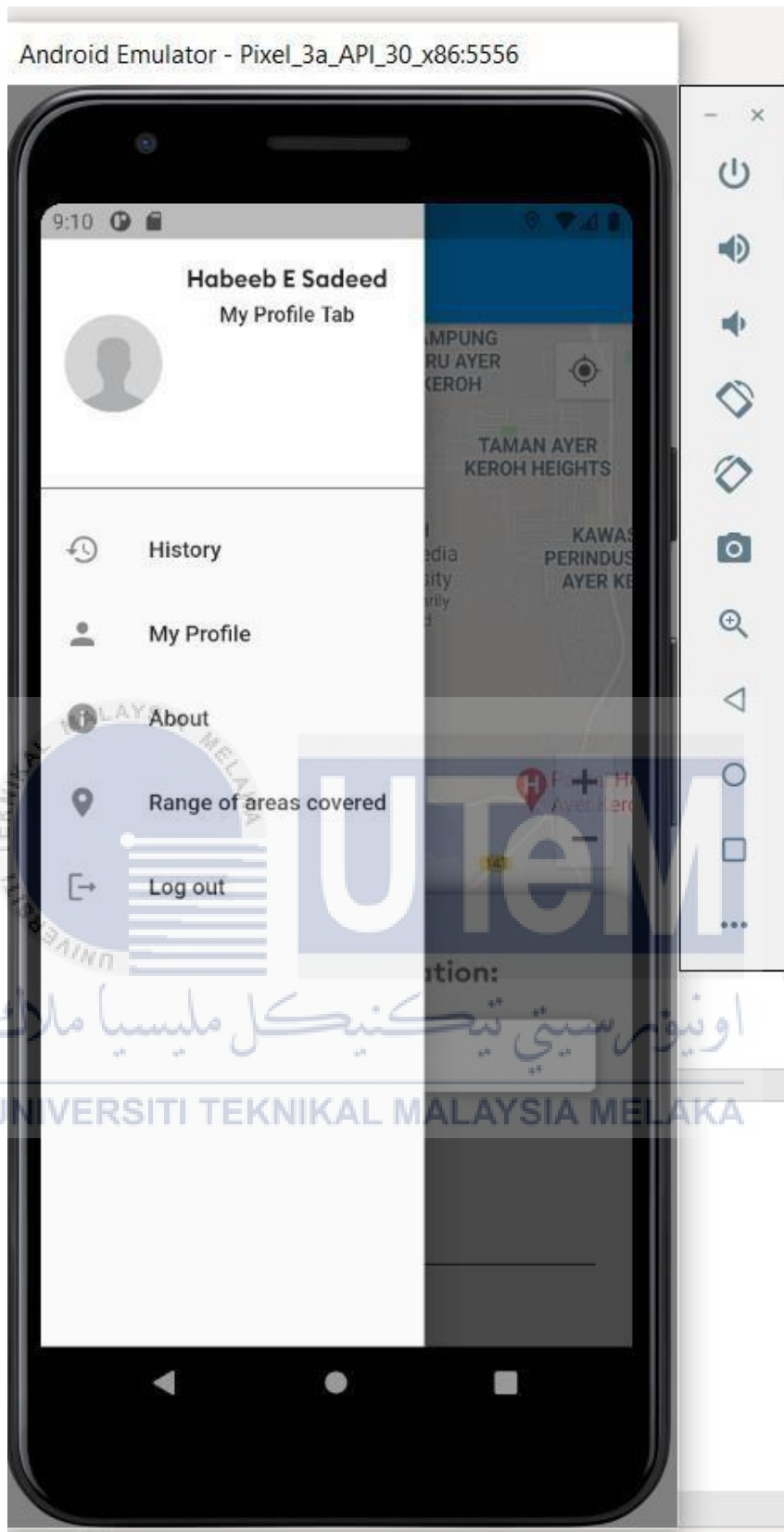
**Figure 4-5 Rider's profile**

A rider's profile consists of sliders and a set of menus.

**Figure 4-6  Rider's History Page**

**Figure 4-7 Rider's Profile Page**
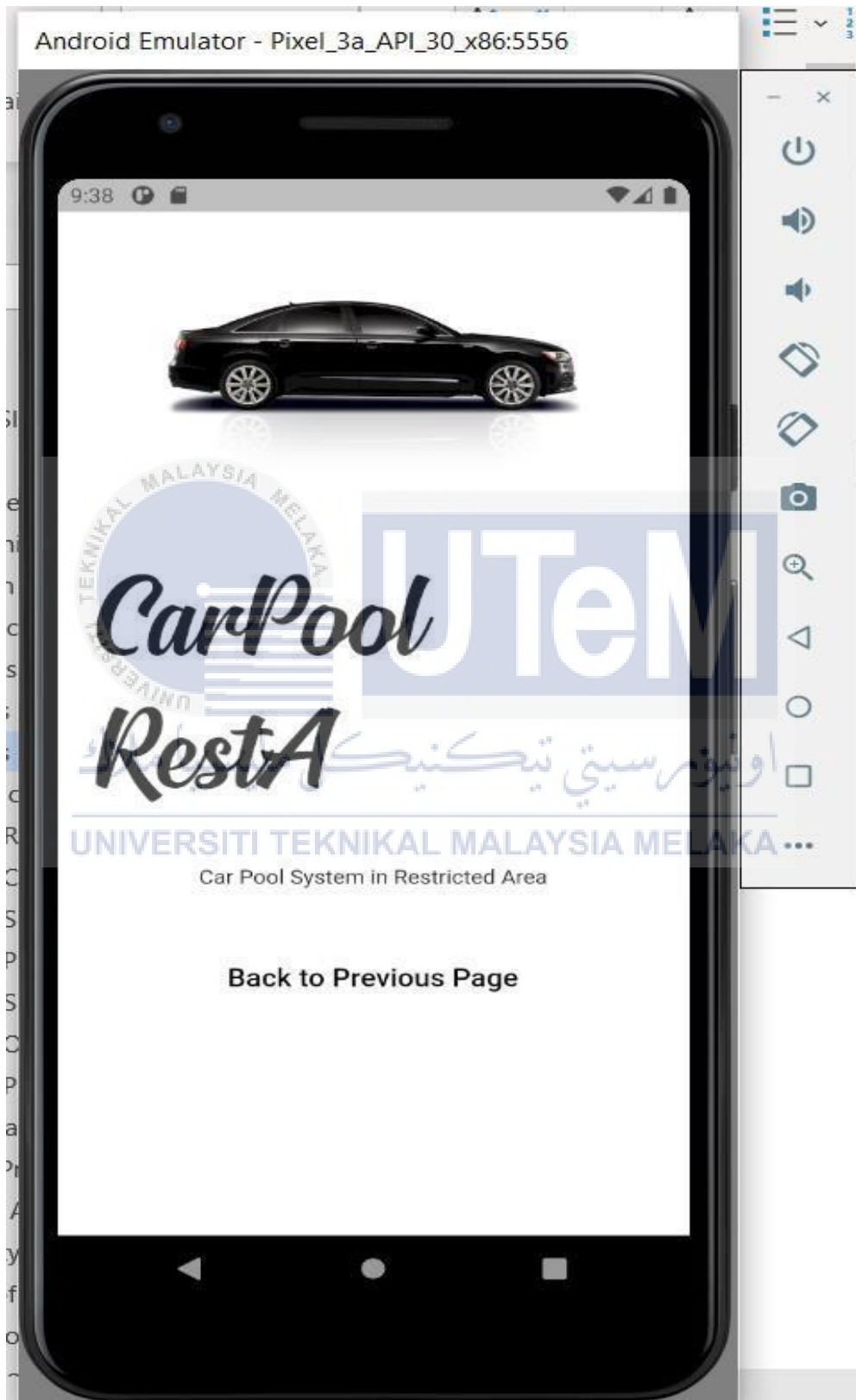
**Figure 4-8  Rider's Application's About Page**
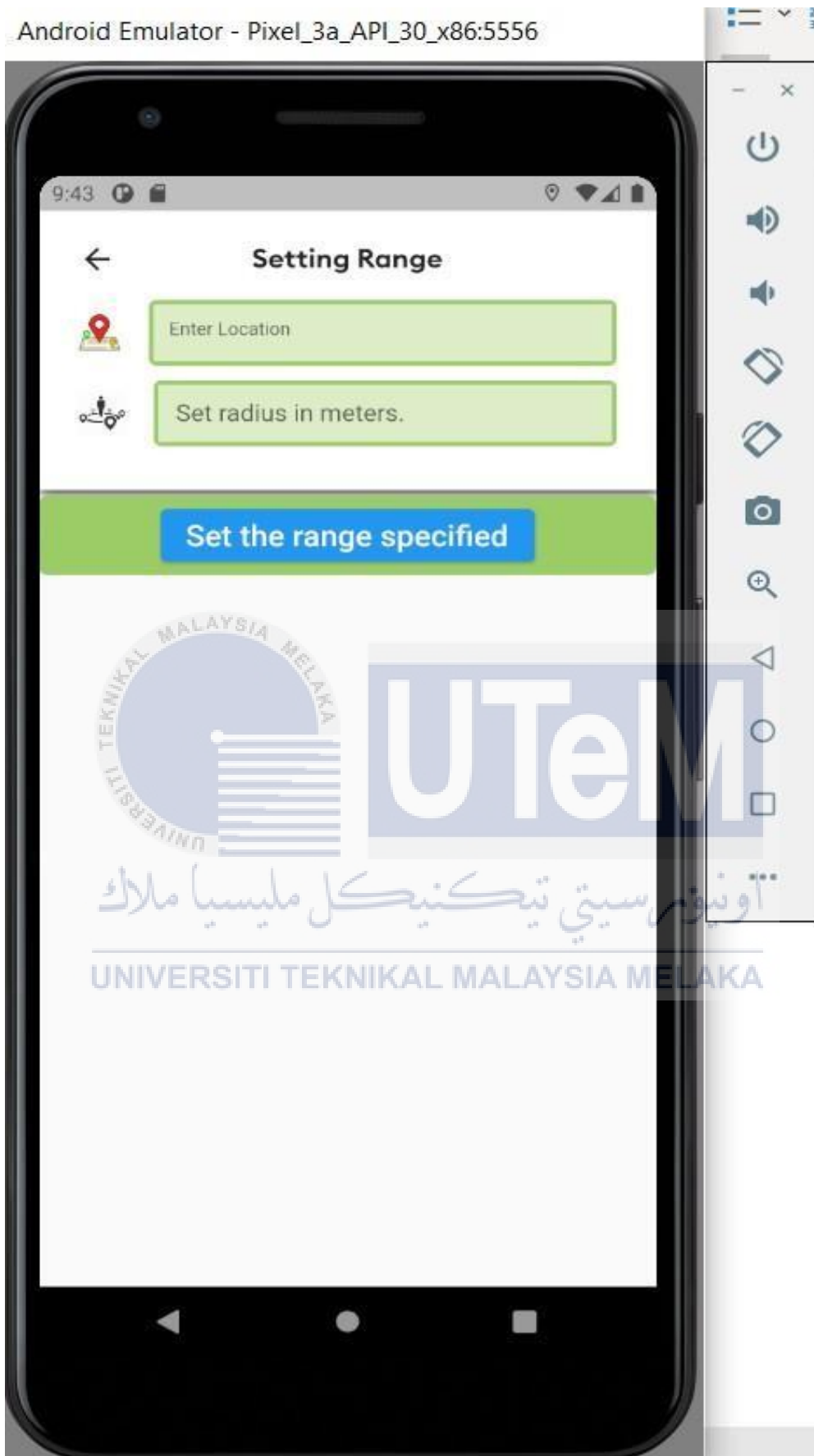
**Figure 4-9  UI to manipulate value for the radius**
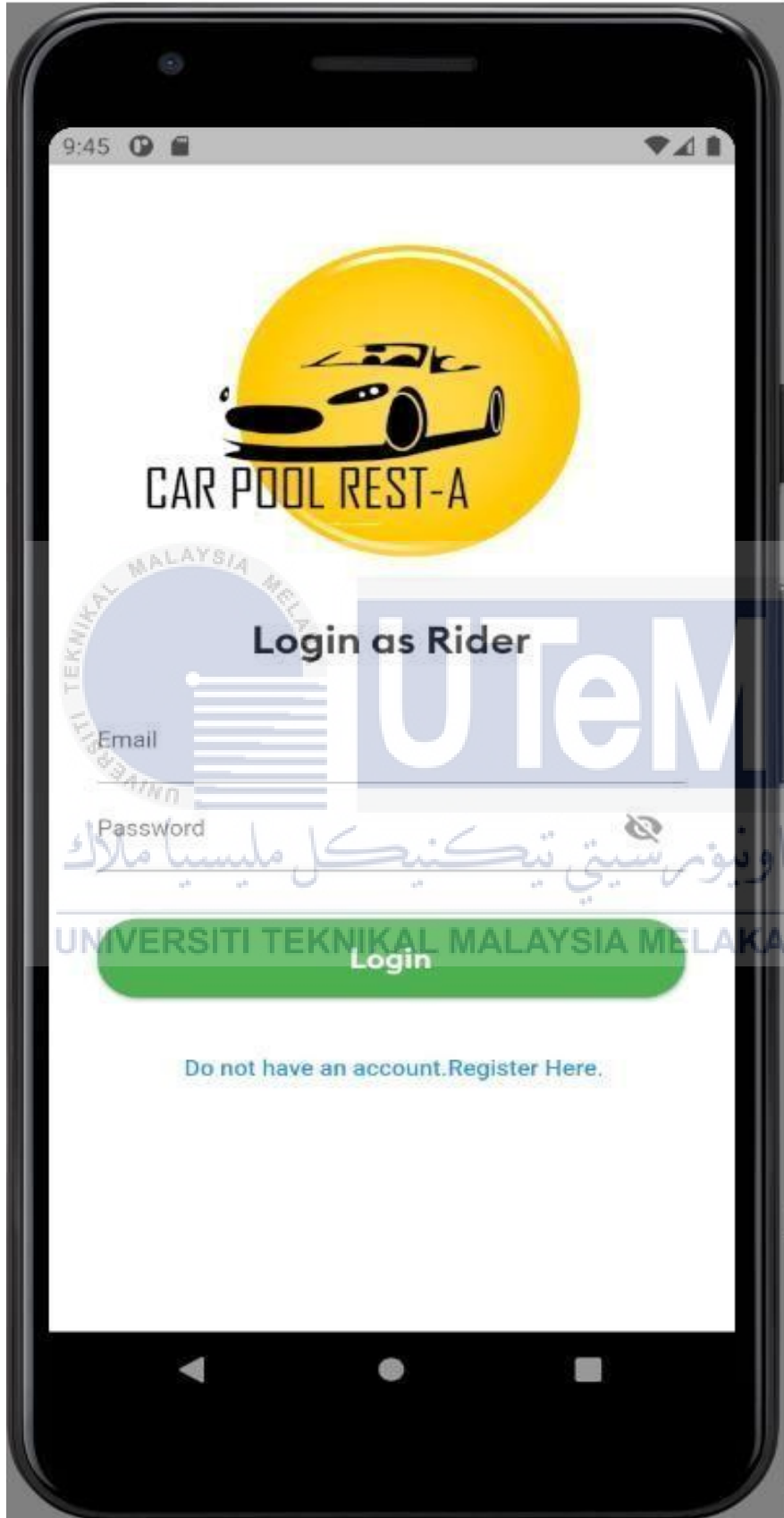
**Figure 4-10  Rider's Login Page**

**Figure 4-11  Rider's Registration Page**

**Figure 4-12 Setting drop off the page for rider**
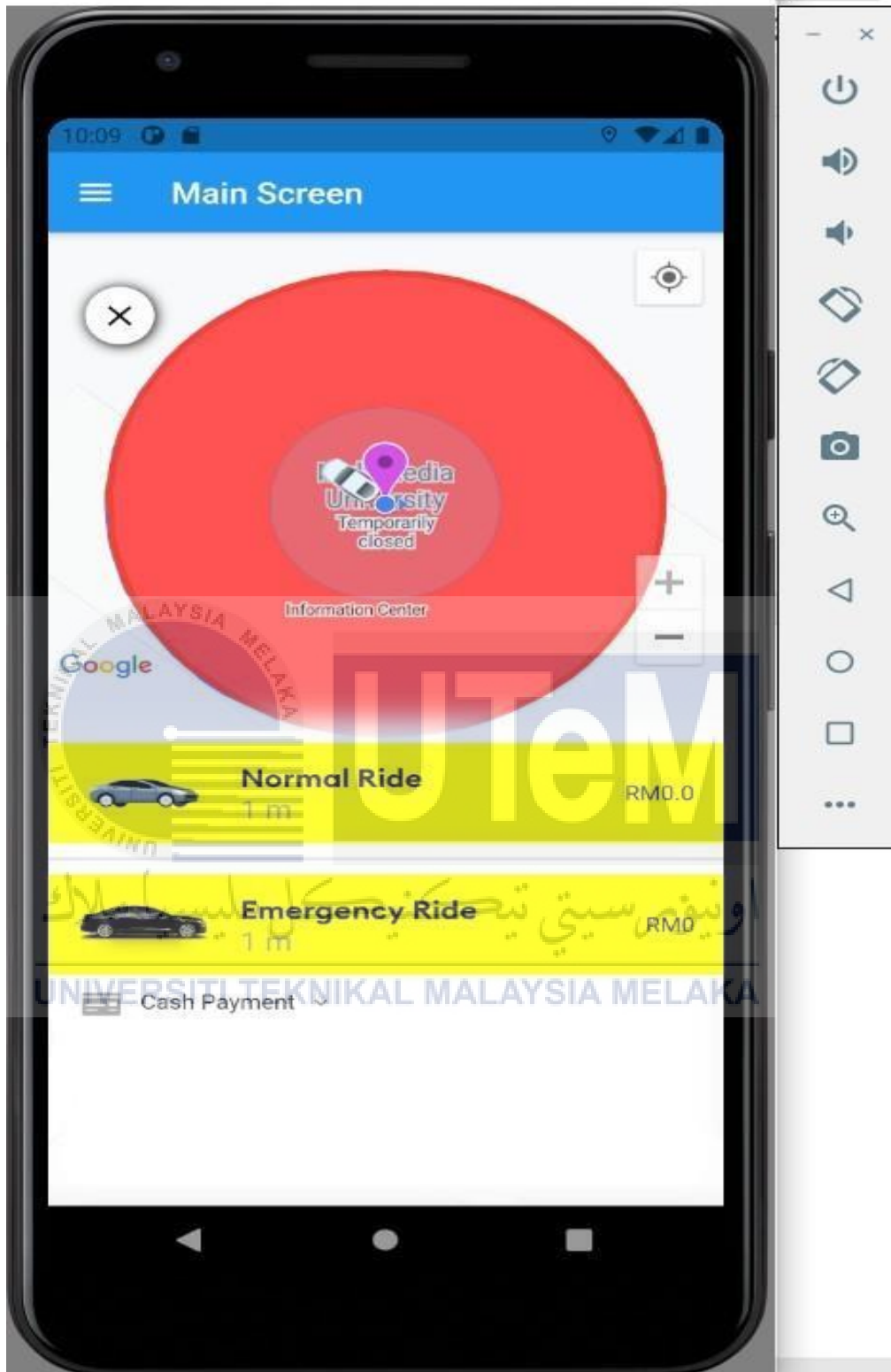
**Figure 4-13  Rider's Booking page**

Depending on the priority, the rider can either choose regular or emergency ride-type services.
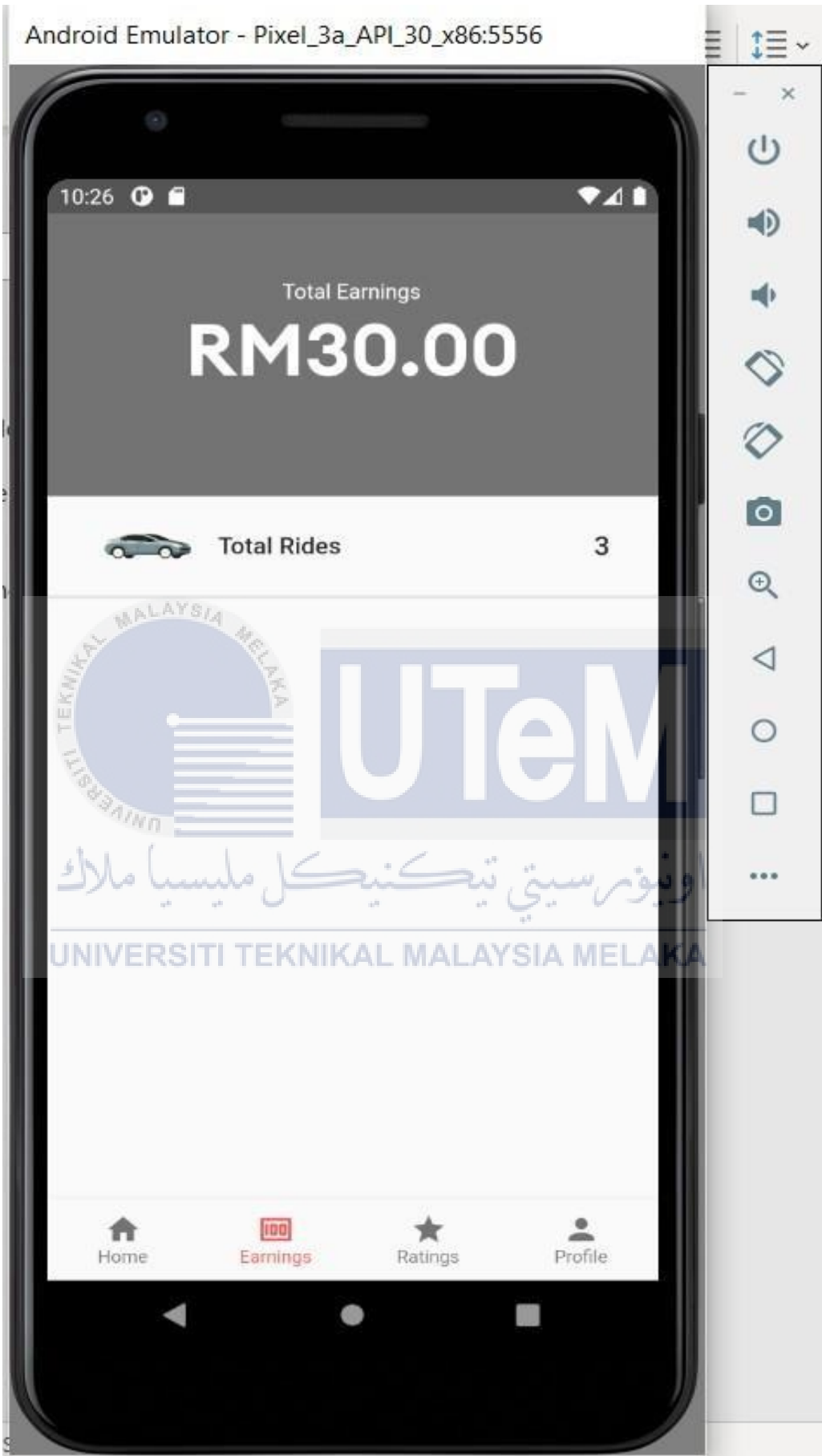
**Figure 4-14 Driver's Earning Page**
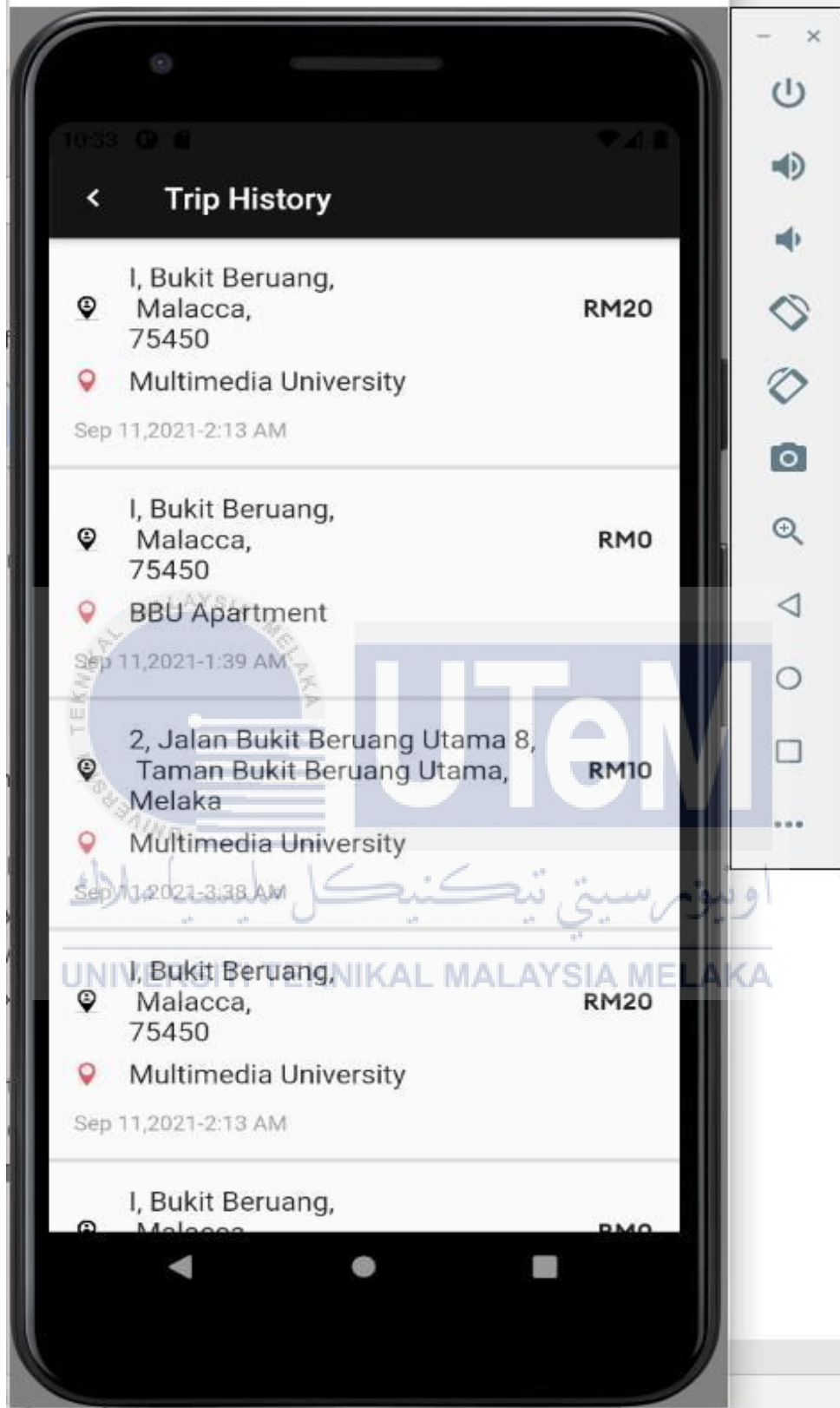
**Figure 4-15  Driver's Ride History**
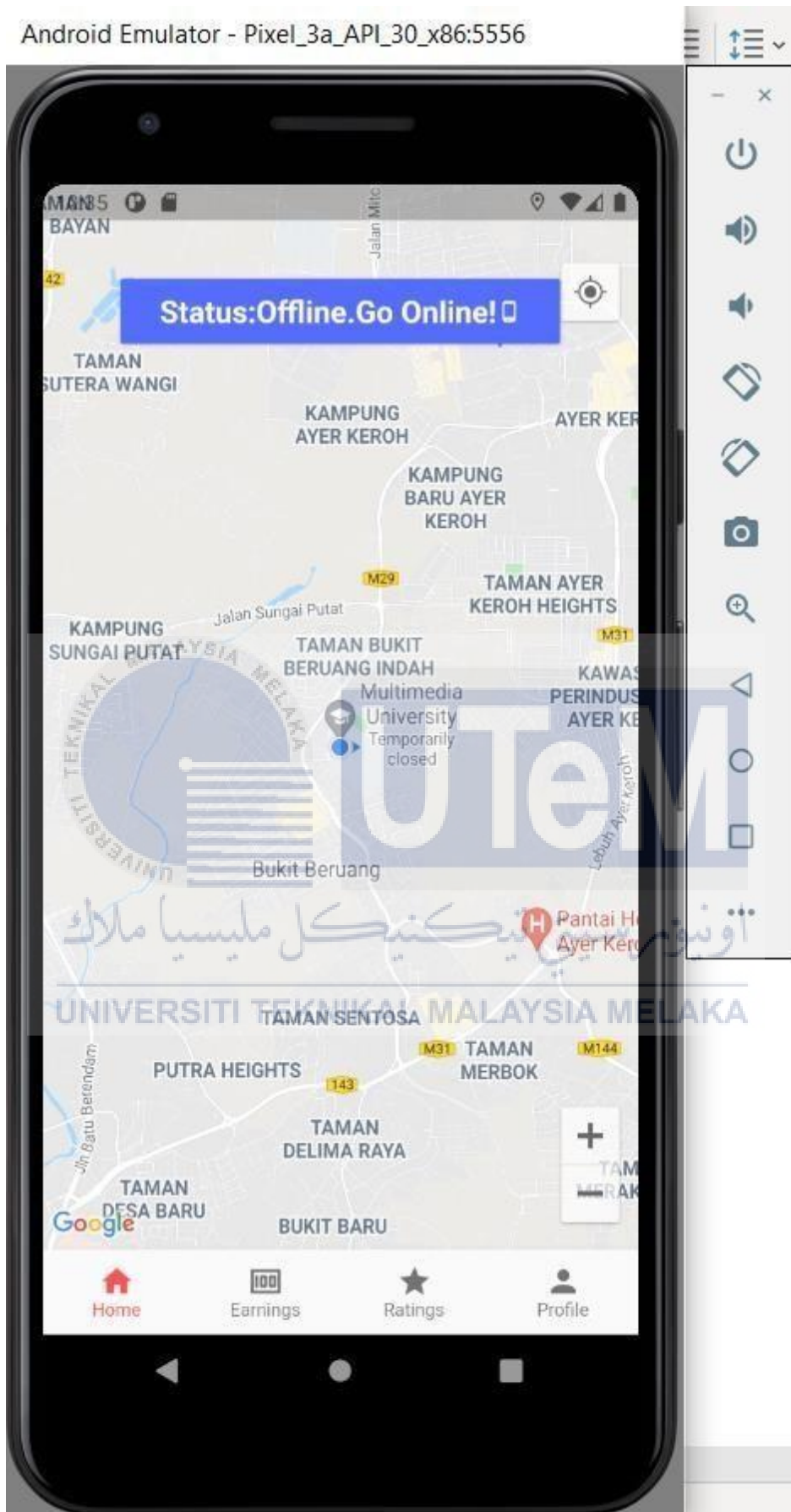
**Figure 4-16 Driver's Home Page**
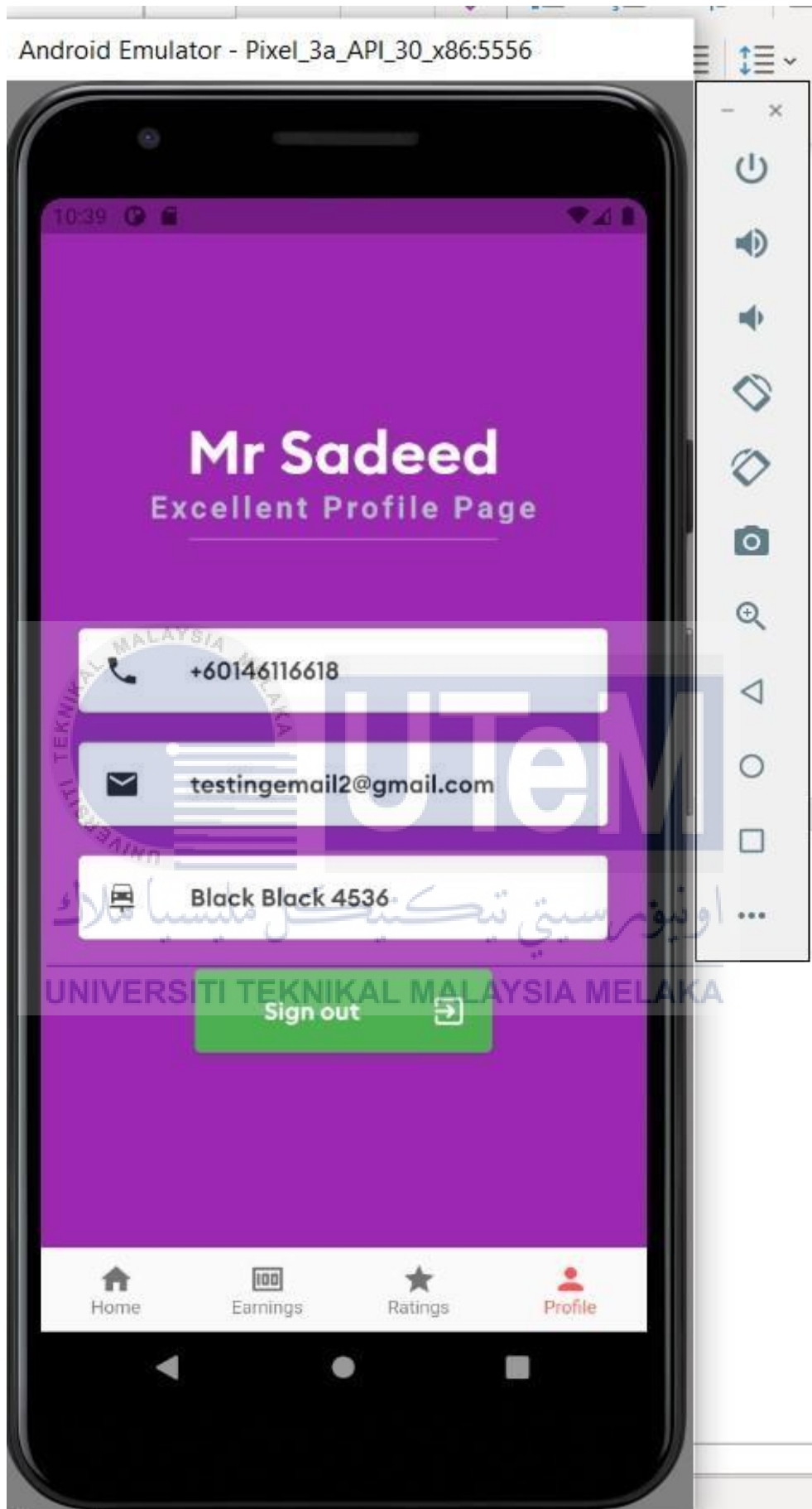
**Figure 4-17 Driver's Profile Page.**
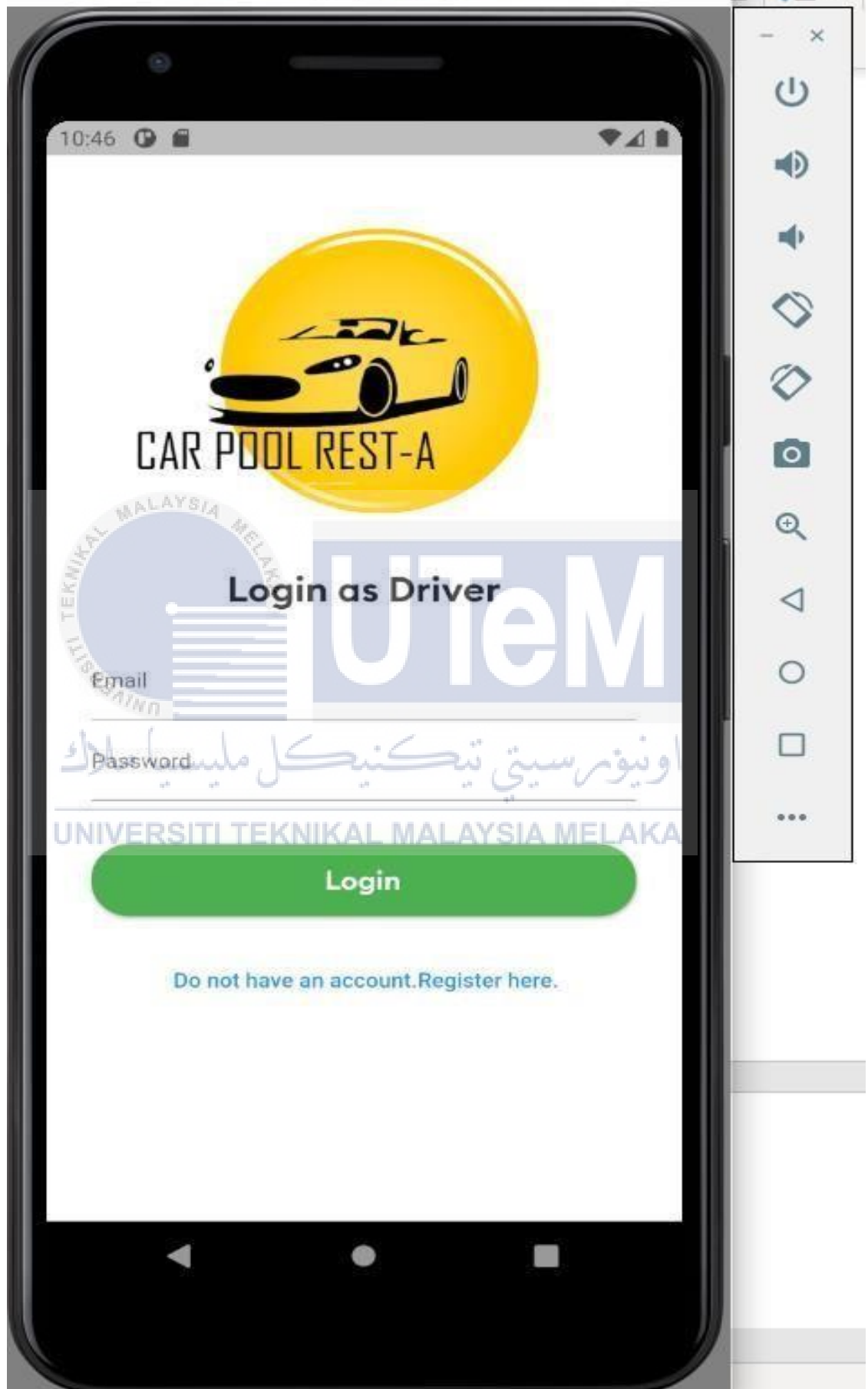
**Figure 4-18 Driver's Login Page**
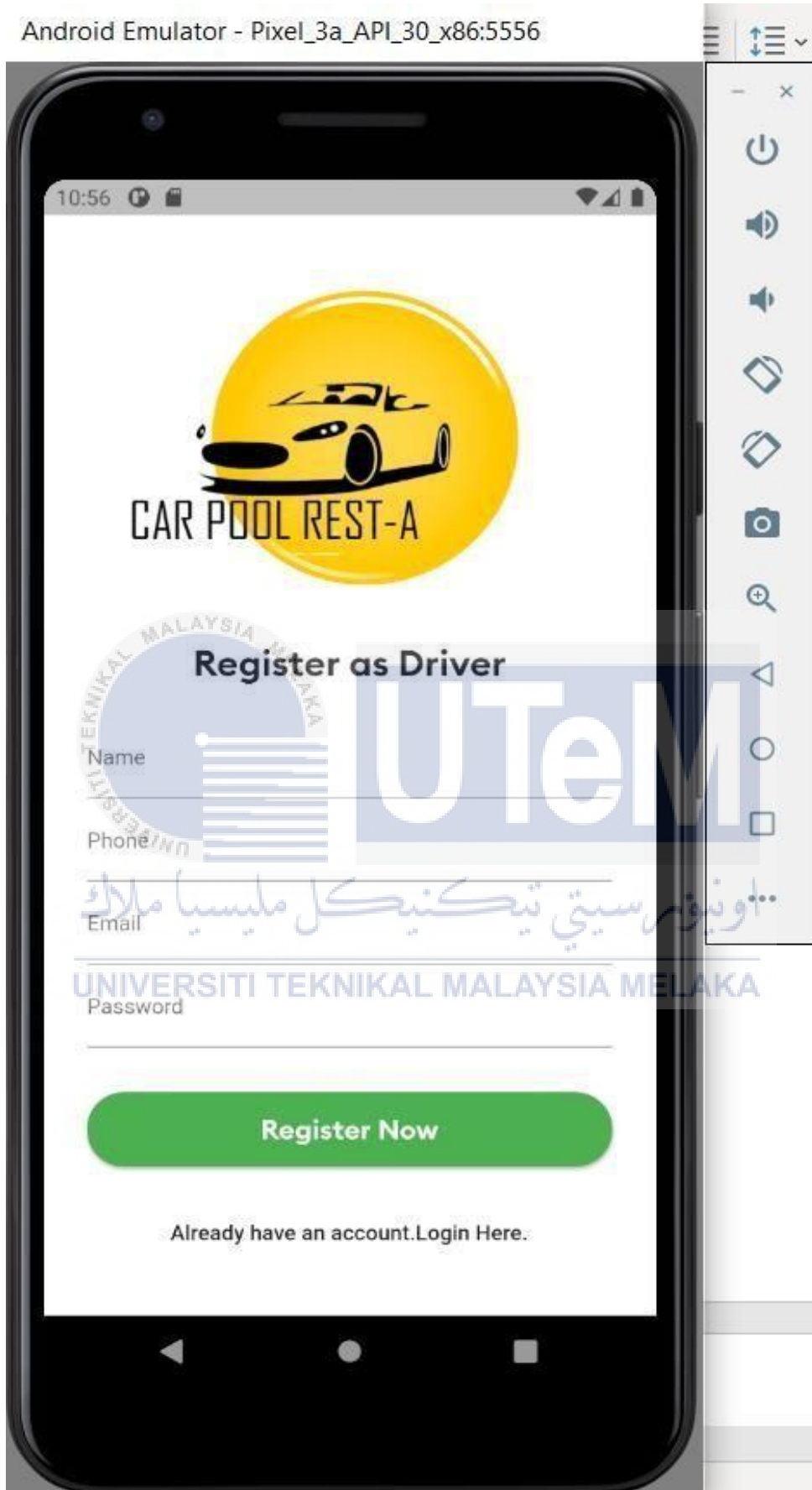
**Figure 4-19 Driver's Registration Page**
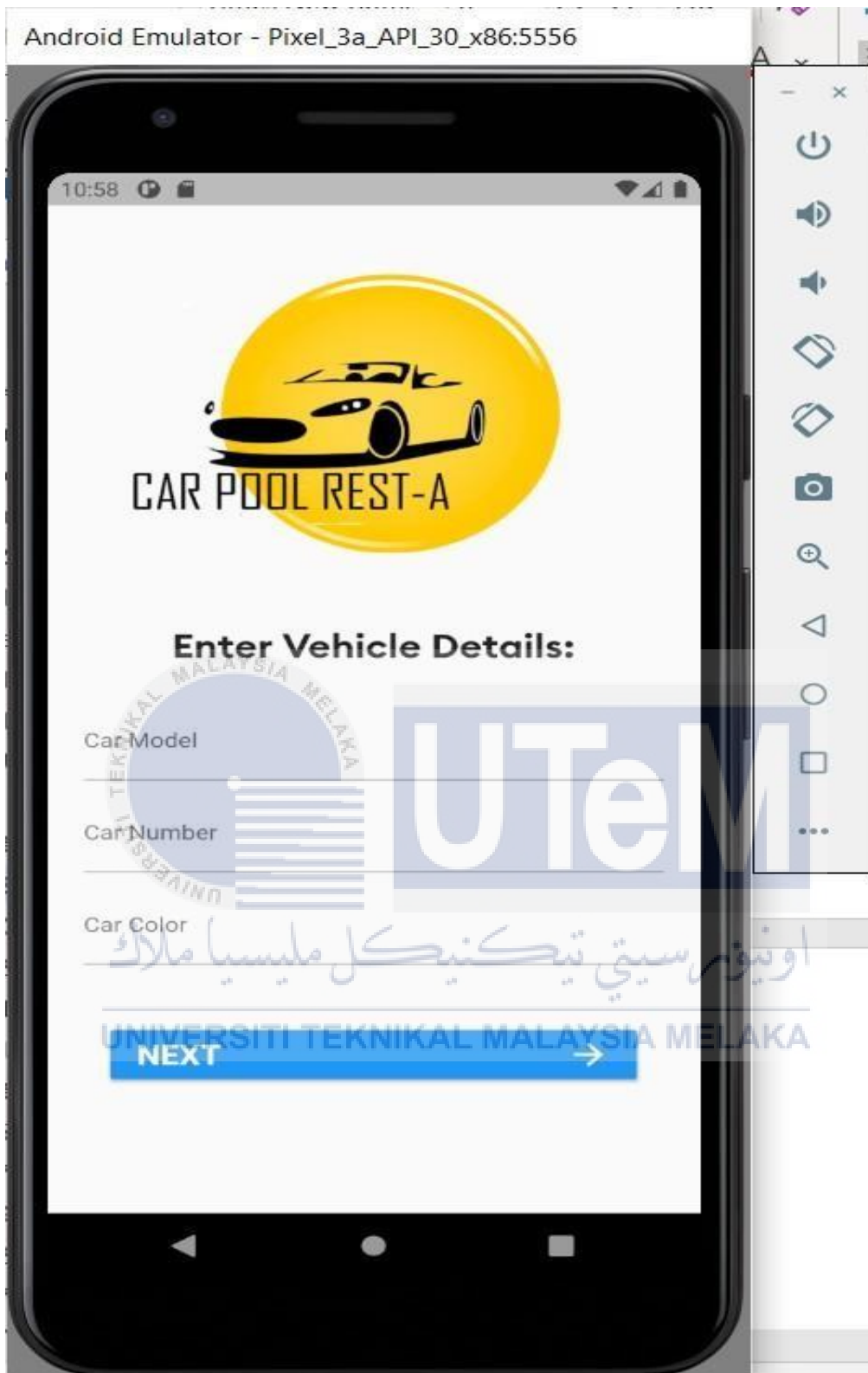
**Figure 4-20 Driver's Car Registration Page**

The driver can register the Car number, the Car model and the car color.
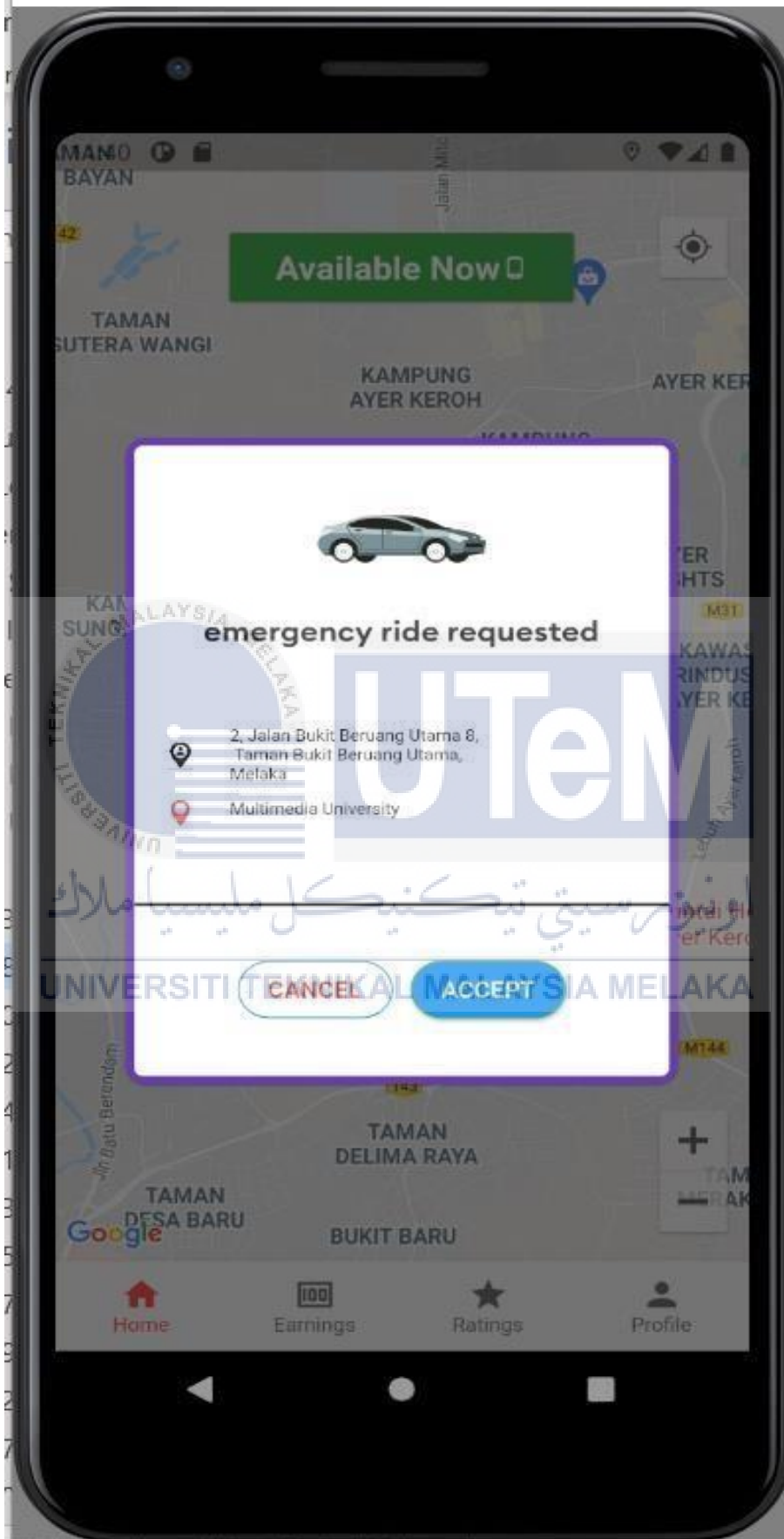
**Figure 4-21  Driver's offline status as shown in the home page.**
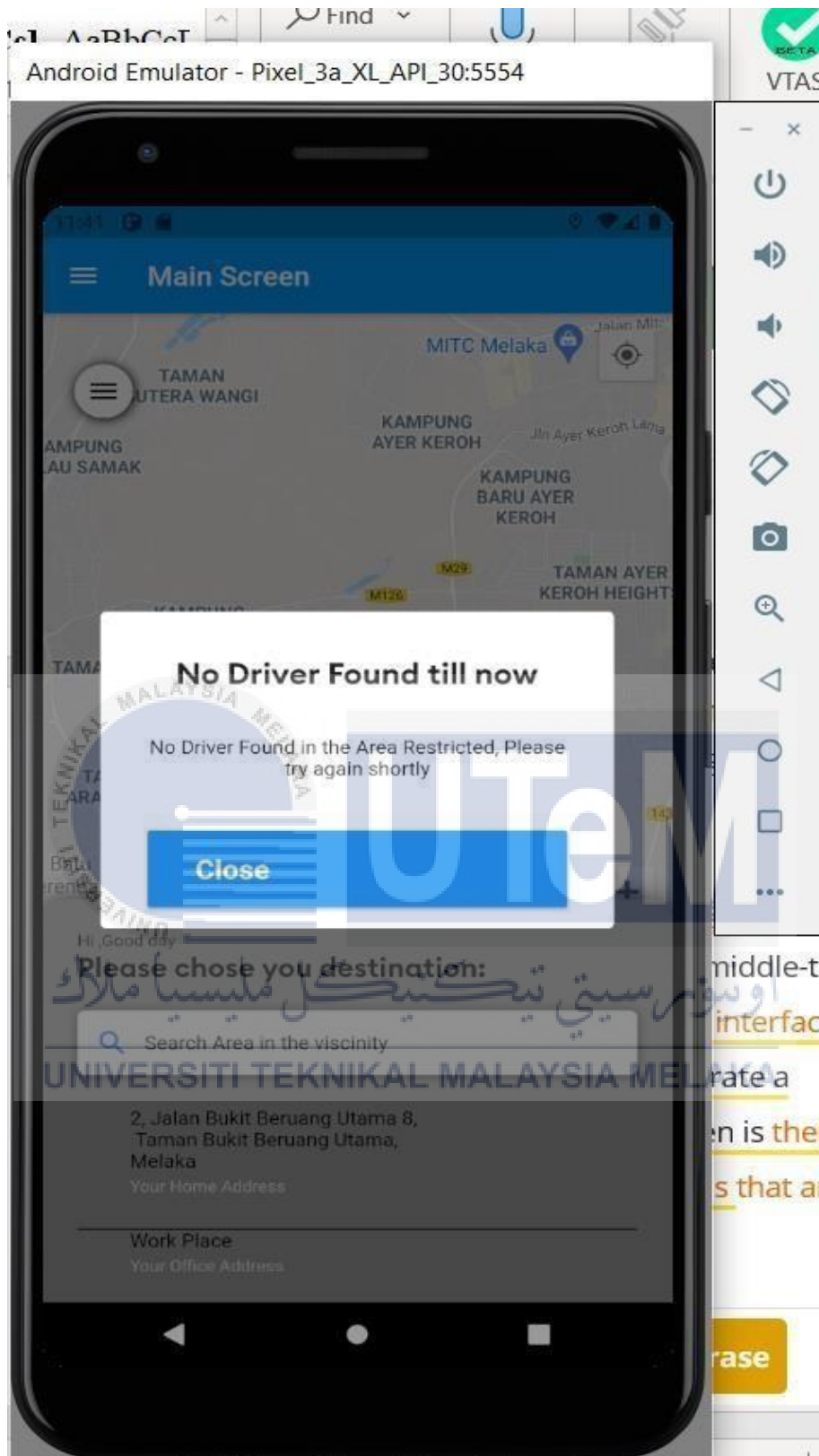
**Figure 4-22  Rider's time out page.**

The drivers were busy and did not accept the ride request. This message will appear on the rider's screen after a timeout.
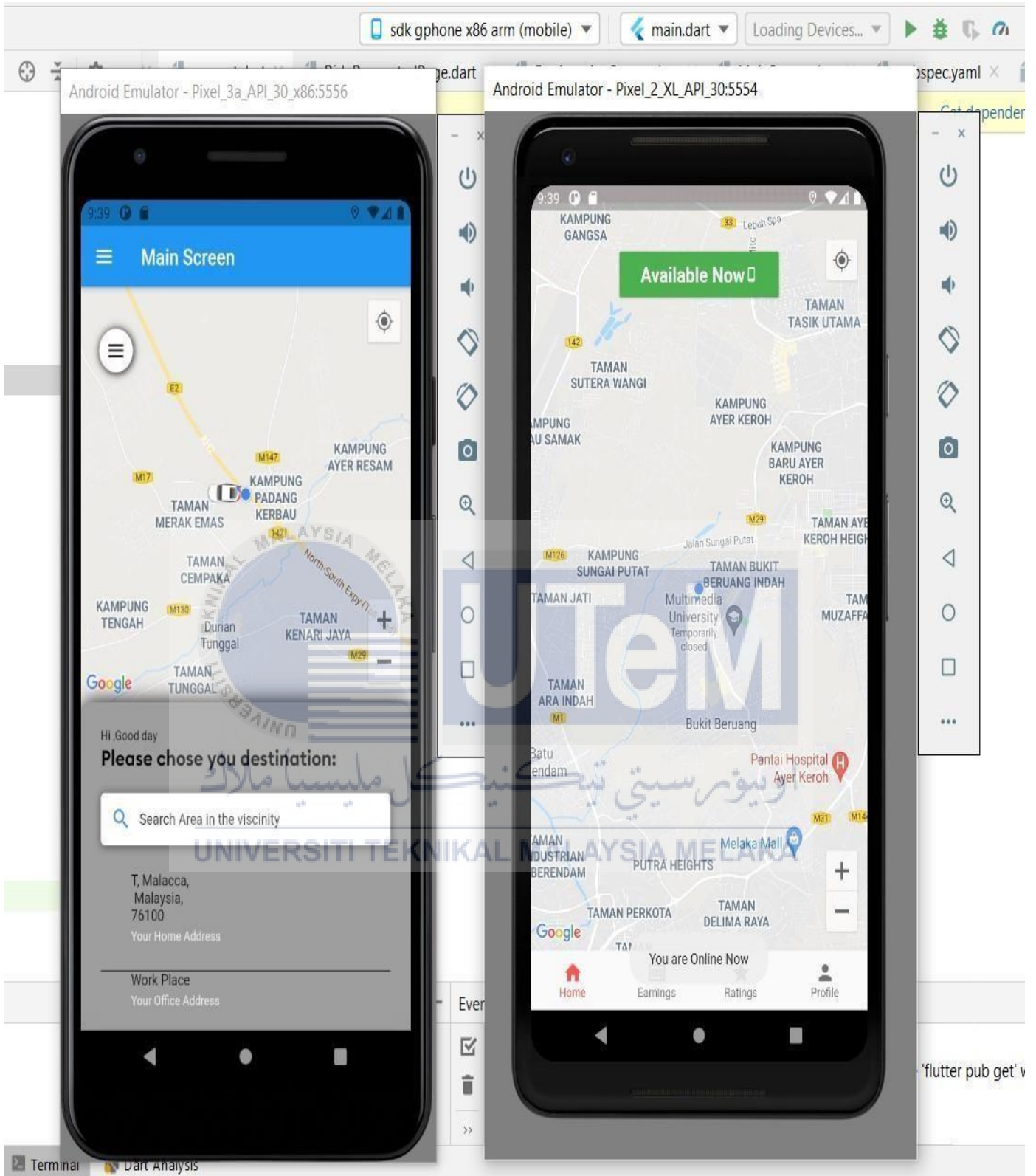
**Figure 4-23 Driver's Online Availability Feature**

The figure above shows that the driver is online, and a car marker appears onthe map

4.3.2      *Database Design*

4.3.2.1  *Logical Database Design*

*(a)*      Entity Relationship Diagram (ERD)
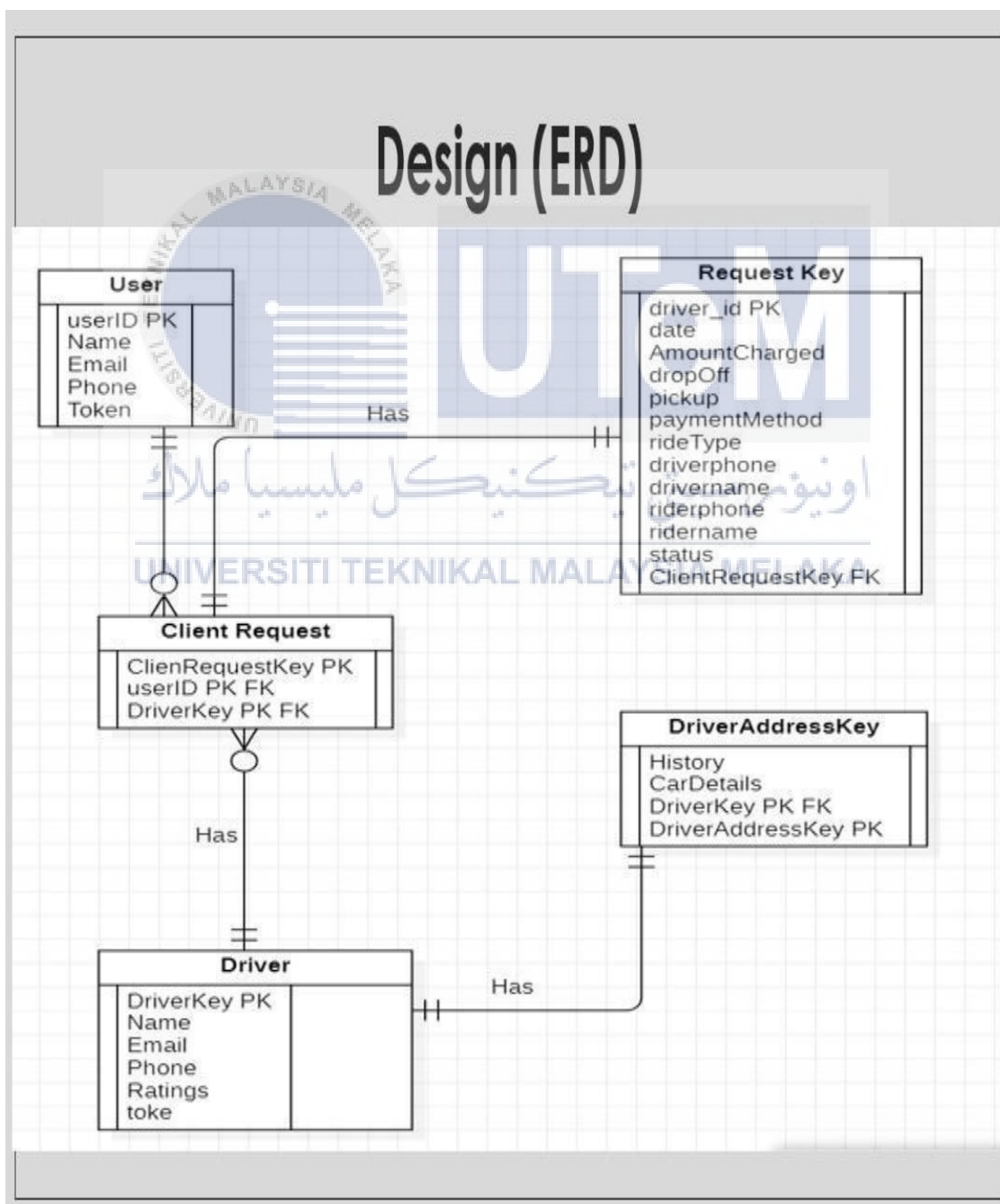


**Figure 4-24 Relationship Diagram (ERD)**

*(b)*      Business Rules

- Each user can order one or more client requests- these client requests will have user keys, driver keys, and client request keys containing user, driver and ride request information.

- Each client request is assigned and unique request key. This particular key will containall the ride request details in the form

- Each driver registers a unique driver key. The key will register all the driver details.

.

*(c)*      NoSql Statements for Pool RestA database

**Figure 4-23 Create a user table**

```
//Create table for the user and save it to databaseMap userDataMap = {
"name":
"email":
"phone":
};
```

**Figure 4-24    Create driver table**

```
//Create table for the driver and save it to databaseMap driverDataMap = {
"name":
"email":
"phone":
};
```

**Figure 4-25 Create Client Request table**

```
//Create table for the Client Request and save it to database

Map ClientRequestInfoMap={ "driver_id:": "", "payment_method": "",
"pickup":,
"dropOff":,
"created at":, "rider_name ": , "rider_phone ": ,




"pickup":pickUpLocationMap, "dropOff":dropOffUpLocationMap,

};

Map pickUpLocationMap={"latitude":,
"longitude":,

};
Map dropOffUpLocationMap={ "lattitude":,
"longitude":,

};
```

**Figure 4.4 Create History table and insert data into the table derived from a database**

```
driversRef.child(currentfirebaseUser.uid).child("history").once().then((DataS
napshot dataSnapshot)
    {
        if(dataSnapshot.value != null)
        {
            //update total number of trip counts to provider
            Map<dynamic, dynamic> keys = dataSnapshot.value;
            int ride_Counter = keys.length;
            Provider.of<AppData>(context, listen: false).updateRideCountr(ride_Cou
nter);

            //update trip keys to provider
            List<String> tripHistoryKeys = [];
            keys.forEach((key, value) {
                tripHistoryKeys.add(key);
            });
            Provider.of<AppData>(context, listen: false).updateTripKeys(tripHistor
yKeys);

            obtainClientRequestsHistoryData(context);
        }
    });


//       INSERT DATA INTO THE TABLE DERIVED FROM DATABASE USING THE CONSTRUCT
OF THE HISTORY CLASS

class History
{
    String payment;
    String recordDate;
    String status;
```

**4.4 Detailed Design**

4.4.1       *Software Design*

**Figure 4-25 System Flow from The Rider's Perspective**
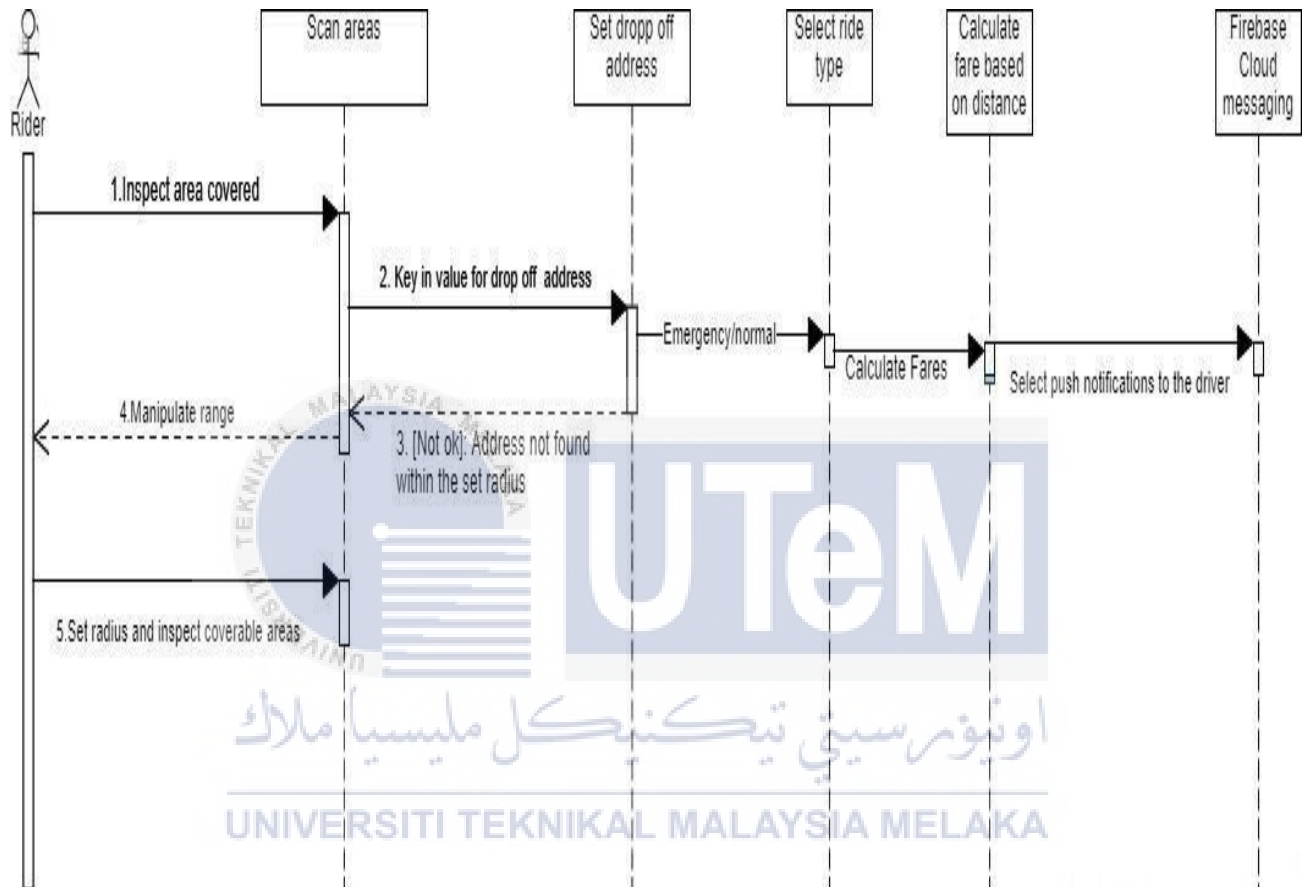
**Figure 4-26 System Flow from The Driver's Perspective**
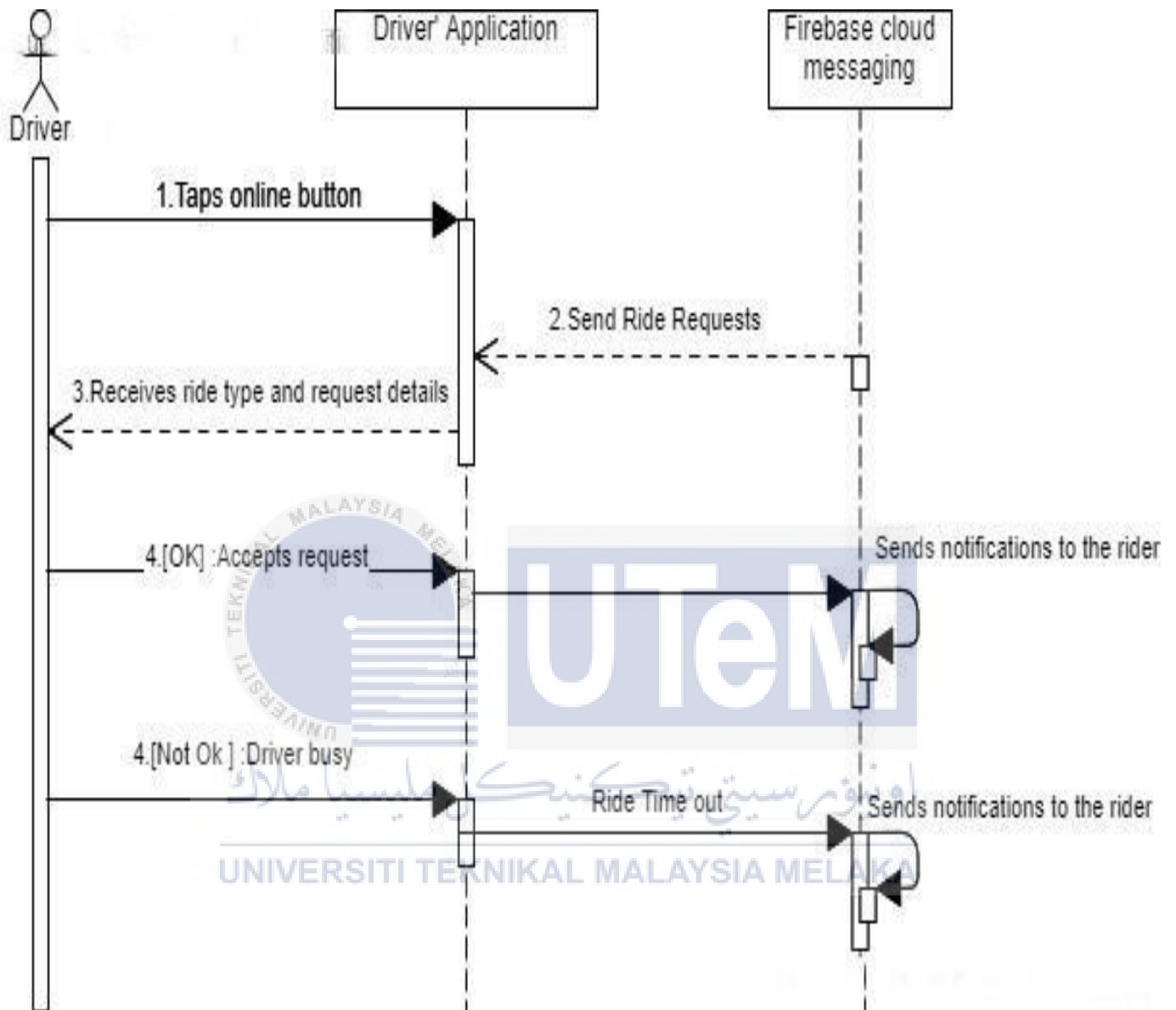
**Figure 4-27     Node for User table below**
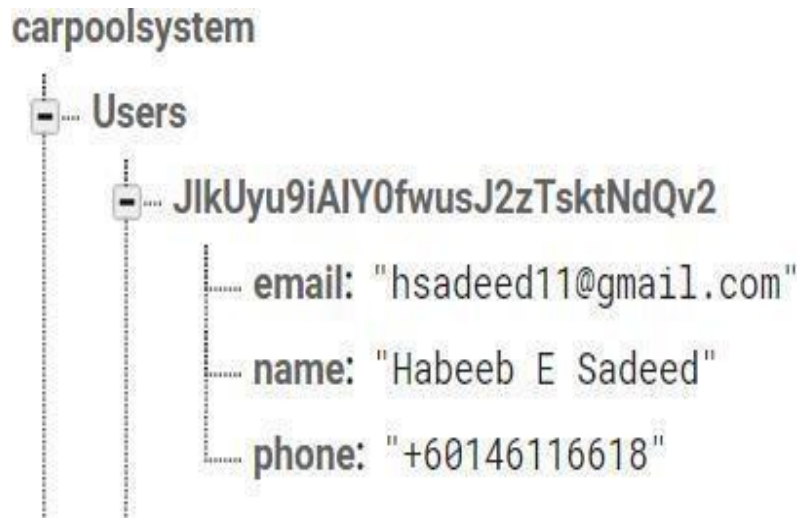


Description:

- The node named Users contains details of the registered users.
- Once registered, each user will be assigned an uniquekey.
- Each unique key will contain email, name and phoneas the sub nodes.

**Figure 4-28  Node for History table below**



```
z1tFdWhwKhb8ZEPBmJA0kfhl1Gl1
    History
        -McTKG-YfMUVGHdKSGyH: true
        -McTKbeDDqG6bKqR70SN: true
        -McTMMTQco1ClCU0EreB: true
        -McTPRvAnQctezDoapgq: true
        -McTSGIdESTRXR6VeOd8: true
        -McTSoUrbBGaus1OnK4G: true
        -McTU3tQv00clKnFsuT8: true
        -Mcwky0GGqMsLWul-Ixe: true
        -McwuBpSozPe8kqc4Dp9: true
        -McxF3_zT2NSkiHnL998: true
        -McxFZG2Qb0i2NbSpH_1: true
        -McxHBRb7Qq4PptZmY2l: true
        -McxIZsXNNLHBfd8thnU: true
        -Mcxf11NpUa0WdIryMDF: true
        -McyR5p65hagcU1W8B5C: true
        -McyUAWdgowvDAPhRtkO: true
        -McyUoAdI4BgTLgAxGxQ: true
        -Mcycvp3AXGRS03DCOda: true
        -Mcyfy1xVMqyipfdwdXb: true
        -McysIxnUujm1DgZGTLw: true
        -McyuvQsAjkLpY8sRwn0: true
        -McyzINJ__1CkJjnpjmc: true
        -Mcz0AbiMWolSNN9_9yW: true
        -Mcz55fB296ET1zKXXiX: true
        -Mcz8njjgieEbsohp_HP: true
        -MczhfTrWEyFpPiGXW2z: true
        -Md-$jQmT_JfXj8Zb9EO: true
        -Md-jn4vg3JPuCZZKfjY: true
        -Md-kW8nWrhYBwHg1h7_: true
```

Description:

- The node named History an unique key for each ride trip.
- Each unique key for a particular ride is contains details registered under client Requestnode. For example,
- An Example of a details registered at a particular node is shown below:

☐

**-Mcz0AbiMWolSNN9_9yW** has details of a particular ride registered in the node of adriver chosen by the rider.

**Figure 4-29 Node for drivers table below**



```
          └── 1: 102.2844672
⊟·· drivers  +  ×
        ⊟··· 4gj8A2vnZmXDDIPccvRYpiXfDGg1
              ├··· email: "testingemail2@gmail.com"
              ├··· name: "Mr Sadeed"
              ├··· newRide: "cancelled"
              └··· phone: "+60146116618"
```

**Figure 4-30 Node for Client request table below:**



```
⊟··Mcz0AbiMWolSNN9_9yW
    ├··· Fares: "10"
    ├··· car_details: "Red - Red"
    ├··· created at: "2021-06-25 01:15:12.238796"
    ├··· driver_id: "z1tFdWhwKhb8ZEPBmJA0kfhl1Gl1"
    ├··· driver_name: "Habeeb E Sadeed Driver 1"
    ├··· driver_phone: "+60146116618"
    ├··· drivers_location
    │      ├··· latitude: "2.249281"
    │      └··· longitute: "102.2759891"
    ├··· dropOff
    │      ├··· latitude: "2.2494935"
    │      └··· longitute: "102.2761136"
    ├··· dropOff_address: "Multimedia University"
    ├··· payment_method: "cash"
    ├··· pickup
    │      ├··· latitude: "2.2533194"
    │      └··· longitude: "102.2725534"
    ├··· pickup_address: "2, Jalan Bukit Beruang Utama 3,\n Melaka,\nMelaka"
    ├··· ride_type: "normalRide"
    ├··· rider_name: "Habeeb E Sadeed"
    ├··· rider_phone: "+60146116618"
    └··· status: "ended"
```

## 4.5    Conclusion

In conclusion, this chapter is particularly concerned with the layout of the system. The diagrams are created in order to provide a high-level overview of the system's architectural design. The diagrams depict the modules that are required for each user. NoSQL is a collection of records,content, layout, and attributes that are used to maintain the facts and details of a given situation or event.

# CHAPTER 5:  IMPLEMENTATION

## 5.1 Introduction

This section describes the activities, including the implementation phase, which focuses on using all the knowledge and information gathered in the previous stages to create the application codebased on the collected requirement and the formulated design. Thus, it is essential to carefully choosethe right resources and programming languages to avoid wasting time and costs.

## 5.2 Firebase Realtime database

In the Firebase platform, the database called the Firebase Realtime Database is hosted in the cloud. Data is saved in JSON format throughout the system, and it is synchronized in real-time across all of the connected clients. Realtime Database SDK for iOS, Android, and JavaScript applications developed with a single Realtime Database instance share a single Realtime Database instance and are automatically updated with the most up-to-date information as soon as it becomes available.

## 5.3 Software Development Environment setup

In system development, the development environment is a set of process and programming tools usedto develop the CarPool RestA web-based application. It is essential to give full attention to the design and implementation phase to fulfill the development process requirements.

## 5.4 Android studio

Android studio is a free source code editor made for Windows, Linux, and macOS. It is used to write the codes and commands in developing the system and building the system interface. *AndroidStudio* is Google's officially supported IDE for developing Android apps.

*Hardware Architecture Setup*

**Table 5-1 Hardware architecture setup**

| No. | Hardware | Description |
|---|---|---|
| 1 | Processor | 3.6 GHz Dual-Core Intel Core i7 |
| 2 | RAM | 16 GB 1700 MHz DDR5 |
| 3 | Storage | 1 TB Solid State State Drive |

## 5.5 Software Configuration Management

In software configuration management, tracking and regulating software changes is the process of configuration management. Concerning the broader cross-disciplinary configuration management discipline, it is part of the diverse composition management practice. Additionally, the act of managing baseline settings and revision control are two of the software management techniques that are used. Software configuration management (SCM) can assist you in figuring out which lines of code have been changed and who was accountable for that modification in the event of a problem. It's also possible to make successful configurations repeatable on large numbers of servers using software configuration management.

### 5.5.1 *Configuration environment setup*

5.5.1.1*Server Configuration*

For server configuration, Google Cloud platform was deployed to handle live requests from the client.All the relevant APIS have been configured as per CarPool ResA requirements in the cloud server.

Below is the list of APIs configured in this project:

| Name | ↓ Requests | Errors (%) | Latency, median (ms) | Latency, 95% (ms) |
|---|---|---|---|---|
| Places API | 6,601 | 0 | 34 | 99 |
| Directions API | 1,102 | 0 | 43 | 110 |
| Token Service API | 242 | 0 | 71 | 125 |
| Maps SDK for Android | 113 | 0 | | |
| Geocoding API | 111 | 2 | 68 | 125 |
| Cloud Messaging | 107 | 0 | | |
| Identity Toolkit API | 100 | 32 | 134 | 405 |
| Firebase Installations API | 12 | 0 | | |
| Cloud Firestore API | 2 | 0 | 196 | 255 |

**Figure 5-1       List of enabled APIs in the Google cloud platfor**

Description of the metrics for data processing in the server:

Median latency: As shown in the table above, the latency metric measures the total time it takes for thecloud spanner service to process a request.

The term "requests" refers to the number of requests that have been made (for the selected period). In computing the number of errors, "errors" refers to the number of unsuccessful requests. Latency (including medium latency and percentile latency) refers to the amount of time it takes for these requests to be fully processed.

The cloud spanner groups the latency data into percentiles.

For example, 95th percentile latency reads 99 ms with a median latency of 34 ms which means that thecloud spanner processes 99 percent of the requests in less than 34 milliseconds.-. This is very ideal in the context of our project since the application might deal with large pool of requests at any given the time of day. We have therefore enabled this API to process these requests.

A further study on how the aforementioned API configuration contributes to our project is described in detail the following sub-sections:

5.5.1.2 *Token Service API-*

The token number has a practical implications in our Car Pool RestA. This is important in the contextof our project because hundreds of drivers will register their devices. Each of those devices will be assigned an unique token number. Once the nearest driver is chosen, this token number is being used to send notifications to the phone of the chosen driver and thus Token Service API was to enabled to perform this service.

The driver's device is identified by the token in the driver's node:



**Figure 5-2 An unique key is generated by token API is the server**

Testing whether the token service API was successfully configured :

In the earlier phase of development, we used postman to configure and test this service. As shownbelow, we printed and extracted the token from the terminal of the Android studio using the raw code.
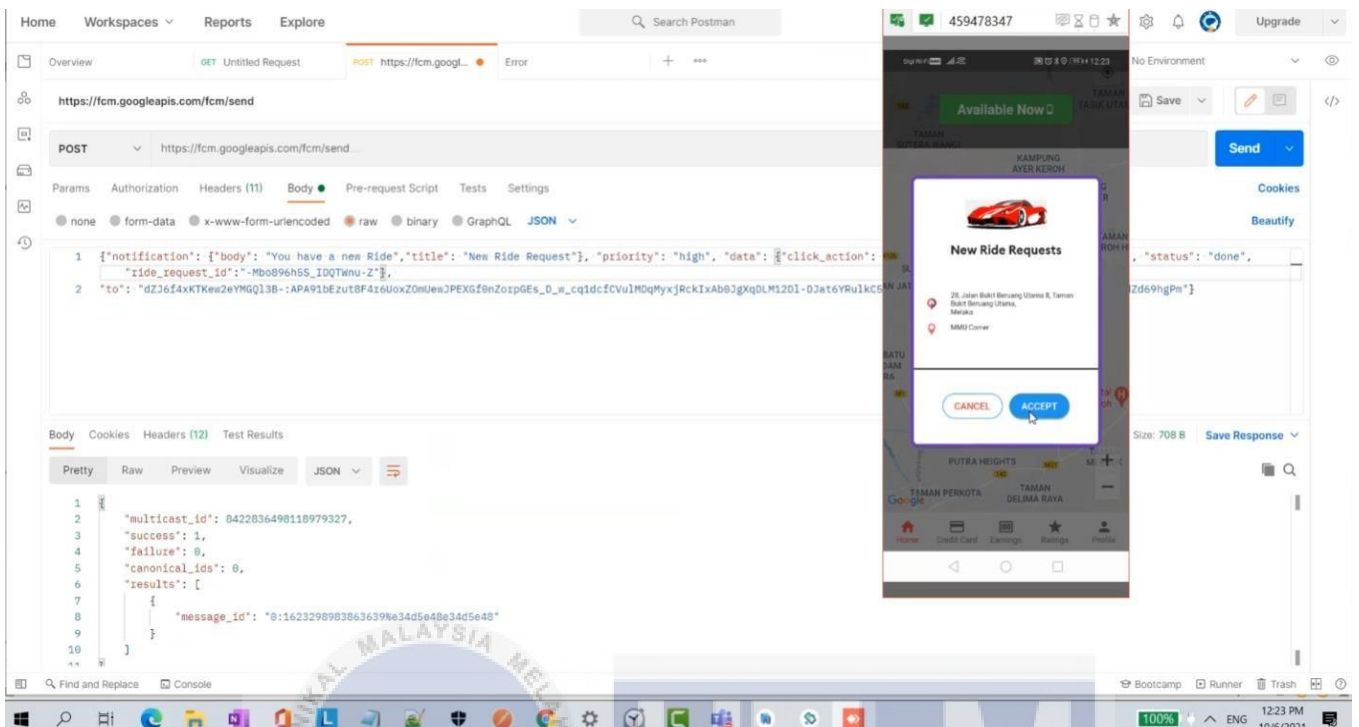
**Figure 5-3- Sending push notification using token.**

5.5.1.3 *Enabling Maps SDK for Android in the cloud server platform*

This API was enabled from the library of the cloud server because it is essential for Google Maps todisplay data and map gesture responses. In the context of CarPool RestA, we have additionally added markers and polylines on the map. Markers pinpoint the locations of the rider and the driver and the car icons on the map are made to navigate through the polylines on the map reaching the rider. The position of the car icons are updated at real-time to produce the visual movement of the car along the polylines on the google map.
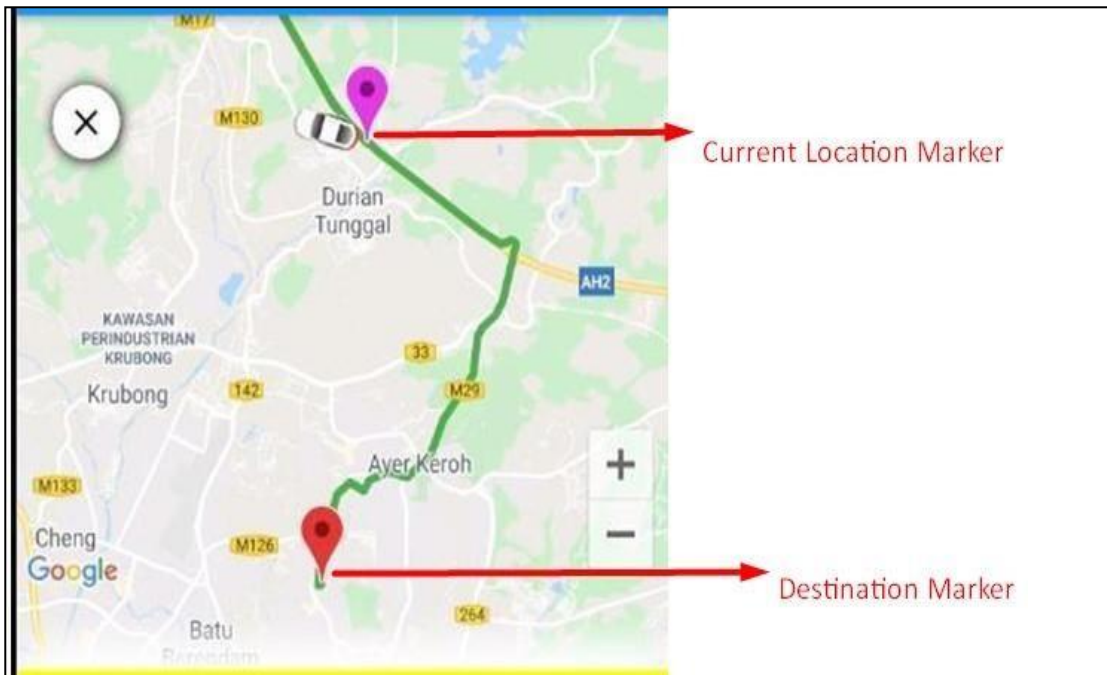
**Figure 5-4-Server live streaming car icon positions of the map**

5.5.1.4 *Identity Toolkit API-*

This API helps the application to verify user's identification in Google's cloud platform. In the context of CarPool Rest A, the table below shows how this API is being used to handle user credentials.

## Methods

| Method ↑ | Requests | Errors | Avg latency | 99th percentile latency ❓ |
|---|---|---|---|---|
| google.cloud.identitytoolkit.v1.AccountManagementService.GetAccountInfo | 66 | 0 | 0.106 seconds | 0.258 seconds |
| google.cloud.identitytoolkit.v1.AuthenticationService.SignInWithPassword | 65 | 49.23% | 0.18 seconds | 0.503 seconds |
| google.cloud.identitytoolkit.v1.AuthenticationService.SignUp | 36 | 5.56% | 0.306 seconds | 0.519 seconds |

**Figure 5-5-Identity Toolkit API dealing with authentication features such as sign-in and sign up-**

### 5.5.1.5 *Geocoding API*

In general, geocoding is the process of converting a physical address into geographic coordinates on the map. In the context of our project, we used this position markers to represent these coordinates and the two polylines are connecting the two points.



**Figure 5-6- Position markers represniting coordinates on the map**

In order for geocoding API to be used, we have used geolocator dependencies in Flutter.

Once we have installed geolocator dependencies in our pubspec.yaml file, we can then use methodsin geolocator. dart in order to enable access to platform-specific location services.

This dependencies also import Position class. This class can be used to derive detailed information of the location such as longitude, latitude ,timestamp, accuracy, speed and other metrics such as altitude and speed.

In the context of our project, we have use this Position to get the current position of both the driverand the rider.

### 5.5.1.6 *Firebase Installations API*

Using this API , google cloud platform commutates with the real-time database in the backend of the application. Programmatically, this API will return a valid token for firebase installations and is called only and only if firebase installation is registered.

The figure below show this API in action for our system:



**Figure 5-7 Communication between firebase and Google Cloud server**

In line with what we have mentioned in the Firebase API descriptions, the methods handled by this APIare now fetching requested-meaning that the Google cloud platform can now communicate with the firebase database.

### 5.5.1.7 *Cloud Fire Store API*

This API is used to access the NoSql document built for automated scaling, high performance and thus enhancing the ease of application development. Using this API in our project, we called firestore.googleapis service provided in the client library. It means that the google cloud platform uses this API to execute faster queries from the database set in firebase.

## 5.5.2 *Database Configuration :*

Database configuration is accomplished through the use of NoSQL firebase in realtime, which is used to configurethe database and store data. Once we have created the database, we will need to configure the security rules in addition to adding maven local repositories and libraries, followed by adding dependencies in our project.



**Figure 5-8 Configuring security in test mode**

```
buildscript {
    ext.kotlin_version = '1.3.50'
    repositories {
        google()
        jcenter()
        mavenLocal()
    }
    dependencies {
        classpath 'com.android.tools.build:gradle:3.5.1'
        classpath "org.jetbrains.kotlin:kotlin-gradle-plugin:$kotlin_version"
        classpath 'com.google.gms:google-services:4.2.0'
        // NOTE: Do not place your application dependencies here; they belong
        // in the individual module build.gradle files
    }
}

allprojects {
    repositories {
        google()
        jcenter()
        mavenLocal()
    }
}
```
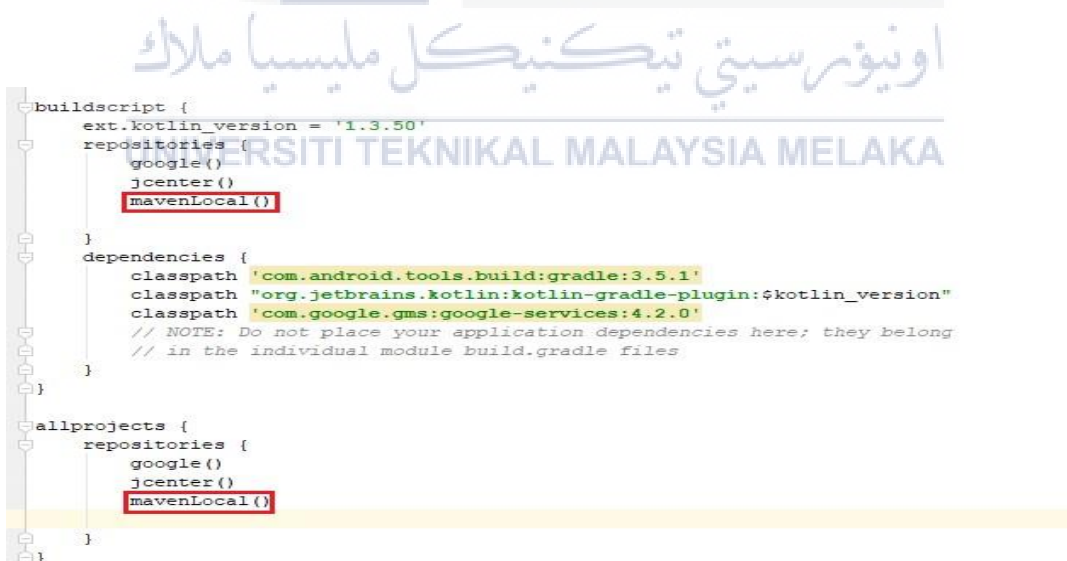
**Figure 5-9- Adding local maven repositories in the project**

```
▶  □dependencies {
        implementation fileTree(dir: 'libs', include: ['*.jar'])
        implementation "org.jetbrains.kotlin:kotlin-stdlib-jdk7:$kotlin_version"
        implementation 'androidx.appcompat:appcompat:1.0.2'
        implementation 'androidx.core:core-ktx:1.0.2'
        implementation 'androidx.constraintlayout:constraintlayout:1.1.3'
        implementation 'com.google.firebase:firebase-core:17.2.1'
        implementation 'com.google.firebase:firebase-auth:19.2.0'
        implementation 'com.google.firebase:firebase-database:19.2.0'
        testImplementation 'junit:junit:4.12'
        androidTestImplementation 'androidx.test.ext:junit:1.1.0'
        androidTestImplementation 'androidx.test.espresso:espresso-core:3.1.1'
    □}
apply plugin: 'com.google.gms.google-services'
```

**Figure 5-10- Adding dependencies in our project**

## 5.6   Version Control Procedure

The technique of keeping track of several iterations and draughts of a document or record is known as version control. CarPool RestA system tracks and records the various manuscript versions that are generated through drafting processes. Once the drafting process is complete, the end product is written up in final form. Finalized versions can be modified and adjusted after receiving an audit trail. To do this, procedures are now being established that describe and record the CarPool RestA document methodology system. A methodical strategy is essential to keep track of all of these changes, and hence records and documents will be uploaded, updated, and altered throughout time. The current version history is also labeled as "Version Story." Archives and records should be produced for every additional piece of work. For every document or record, start by putting it in the right location

### 5.6.1   *Version*

The outline used here makes it much easier to distinguish between various document versions. When each alteration is made, the number grows. For example, the first number that appears in the process is 0.1, and then 0.2, 0.3, and so on. Once the document is authorized and marked as version 1.0, the numbers begin increasing. 1.1 and 1.2 are widely employed in moderate changes.

### 5.6.2   *Detail:*

Detailed records for changes are recorded and can be referred to from time to time before proceeding to make further changes.

### 5.6.3 *Date:*

New modifications, reviews, or approvals are all based on the date the change, review, or approval wasimplemented.

It explains the rationale for the revision in an elegant and succinct manner.

### 5.6.4 *Author:*

The change is being made by a this individual time to time as the work proceeds progressively.

**Table 5-2 Version Control Procedure**

| Version | Date | Detail | Author |
|---------|------|--------|--------|
| 0.1 | 13/6/2021 | The conceptual, logical, and physical database designs have been developed. | Habeeb |
| 0.2 | 19/6/2021 | The login and registration modules have been coded and tested to ensure that they perform properly. | Habeeb |
| 1.0 | 21/6/2021 | Some functionalities of both the riderand the driver applications were codedand tested. | Habeeb |
| 1.1 | 25/6/2021 | The application was integrated with firebase database. Place API was configured in google server. | Habeeb |
| 1.2 | 31/6/2021 | The user interface was improved. | Habeeb |
| 1.3 | 09/7/2021 | Some additional functionalities were implemented. | Habeeb |
| 2.0 | 10/7/2021 | The call feature was added to ease the communication between the rider and the driver. | Habeeb |
| 2.1 | 13/7/2021 | Most of the screens for both the rider and the driver application was finished coding. | Habeeb |
| 2.2 | 13/8/2021 | The bugs that occurred in the host environment have been fixed. | Habeeb |
| 2.3 | 15/8/2021 | Push notification services were testedusing postman. | Habeeb |

## 5.7 Implementation Status

This section describes the development status of each module that has been developed for this projectand the progress that has been made.

**Table 5-3   Implementation Status**

| No. | Module | Description | Duration to complete | Date completed | Size of software and source code files |
|---|---|---|---|---|---|
| 1 | Login | | 1 days | 19/8/2021 | 383 KB |
| 2 | Registration | | 1 days | 20/8/2021 | 127KB |
| 3 | Locate Rider's Position | | 2 days | 22/8/2021 | 6 MB |
| 4 | Ride Request | | 2 days | 24/8/2021 | 43 MB |
| 5 | Calcuate fare based on distance | | 3 days | 27/8/2021 | 67 MB |
| 6 | Book an emergency ride | | 4  days | 31/8/2021 | 143 MB |
| 7 | Book a normalride | | 3 day | 02/9/2021 | 153 MB |
| 8 | Set radius | | 1 days | 03/9/2021 | 156 MB |
| 9 | Pay Fare | | 5 days | 8/9/2021 | 223 MB |
| 10 | StatisticalAnalysis | | 1 day | 9/12/2021 | 163 KB |

## 5.8 Conclusions

Finally, this chapter discussed the project's software configuration, development environment, version control procedure, and implementation state, as well as the project's implementation status. Besides, we have  put in a valid effort  to demonstrate how these configuration was used  in the context of  our project.  This chapter covers the key points  in order to ensure a  poround understanding of server and databse configuration.

## 6.1 Introduction

The testing in this chapter is used to verify if the system is in agreement with the system state's prerequisite need, as per the system's aim. The system is put throughits paces on a fully embedded system to make sure it upholds the criteria given to it. Tested environments, implementation timeline, strategy, and others will determine how rigorously to test this approach.

## 6.2 Test Plan

A test plan is a written document that describes the scope and actions of software testing. It serves as the foundation for formally testing any program that is partof a project. A test plan outlines the procedure to be followed in order to verify and ensure that a system satisfies its design criteria and other requirements. The majority ofthe time, a test plan is created by or with significant participation by test technicians.

### 6.2.1    *Test Organization:*

Test organization explains the individual activity of testing.

**Table 6-1  Test Organization**

| Tester ID | Testing Member | Testing Activity |
|---|---|---|
| TS01 | Habeeb E Sadeed | Unit Testing |
| TS02 | Kazi Ashiqur Rahman | Integration Testing |
| TS03 | Shafeine Shahriar | System Testing |
| TS04 - TS19 | 50  Participants | User Acceptance Testing |

It is necessary to build up a test environment consisting of software and hardware in order for testing teams to carry out test instances during the preceding testing operation. The database server, the network, and the emulator are just a few ofthe major fields to configure.

**Table 6-2  Test Environment**

| No. | Software/Hardware Tool | Specification |
|-----|------------------------|---------------|
| 1 | Server | Google Cloud platform |
| 2 | Database | Firebase Realtime  Database in communication with cloud patform server. |
| 3 | Emulator | Virtual emulator of  of API 17 and above |
| 4 | Operating System | MacOS/Windows |

6.2.3    *Test Schedule*

The test schedule is a timeline that includes test schedules. For every system, every module-specific tests have been completed. The details of the testing process arefound in Table 6.3.

**Table 6-3  Test Schedule**

| Testing type | Description | Start Date | End Date |
|--------------|-------------|------------|----------|
| Unit Testing | Make certain that the system is coded appropriately, and it will perform the desired function. | 23rd July 2021 | 29th July 2020 |
| Integration Testing | Examine the system'suser interface. | 31st July 2021 | 2nd August 2021 |
| System Testing | Determine whether the system meets thecriteria | 3rd August 2021 | 7th August 2021 |

**6.3 Test Strategy**

The test strategy serves as the foundation for estimating the length and cost of the testing attempts at the level of confidence required for the business case. This system or project will be tested using both white box and black box methodologies. When it comes to software testing, the white box method is used to analyze an application's internal functioning structure and identify any potential design flaws. 'Black box testing is a broad term that refers to a range of approaches for checking software from the outside without assessing the source code.

6.3.1     *Classes of tests*

Three classes of tests were used to assess the system's efficiency as shown in the latter section of this chapter. These classes were named **Test Class _A_**, **Test Class B** and **Test Class C** respectively. Each of these classes constitutes of several test cases inorder to evaluate the project's output. The application widgets were also tested. The tester may or may not be familiar with the software modules contained within the features under tests, such as a data structure or a control variable. As a result, when testing the project, both the white box point of view and the black box point of view are applicable. The concepts of black box and white box testing are not confined to merely correctness testing.

6.3.2     *Black Box Testing*

An approach known as the "black box" technique has the following characteristics: first, Test Data/Test Requirements are created from established functional requirements without regard to the overall programme structure; and second, this method does not test a programme from start to finish. This kind of testing is called data-driven, input/output-driven, and requirements-based testing. Black box testing is also commonly used to refer to verifying the functionality of a software module on its own. This approach placed a heavy emphasis on executing the procedures and recording the results as both input and output.  Testers often use the black box metaphor while testing software. The only way to establish how something functions are to look at the results of the inputs to which it is given. In order to evaluate whether the output is correct, many inputs are tried and the results compared to the specification. It is needed for all of the test cases that are derived from partitioning that the programme structure is known. The testing plan should comprise a combination of black-box and white-box procedures, in addition to black-box testing and white-box techniques.

### 6.3.3 *White Box Testing*

In contrast to black-box testing software, which is viewed as a white box or glass box in white box testing, the structure and flow of the software under test is visible to the tester in white box testing. Testing plans are created in accordance with software implementation specifics, such as programming language, logic, and styles, and the test cases are produced from the programme structure; they are referred to as testing specifications. Glass box testing, logic-driven testing, and design-based testingare all terms used to describe white box testing. It is possible that the tester will be hesitant to use random testing as a testing approach.

The selection of the test cases is clear and simple: a random tester is selected. The same extremely subtle faults can be discovered at a modest cost. Furthermore, it is not less effective in terms of coverage than other professionally developed testing methodologies. A reliability estimate can also be obtained by the tester using randomtesting results that are based on the operational profile. Combining random testing withother testing techniques in an efficient manner may result in more robust and cost- effective testing procedures than either methodology alone.

### 6.4 Test Design

Test Data/Test Requirements are provided in the test design, which follows thetest description. Test descriptions included explanations of test cases as well as expected results. Test Data/Test Requirements, on the other hand, were used to describe the user acceptance test.

### 6.4.1 *Test Description*

Three classes of tests have been defined as shown in the table below:

**Table 6-4 Test data for Coverage**

| Classes of tests | Coverage descriptions | Test Case ID's |
|---|---|---|
| Class A(21 locations) | All 21 sites falls within 500-meter radius | TS_101 to TS_122 |
| Class B(20 locations) | All 20 sites fall within an 1100-meter radius | TS_123 to TS_142 |
| Class C(10 locations) | All 10 sites fall within an 1100-meter radius | TS_143 to TS_152 |

- TS_1 to TS 100 conducts tests on all the application widgets on the **Rider's app** and is therefore termed as uncategorized. since this class of tests is non-significant in the context of conducting tests on an application operating in an area restricted.

- TS_153 to TS 170 conducts tests on all the application widgets on the **Driver's app** and is therefore termed as uncategorized. since this class of tests is non-significant in the context of conducting tests on an application operating in an area restricted.

- 

**As stated in the table above, a total of 51 locations was chosen to perform the key testing tasks in our project..**

**Table 6-5-Test data**

| Test Case ID | Test Case Description | Expected Result |
|---|---|---|
| TS_1 | For the rider's application, verify login with an incorrect email format. | The system should display an error message |
| TS_2 | For the rider's application, verify login with an unregistered email. | The system should display an error message |
| TS_3 | For the rider's application ,verify login empty email and an empty password. | The system should display an error message |
| TS_4 | For the rider's application, verify login with an empty password only. | The system should display an error message |
| TS_5 | For the rider's application, verify login with a valid email and a valid password. | The user should be able to login. |
| TS_6 | For the rider's application, verify login with an email not containing "." | User should be not be able to login |
| TS_7 | For the rider's application, verify whether all the fieldis in the registration page accepts all valid data to register an user., verify registration module by hitting register button and at the same time keeping all the fields empty. | User should be not able to login |
| TS_8 | For the rider's application, verify registration with all fields empty. | The system should display an error message. |
| TS_9 | For the rider's application, verify whether the correct length for the phone value is 10 | User should be able to login |
| TS_10 | For the rider's application, verify whether the phone field accepts are characteror non integer values. | The system should display an error message. |
| TS_11 | For the rider's application, verify whether the phone field accepts the length ofdigits below 10. | User should be not beable to login |

| TS_12 | For the rider's application, verify whether the emailfields accept an email without at "@" | The system should display an error message |
|-------|---------------------------------------------------------------------------------------------|---------------------------------------------|
| TS_13 | For the rider's application, verify whether the email contains "@" but does not contain "." is acceptedin this field. | The system should display an error message |
| TS_14 | For riders application,verify whether the password has eight characters in length. | User should be able tologin |
| TS_15 | For the rider's application, verify whether the password contains a mixture of uppercase, lower case ,numbers and special characters where at least one of these criteria is missing. | The system should display an error message. |
| TS_16 | For the rider's application, verify whether the password contains a mixture of uppercase,lower case ,numbers and special characters where at least one of these criteria is missing. | The system should display an error message. |
| TS_17 | For the rider's application, verify whether the password contains a mixture of uppercase,lower case ,numbers and special characters where at least one of these criteria missing | The system should display an error message. |
| TS_18 | For the rider's application, verify whether the password contains a mixture of uppercase, lower case ,numbers and special characters where at least one of these criteria is missing. | The system should display an error message. |
| TS_19 | For the rider's application, verify whether all the field in the registration page accepts all valid data to register an user. | The system should display an error message. |

| TS_20 | Verify whether a Hamburger icon is clickable and doesopening a drawer. | Should be clickable: Yes Should perform the action as stated: Yes |
|---|---|---|
| TS_21 | Verify whether my location icon is clickable and can locate the correct position of the rider. | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_22 | Verify whether the zoomcontrol panel panels are enabled on the map. | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_23 | Verify whether the search box is clickable and directsthe user to a new page. | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_24 | For the rider's application, verify whether a back button widget is clickableand directs the user to the previous page . | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_25 | For the rider's application, verify whether the text field for the address bar page is disabled. | Should be clickable: Yes Should perform the action as stated: No |
| TS_26 | For the rider's application, verify whether the backbutton it's clickable anddirects the user to the previous page. | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_27 | For the rider's application, verify whether the location text field in the set range field is clickable. | Should be clickable: Yes Should perform the action as stated: No |
| TS_28 | For the rider's application, verify whether a select text field is highlighted ontapping. | Should be clickable: Yes Should perform the action as stated: No |
| TS_29 | For the rider's application, verify whether a selected text field is highlighted  on tapping. | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_30 | For the rider's application, verify whether a selected text field is highlighted on tapping. | Should be clickable: Yes Should act as stated: Yes |

| | | |
|---|---|---|
| TS_31 | For the rider's application, verify whether a selected text field is highlighted on tapping. | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_32 | For the rider's application, verify whether the emailfield pops up a suitablekeyboard type. | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_33 | For the rider's application, verify whether the password field pops up asuitable keyboard type. | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_34 | For riders application, verify whether a selected text with widget navigates to anew page on tapping. | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_35 | For the riders application, verify whether a selected text with a widget navigatesto a new page on tapping | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_36 | For the rider's application, verify whether a certain textfield is clickable and is focused on being tapped. | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_37 | For the rider's application, verify whether a certain textfield is clickable and focused on tapping. | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_38 | For the rider's application, verify whether a certain text field is clickable and is focused on being tapped. | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_39 | For the rider's application, verify whether a certain text field is clickable and is focused on being tapped | Should be clickable: Yes Should perform the action as stated: Yes |
| TS_40 | Verify whether password unmasks itself upon clickingthe visibility icon. | Should be clickable: Yes Should perform the action as stated: Yes |

| TS_41 | For the rider's application, verify whether a certain textfield pops up an appropriate keyboard type. | Should be clickable: Yes<br>Should perform the action as stated: Yes |
|---|---|---|
| TS_42 | For the rider's application, verify whether a certain text field pops up and appropriate keyboard type.. | Should be clickable: Yes<br>Should perform the action as stated: Yes |
| TS_43 | For the rider's application,verify whether a text field pops up and appropriate keyboard type. | Should be clickable: Yes<br>Should perform the action as stated: Yes |
| TS_44 | For rider's applicationverify whether a text field pops up an appropriate keyboard type. | Should be clickable: Yes<br>Should perform the action as stated: Yes |
| TS_45 | For the rider's application, verify whether a visibility icon is clickable and unmasks the containing text in the selected text field. | Should be clickable: Yes<br>Should perform the action as stated: Yes |
| TS_46 | Verify whether the application user's home falls within the radius of 50 meters. | The area should be found within the statedcoverage. |
| TS_47 | Verify whether a radius can be adjusted to ensure that the test location 1 falling in the range set | The area should be found within the set range. |
| TS_48 | Verify whether test location 1 is found in thedrop off page after manipulating the radius. | The area should be found within the set range. |
| TS_49 | Verify whether test location 1 can be found inthe drop of page after theradius. | The area should be found within the set range. |
| TS_50 | Verify whether test location 2 is found within 500 meters. | The area should be found within the set range. |

| TS_51 | Verify whether test location 3 is found within 500 meters | The area should be found within the set range. |
|---|---|---|
| TS_52 | Verify whether test location 4 is found within 500 meters | The area should be found within the set range. |
| TS_53 | Verify whether test location 5 is found within 500 meters | The area should be found within the set range. |
| TS_54 | Verify whether test location 6 is found within 500 meters | The area should be found within the set range. |
| TS_55 | Verify whether test location 7 is found within 500 meters | The area should be found within the set range. |
| TS_56 | Verify whether test location 8 is found within 500 meters | The area should be found within the set range. |
| TS_57 | Verify whether test location 9 is found within 500 meters | The area should be found within the set range. |
| TS_58 | Verify whether test location 10 is found within 500 meters | The area should be found within the setrange. |
| TS_59 | Verify whether test location 11 is found within 500 meters | The area should be found within the setrange. |
| TS_60 | Verify whether test location 12 is found within 500 meters | The area should be found within the setrange. |

| TS_61 | Verify whether test location 13 is found within 500 meters | The area should be found within the setrange. |
|---|---|---|
| TS_62 | Verify whether test location 14 is found within 500 meters | The area should be found within the set range. |
| TS_63 | Verify whether test location 15 is found within 500 meters | The area should be found within the set range. |
| TS_64 | Verify whether test location 16 is found within 500 meters | The area should be found within the set range. |
| TS_65 | Verify whether test location 17 is found within 500 meters | The area should be found within the set range. |
| TS_66 | Verify whether test location 18 is found within 500 meters | The area should be found within the set range. |
| TS_67 | Verify whether test location 19 is found within 500 meters | The area should be found within the set range. |
| TS_68 | Verify whether test location 20 is found within 500 meters | The area should be found within the set range. |
| TS_69 | Verify whether test location 21 is found within 500 meters | The area should be found within the set range. |
| TS_70 | Verify whether test location 22 is found within 500 meters. | The area should be found within the set range. |

| TS_71 | Verify whether the radius can be manipulated for extended coverage and verify whether test location 23 falls within that range. | The radius should be incremented or decremented. |
|---|---|---|
| TS_72 | Verify whether test location 24 is found within 1100 meters. | The area should be found within the set range. |
| TS_73 | Verify whether test location 25 is found within1100 meters. | The area should be found within the set range. |
| TS_74 | Verify whether test location 26 is found within1100 meters. | The area should be found within the setrange. |
| TS_75 | Verify whether test location 27 is found within1100 meters. | The area should be found within the setrange. |
| TS_76 | Verify whether test location 28 is found within1100 meters | The area should be found within the setrange. |
| TS_77 | Verify whether test location 29 is found within1100 meters. | The area should be found within the set range. |
| TS_78 | Verify whether test location 30 is found within1100 meters. | The area should be found within the setrange. |
| TS_79 | Verify whether test location 31 is found within 1100 meters. | The area should be found within the set range. |
| TS_80 | Verify whether test location 32 is found within 1100 meters. | The area should be found within the set range. |

| TS_81 | Verify whether test location 33 is found within1100 meters. | The area should be found within the set range. |
|---|---|---|
| TS_82 | Verify whether test location 34 is found within1100 meters | The area should be found within the setrange. |
| TS_83 | Verify whether test location 35 is found within 1100 meters. | The area should be found within the set range. |
| TS_84 | Verify whether test location 36 is found within1100 meters. | The area should be found within the setrange. |
| TS_85 | Verify whether test location 37 is found within 1100 meters. | The area should be found within the setrange. |
| TS_86 | Verify whether test location 38 is found within1100 meters. | The area should be found within the set range. |
| TS_87 | Verify whether test location 39 is found within1100 meters | The area should be found within the setrange. |
| TS_88 | Verify whether test location 40 is found within1100 meters. | The area should be found within the set range. |
| TS_89 | Test Case ID- TS_88:Verify whether test location 41 is foundwithin 1100 meters. | The area should be found within the setrange. |
| TS_90 | Verify whether test location 42 is found within 1100 meters. | The area should be found within the setrange. |

| | | |
|---|---|---|
| TS_91 | Verify whether test location 43 is found within 5000 meters. | The area should be found within the setrange. |
| TS_92 | Verify whethertest location 44 is found within 5000 meters. | The area should be found within the set range. |
| TS_93 | Verify whether test location 45 is found within5000 meters. | The area should be found within the setrange. |
| TS_94 | Verify whether test location 46 is found within5000 meters. | The area should be found within the setrange. |
| TS_95 | Verify whether test location 47 is found within5000 meters | The area should be found within the set range. |
| TS_96 | Verify whether test location 48 is found within 5000 meters. | The area should be found within the set range. |
| TS_97 | Verify whether test location 49 is found within 5000 meters. | The area should be found within the set range. |
| TS_98 | Verify whether test location 50 is foundwithin 5000 meters. | The area should be found within the set range. |
| TS_99 | Verify whether test location 50 isfound within 5000 meters. | The area should be found within the set range. |

| TS_100 | Verify whether test location 51 isfound within 5000 meters. | The area should be found within the set range. |
|--------|------------------------------------------------------------|--------------------------------------------------|
| TS_101 | Verify whether test location 1 is either within the 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
| TS_102 | Verify whether test location 2 is either within the 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
| TS_103 | Verify whether test location 3 is either within the 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
| TS_104 | Verify whether test location 4 is either within the 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
| TS_105 | Verify whether test location 5 is either within the 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
| TS_106 | Verify whether test location 6 is either within the 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
| TS_107 | Verify whether test location 7 is either withinthe 50-meter radius or 5000 meter radius or both | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
| TS_108 | Verify whether test location 8 is either within the 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be found within 5000 meters. |
| TS_109 | Verify whether test location 9 is either within the 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |

| TS_110 | Verify whether test location 10 is either withinthe 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
|---|---|---|
| TS_111 | Verify whether test location 11 is either withinthe 50-meter radius or 500-meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
| TS_112 | Verify whether test location 12 is either within the 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
| TS_113 | Verify whether test location 13 is either withinthe 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
| TS_114 | Verify whether test location 14 is either withinthe 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
| TS_115 | Verify whether test location 15 is either withinthe 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be foundwithin 5000 meters. |
| TS_116 | Verify whether test location 16 is either withinthe 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area shouldbe found within 5000 meters. |
| TS_117 | Verify whether test location 17 is either withinthe 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be found within 5000meters. |
| TS_118 | Verify whether testlocation | The area should not be found within 50 meters but the same area shouldbe found within 5000 meters. |

| TS_119 | Verify whether test location 19 is either withinthe 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area shouldbe found within 5000 meters. |
|---|---|---|
| TS_120 | Verify whether test location 20 is either withinthe 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area should be found within 5000meters. |
| TS_121 | Verify whether test location21 is either within the 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area shouldbe found within 5000 meters. |
| TS_122 | Verify whether test location22 is either within the 50-meter radius or 5000 meter radius or both. | The area should not be found within 50 meters but the same area shouldbe found within 5000 meters. |
| TS_123 | Verify whether test location 23 is either within the 500-meter radius or 5000 meter radius or both.. | The area should not be found within 500 meters but the same area shouldbe found within 5000 meters. |
| TS_124 | Verify whether test location 24 is either withinthe 500-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area should be found within 5000meters. |
| TS_125 | Verify whether test location 25 is either withinthe 500-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area should be found within 5000meters. |

| TS_126 | Verify whether test location 26 is either within the 50-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area should be found within 5000 meters. |
|--------|---------|---------|
| TS_127 | Verify whether test location 27 is either within the 500-meter radius or 5000 meter radius or both. | The area should not be found within 500 meters but the same area should be found within 5000 meters. |
| TS_128 | Verify whether test location 28 is either within the 500-meter radius or 5000 | The area should not be found within 500 meters but the same area should be found within 5000 meters. |
| TS_129 | Verify whether test location 29 is either within the 500-meter radius or 5000 meter radius or both. | The area should not be found within 500 meters but the same area should be found within 5000 meters. |
| TS_130 | Verify whether test location 30 is either within the 500-meter radius or 5000 meter radius or both. | The area should not be found within 500 meters but the same area should be found within 5000 meters. |
| TS_131 | Verify whether test location 31 is either within the 500-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area should be found within 5000 meters. |
| TS_132 | Verify whether test location 32 is either within the 500-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area should be found within 5000 meters. |
| TS_133 | Verify whether test location 33 is either within the 500-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area should be found within 5000 meters. |

| TS_134 | Verify whether test location 34 is either within the 500-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area shouldbe found within 5000 meters. |
|---|---|---|
| TS_136 | Verify whether test location 36 is either withinthe 500-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area shouldbe found within 5000 meters. |
| TS_137 | Verify whether test location 37 is either withinthe 500-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area shouldbe found within 5000 meters. |
| TS_138 | Verify whether test location38 is either within the 500-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area shouldbe found within 5000 meters. |
| TS_139 | Verify whether test location 39 is either within the 500-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area shouldbe found within 5000 meters. |
| TS_140 | Verify whether testlocation 40 is either within the 500-meter radiusor 5000 meter radiusor both | The area should not be found within 500 meters but the same area shouldbe found within 5000 meters. |

| TS_141 | Verify whether test location 41 is either within the 500-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area shouldbe found within 5000 meters. |
|---|---|---|
| TS_142 | Verify whether test location 42 is either within the 500-meter radius or 5000 meter radius or both. | The area should not be found within 500 meters but the same area shouldbe found within 5000 meters. |
| TS_135 | Verify whether test location 35 is either within the 500-meter radius or 5000 meter radius or both | The area should not be found within 500 meters but the same area should be found within 5000meters. |
| TS_143 | Verify whether test location 43 is either within the 500-meter radius or 1100-meter radius or both. | The area should not be found within 500 meters but the same area shouldbe found within 1100 meters. |
| TS_144 | Verify whether test location 44 is either within the 500-meter radius or 1100-meter radius or both. | The area should not be found within 500 meters but the same area shouldbe found within 1100 meters. |
| TS_145 | Verify whether test location 45 is either within the 500-meter radius or 1100-meter radius or both | The area should not be found within 500 meters but the same area shouldbe found within 1100 meters. |
| TS_146 | Verify whether test location 46 is either within the 500-meter radius or 1100-meter radius or both | The area should not be found within 500 meters but the same area shouldbe found within 1100 meters. |
| TS_147 | Verify whether test location 47 is either within the 500-meter radius or 1100-meter radius or both | The area should not be found within 500 meters but the same area shouldbe found within 1100 meters. |
| TS_148 | Verify whether test location 48 is either within the 500-meter radius or 1100-meter radius or both | The area should not be found within 500 meters but the same area shouldbe found within 1100 meters. |

| TS_149 | Verify whether test location 49 is either within the 500-meter radius or 1100-meter radius or both | The area should not befound within 500 meters but the same area should be found within 1100 meters. |
|---|---|---|
| TS_150 | Verify whether test location 50 is either within the 500-meter radius or 1100-meter radius or both | The area should not befound within 500 meters but the same area should be found within 1100 meters. |
| TS_151 | Verify whether test location 51 is either within the 500-meter radius or 1100-meter radius or both | The area should not befound within 500 meters but the same area should be found within 1100 meters. |
| TS_152 | Verify whether test location 52 is either within the 500-meter radius or 1100-meter radius or both | The area should not be found within 500 meters but the same area shouldbe found within 1100 meters. |
| TS_153 | Verify whether test location 53 is either withinthe 500-meter radius or 1100-meter radius or both | The area should not be found within 500 meters but the same area should be found within 1100meters. |
| TS_154 | Verify whether test location 53 is either withinthe 500-meter radius or 1100-meter radius or both | The area should not be found within 500 meters but the samearea should be found within 1100 meters. |
| TS_155 | For the driver's application ,verify login Empty emailand empty password. | The system should displayan error message |
| TS_156 | For the driver's application, verify login with an emptypassword only. | The system should displayan error message |
| TS_157 | For the driver's application, verify registration keepingall the fields' value empty. | The system should displayan error message |
| TS_158 | For the driver's application, verify registration with allfields empty. | The system should displayan error message |
| TS_159 | For the driver's application, verify whether the correctlength for data is 10. | The system should acceptthis input. |

| TS_160 | For the driver's application, verify whether the phone field accepts are character or non integer values. | The system should display an error message |
|---|---|---|
| TS_161 | For the driver's application, verify whether the phone field accepts length of digits below 10. | The system should display an error message. |
| TS_162 | For the driver's application, verify whether the email fields accept an email without at "@" | The system should display an error message. |
| TS_163 | For the driver's application, verify whether the email contains "@" but does not contain "." is accepted in this field. | The system should display an error message. |
| TS_164 | For the driver's application, verify whether the password has 8 characters in length. | The system should accept this input. |
| TS_165 | For the driver's application verify whether the password contains a mixture of uppercase, lower case, numbers and special characters where at least one of these criteria is missing. | The system should display an error message |
| TS_166 | For the driver's application verify whether the password contains a mixture of uppercase, lower case, numbers and special characters where at least one of these criteria is missing. | The system should display an error message |
| TS_167 | For the driver's application verify whether the password contains a mixture of uppercase, lower case, numbers and special characters where at least one of these criteria is missing. | The system should display an error message |

| TS_168 | For the driver's application, verify whether the password contains a mixture of uppercase, lower case, numbers and special characters where at least one of these criteria is missing. | The system should displayan error message |
|---|---|---|
| TS_169 | For the driver's application verify whether the password contains a mixture of uppercase, lower case, numbers and special characters where at least one of these criteria ismissing. | The system should displayan error message |
| TS_170 | For the driver's application, verify whether all the fields on the registration page accept valid inputs. | The system should displayan error message |
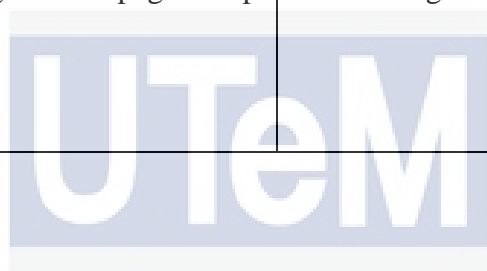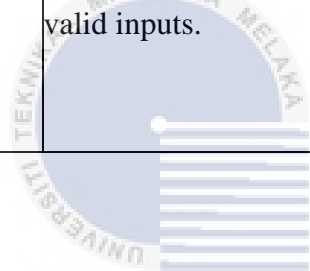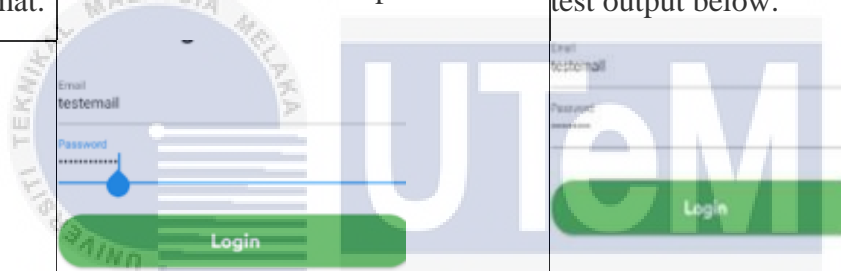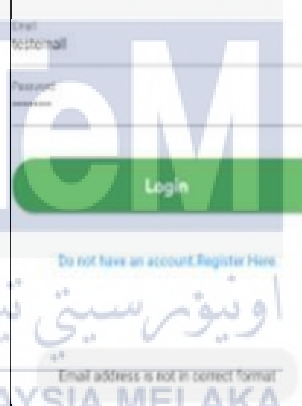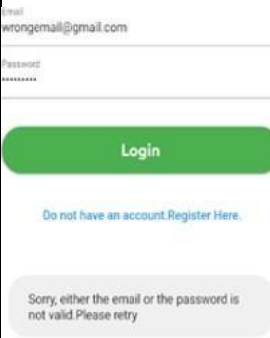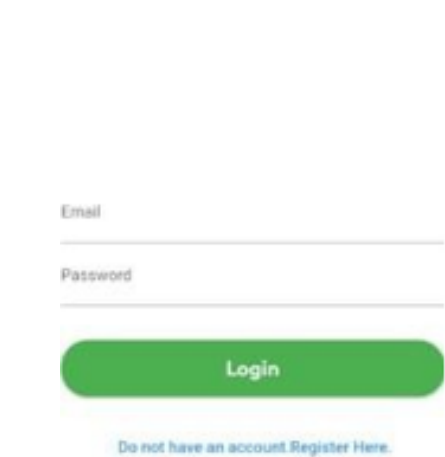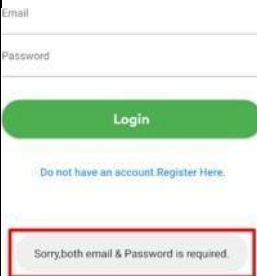
## 6.5 Test Data/Test Requirements

**Table 6-6 Test Data/Test Requirements**

| Test Case ID- TS_1: For the rider's application, verify login with an incorrect email format. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the login page. | Email:testemail Password:Abc12345@ | Email address is not in a valid format. |
| 2 | Insert an email with an incorrect format. | Test email field with an incorrect email format not containing @. Screenshot of the test steps: | Screenshot of the test output below: |
| 3 | Insert a valid password |  | |
| 4 | Press the login button. | | |
| Test Case ID- TS_2-For the rider's application, verify login with an unregistered email. | | | |
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the Login page. | Use unregistered email and a valid password. | Failed to login to the firebase database- |
| 2 | Enter a wrong email not registered among the Firebase uid in the database | Email:wrongemail@gmail. com Password: Abc12345@ Screenshot of the test steps: | unable to match any of the data in the list of registered users. The error message |
| 3 | Enter any password in valid format i.e ,a mix of uppercase, lowercase and special characters. |  | says, "Sorry either the email or password is not |

| | | | |
|---|---|---|---|
| 4 | Press Login Button | | |
| 5 | Navigate to Login page. | | valid. Please try again." Screenshot of the output below:  |
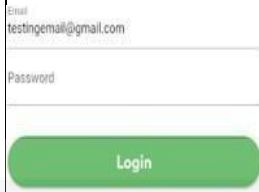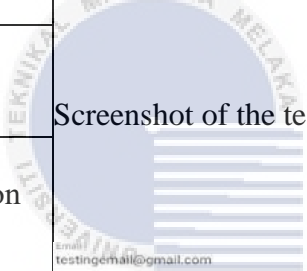
Test Case ID- S3 :For the rider's application ,verify login Empty email and empty password.

| Steps | Test Steps | Test Data/Test Requirements: | Actual Result |
|---|---|---|---|
| 1 | Navigate to the login page. | Email:null<br> Password:null<br><br>Email: The email field is left empty.<br>Password: The password field is left empty.<br><br>Screenshot of the test steps:<br><br> | The error message pops up "Sorry, both email & Password is required."<br>Screenshot of the test output below:<br><br> |
| 2 | Leave the email field blank. | | |
| 3 | Leave the password field blank. | | |

| | | | |
|---|---|---|---|
| 4. | Press the login button | | |
| | | | |
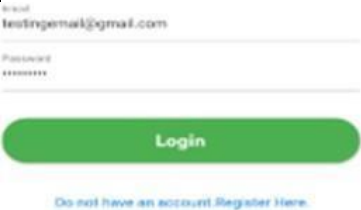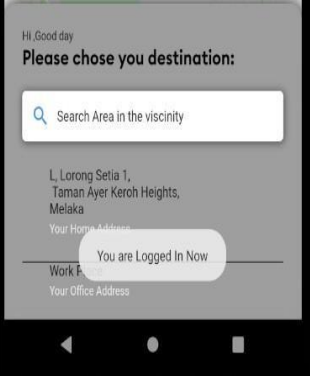
**Test Case ID- TS_4:** For the rider's application, verify login with an empty password only.
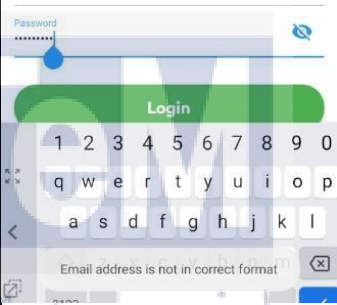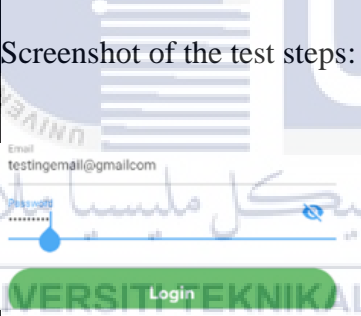
| Steps | Test Steps | Test Data/Test Requirements: | Actual Result |
|---|---|---|---|
| 1 | Navigate to the login page. | Email:testingemail@gmail.com Password: null<br><br>Test Password field with a null value. Key in a valid email in the email field.<br><br>Test both the email and password fields with a valid email and null values for the password.. | An error message is displayed, and it says, "Password is mandatory."<br><br>Screen shot of the test output:<br><br>Email<br>testingemail@gmail.com<br><br>Password<br><br>Login<br><br>Do not have an account.Register Here.<br><br>Password is Mandatory |
| 2 | Enter valid email | | |
| 3 | Leave the password field blank. | Screenshot of the test steps:<br><br>Email<br>testingemail@gmail.com<br><br>Password<br><br>Login<br><br>Do not have an account.Register Here | |
| 4 | Press the "Login" button | | |

**Test Case ID- TS_5:** For the rider's application, verify login with a valid email and a valid password.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to Login Page | Email:testingemail@gmail.com Password:Abc12345@<br>Test email field with email in the correct format and key in a valid password. | A success message pops up saying, "You are logged in now".<br>Screenshot of the test output below |
| 2 | Enter valid email | | |
| 3 | Enter valid password | | |

| 4 | Press the "Login" button | Test Data/Test Requirements for an email in these is the registered user.<br><br>Screenshot of the test steps:<br><br>Email<br>testingemail@gmail.com<br><br>Password<br>••••••••<br><br>**Login**<br><br>Do not have an account,Register Here. | Hi ,Good day<br>**Please chose you destination:**<br><br>Q Search Area in the viscinity<br><br>L, Lorong Setia 1,<br>Taman Ayer Keroh Heights,<br>Melaka<br>Your Home Address<br><br>You are Logged In Now<br><br>Work<br>Your Office Address |
|---|---|---|---|

Test Case ID- S6-For the rider's application, verify login with an email not containing "."

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to login page. | Email: testingemail@gmail.com Password: Abc12345@ | Email address is invalid. |
| 2 | Enter an email with an incorrect format not containing "." | Test the email field with an incorrect email format. Email should not contain "."<br>Key in a valid password with a correct format. | Screenshot of the test output:<br><br>Email<br>testingemail@gmailcom<br><br>Password<br>••••••••<br><br>**Login** |
| 3 | Enter valid password | | 1 2 3 4 5 6 7 8 9 0<br>q w e r t y u i o p<br>a s d f g h j k l<br>Email address is not in correct format |
| | | Screenshot of the test steps:<br><br>Email<br>testingemail@gmailcom<br><br>Password<br>••••••••<br><br>**Login** | |

| | | | |
|---|---|---|---|

Test Case ID- TS_7: For the rider's application, verify registration keeping all the fields' value \empty.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to Registration Page. | Name:null<br>Phone:null<br>Email:null<br>Password:null | An error message is displayed saying, "All the fields are required.Please key in your data."<br>Screenshot of the test output below: |

| | | | |
|---|---|---|---|
| 2 | Leave the name field empty. | Screenshot of the test steps: | |
| 3 | Leave the password field blank. | | |
| 4 | Leave the email field empty. | | |
| 5 | Leave the phone field empty. | | |

Test Case ID- TS_8: For the rider's application, verify registration with all fields empty except the name field.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to registration page. | | An error message is displayed saying, "All fields are required. |
| 3 | Leave the phone field blank. | | Please key in your data to register |
| 4 | Leave the email field blank. | Name: Habeeb E Sadeed<br>Phone: null<br>Email:null<br>Password:null | details.  Screenshot of the test output below: |
| 5 | Leave the password field blank. | | |

| | | Name<br>Habeeb E Sadeed | |
| | | Phone | |
| | | Email | |
| | | Password | |
| | | **Register Now** | |
| | | Already have an account.Login Here. | |

**Test Case ID- TS_9:** For the rider's application, verify whether the correct length for the phone data is 10.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the registration page. | Phone:0146116618<br><br>Screenshot of the test steps: | An error message is displayed says, "All |
| 2 | Leave the name field blank. | | fields are required. Please key |
| 3 | Fill in the field for the phone. | Name<br>Phone<br>0146116618<br>Email | in your data to register details". Screenshot of the testoutput below: |
| 4 | Leave the email field blank. | Password<br>**Register Now**<br>Already have an account.Login Here. | (Ctrl)<br>Phone<br>0146116618<br>Email<br>Password<br>**Register Now**<br>Already have an account.Login Here.<br>All fields are requried. Please key in your data to register details |
| 5 | Leave the password field blank. | | |

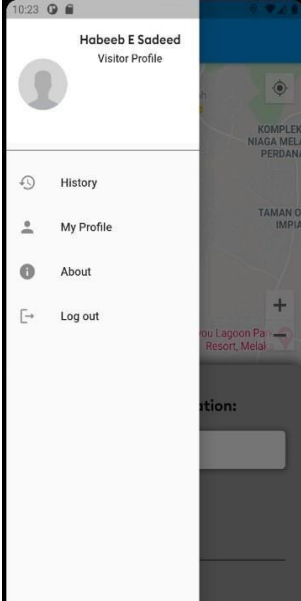**Test Case ID- TS_10:** For the rider's application, verify whether all the fieldis in the registration page accepts all valid data to register an user., verify whether the phone field accepts character or non-integer values.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | | Key in a non integer values in the phone field. | An error message is displayed says "The |

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 2 | Leave the name field blank. | Phone:abc ]<br><br>Screenshot of the testoutput:<br><br> | field for the phonemust contain numbers".<br><br>Screenshot of the test output below:<br><br><br><br>The field for the phone must contain numbers |
| 3 | Fill in the field for the phone. | | |
| 4 | Leave the email field blank. | | |
| 5 | Leave the password field blank. | | |

Test Case ID- S11:For the rider's application, verify whether the phone field accepts length of digits below 10.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the registration page. | Key in a phone number for which the number of digits <10. | An error message is displayed saying"Phone numbers mustbe 10 digits". |
| 2 | Leave the name field blank | Phone: 01461166<br><br>Screenshot of the test output:<br><br> | Screenshot of the testoutput below:<br><br><br><br>Phone number must be 10 digits |
| 3 | Fill in the field for the phone. | | |

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 4 | Leave the email field blank | | |
| 5 | Leave the password field blank | | |

Test Case ID- TS_12:For the rider's application, verify whether the email fields accept an  email without at "@"

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to register page. | Email: testemailgmail.com  Key in the value for this field. The value should not contain "@". Screenshot of the test steps: | The error message is displayed saying "Email address is not in correct format". Screenshot of the testoutput below: |
| 2 | Leave the name field blank. | | |
| 3 | Leave the phone field blank. | | |
| 4 | Fill the the field for email. | | |
| 5 | Leave the password field blank. | | |
| 6 | Press the "RegisterNow" button. | | |

Test Case ID- TS_13:For the rider's application, verify whether the email contains "@"but does not contain "." is accepted in this field.
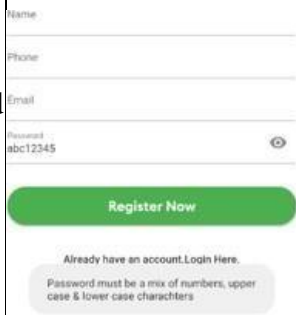
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to registerpage | Email: testemail@gmail.com | The error message is displayed saying "Email address is not in correct format." Screenshot of the testoutput below: |
| 2 | Leave the namefield blank. | Key in the value for this field containing "@" but excluding "." | |
| 3 | Leave the phonefield blank. | Screenshot of the test steps: | |
| 4 | Leave the emailfield blank. | | |

| 5 | Leave the password field blank. |  | |
|---|---|---|---|
| 6 | Press the "Register Now" button. | | |

Test Case ID- TS_14:For riders application, verify whether the password has 8 characters in length.
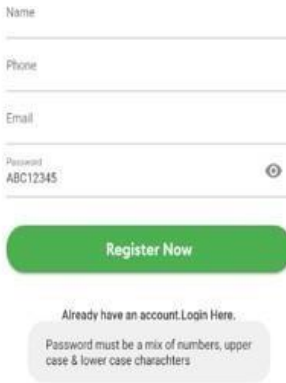
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to registerpage. | Test if the password of below 8 characters in length is valid. | The error message pops up saying "The password must be atleast 8 characters in length." |
| 2 | Leave the name field blank. | Password:Abc1234 (7 characters). | Screenshot of the testoutput below: |
| 3 | Leave the phone field blank. | Screenshot of the test steps: | |
| 4 | Leave the email field blank. | | |
| 5 | Fill in the field for thepassword. |  |  |
| 6 | Click on the "RegisterNow" button. | | |

Test Case ID- TS_15 :For the rider's application, verify whether the password contains a mixture of uppercase, lower case ,numbers and special characters where at least one of these criteria is missing.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to registrationpage. | Test if the password contains the mixture of upper case letters,lower | The error message pops up saying "Thepassword must be a |
| 2 | Leave the name | case letters,number and a special | mix of numbers, upperand lower case |

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| | field blank. | characters.<br><br>Key in an alphanumeric value for the password with no uppercase characters. | characters."<br><br>Screenshot of the testoutput below:<br><br>Name<br>Phone<br>Email<br>Password<br>abc12345  ◉<br><br>**Register Now**<br><br>Already have an account.Login Here.<br><br>Password must be a mix of numbers, upper case & lower case charachters |
| 3 | Leave the phone field blank. | Password: abc12345( 8 characters and no upper case).<br>Screenshot of the steps below:<br><br>Name<br>Phone<br>Email<br>Password<br>abc12345  ◉ | |
| 4 | Leave the email field blank. | | |
| 5 | Fill in the password field. | **Register Now**<br><br>Already have an account.Login Here. | |
| 6. | Click on the "Registerbutton" | | |

| Test Case ID- TS_16: For the rider's application, verify whether the password contains a mixture of uppercase, lower case ,numbers and special characters where at least one of these criteria is missing. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to registrationpage. | Test if the password contains the mixture of upper case letters,lower case letters,number and a special characters.<br><br>Key in an alphanumeric valuefor the password with no lowercase characters.<br><br>Password: ABC12345( 8 characters and no upper case).<br><br>Screenshot of the steps below:<br><br>Name<br>Phone<br>Email<br>Password<br>ABC12345  ◉<br><br>**Register Now**<br><br>Already have an account.Login Here. | The error message pops up saying "The password must be a mix of numbers, upper and lower case characters."<br><br>Screenshot of the testoutput below:<br><br>Name<br>Phone<br>Email<br>Password<br>ABC12345  ◉<br><br>**Register Now**<br><br>Already have an account.Login Here.<br><br>Password must be a mix of numbers, upper case & lower case charachters |

| | | | |
|---|---|---|---|
| 2 | Leave the name field blank. | | |
| 3 | Leave the phone field blank. | | |
| 4 | Leave the email field blank. | | |
| 5 | Fill in the field for password. | | |
| 6. | Click on the "Register button" | | |

Test Case ID- TS_17: For the rider's application, verify whether the password contains a mixture of uppercase, lower case ,numbers and special characters where at least one of these criteria is missing.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to register page. | Test if the password contains the mixture of upper case letters,lower case letters,number and a special characters. | The error message pops up saying "The password must be a mix of numbers, upper and lower case characters." |
| 2 | Leave the name field empty. | Key in alphanumeric value for the password having both upper and lower case characters but no special characters. | Screenshot of the testoutput below: |
| 3 | Leave the phone field empty. | | |
| | | Password: Abc12345 | |
| 4 | Leave the email field empty. | | |
| | | Screenshot of the steps below: | |
| 5 | Fill in the field for password. | | |
| 6 | Click on register button | | |

| Test Case ID- TS_18:For the rider's application, verify whether the password contains a mixture of uppercase, lower case ,numbers and special characters where at least one of these criteria is missing. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to registerpage. | Test if the password contains the mixture of upper case letters,lower case letters,number and a special characters. | The error message pops up saying "All fields are required.Please key inyour data to register details." |
| 2 | Leave the name fieldempty. | | |
| 3 | Leave the phone fieldempty. | Key in alphanumeric value for the password having both upper and lower case characters but atleast one special character. | |
| 4 | Leave the email fieldempty. | | Screenshot of the test output below: |
| 5 | Fill in the password field. | Password: Abc12345@ |  |
| 6 | Click the register button. | Screenshot of the steps below:  | |

| Test Case ID- TS_19: For the rider's application, verify whether all the fields in the registration page accepts all valid data to register an user.. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to registerpage. | Fill in all the fields with valid inputs. Name: Habeeb E Sadeed Phone:0146116618 Email:habeeb9016@gmail.com Password:Abc12345@ | A new record is created. The user is successfully registered in the database of riders. Screenshot of the testoutput: New user UID in firebase: |
| 2 | Fill in the field for name. | | |
| 3 | Fill in the field for phone. | Screenshot of the test steps: |  |
| 4 | Fill in the field for email | | |
| 5 | Fill in the field for password. . | | |

| 6 | Click on the register button | Name<br>Habeeb F Sadeed<br><br>Phone<br>0146116618<br><br>Email<br>habeeb9016@gmail.com<br><br>Password<br>Abc12345@<br><br>**Register Now**<br><br>Already have an account.Login Here. | | A new node is created for this user in the database: |
| | | | | Users<br>3edtG53eACWLNslqk4mJNG4DSbq2<br>BwK3OACkmHTWdEoMDkkXwlNy9H73<br>JlkUyu9iAlY0fwusJ2zTsktNdQv2<br>RE5PsYRDwjMhBHjrwfBbGRHi1082<br>  email: "habeeb9016@gmail.com"<br>  name: "Habeeb E Sadeed"<br>  phone: "0146116618"<br>liKiLb6bkYbCrdu9uZOQJFVRsip1<br><br>Success page:<br><br>Registering,Please Wait.<br>Email<br>habeeb9016@gmail.com<br>Password<br>Abc12345@<br>**Register Now**<br>Already have an account.Login Here.<br>Congratulations, your account has been created |

Conducting several tests on Application widgets.

Test Case ID- TS_20: For the rider's application, verify whether an Hamburger
the icon is clickable and does opening a drawer.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to main screen. | Test if the Hamberger icon is clickable and thus opening the drawer. | A drawer opens up, showing the user currently logged in alongside a list of user menus. |
| 2 | Tap on the Hambericon. | | |

| 3 | Close the drawer by clicking beyond the outer edge of the drawer, given that that the icon was clickable in test step 1. |  Hamburger Icon. |  |
|---|---|---|---|

Test Case ID- TS_21: For the rider's application, verify whether my location icon is clickable and is able to locate the correct position of the rider.
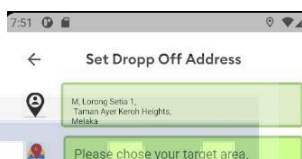
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to mainscreen. | My Location Icon<br><br>Screenshot of the test steps:<br><br>Screen swiped to navigate to a random location.<br><br> | The map pinpoints to a current location of the rider.<br><br>Screenshot of the test output:<br><br> |
| 2 | Swipe the map and manually pinpoint a random location. | This step is conducted to check if both the boolean variables myLocationButton Enabled and myLocationEnabled are set to true state. | |

| 3 | Tap on my location-icon to locate the current position of the rider. | ```<br>mapType: MapType.normal,<br>myLocationButtonEnabled: true,<br>initialCameraPosition: _kGooglePlex,<br>myLocationEnabled: true,<br>``` | |
|---|---|---|---|
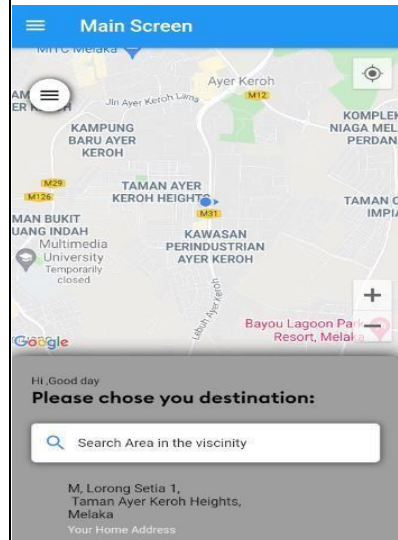
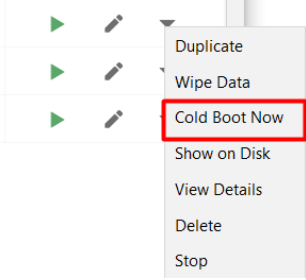**Test Case ID- TS_22: Verify whether the zoom control panel panels are enabled on the map for the rider's application.v**

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to main screen. Swipe the map and manually point the location on the map. | Zoom Control Widget Screenshot of the test steps: | The zoom controls are enabled for this map.<br><br>Screenshot of the test output: |
| 3 | Tap on the zoom controls to zoom in and zoom out the desired location of the rider. | Zoom to max./Zoom to min. | Max Zoom<br><br>Min Zoom |
| 4 | Achieve the maximum zoom until the plus icon of the zoom control is disabled. | This step is conducted to check if both the boolean variables zoomGesturesEnabled and zoomControlsEnabled are set to true state. | |
| 5 | Achieve the minimum zoom until the minus icon of the zoom is control is disabled. | ```<br>mapType: MapType.normal,<br>myLocationButtonEnabled: true,<br>initialCameraPosition: _kGooglePlex,<br>myLocationEnabled: true,<br>zoomGesturesEnabled: true,<br>zoomControlsEnabled: true,<br>``` | |

Test Case ID- TS_23: For the rider's application, verify whether the search box is clickable and directs the user to a new page

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|-------|-----------|----------------------------|---------------|
| 1 | Navigate to the main screen. | Test the search box to check if it is clickable - meaning that the onTap function has been defined.<br><br>Screenshot of the test steps:<br><br>Hi ,Good day<br>**Please chose you destination:**<br><br>Q  Search Area in the viscinity | A new page appears on tapping the search box. This page is an interface for the user to choose the destined location.<br><br>Screenshot of the test output:<br><br>7:51 @ 🔋  ⊙ ▼⊿<br>←  **Set Dropp Off Address**<br>📍  M,Lorong Setia 1, Taman Ayer Keroh Heights, Melaka<br>📍  Please chose your target area. |
| 2 | Tap on the Search Area in the vicinity box. | | |

Test Case ID- TS_24: For the rider's application, Verify whether a back button widget is clickable and directs the user to the previous page .

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|-------|-----------|----------------------------|---------------|
| 1 | Navigate to the search box, a new screen will be routed. This UI is for setting a drop-off address for the rider. | The back button tapped is being tapped. Navigates to a new page-<br><br>← | On tapping the back button,the main screen is routed.:<br><br>Screenshot of the test output<br><br>≡  **Main Screen**<br>MITC Melaka<br>Ayer Keroh<br>Jln Ayer Keroh Lama<br>KAMPUNG BARU AYER KEROH<br>TAMAN AYER KEROH HEIGHTS<br>MAN BUKIT UANG INDAH Multimedia University Temporarily closed<br>KAWASAN PERINDUSTRIAN AYER KEROH<br>Google<br>Bayou Lagoon Park Resort, Melaka<br>Hi ,Good day<br>**Please chose you destination:**<br>Q  Search Area in the viscinity<br>M, Lorong Setia 1, Taman Ayer Keroh Heights, Melaka<br>Your Home Address |
| 2 | Tap on the back button | | |
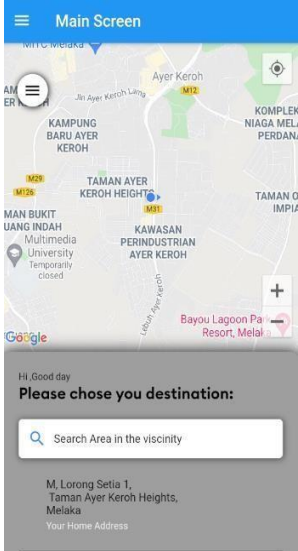
Test Case ID- TS_25- For the rider's application, verify whether the text field for the address bar page is disabled.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to Set drop off page. | This test has been conducted to see if this particular text field for the address has been disabled. | The address bar does not react to the on-click event-meaning that the particular text field has been disabled. |
| 2 | Click on the address bar for the pickup address. |  |  |
| 3 | Click multiple times to see if this field is editable. | | |
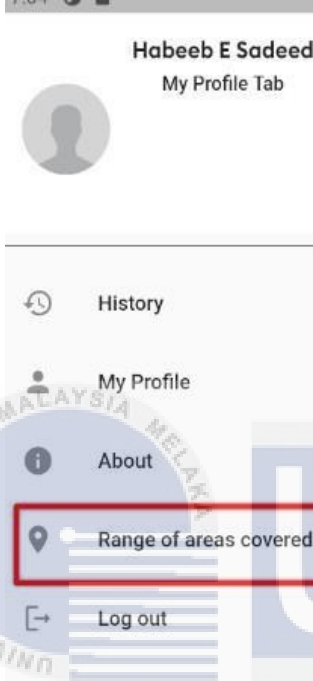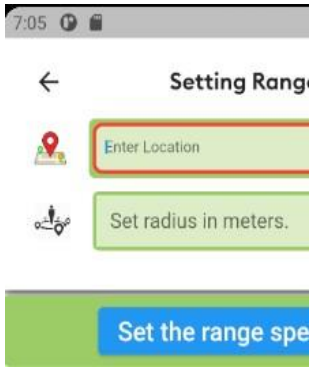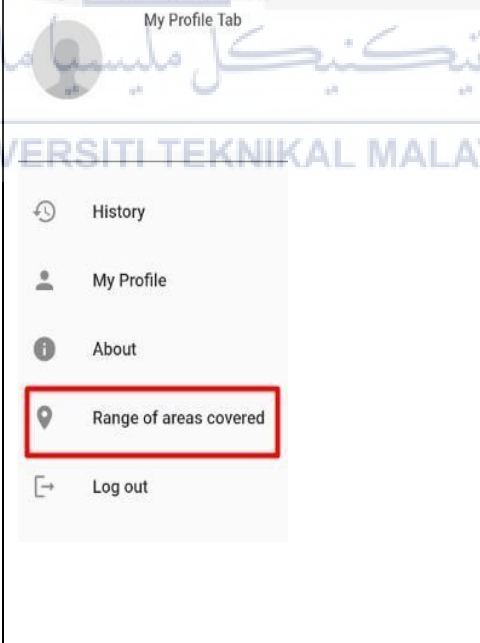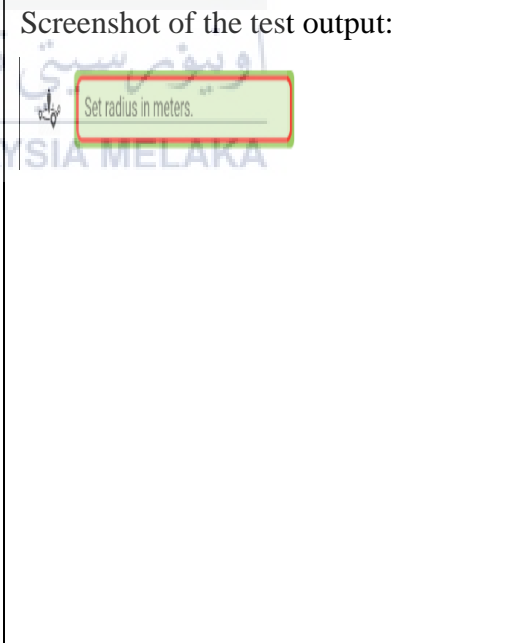
Test Case ID- TS_26:For the rider's application, verify whether the back button it's clickable and directs the user to the previous page.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Tap on the Hamberger icon on the map to open the drawer. | Test the back button box to check if it is clickable - meaning that the onTap function has been defined. Screenshot of the test steps: Back button tapped. | On tapping the back button, a main screen is routed. |
| 2 | Select "Manipulate range of areas covered". |  | Screenshot of the test output:  |

 Test Case ID- TS_27: For the rider's application, verify whether the location text field in the set range page is clickable.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Click on the Hamberger icon to open the drawer. | This test has been conducted to see if the location text field is clickable and gets selected on tapping. | On tapping, the location text field is highlighted in red showing that this particular text field has been selected.<br><br>.Screenshot of the test steps: |
| 2 | Select range of areas covered from the menu. | <br>List of Menus:<br> |  |
| 3 | Tap on the enter location text field. | : | |

| | | | |
|---|---|---|---|
| | | | |

| Test Case ID- TS_28:For the rider's application,verify whether a select text field is highlighted on tapping. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Click on the hamberger icon to open the drawer. | This test has been conducted to see if the location text field is clickable and is selected on tapping. | On tapping, the selected text field hinted "Set radius in meterse " -the outcome is that the the field being highlighted in |
| 2 | Select range of areas covered from the menu. | | |
| 3 | Tap on the field to key in location. | Screenshot of the test steps: List of Menus:  | red showing that this particular text field has been selected. Screenshot of the test output:  |

Navigated to "Set Range"page.



| Test Case ID- TS_29: For the rider's application, verify whether a selected text field is highlighted on tapping. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Click on the hamberger icon to open the drawer. | This test has been | On tapping, the selected text field hinted "Set radius in |
| 2 | Select range of areas covered from the menu. | conducted to see if the location text | |
| 3 | Tap on the input field to set radius in meters. | field is clickable and is selected on tapping. | meters " -the outcome is that the field being highlighted in red showing that this |

| | | Screenshot of the test steps: | particular text field has been selected. |
| --- | --- | --- | --- |
| | | Set radius in meters. | Screenshot of the test output: |
| | | | Below is a Below is a field to key in a value for radius. |
| | | | Set radius in meters. |

| | | Habeeb E Sadeed<br>My Profile Tab | |
|---|---|---|---|
| | | History | |
| | | My Profile | |
| | | About | |
| | | Range of areas covered | |
| | | Log out | |
| | | List of Menus: | |
| | | Setting Range<br>Enter Location<br>Set radius in meters.<br>Set the range specified | |
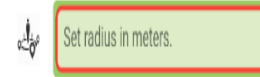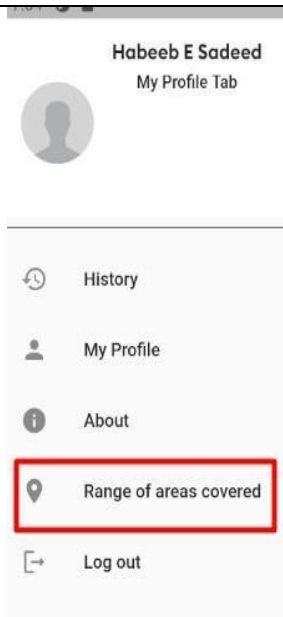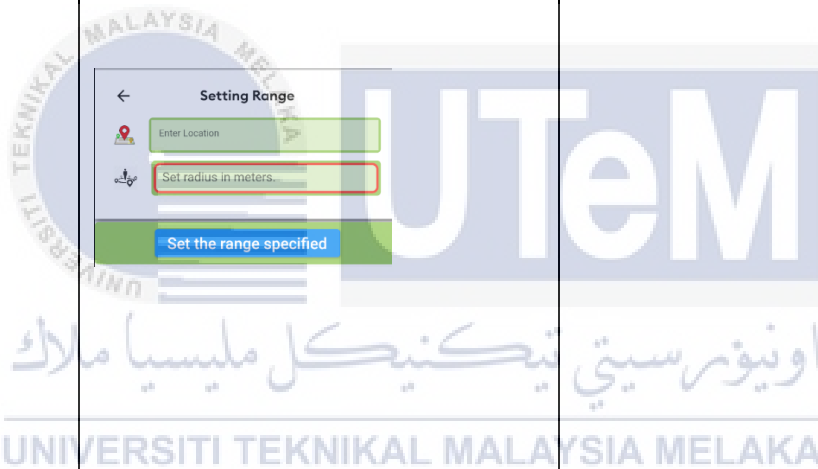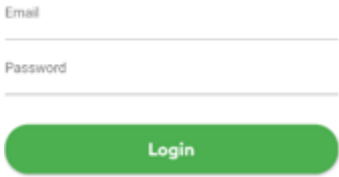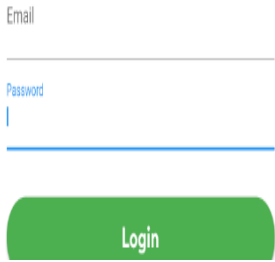
Test Case ID- TS_30: For the rider's application, verify whether a selected text field is highlighted on tapping.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to login page. | This test has been conducted to see if the email text field is clickable and gets selected on tapping. | On tapping, the selected text field hinted |
| 2 | Select the email field. | | "Email" -the outcome is that the area is highlighted in blue, |

| | | Screenshot of the test steps: | showing that this particular text field has been selected. |
|---|---|---|---|
| | | Email<br><br>Password<br><br>Login | |
| | | | Screenshot of the test output:<br><br>Below is a field to key in a value for email. |
| | | | Password<br><br>Login |

| | | | |
|---|---|---|---|
| Test Case ID- TS_31:For the rider's application, verify whether a selected text field is highlighted on tapping. | | | |
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to login page. | This test has been conducted to see if the the password text field is clickable and is selected on tapping. | On tapping, the selected text field hinted "Password" - the outcome is that the field being highlighted in blue |
| 2 | Select the password field. | | |

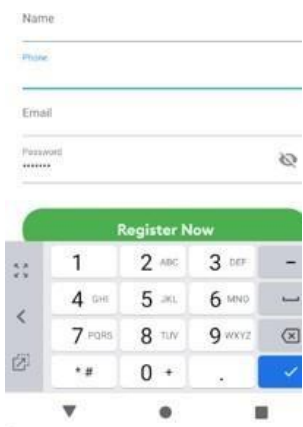| | | Screenshot of the test steps: | showing that this particular text field has been selected. |
|---|---|---|---|
| | | | Screenshot of the test output: |
| | | | Below is a field to key in a value for password. |
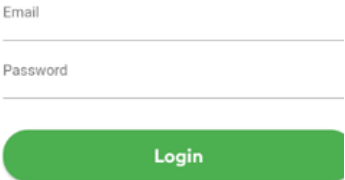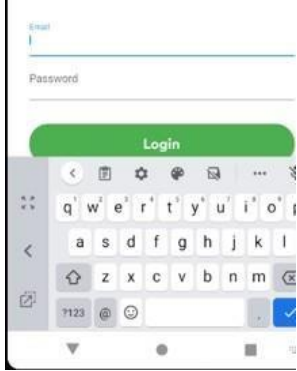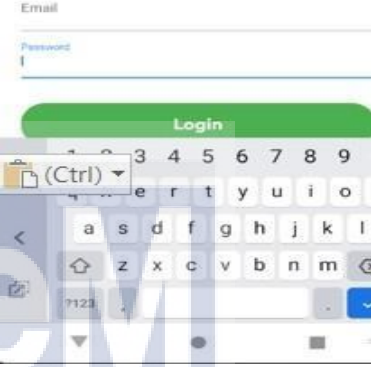
Test Case ID- TS_32:For the rider's application, verify whether the email field pops up a suitable keyboard type.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to login page. | This test has been conducted to see if the keyboard type set for this input field is a default text type keyboard that is always suited for the Email type text field. | Actual Result On tapping, the selected text field hinted "Email" - the outcome is that a default text keyboard is being tapped. |
| 2 | Select the password field. | | |
| 3 | View the keyboard type that pops up on tapping this field. | | |
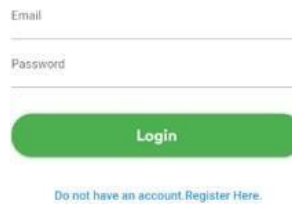
test outcome:

Below is a field to key in a value for email.





```
TextField(
    controller: emailTextEditingController,
    keyboardType: TextInputType.emailAddress,
    decoration: InputDecoration(

        labelText: "Email",
        labelStyle: TextStyle(
            fontSize: 14.0,

        ), // TextStyle
        hintStyle: TextStyle(
            color: Colors.grey,
            fontSize: 10.0,
        ) // TextStyle
```

| Test Case ID- TS_33:For the rider's application, verify whether the password field pops up a suitable keyboard type. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to login page. | This test has been conducted to see if the keyboard type set for this input field is a type of | Actual Result On tapping, the selected text field hinted "Password" - the outcome is that |

| 2 | Select the password field. | keyboard that is suited for the password type text field. Ideally, the keyboard type for this type of input field should pop as being an alphanumeric one. | an alphanumeric keyboard pops up which is ideally suited for this type of input field. |
|---|---|---|---|
| 3 | View the keyboard type that pops up on tapping this field. | Screenshot of the test steps:<br> | Screenshot of the test output:<br><br><br>Checked if a suitable keyboard type is set:<br> |

| Test Case ID- TS_34:For riders application, verify whether a selected text with widget navigates to a new page on tapping. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Cold boot the emulator from the AVD manager. | This test has been conducted to see if the selected text widget enpreferred to a new page on being tapped.<br><br>Screenshot of the test steps: | On tapping, the registration page appears showing that a page-to-page navigation has<br><br>been successfully coded for the selected widget. |
| 2 | Restart the application | | |
| 3 | Click on the text widget titled " Do not have an account. Register here". | <br><br>This option can start or re- start the application. | |
| 4 | View the registration page. | | Screenshot of the test output:<br><br> |
| | | Click on the selected text widget on login page as highlighted.<br><br> | |

| Test Case ID- TS_35: For riders application, verify whether a selected text with widget navigates to a new page on tapping. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the register page. | This test has been conducted to see if the selected text widget preferred to a new page on being tapped.<br><br>Screenshot of the test steps: | On tapping, the login page appears showing that a page-to-page navigation has been |
| 2 | Click on the text wideget titled " Already have an account. Login here". | | |
| 3 | View the registration page. |  | successfully coded for the selected |

| | | | widget. |
| | | | Screenshot of the test output: |
| | | | Email |
| | | | Password |
| | | | Login |
| | | | Do not have an account.Register Here. |

Test Case ID- TS_36:For the rider's application, verify whether a certain text field is clickable and is focused on being tapped.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to register page | This test has been conducted to see if the name field is clickable and gets highligted on being tapped. | On tapping, the selected text field hinted "Name" -the the outcome is that the |
| 2 | Tap on the name field. | Screenshot of the test steps: | the field being highlighted in blue showing that this particular text field has been selected. |
| | | Name | Screenshot of the test outcome: |
| | | | Field to key in a value for name. |
| | | | Name |

Test Case ID- TS_37:For the rider's application, verify whether a certain text field is clickable and gets focussed on being tapped.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1 | Navigate to register page | This test has been conducted to see if the field for the phone is clickable and gets highligted on being tapped.<br><br>Screenshot of the test steps:<br><br>Phone | On tapping, the selected text field hinted "Phone" -<br><br>the outcome is that the field being<br><br>highlighted in blue<br><br>showing that this<br><br>particular text field<br><br>has been selected.<br><br>Screenshot of the<br><br>test outcome:<br><br>Below is field to key in a<br><br>value for phone.<br><br>Phone |
| 2 | Tap on the field for the phone. | | |
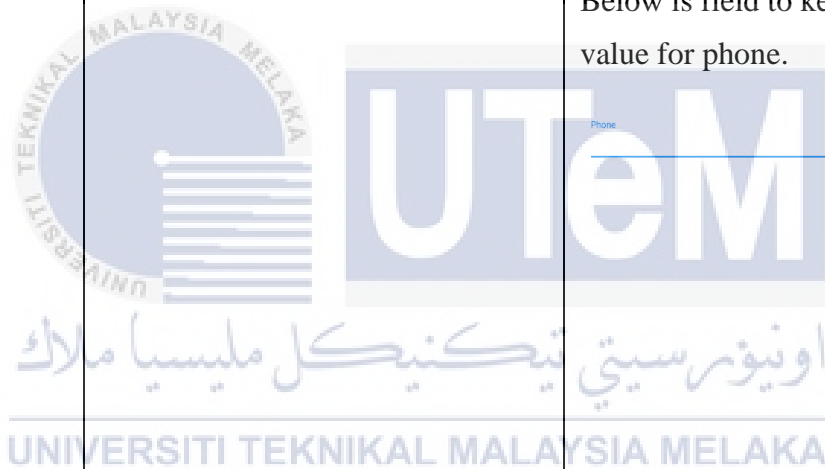
Test Case ID- TS_38:For the rider's application, verify whether a certain text field is clickable and is focused on being tapped.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to register page. | This test has been conducted to see if the field for email is clickable and gets highligted on being tapped. | On tapping, the selected text field hinted "Email" -the<br><br>the outcome is that the field is |
| 2 | Tap on the field for email. | | |

| | | Screenshot of the test steps:<br><br>Email<br>_____ | highlighted in blue showing that this particular text field has been selected.<br><br>Screenshot of the test output:<br><br>Below is a field to key in a value for email.<br><br>Screenshot of the test output:<br><br>Email<br>\|<br>_____ |
|---|---|---|---|
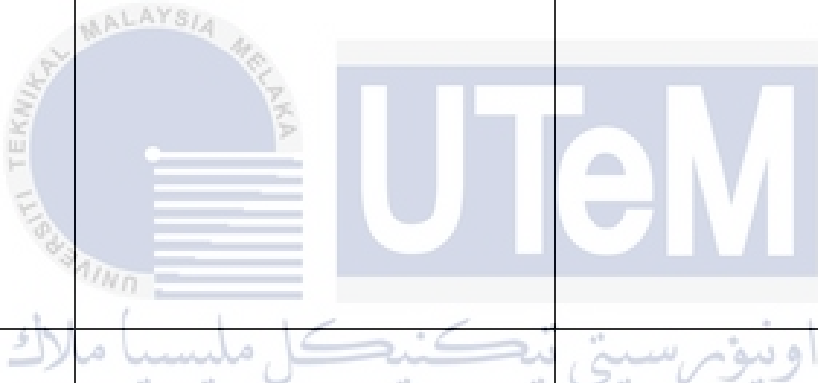
Test Case ID- TS_39-For the rider's application, verify whether a certain text field is clickable and is focused on being tapped

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to register page. | This test has been conducted to see if the field for the password is clickable and gets highligted on being tapped.<br><br>_____<br>Password      👁 | On tapping, the selected text field hinted "Password."<br>-the outcome is<br>that the field |
| 2 | Tap on the field for password. | | being highlighted in blue showing that this particular text field has been selected.<br><br>Screenshot of the test outcome:<br><br>Below is the field to key in the |

|  |  |  | password. |
|  |  |  | Screenshot of the test output:  |
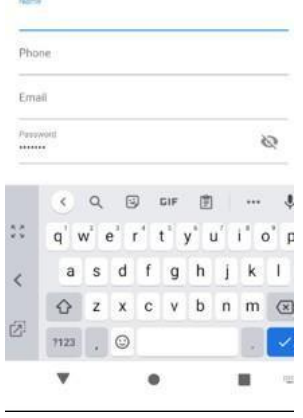
**Test Case ID- TS_40:Verify whether a password unmasks itself upon clicking the visibility icon.**

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to register page. | This test has been conducted to see if the field for the password is clickable and is able to mask or unmask the password on being tapped. | On tapping the visibility icon of the password field was either masked or unmasked. |
| 2 | Tap on the field for password. | Password:Abc123@ Screenshot of the test steps: | Screenshot of the test output: By default, the password was masked.  |
| 3 | Key in any value for password. |  |  |
| 4 | Tap on the visibility icon of the password field to hide or unhide the password. | Value for the password keyed in:  | The password was being unmasked on tapping. The password was then unmasked on re-tapping.  |
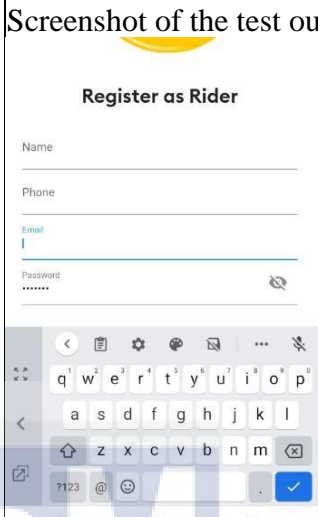
**Test Case ID- TS_41:For the rider's application,verify whether a certain text field pops upan appropriate keyboard type.**

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to regsiter page. | This test has been conducted to see if the field for the name is able to pop up keyboard best suited for this type of input field. | The name field on being tapped pops up a defaut text keyboard best suited this type of input field |
| 2 | Tap on the field for name. |  |  |

| 3 | Inspect the type of keyboard which appears on tapping the name field. | The name field on being tapped:  | .  |
|---|---|---|---|

Test Case ID- TS_42:For the rider's application, verify whether a certain text field pops upan appropriate keyboard type.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to regsiter page. | This test has been conducted to see if the field for the phone is able to pop up the keyboard best suited for this type of input field. | |
| 2 | Tap on the field for phone. | | |
| 3 3 | Inspect the type of keyboard which appears on tapping the phone field. Inspect the type of keyboard which appears on tapping the phone field. | Screenshot of the test steps: The phone field on being tapped:  Screenshot of the test steps: The phone field on being tapped:  | The phone field on being tapped pops up a defaut numeric keyboard best suited. A screenshot for the test steps is shown below. |
| | | |  |

| Test Case ID- TS_43:For the rider's application, verify whether a text field pops up an appropriate keyboard type. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to regsiter page. | This test has been conducted to see if the field for the email is able to pop up keyboard best suited for this type of input field. | The email field on being tapped pops up a defaut text keyboard best suited this type of input field. |
| 2 | Tap on the field for email. | | Screenshot of the test output: |
| 3 | Inspect the type of keyboard which appears on tapping the email field. | Screenshot of the test steps: The email field on being tapped:  |  |

| Test Case ID- TS_44: For the rider's application, verify whether a text field pops up an appropriate keyboard type. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to regsiter page. | This test has been conducted to see if the field for the password is able to pop up keyboard best suited for this type of input field. | The password field on being tapped pops up an alphanumeric keyboard best suited this type of input field. |
| 2 | Tap on the field for password. | | |
| 3 | Inspect the type of keyboard which appears on tapping the email field. | Screenshot of the test steps: | |

The password field on being tapped:
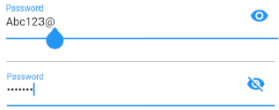


Screenshot of the test output:



| | | | |
|---|---|---|---|
| Test Case ID- TS_45: For the rider's application, verify whether a visibility icon is clickable and unmasks the containing text in the selected text field. | | | |
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the login page. | This test has been conducted to see if the field for password is clickable and is able to mask or unmask the password on being tapped.<br><br>Password:Abc123@<br>Screenshot of the test steps: | On tapping the visibility icon of the password field was either masked or unmasked.<br><br>Screenshot of the test output:By default, the password was masked.<br><br> |
| 2 | Tap on the password field. | | |

| 3 | Check if the on-click event of the visibility icon has been properly defined. | Value for the password keyed in:<br><br>Password<br>•••••• 🚫 | The password was being unmasked on tapping. The password was then unmasked on re-tapping the same icon..<br><br>Password<br>Abc123@ 👁<br><br>Password<br>•••••• 🚫<br><br>On tapping the visibility icon of the password field was either masked or unmasked. |
|---|---|---|---|
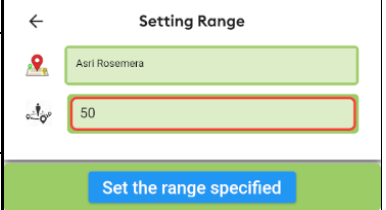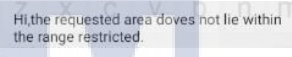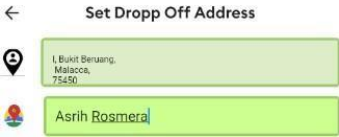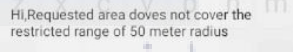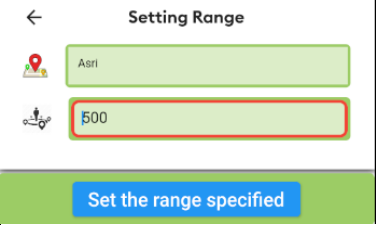
Test Case ID- TS_46:Verity whether the application user's home falls within the the radius of 50 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Start the application. | For testing purposes, the default area was set to 50 meters. | The location/locations covered within a default range appear in a vertical alignment menu.<br><br>The home location of the user appears as it is covered within the range of 50 meters.<br><br>Screenshot of the test output:<br><br>← Set Dropp Off Address<br>⊙ M, Lorong Setia 1, Taman Ayer Keroh Heights, Melaka<br>👤 BB<br>📍 BBU Apartment<br>Jalan Bukit Beruang Utama 8, Taman Bukit Beruang ...<br>Area Covered within restricted Range. |
| 2 | Navigate to the main screen. | | |
| 3 | Tap on the search box named search area in the vicinity. | | |
| 4 | Search for your home location. | | |

Test Case ID- TS_47:Verify whether a radius can be adjusted to ensure that the test location
1 falls within the set that was entered in the "Set Range Page".
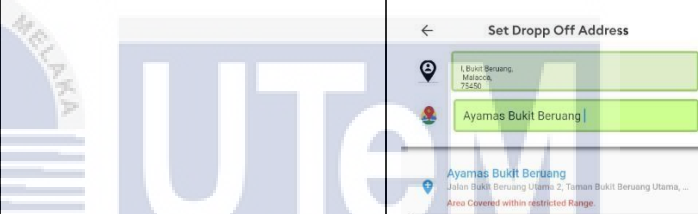
| Steps | Steps | Test Data/Test Requirements | Actual Result. |
|---|---|---|---|

| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | Location: Asrih Rosemera<br><br>Radius: 50 meters (as keyed in for inspection).<br><br>Screenshot of the test steps:<br><br>← **Setting Range**<br>📍 Asri Rosemera<br>⚓ 50<br><br>**Set the range specified** | The system responds: "Hi, the requested area does not lie within the range-restricted".<br><br>Screenshot of the test output: |
|---|---|---|---|
| 2 | Key in a value for the location. | | |
| 3 | Key in a value for the radius. | | |
| 4 | Inspect whether the preferred area falls within the range of radius set. | | Screenshot of the toast message:<br><br>Hi,the requested area doves not lie within the range restricted.<br><br>The results retrieved from goolge place api is null for the area and radius specified.For the testing purpose, a we have thus printed a null response from this api.<br><br>Places generations Resposes ::<br>{predictions: [], status: ZERO_RESULTS} |
| 5 | Check if the preferred location lies within the input value for the radius. | | |

| Test Case ID- TS_48:Verify whether test location 1 is found in the drop off page after manipulating the radius. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "main screen" of the application. | Location: Asrih Rosemera<br><br>Radius: 50 meters.<br><br>Screenshot of the test steps: | The system responds: "Hi, the requested area does not cover the restricted range of 50-meter radius". |
| 2 | Click on the search box.<br><br>On tapping , the system enpreferred to a new screen. |  | |
| 3 | Key in a value for the location. | | Screenshot of the test ouptut: |
| 4 | The outcome is to be inspected. Check if the outcome for this test case is consistent with the output from the previous test case. The radius set was 50 meters. | | <br>Hi,Requested area doves not cover the restricted range of 50 meter radius |

| Test Case ID- TS_49:Verify whether test location 1 can be found in the drop of page after extending the radius. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | Location: Asri<br><br>Radius:500 meters<br><br>Screenshot of the test steps:<br><br><br>Setting Range<br>Asri<br>500<br>Set the range specified | The chosen area is covered within the range restricted.<br><br>Screenshot of the test output:<br><br><br>Set Dropp Off Address<br>I, Bukit Beruang, Malacca, 75450<br>Asri<br>Restoran Asri Rosmerah<br>Taman Bukit Beruang Indah, Ayer Keroh, Malacca, Malaysia<br>Area Covered within restricted Range. |
| 2 | Key in a value for the location. | | |
| 3 | Extend the radius. Set it to 500 meters. | | |

| 4 | Navigate to "Set Drop off Address"page. | | |
|---|---|---|---|
| 5 | Key in the value for the location. | | |
| 6 | Inspect if the area preferred is found within the radius set in step 3. | | |
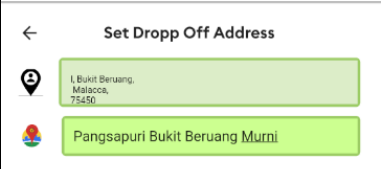
Test Case ID- TS_50: Verify whether test location 2 is found within 500 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Ayamas Bukit Beruang | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. |  | Screenshot of the test output: |
| 3 | Check if Ayamas Bukit Beruang falls within the set range | |  |

Test Case ID- TS_51: Verify whether test location 3 is found within 500 meters

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Pangsapuri Bukit Beruang Murni | The chosen area is |
| 2 | Key in a value for the location. | Radius:500 meters<br><br>Screenshot of the test steps: | covered within the range restricted. |
| 3 | Check if Pangsapuri Bukit Beruang Murni falls within the set range | | Screenshot of the test |

output:



**Test Case ID- TS_52: Verify whether test location 4 is found within 500 meters**
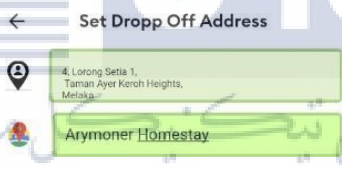
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Al gazerah restaurant | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:500 meters<br><br>Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if Al gazerah restaurant falls within the set range. |  |  |

**Test Case ID- TS_53: Verify whether test location 5 is found within 500 meters**

| Steps | | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Apai kithen | The chosen area is covered within the |
| 2 | Key in a value for the location. | Radius:500 meters<br>Screenshot of the test steps: | range restricted. |

| 3 | Check if Apai kitchen falls within the set range. |  | Screenshot of the test output:<br><br> |
|---|---|---|---|

**Test Case ID- TS_54: Verify whether test location 6 is found within 500 meters**
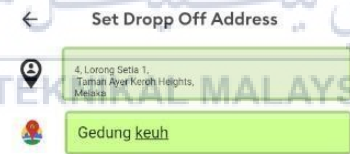
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Arymoner Home Stay | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:500 meters<br><br>Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if Arymoner Home Stay falls within the set range. |  |  |

**Test Case ID- TS_55: Verify whether test location 7 is found within 500 meters**

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page | Location: Klinic Keluarga one medic. | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | | |

| 3 | Check if Klinic Keluarga one medic. falls within the set range. | Radius:500 meters Screenshot of the test steps:  | Screenshot of the test output:  |
|---|---|---|---|

Test Case ID- TS_56: Verify whether test location 8 is found within 500 meters

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location:Gedung Keuh Radius:500 meters Screenshot of the test steps: | The chosen area is covered within the range restricted. Screenshot of the test output: |
| 2 | Key in a value for the location. | | |
| 3 | Check if Gedung Keugh falls within the set range. |  |  |

Test Case ID- TS_57-: Verify whether test location 9 is found within 500 meters

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Farmasi One Medic Radius:500 meters | The chosen area is covered within the range restricted. Screenshot of the test output: |
| 2 | Key in a value for the location. | | |

| 3 | Check if Farmasi One Medic falls within the set range. | Screenshot of the test steps:  |  |

| Test Case ID- TS_58-: Verify whether test location 10 is found within 500 meters ||||
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | Location: Ixora Food Court  Radius:500 meters | The chosen area is covered within the range restricted.  Screenshot of the test output: |
| 2 | Key in a value for the location. | Screenshot of the test steps: | |
| 3 | Check if Ixora Food Court falls within the set range. |  |  |

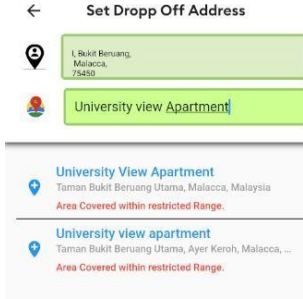| Test Case ID- TS_59: Verify whether test location 11 is found within 500 meters ||||
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | Location: Pizza Hut Delivery | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:500 meters  Screenshot of the test steps: | Screenshot of the test output: |

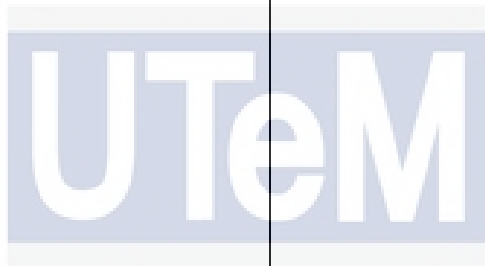| 3 | Check if Pizza Hut Delivery with the set range. |  |  |

**Test Case ID- TS_60: Verify whether test location 12 is found within 500 meters**

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Homestay Karmariah | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:500 meters  Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if Homestay Karmariah falls within the set range. |  |  |

**Test Case ID- TS_61: Verify whether test location 13 is found within 500 meters**

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Homstay Rumah Ibu. | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:500 meters  Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if Homstay Rumah Ibu falls within the set range. |  |  |

| Test Case ID- TS_62-: Verify whether test location 14 is found within 500 meters | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | Location:Gedung Keuh<br><br>Radius:500 meters<br><br>Screenshot of the test steps: | The chosen area is covered within the range restricted.<br><br>Screenshot of the test output:<br> |
| 2 | Key in a value for the location. | | |
| 3 | Check if Gedung Keugh 1 falls within the set range. | | |

| Test Case ID- TS_63-: Verify whether test location 15 is found within 500 meters | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | Location:Coffeology<br><br>Radius:500 meters<br><br>Screenshot of the test steps: | The chosen area is covered within the range restricted.<br><br>Screenshot of the test output:<br> |
| 2 | Key in a value for the location. | | |
| 3 | Check if Coffeology falls within the set range. |  | |

| Test Case ID- TS_64-: Verify whether test location 16 is found within 500 meters | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | Location: Pasar Mini Ramil Ahmed Family<br><br>Radius:500 meters | The chosen area is covered within the range restricted.<br><br>Screenshot of the test output: |
| 2 | Key in a value for the location. | | |
| 3 | Check if Pasar Mini Ramil Ahmed Family with the set range. | Screenshot of the test steps:<br> |  |

| Test Case ID- TS_65-: Verify whether test location 17 is found within 500 meters | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page | Location: Snap N Snack Radius:500 meters | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if Snap N Snack falls within the set range. |  |  |

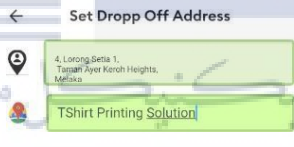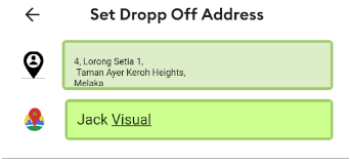| Test Case ID- TS_66-: Verify whether test location 18 is found within 500 meters | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page | Location: Restoran Habeeb Sultan | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:500 meters Screenshot of the test | Screenshot of the test output: |
| 3 | Check if Restoran Habeeb Sultan falls within the set range. | steps:  |  |

| Test Case ID- TS_67-: Verify whether test location 19 is found within 500 meters | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page | Location: Kedai Ayamas Bukit Beruang | The chosen area is covered within the range restricted. |

| | | | Screenshot of the test output: |
|---|---|---|---|
| 2 | Key in a value for the location. | Radius:500 meters<br><br>Screenshot of the test steps: | |
| 3 | Check if Kedai Ayamas Bukit Beruang falls within the set range. |  |  |

**Test Case ID- TS_68-: Verify whether test location 20 is found within 500 meters**

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page | Location: 99 Speedmart<br><br>Radius:500 meters | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. |  | Screenshot of the test output: |
| 3 | Check if 99 Speedmart falls within the set range. | |  |

**Test Case ID- TS_69-Verify whether test location 21 is found within 500 meters**

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location:University View Apartment | The chosen area is covered within the range restricted. |

| 2 | Key in a value for the location. | Radius: 500 meters<br><br>Screenshot of the test steps: | Screenshot of the test output:<br><br> |
| 3 | Check if University View Apartment falls within the set range. | |  |

Test Case ID- TS_70: Verify whether test location  22 is found within 500 meters.
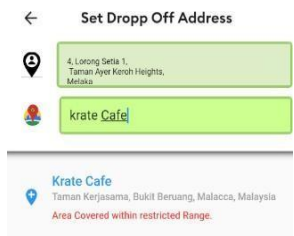
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page | Location:Dima Restaurant | The chosen area is covered within the |
| | | Radius:500 meters<br><br>Screenshot of the test steps: | range restricted.<br><br>Screenshot of the test output: |
| 2 | Key in a value for the location. |  | |
| 3 | Check if Dima Restaurant falls within the set range. | | |

| | | | |
|---|---|---|---|
| Test Case ID- TS_71:Verify whether the radius can be manipulated for an extended coverage and verify whether test location 23 falls within that range. | | | |
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | Location: Krate Kafe<br><br>Radius:1100 meters.<br><br>Screenshot of the test<br><br>steps: | The chosen area is covered within the range restricted.<br><br>Screenshot of the test output: |
| 2 | Key in a value for the location. | | |
| 3 | Extend the radius now. Set it to 1100 meters. | | |
| 4 | Navigate to "Set Drop off Address"page. | | |

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 5 | Key in the value for the location. | | |
| 6 | Inspect if the area preferred is found within the radius set in step 3. | | |
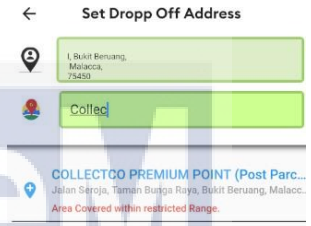
Test Case ID- TS_72:Verify whether test location 24 is found within 1100 meters.
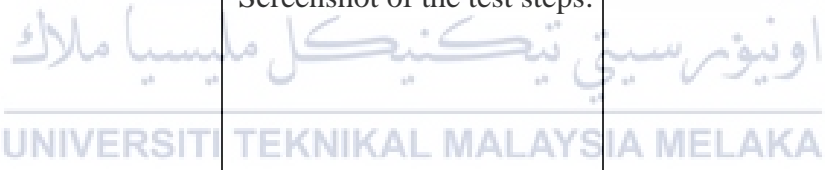
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Collectco premium point | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:1100 meters | Screenshot of the test output: |
| 3 | Check if the Collectco premium point falls within the set range. | Screenshot of the test steps:  |  |

Test Case ID- TS_S73: Verify whether test location 25 is found within 1100 meters.

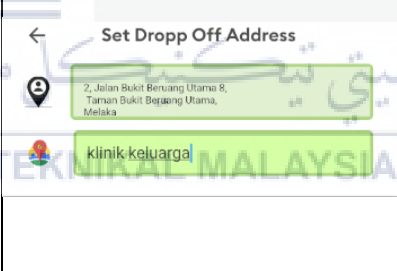| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Our Place Nyona Cafe | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:1100 meters<br><br>Screenshot of the test steps: | Screenshot of the test output: |

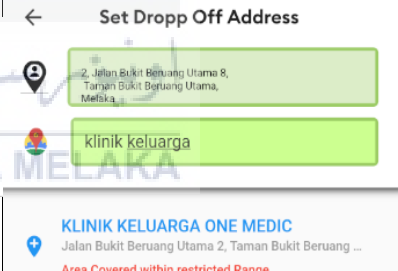| 3 | Check if Our Place Nyona Cafe falls within the set range. . |  |  |
|---|---|---|---|

Test Case ID- TS_74:Verify whether test location 26 is found within 1100 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Tomyam Muslimah Sarah Humairah | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:1100 meters<br><br>Screenshot of the test steps: | Screenshot of the test output:<br><br> |

| 3 | Check if Tomyam Muslimah Sarah Humairah falls within the set range. |  |  |
|---|---|---|---|

Test Case ID- TS_75: Verify whether test location 27 is found within 1100 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 2 | Key in a value for the location. | Radius:1100 meters<br><br>Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if TShirt Printing Solution falls within the set range. |  |  |

Test Case ID- TS_76: Verify whether test location 28 is found within 1100 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Jack Visual<br><br>Radius:1100 meters<br><br>Screenshot of the test steps: | The chosen area is covered within the range restricted.<br><br>Screenshot of the test output: |
| 2 | Key in a value for the location. | | |

| 3 | Check if Jack Visual falls within the set range. |  |  |
|---|---|---|---|
|   |   |   |   |

Test Case ID- TS_77:Verify whether test location 29 is found within 1100 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Macro Organic Sdn.Bhd | The chosen area is covered within the range-restricted. |
| 2 | Key in a value for the location. | Radius:1100 meters | Screenshot of the test |
| 3 | Check if Macro Organic Sdn.Bhd falls within the set range. | Location: TShirt Printing Solution | The chosen area is covered within the range-restricted. |
|   |   | Screenshot of the test steps: | output:<br> |

Test Case ID- TS_78:Verify whether test location 30 is found within 1100 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Yuan Taste Taiwan Traditional cake Radius:1100 meters | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. |   | Screenshot of the test output: |
|   |   | Screenshot of the test steps: |   |

| 3 | Check if Yuan Taste Taiwan Traditional cake falls within the set range. |  |  |
|---|---|---|---|

Test Case ID- TS_79:Verify whether test location 31 is found within 1100 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page.

Check if Pangsapuri Rakyat falls within the set rnage. | Screenshot of the test steps:  | The chosen area is covered within the range-restricted.

Screenshot of the test output: Radius:1100 meters  |

Test Case ID- TS_80: Verify whether test location 32 is found within 1100 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Atomy Melaka Spring field Radius:1100 meters | The chosen area is covered within the range-restricted. |
| 2 | Key in a value for the location. | | |
| 3 | Check if Atomy Melaka Spring field falls within the set range. | Screenshot of the test steps:  | Screenshot of the test output:  |
| 2 | Key in a value for the location. | | |

**Test Case ID- TS_81:Verify whether test location  33 is found within 1100 meters.**

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Klinic Keluarga<br>Radius:1100 meters<br><br>Screenshot of the test steps: | The chosen area is covered within the range-restricted.<br><br>Screenshot of the test output: |
| 2 | Key in the value for the desired location in the location field. |  |  |
| 3 | Check if Klinic Keluarga alls with the set range. | | |

**Test Case ID- TS_82:Verify whether test location  34 is found within 1100 meters.**

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|

| | Navigate to the "Set Drop of address " page. | Location: Sports Toto Malaysia Sdn Bhd Radius:1100 meters | The chosen area is covered within the range restricted. |
|---|---|---|---|
| 1 | | | |
| 2 | Key in a value for the location. | Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if Sports Toto Malaysia Sdn Bhd alls with the set range. |  |  |

Test Case ID- TS_83:Verify whether test location  35 is found within 1100 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Urban Reforestation@Sg Radius:1100 meters | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if Urban Reforestation@Sg falls within the set range. |  |  |

Test Case ID- TS_84:Verify whether test location  36 is found within 1100 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Yees Bakery Sdn Radius:1100 meters | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if Yees Bakery Sdn falls within the set range. |  |  |

Test Case ID- TS_85:Verify whether test location 37 is found within 1100 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Mg Chong Heng Bakery  Radius:1100 meters | The chosen area is covered within the range restricted.  Screenshot of the test output: |
| 3 | Check if Mg Chong Heng Bakery falls within the set range. | Screenshot of the test steps:  |  |

|  |  |  |  |
|---|---|---|---|
|  |  |  |  |

| Test Case ID- TS_86:Verify whether test location 38 is found within 1100 meters. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | Location: Bukit Beruang Food Court | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:1100 meters Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if Bukit Beruang Food Court falls within the set range. |  |  |

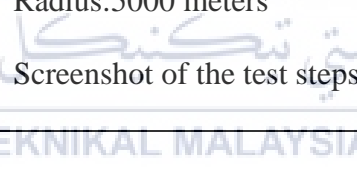| Test Case ID- TS_87:Verify whether test location 39 is found within 1100 meters. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | Location: QQ Baby Store | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. |  | Screenshot of the test output: |

| 2 | Key in a value for the location. | Radius:1100 meters Screenshot of the test steps:  |  |
|---|---|---|---|
| 3 | Check if QQ Baby Store falls within the set range. | | |

| Test Case ID- TS_88:Verify whether test location 40 is found within 1100 meters. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | Location: HTC Radius:1100 meters | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if HTC falls within the set range. |  |  |

| Test Case ID- TS_89:Verify whether test location 41 is found within 1100 meters. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | Location: Weirdo Radius:1100 meters | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Screenshot of the test steps: | Screenshot of the test output: |

| 3 | Check if Weirdo falls within the set range. |  |  |
|---|---|---|---|
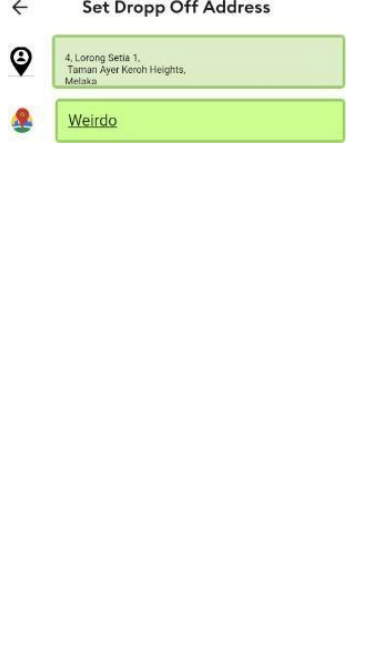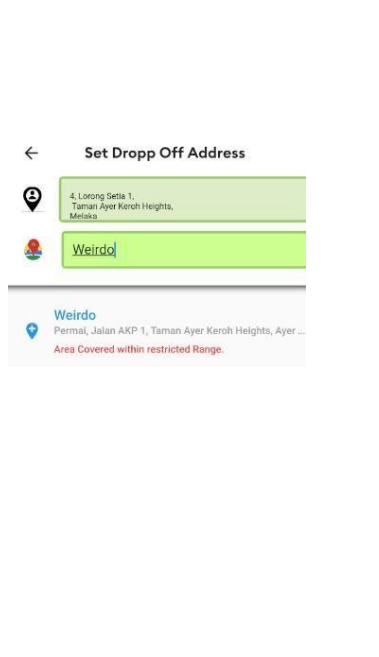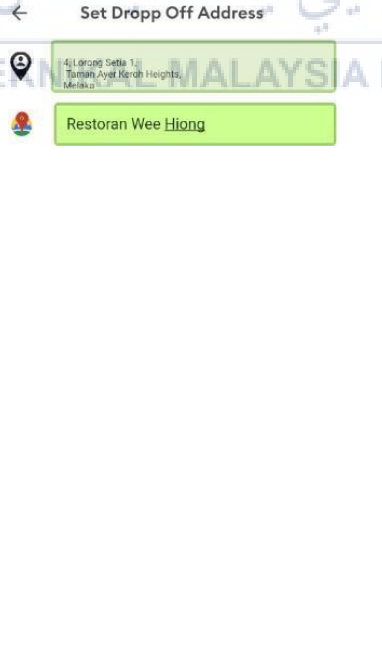
**Test Case ID- TS_90:Verify whether test location 42 is found within 1100 meters.**
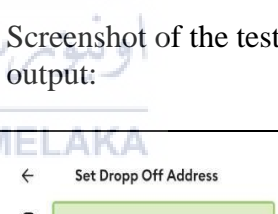
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Restoran Wee Hian | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:1100 meters | Screenshot of the test output: |
| 3 | Check if Restoran Wee hian falls within the set range. | Screenshot of the test steps:  |  |

**Test Case ID- TS_91: Verify whether the radius can be manipulated for an extendedcoverage and verify whether test location 43 falls within that range.**

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | Location: Universiti Teknical Malaysia Melaka<br><br>Radius:5000 meters<br>Screenshot of the test steps: | The chosen area is covered within the range restricted.<br><br>Screenshot of the test output: |
| 2 | Key in a value for the location. |  |  |
| 3 | Extend the radius now. Set it to 5000 meters. | | |
| 4 | Navigate to "Set Drop off Address"page. | | |
| 5 | Key in the value for the location. | | |
| 6 | Inspect if the area preferred is found within the radius set in step 3. | | |

Test Case ID- TS_92:Verify whether test location  44 is found within 5000 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: UTem Holdings Sdn<br>Radius:5000 meters | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if UTem Holdings Sdn falls within the set range. | |  |
| | |  | |

Test Case ID- TS_93:Verify whether test location  45 is found within 5000 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|

| 1 | Navigate to the "Set Drop of address " page. | Location: Kolej kediaman utem makmur Radius:5000 meters | The chosen area is covered within the range restricted. |
|---|---|---|---|
| 2 | Key in a value for the location. | Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if Kolej kediaman utem makmur falls within the set range. . |  |  |

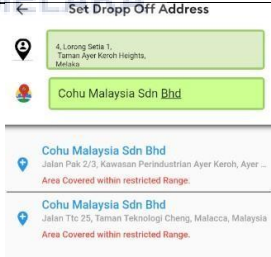Test Case ID- TS_94: Verify whether test location 46 is found within 5000 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Campus FTM and FKM Utem Radius:5000 meters | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if Campus FTM and FKM Utemfalls within the set range. |  |  |

Test Case ID- TS_95: Verify whether test location 47 is found within 5000 meters.

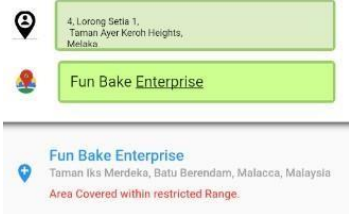| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|

| 1 | Navigate to the "Set Drop of address " page. | Location: Composite Technology Research Malaysia | The chosen area is covered within the range restricted. |
|---|---|---|---|
| 2 | Key in a value for the location. | Radius:5000 meters | Screenshot of the test output: |
| 3 | Check if Composite Technology Research Malaysia falls within the set range. | Screenshot of the test steps:  |  |

Test Case ID- TS_96: Verify whether test location 48 is found within 5000 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Cohu Malaysia Sdn Bhd | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:5000 meters<br><br>Screenshot of the test steps: | Screenshot of the test output: |
| 3 | Check if Cohu Malaysia Sdn Bhd falls within the set range. |  |  |
| | | | |

Test Case ID- TS_97: Verify whether test location 49 is found within 5000 meters.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Fun Bake Enterprise | The chosen area is covered within the range restricted. |

| 2 | Key in a value for the location. | Radius:5000 meters | Screenshot of the test output: |
|---|---|---|---|
| | Check if Fun Bake Enterprise falls within the set range. | Screenshot of the test steps: |  |
| | |  | |

| Test Case ID- TS_98: Verify whether test location 50 is found within 5000 meters. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Location: Family Store Kipmart Radius:5000 meters | Screenshot of the test output:  |
| 3 | Check if Family Store Kipmart falls within the set range. | Screenshot of the test steps:  | |

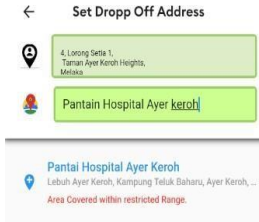|  |  |  |  |
|---|---|---|---|
|  |  |  |  |

| Test Case ID- TS_99: Verify whether test location 51 is found within 5000 meters. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | Location: Zanna Nasi Lemak | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:5000 meters Screenshot of the test steps:  | Screenshot of the test output:  |
| 3 | Check if Zanna Nasi Lemak falls within the set range. |  |  |

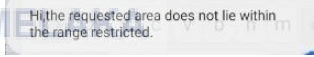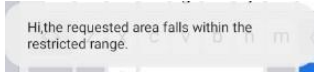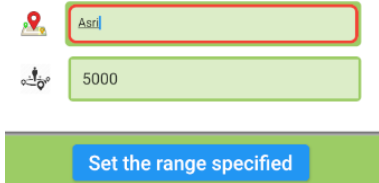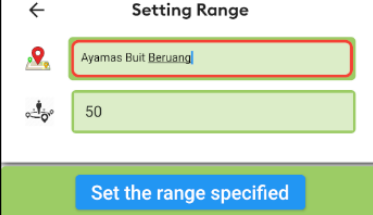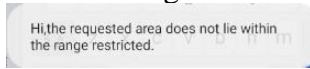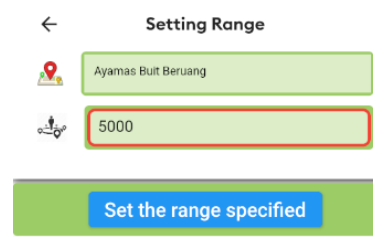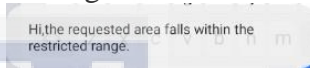| Test Case ID- TS_100: Verify whether test location 52 is found within 5000 meters. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |

| | | | |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | Location: Pantai Hospital Ayer Keroh | The chosen area is covered within the range restricted. |
| 2 | Key in a value for the location. | Radius:5000 meters | Screenshot of the test output: |
| | | Screenshot of the test steps: | |
| 3 | Check if Pantai Hospital Ayer Keroh falls within the set range. |  |  |
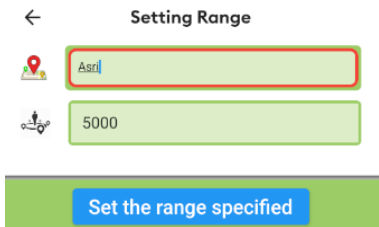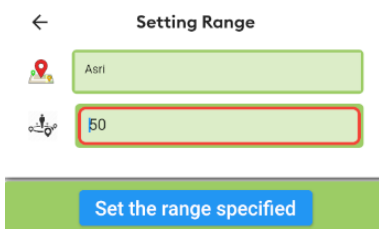
Test Case ID- TS_101:Verify whether test location  1 is either within the 50 meters  radius or 5000 meter radius or both.

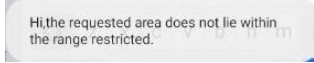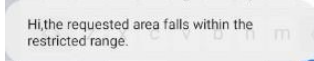| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range.<br><br>Location: Asri Rosmerah<br>Radius:50,5000 meters<br>Screenshot of the test steps:<br> | Screenshot of the test output:<br>Output on setting radius to 50 meters: Toast message:<br><br><br>Output on setting radius to 5000 meters:<br>Toast message:<br> |
| 2 | Key in a value for the location and the value for the location and the value for the radius. | | |
| 3 | Reduce the radius. Set it to 50 meters. | | |
| 4 | Navigate to "Set Drop off Address"page. |  | |
| 5 | Key in the value for the location. | | |

| 6 | Inspect if the area preferred is found within the radius set in step 3. | | |
|---|---|---|---|

| Test Case ID- TS_102:Verify whether test location 2 is either within the 50 meter radius or 5000 meter radius or both. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>This class of tests will check if our chosen locations fall<br><br>Location: Ayamas Bukit Beruang<br><br>Radius:50,5000 meters<br>Screenshot of the test steps: | Screenshot of the test output:<br>Output on setting radius to 50 meters: ]<br>Toast message:<br><br>Hi,the requested area does not lie within the range restricted.<br><br>Output on setting radius to 5000 meters:<br>message:<br><br>Hi,the requested area falls within the restricted range. |
| 2 | Key in a value for the location and key in the value for radius. | | |
| 3 | Check if Ayamas Bukit Beruang falls within the set range | | |

| Test Case ID- TS_103: Verify whether test location 3 is either within the 50 meter radius or 5000 meter radius or both. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |

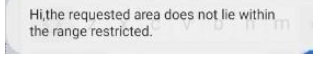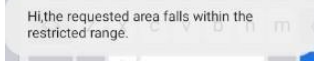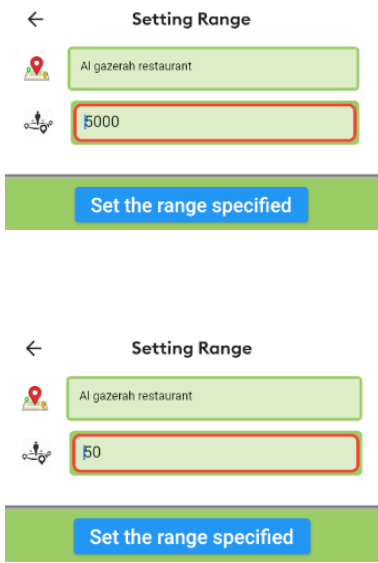| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**: This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range. Location: Pangsapuri Bukit Beruang Murni Radius:50,5000 meters Screenshot of the test steps:  | Screenshot of the test output: Output on setting radius to 50 meters: Toast message:  Output on setting radius to 5000 meters: Toast message:  |
|---|---|---|---|
| 2 | Key in a value for the location and key in the value for radius | | |
| 3 | Check if Pangsapuri Bukit Beruang Murni falls within the set range | | |

Test Case ID- TS_104: Verify whether test location 4 is either within the 50 meter radius or 5000 meter radius or both.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**: This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range. Location: Al gazerah restaurant. Radius:50,5000 meters | Screenshot of the test output: Output on setting radius to 50 meters: Toast message:  Output on setting radius to 5000 meters: Toast message:  |
| 2 | Key in a value for the location and the value for the radius. | | |

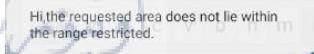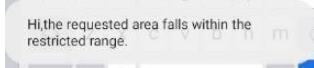| 3 | Check if Al gazerah restaurant falls within the set range. | Screenshot of the test steps:<br> | |
|---|---|---|---|
| Test Case ID- TS_105: Verify whether test location 5 is either within the 50 meter radius or 5000 meter radius or both. | | | |
| Steps | | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br>This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range. | Screenshot of the test output:<br>Output on setting radius to 50 meters: Toast message:<br> |
| 2 | Key in a value for the location and the value for radius. | | Output on setting radius to 5000 meters: Toast message:<br> |
| | | Location: Apai kitchen<br><br>Radius:50,5000 meters | |

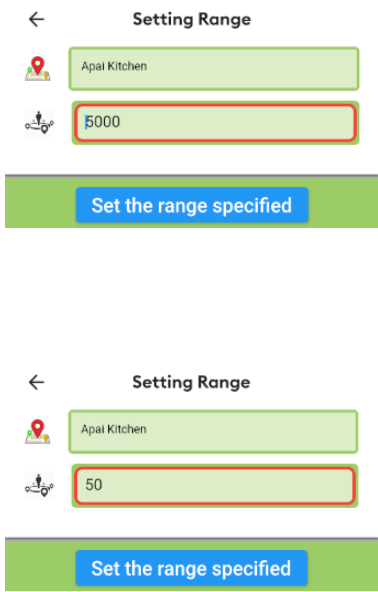| 3 | Check if Apai kitchen falls within the set range. | Screenshot of the test steps:<br><br>← **Setting Range**<br><br>📍 Apai Kitchen<br><br>⚓ 5000<br><br>Set the range specified<br><br>← **Setting Range**<br><br>📍 Apai Kitchen<br><br>⚓ 50<br><br>Set the range specified | |

| Test Case ID- TS_106: Verify whether test location 6 is either within the 50 meter radius or 5000 meter radius or both. |||||
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range.<br><br>Location: Arymoner Home Stay | Screenshot of the test output:<br>Output on setting radius to 50 meters: Toast message:<br><br>Hi,the requested area does not lie within the range restricted. |
| 2 | Key in a value for the location and the value for radius. | | |

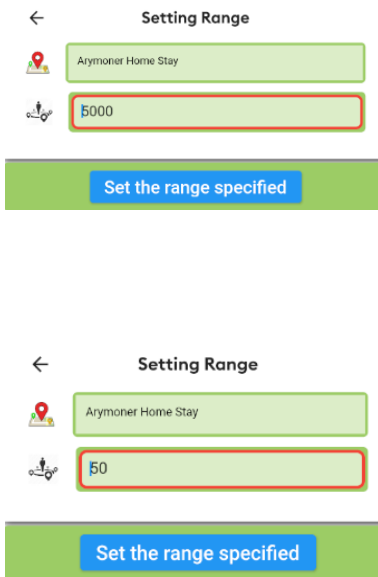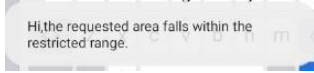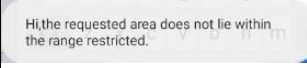| 3 | Check if Arymoner Home Stay falls within the set range. | Radius:50,5000 meters Screenshot of the test steps:<br><br>←    **Setting Range**<br>📍 Arymoner Home Stay<br>⛳ 5000<br>**Set the range specified**<br><br>←    **Setting Range**<br>📍 Arymoner Home Stay<br>⛳ 50<br>**Set the range specified** | Output on setting radius to 5000 meters:    Toast message:<br><br>Hi,the requested area falls within the restricted range. |
| Test Case ID- TS_107: Verify whether test location 7 is either within the 50 meters radius or 5000 meter radius or both. ||||
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>Locations that fall within 500 meters. The same list of locations are searched and tested to see if they fall within 100 meters and 500 meters of range respectively.<br><br>Location: Klinic Keluarga one medic.<br><br>Radius:50,5000 meters Screenshot of the test steps: | Screenshot of the test output:<br>Output on setting radius to 50 meters: Toast message:<br><br>Hi,the requested area does not lie within the range restricted.<br><br>Output on setting radius to 5000 meters:<br><br>Toast message:<br><br>Hi,the requested area falls within the restricted range. |
| 2 | Key in a value for the location and the value for radius. | | |
| 3 | Check if Klinic Keluarga one medic. falls within the set range. | | |
| 2 | Key in a value for the location. | | |

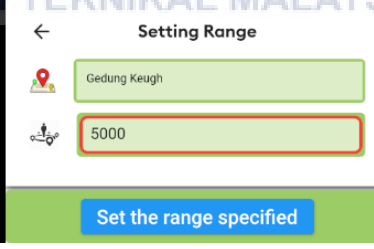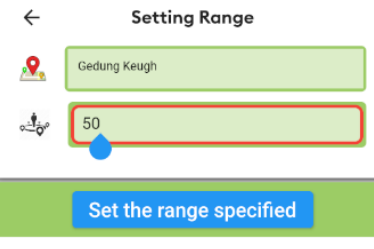| Test Case ID- TS_108: Verify whether test location 8 is either within the 50-meter radius or 5000 meter radius or both. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range. | Screenshot of the test output:<br><br>Output on setting radius to<br><br>50 meters: Toast message:<br><br>Hi,the requested area does not lie within the range restricted. |
| 2 | Key in a value for the location and the value for the radius. | Location: Gedung Keugh<br><br>Radius:50,5000 meters | |
| | | Screenshot of the test steps:<br><br>← Setting Range<br>Gedung Keugh<br>5000<br>Set the range specified<br><br>← Setting Range<br>Gedung Keugh<br>50<br>Set the range specified | Output on setting radius to 5000 meters:<br><br>Toast message:<br><br>Hi,the requested area falls within the restricted range. |

Test Case ID- TS_109: Verify whether test location 9 is either within the 50 meter radius or 5000 meter radius or both.

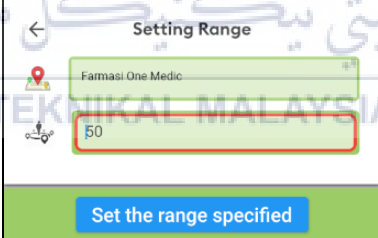| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 | Screenshot of the test output:<br><br>Output on setting radius to 50 meters:<br><br>Toast message:<br><br>Hi,the requested area does not lie within the range restricted. |
| 2 | Key in a value for the location and the value for radius. | meters of range.<br><br>Location: Farmasi One Medic | |
| 3 | Check if Farmasi One Medic falls within the set range. | Radius:50,5000 meters<br><br><br><br><br>Screenshot of the test steps:<br><br>← **Setting Range**<br>Farmasi One Medic<br>50<br><br>Set the range specified<br><br><br>← **Setting Range**<br>Farmasi One Medic<br>5000<br><br>Set the range specified<br><br>**Farmasi One Medic**<br>Jalan Bukit Beruang Utama 2, Taman Bukit Beruang ...<br>Area Covered within restricted Range | Output on setting radius to 5000 meters:<br><br>Toast message:<br><br>Hi,the requested area falls within the restricted range. |

| Test Case ID- TS_110: Verify whether test location  10 is either within the 50 meter radius or 5000 meter radius or both. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range.<br><br>Location: Ixora Food Court | Screenshot of the test output:<br>Output on setting radius to 50 meters:<br>Toast message:<br>Hi,the requested area does not lie within the range restricted. |
| 2 | Key in a value for the location and the value for radius. | | |

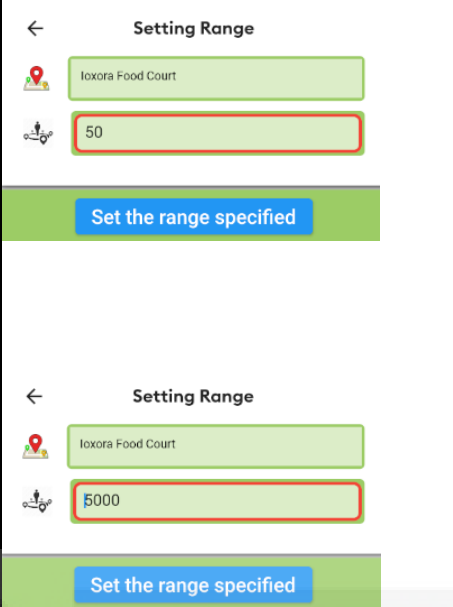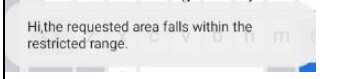| | | | |
|---|---|---|---|
| 3 | Check if Ixora Food Court falls within the set range. | Radius:50,5000 meters<br><br>Screenshot of the test steps:<br><br>← **Setting Range**<br>Ioxora Food Court<br>50<br>**Set the range specified**<br><br>← **Setting Range**<br>Ioxora Food Court<br>5000<br>**Set the range specified** | Output on setting radius to 5000 meters:<br><br>Toast message:<br><br>Hi,the requested area falls within the restricted range. |

Test Case ID- TS_111: Verify whether test location 11 is either within the 50 meter radius or 500-meter radius or both.

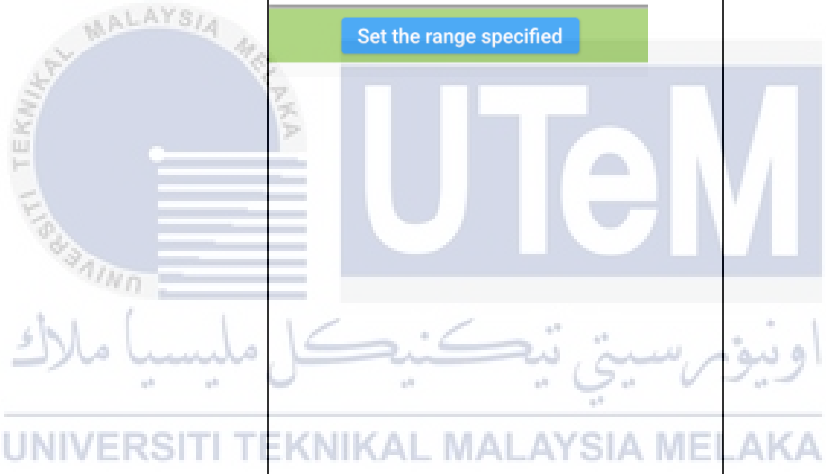| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range.<br><br>Location: Pizza Hut Delivery. | Screenshot of the test output:<br><br>Output on setting radius to 50 meters:<br><br>Toast message:<br><br>Hi,the requested area does not lie within the range restricted. |
| 2 | Key in a value for the location and the value for radius. | | |

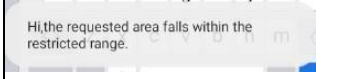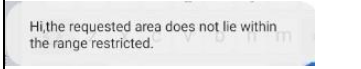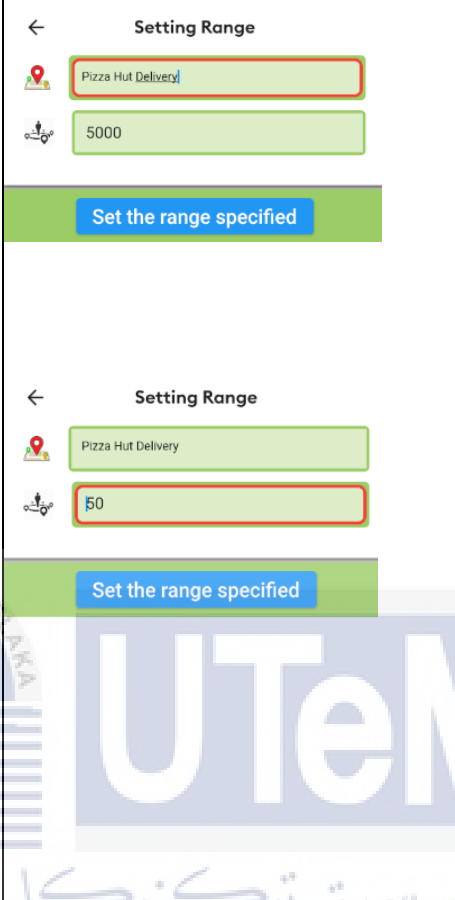| 3 | Check if Pizza Hut Delivery with the set range. | Radius:50,5000 meters<br><br>Screenshot of the test steps:<br><br>**Setting Range**<br>Pizza Hut Delivery<br>5000<br>Set the range specified<br><br>**Setting Range**<br>Pizza Hut Delivery<br>50<br>Set the range specified | Output on setting radius to 5000 meters:<br><br>Toast message:<br><br>Hi,the requested area falls within the restricted range. |

Test Case ID- TS_112: Verify whether test location 12 is either within the 50 meter radius or 5000 meter radius or both.

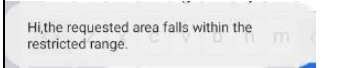| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range. | Screenshot of the test output:<br><br>Output on setting radius to 50 meters:<br><br>Toast message:<br><br>Hi,the requested area does not lie within the range restricted. |
| 2 | Key in a value for the location and the value for radius. | | |

| 3 | Check if Homestay Karmariah falls within the set range. | Location: Homestay Karmariah Radius:50,5000 meters<br><br>Screenshot of the test steps:<br><br> | Output on setting radius to 5000 meters:<br>Toast message:<br>Hi,the requested area falls within the restricted range. |
|---|---|---|---|

Test Case ID- TS_113: Verify whether test location 13 is either within the 50-meter radius or 5000 meter radius or both.
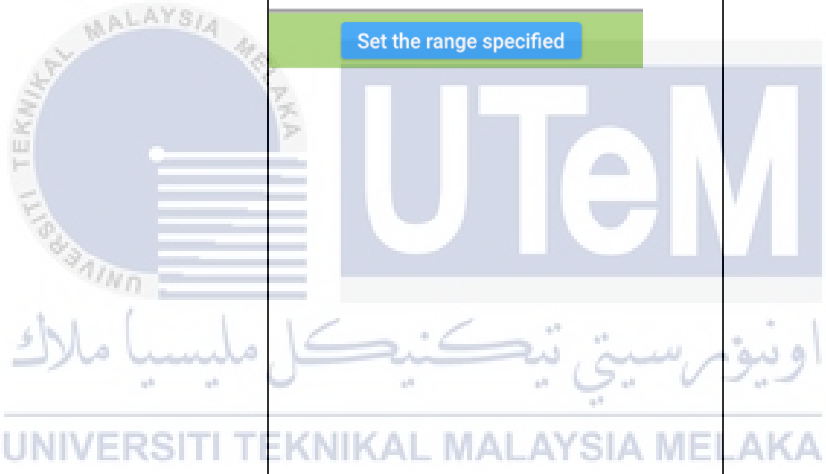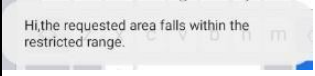
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range.<br><br>Location: Homstay Rumah Ibu | Screenshot of the test output:<br>Output on setting radius to 50 meters:<br>Toast message:<br>Hi,the requested area does not lie within the range restricted. |
| 2 | Key in a value for thelocation and the value for radius | | |

| 3 | Check if Homstay Rumah Ibu falls within the set range. | Radius:50,5000 meters<br><br>Screenshot of the test steps:<br><br>← **Setting Range**<br><br>📍 Homestay Rumah Ibu<br><br>⚓ 50<br><br>Set the range specified<br><br>← **Setting Range**<br><br>📍 Homestay Rumah Ibu<br><br>⚓ 5000<br><br>Set the range specified<br><br>📍 Homestay Rumah Ibu<br>Jalan Bbi 5, Taman Bukit Beruang Indah, Bukit Beruang, …<br>Area Covered within restricted Range | Output on setting 19 radius to 5000 meters:<br><br>Toast message:<br><br>Hi,the requested area falls within the restricted range. |

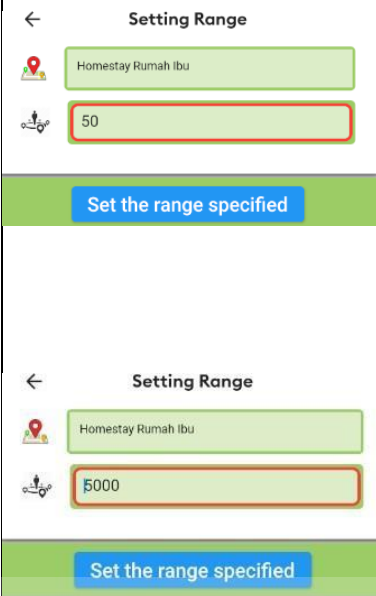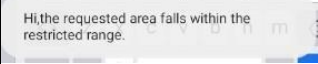the watermark UTeM, UNIVERSITI TEKNIKAL MALAYSIA MELAKA

Test Case ID- TS_114: Verify whether test location 14 is either within the 50-meter radius or 5000 meter radius or both.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>Locations that fall within 500 meters. The same list of locations are searched and tested to see if they fall within 100 meters and 500 | Screenshot of the test output:<br><br>Output on setting radius to 50 meters:<br><br>Toast message: |
| 2 | Key in a value for the location and the value for radius. | meters of range respectively.<br><br>Location: Gedung Keugh<br><br>Radius:50,5000 meters | Hi,the requested area does not lie within the range restricted. |
| 3 | Check if Gedung Keugh 1 falls within the set range. | Screenshot of the test steps: | Output on setting radius to 5000 meters: |

Toast message:



Hi,the requested area falls within the restricted range.



**Setting Range**

Gedung Keuh

500

Set the range specified



**Setting Range**

Gedung Keuh

5000

Set the range specified

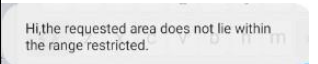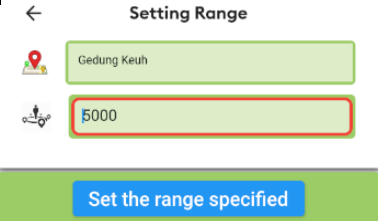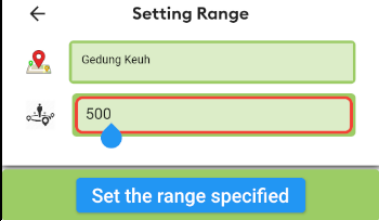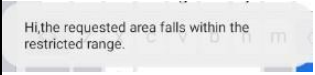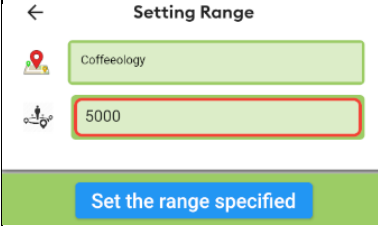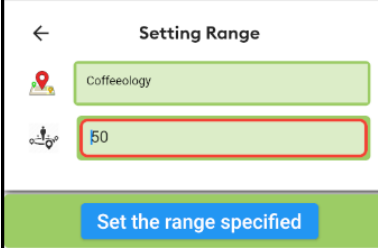| Test Case ID- TS_115: Verify whether test location 15 is either within the 50 meter radius or 5000 meter radius or both. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**: This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range. | Screenshot of the test output: Output on setting radius to 50 meters: Toast message: |
| 2 | Key in a value for the location and the value for radius. | Location: Coffeology | Hi,the requested area does not lie within the range restricted. |
| 3 | Check if Coffeology falls within the set range. | Radius:50,5000 meters Screenshot of the test steps: | Output on setting radius to 5000 meters: Toast message: Hi,the requested area falls within the restricted range. |

Test Case ID- TS_116: Verify whether test location 16 is either within the 50 meters radius or 5000 meter radius or both.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range. | Screenshot of the test output:<br><br>Output on setting radius to 50 meters:<br><br>Toast message: |
| 2 | Key in a value for the location and the value for radius. | Location: Pasar Mini Ramil Ahmed Family |  |
| 3 | Check if Pasar Mini Ramil Ahmed Family with the set range. | Radius:50,5000 meters<br><br>Screenshot of the test steps: | Output on setting radius to 5000 meters:<br><br>Toast message: |

Setting Range

Pasar Mini Ramil Ahmed Family

5000

Set the range specified

Setting Range

Pasar Mini Ramil Ahmed Family

50

Set the range specified
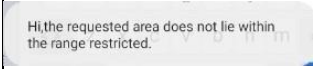
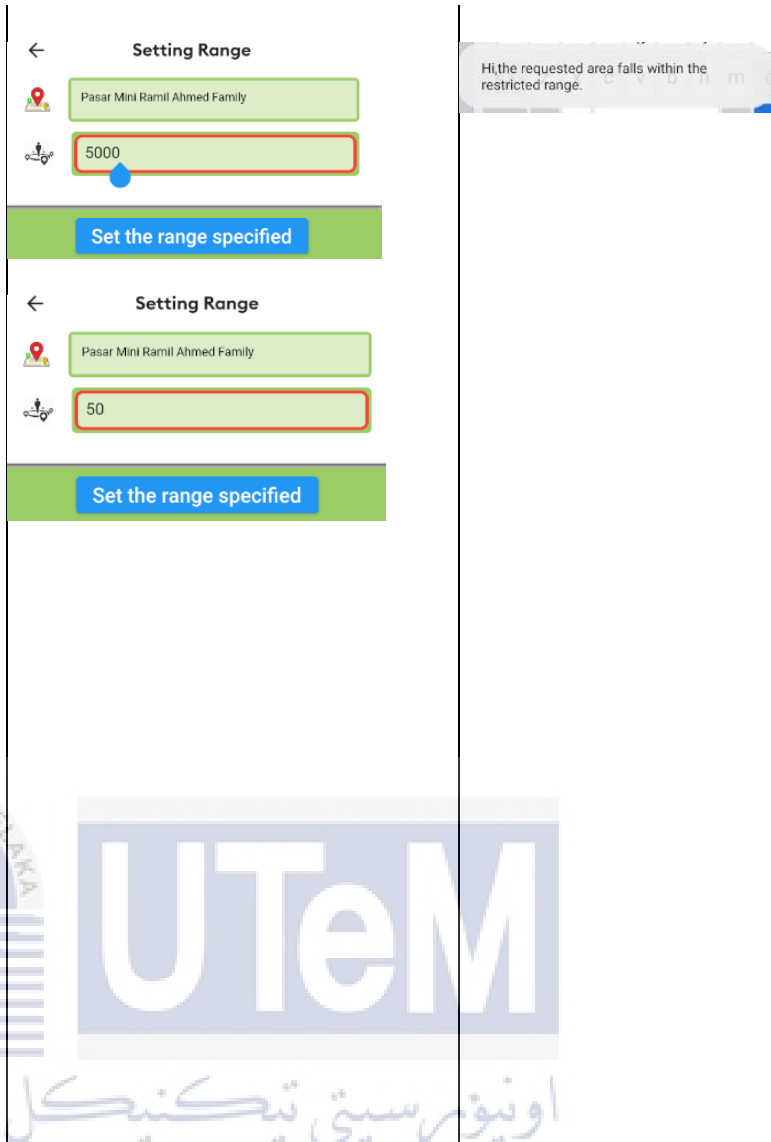Hi,the requested area falls within the restricted range.

| Test Case ID- TS_117: Verify whether test location 17 is either within the 50 meter radius or 5000 meter radius or both. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range. | Screenshot of the test output:<br><br>Output on setting radius to 50 meters:<br><br>Toast message: |
| 2 | Key in a value for the location and the value for radius. | | |

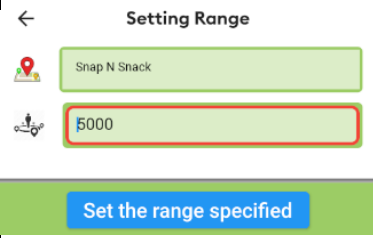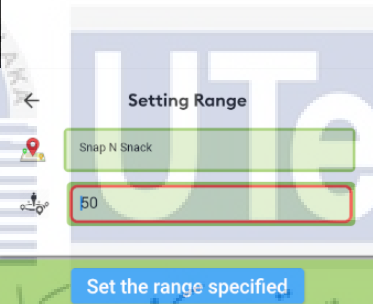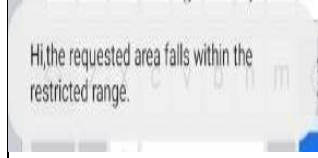| 3 | Check if Snap N Snack falls within the set range. | Location: Snap N Snack<br><br>Radius:50,5000 meters Screenshot of the test steps:<br><br><br><br>Setting Range<br>Snap N Snack<br>5000<br>Set the range specified<br><br><br><br>Setting Range<br>Snap N Snack<br>50<br>Set the range specified | <br>Hi,the requested area does not lie within the range restricted.<br><br>Output on setting radius to 5000 meters:<br>Toast message:<br><br>Hi,the requested area falls within the restricted range. |

Test Case ID- TS_118: Verify whether test location 18 is either within the 50 meter radius or 5000 meter radius or both.
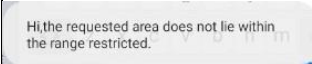
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>Locations that fall within 500 meters. The same list of | Screenshot of the test output: |
|  |  | locations are searched and tested to see if they fall within 100 meters and 500 meters of range | Output on setting radius to 50 meters: |
| 2 | Key in a value for the location and the value for radius. | respectively.<br><br>Location: Restoran Habeeb | Toast message:<br><br>Hi,the requested area does not lie within the range restricted. |

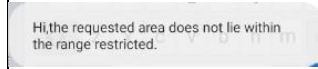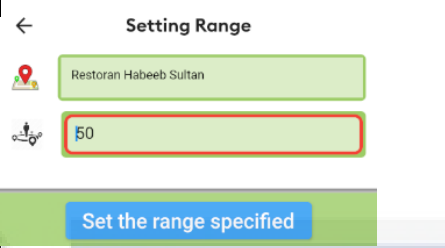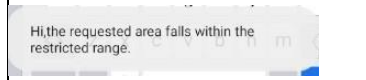| 3 | Check if Restoran Habeeb Sultan falls within the set range. | Sultan<br><br>Radius:50,5000 meters<br><br>Screenshot of the test steps:<br><br>←  **Setting Range**<br><br>Restoran Habeeb Sultan<br><br>50<br><br>Set the range specified | Output on setting radius to 5000 meters:<br><br>Toast message:<br><br>Hi,the requested area falls within the restricted range. |
|---|---|---|---|

Test Case ID- TS_119: Verify whether test location 19 is either within the 50 meter radius or 5000 meter radius or both.

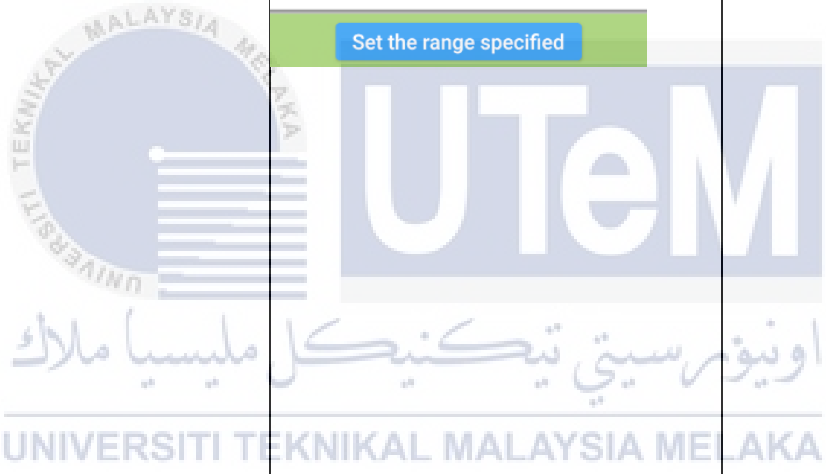| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range. | Screenshot of the test output:<br><br>Output on setting radius to 50 meters:<br><br>Toast message:<br><br>Hi,the requested area does not lie within the range restricted. |
| 2 | Key in a value for the location and the value for radius. | Location: Kedai Ayamas Bukit Beruang<br><br>Radius:50,5000 meters | Output on setting |

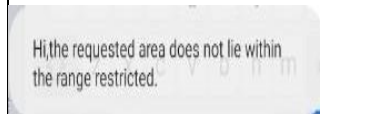| | | Screenshot of the test steps: | radius to 5000 meters: |
|---|---|---|---|
| | | | Toast message: |
| | |  |   Hi,the requested area falls within the restricted range. |
| 3 | Check if Kedai Ayamas Bukit Beruang falls within the set range. |  Setting Range  Kedai Ayamas Bukit Beruang  50  Set the range specified |  Set Dropp Off Address  4, Lorong Setia 1, Taman Ayer Keroh Heights, Melaka  kedai Ayamas Bukit Beruang  Kedai Ayamas @Bukit Beruang Jalan Bukit Beruang Utama 2, Taman Bukit Beruang ... Area Covered within restricted Range. |
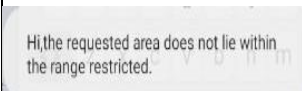
Test Case ID- TS_120: Verify whether test location 20 is either within the 50 meter radius or 5000 meter radius or both.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:  This class of tests will check if our chosen locations fall within 5000 meters. This list of places is searched and tested to see if they fall within 50 meters and 5000 meters of range. | Screenshot of the test output:  Output on setting radius to 50 meters:  Toast message: |
| 2 | Key in a value for the location and the value for radius. | Location: 99 Speedmart |  Hi,the requested area does not lie within the range restricted. |

| | | | |
|---|---|---|---|
| 3 | Check if 99 Speedmart falls within the set range. | Radius:50,5000 meters Screenshot of the test steps:   | Output on setting radius to 5000 meters: Toast message:  |

Test Case ID- TS_121: Verify whether test location 21 is either within the 50 meter radius or 5000 meter radius or both.
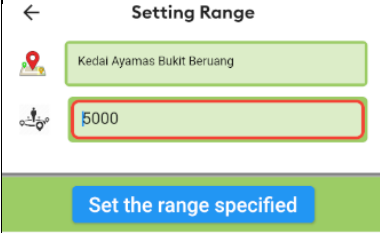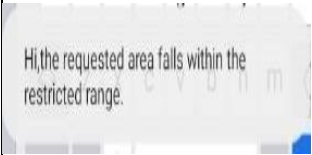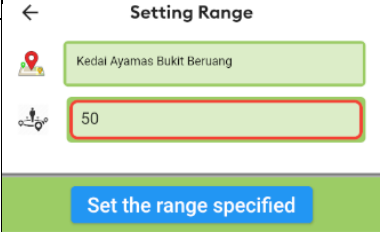
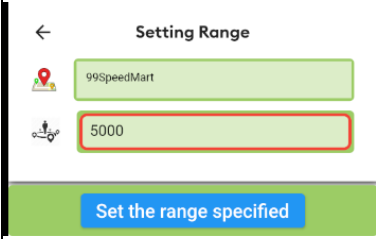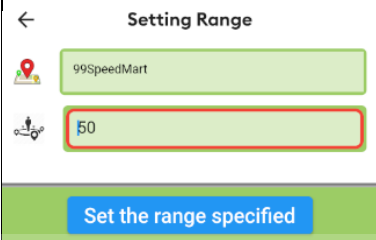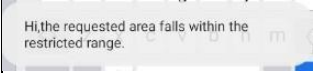| Steps | Test Steps | Test Class A: | |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | Locations that fall within 500 meters. The same list of locations are searched and tested to see if they fall within 100 meters and 500 meters of range respectively. | Screenshot of the test output: Output on setting radius to 50 meters: Toast message: |
| 2 | Key in a value for the location and the value for radius. | Location: University View Apartment |  |

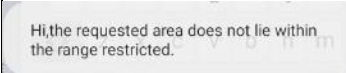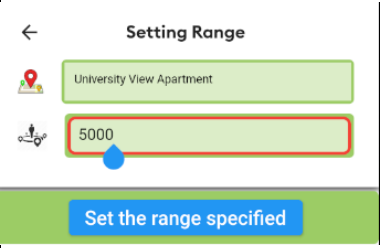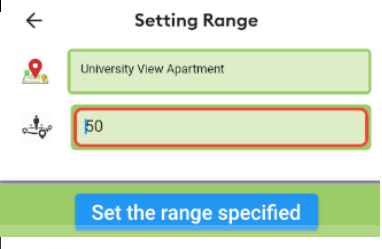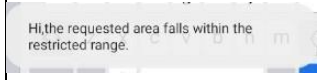| 3 | Check if University View Apartment falls within the set range. | Radius:50,5000 meters<br><br>Screenshot of the test steps:<br><br><br><br> | Output on setting radius to 5000 meters:<br><br>Toast message:<br><br> |
|---|---|---|---|

Test Case ID- TS_122:Verify whether test location 22 is either within the 50 meter radius or 5000 meter radius or both.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class A**:<br><br>Locations that fall within 500 meters. The same list of locations are searched and tested to see if they fall within 50 meters and 5000 meters of range respectively. | Screenshot of the test output:<br>Radius 500<br><br>meters: Toast<br><br>message:<br><br> |
| 2 | Key in a value for the location and the value for radius. | Location: Dima Restaurant falls within | |
| 3 | Check if Dima Restaurant falls within the set range. | Radius:50,5000 meters | Output on setting |

Screenshot of the test steps:
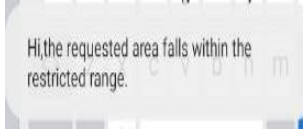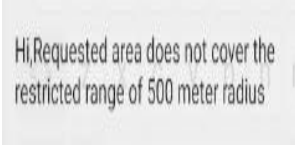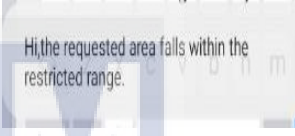


Radius 500 meters: Toast
message:

| | | | |
|---|---|---|---|

Test Case ID- TS_123:Verify whether test location 23 is either within the 500
meter radius or 5000 meter radius or both.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class B:**<br><br>This class of tests will test if the chosen locations lie beyond 1100-meter radius.<br>The interval chosen for this category of the testing phase is between 500 to 5000 meter radius.<br><br>Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively. | Screenshot of the test output:<br><br>Radius: 500 meters<br><br>Toast message:<br><br> |
| 2 | Key in a value for the location. | | |
| 3 | Extend the radius now. Set it to 5000 meters | | |
| 4 | Navigate to "Set Drop off Address"page. | | |
| 5 | Key in the value for the location and inspect if the area falls within this range. | | |

| 6 | Navigate to the "Range of areas covered" | | |
|---|---|---|---|
| 7 | Reduce the radius to 500 meters. | Radius:500,5000 meters as set in stet 3 and step 7.<br><br>Screenshot of the test steps:<br>Location: Krate Kafe<br><br>Screenshot of the test steps: | Radius:5000 meters Toast<br><br>message:<br><br>Hi,the requested area falls within the restricted range. |
| 8 | Repeat step 4 and Step 5 | | |

Test Case ID- TS_124:Verify whether test location  24 is either within the 500 meter radius or 5000 meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B:**<br><br>This class of tests will test if the chosen locations lie beyond 1100-meter radius.<br>The interval chosen for this category of the testing phases is between 500 to 5000 meter radius.<br><br>Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively. | Screenshot of the test output: |

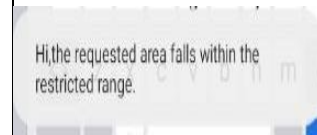| 3 | Check if Collectco premium point falls within the set range. | . <br><br> Screenshot of the test steps: <br><br> Location: Collectco premium point <br><br> Screenshot of the test steps: <br><br>  <br> Set Dropp Off Address <br> 4, Lorong Setia 1, Taman Ayer Keroh Heights, Melaka <br> Collectco Premium Point | Screenshot of the test output: <br><br> Radius: 500 meters <br><br> Toast message: <br><br>  <br> Hi,Requested area does not cover the restricted range of 500 meter radius <br><br> Radius:5000 meters Toast <br><br> message: <br><br>  <br> Hi,the requested area falls within the restricted range. |
| --- | --- | --- | --- |

Test Case ID- TS_125: :Verify whether test location 25 is either within the 500-meter radius or 5000 meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| --- | --- | --- | --- |
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B**: <br><br> This test class will test if the choosen locations lie beyond 1100-meter radius. | Screenshot of the test output: |
| 2 | Key in a value for the location. | | |
| 2 | Key in a value for the location. | Locations that fall within 50 meters and 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively | |

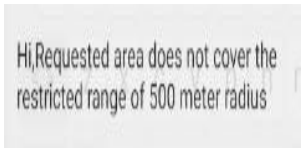| 3 | Check if Our Place Nyona Cafe falls within the set range. | | Radius :500 meters |
|---|---|---|---|
| | | | Screenshot of the test output: |
| | | Location: Nyona Cafe | Radius: 500 meters |
| | | Screenshot of the test steps: | |
| | |  | |

Test Case ID- TS_126:Verify whether test location  26 is either within the 50-meter radius or5000 meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B:** This class of tests will test if the chosen locations lie beyond 1100-meter radius. | Screenshot of the test output: |
| 2 | Key in a value for the location. | The interval chosen for this category of the testing phases is between 500 to 5000 meter radius. | Radius: 500 meters |
| 3 | Check if Tomyam Muslimah Sarah Humairah falls within the set range. | Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively. . | Toast message: |

Location: Tomyam Muslimah
Sarah Humairah

Radius:5000 meters
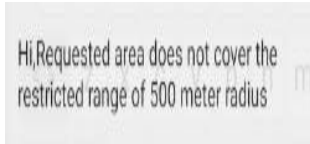
Toast message:

Screenshot of the test steps:



Hi,the requested area falls within the
restricted range.

Screenshot of the test steps:



← Set Dropp Off Address

4, Lorong Setia 1,
Taman Ayer Keroh Heights,
Melaka

Tomyam Muslimah Sarah Humairah



← Set Dropp Off Address

4, Lorong Setia 1,
Taman Ayer Keroh Heights,
Melaka

Tomyam Muslimah Sarah Humairah

Hi,Requested area does not cover the
restricted range of 500 meter radius
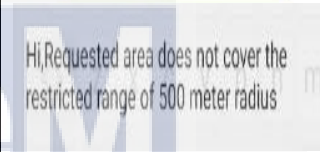
Test Case ID- TS_127:Verify whether test location 27 is either within the 500-meter radius or5000 meter radius or both.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | | Screenshot of the test output: |
| 2 | Key in a value for the location. | **Test Class B:**<br><br>This class of tests will test if the chosen locations lie beyond 1100-meter radius.<br>The interval chosen for this category of the testing phases is between 500 to 5000 meter radius.<br><br>Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively.<br><br>: | Radius: 500 meters<br><br>Toast message:<br><br>Hi,Requested area does not cover the restricted range of 500 meter radius<br><br>Radius:5000 meters<br><br>Toast message: |

| 3 | Check if TShirt Printing Solution falls within the set range. | | |
|---|---|---|---|
| | | Location: TShirt Printing Solution | |
| | | Screenshot of the test steps | |
| | |  | |
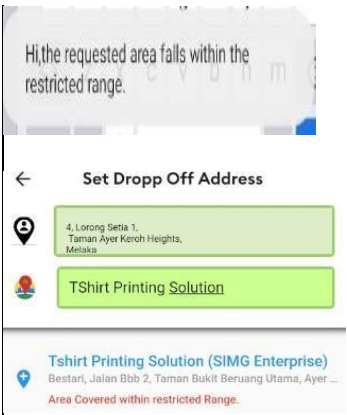
Test Case ID- TS_128:Verify whether test location_28 is either within the 500-meter radius or5000 meter radius or both.

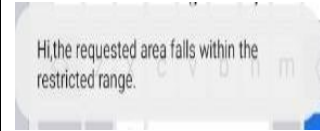| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B:**<br>This class of tests will test if the | Screenshot of the test |

| 2 | Key in a value for the location. | chosen locations lie beyond 1100-meter radius.<br>The interval chosen for this category of the testing phases is between 500 to 5000 meter radius.<br><br>Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively. | output:<br><br>Radius: 500 meters |
| --- | --- | --- | --- |

| 3 | Check if Jack Visual falls within the set range. | Location: Jack Visual<br><br>Screenshot of the test steps:<br><br><br>Set Dropp Off Address<br>4, Lorong Setia 1,<br>Taman Ayer Keroh Heights,<br>Melaka<br>Jack Visual | Toast message:<br><br><br>Hi,Requested area does not cover the restricted range of 500 meter radius<br><br>Radius:5000 meters<br><br>Toast message:<br><br><br>Hi,the requested area falls within the restricted range.<br><br><br>Set Dropp Off Address<br>4, Lorong Setia 1,<br>Taman Ayer Keroh Heights,<br>Melaka<br>Jack Visual<br><br>Jack Visual<br>Taman Bukit Beruang Indah, Ayer Keroh, Malacca, ...<br>Area Covered within restricted Range. |
| --- | --- | --- | --- |
| Test Case ID- TS_129: Verify whether test location  29 is either within the 500-meter radius or 5000 meter radius or both. | | | |

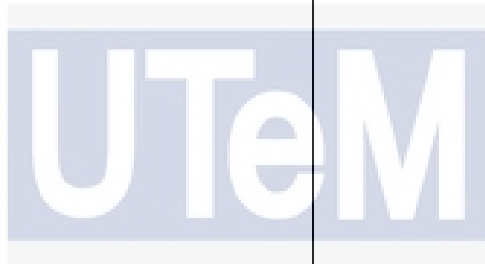| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B:**<br><br>This class of tests will test if the chosen locations lie beyond 1100-meter radius.<br>The interval chosen for this category of the testing phases is between 500 to 5000 meter radius.<br><br>Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively.<br>. | |
| 2 | Key in a value for the location. | | Screenshot of the test output: |
| 3 | Check if Macro Organic Sdn.Bhd falls within the set range. | Lcation: Macro Organic Sdn.Bhd<br><br>Screenshot of the test steps:<br><br>← Set Dropp Off Address<br><br>⦿ 4, Lorong Setia 1,<br>Taman Ayer Keroh Heights,<br>Melaka<br><br>🧍 Macro Organic Sdn.Bhd| | Radius :500 meters<br><br>Screenshot of the test output:<br><br>Radius: 500 meters<br><br>Toast message:<br><br>Hi,Requested area does not cover the restricted range of 500 meter radius<br><br>Radius:5000 meters<br><br>Toast message:<br><br>Hi,the requested area falls within the restricted range. |
| Test Case ID- TS_130: Verify whether test location 30 is either within the 500 meter radius or 5000 meter radius or both. | | | |

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|-------|-----------|----------------------------|---------------|
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B:**
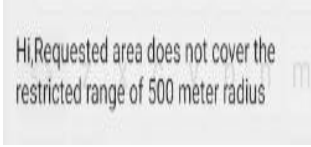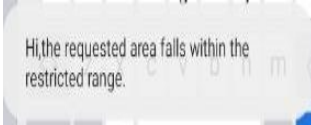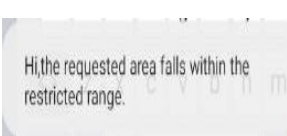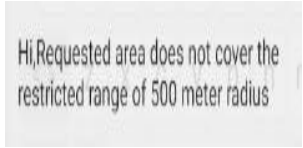
This class of tests will test if the chosen locations lie beyond 1100-meter radius. | Screenshot of the test output: |
| 2 | Key in a value for the location. | The interval chosen for this category of the testing phases is between 500 to 5000 meter radius. | Radius :500 meters |
| 3 | Check if Yuan Taste Taiwan Traditional cake falls within the set range. | Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively.

.

Location: Yuan Taste Taiwan Traditional cake

Screenshot of the test steps:

 | Screenshot of the test

output:

Radius: 500 meters

Toast message:


Hi,Requested area does not cover the restricted range of 500 meter radius

Radius:5000 meters

Toast message:


Hi,the requested area falls within the restricted range. |

Test Case ID- TS_131: Verify whether test location 31 is either within the 500-meter radius or 5000 meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|-------|-----------|----------------------------|---------------|
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B:**

This class of tests will test if the chosen locations lie beyond 1100-meter radius. | Screenshot of the test output: Radius :500 meters |
| 2 | Key in a value for the location. | The interval chosen for this category of the testing phases is between 500 to 5000 meter radius. | Screenshot of the |
| 3 | Check if Pangsapuri Rakyat falls within the set range. | Locations that fall within 50 meters | |

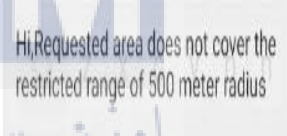| | | and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively.<br><br>Location: Pangsapuri Rakyat<br><br>Screenshot of the test steps:<br><br>← **Set Dropp Off Address**<br><br>📍 4, Lorong Setia 1, Taman Ayer Keroh Heights, Melaka<br><br>👤 Pangsapuri Rakyat | test output:<br><br>Radius: 500 meters<br><br>Toast message:<br><br>Hi,Requested area does not cover the restricted range of 500 meter radius<br><br>Radius:5000 meters<br><br>Toast message:<br><br>Hi,the requested area falls within the restricted range. |

Test Case ID- TS_132: Verify whether test location 32 is either within the 500-meter radius or 5000 meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B:**<br><br>This class of tests will test if the chosen locations lie beyond 1100-meter radius.<br>The interval chosen for this category of the testing phases is between 500 to 5000 meter radius. | |
| 2 | Key in a value for the location. | | |
| 3 | Check if Atomy Melaka Spring field falls within the set range. | Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively.<br>.<br><br>Location: Atomy Melaka Spring field | Screenshot of the test output: |

Radius: 500 meters

Screenshot of the test steps:

Toast message:



Set Dropp Off Address

4, Lorong Setia 1,
Taman Ayer Keroh Heights,
Melaka

Atomy Melaka Spring field

Hi,Requested area does not cover the
restricted range of 500 meter radius

Radius:5000 meters
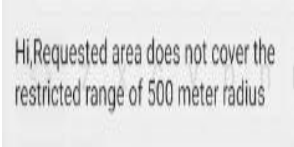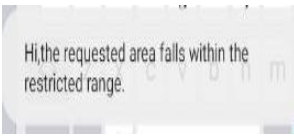
Toast message:

Hi,the requested area falls within the
restricted range.

| Test Case ID- TS_133: Verify whether test location 33 is either within the 500 meter radius or 5000 meter radius or both | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B:**<br><br>This class of tests will test if the chosen locations lie beyond 1100-meter radius. | Screenshot of the test output:<br><br>Radius :500 meters |
| 2 | Key in a value for the location. | The interval chosen for this category of the testing phases is between 500 to 5000 meter radius. | Screenshot of the test<br><br>output: |
| 3 | Check if Sports Toto Malaysia Sdn Bhd alls with the set range. | Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively.<br>.<br>Location: Sports Toto Malaysia Sdn Bhd<br><br>Screenshot of the test steps: | Radius: 500 meters |

| | | Toast message: |
|---|---|---|
| |  Set Dropp Off Address <br><br> 4, Lorong Setia 1, Taman Ayer Keroh Heights, Melaka <br><br> Sports Toto Malaysia Sdn Bhd |  Hi,Requested area does not cover the restricted range of 500 meter radius <br><br> Radius:5000 meters Toast <br><br> message: <br><br> Hi,the requested area falls within the restricted range. |

Test Case ID- TS_134: Verify whether test location  34 is either within the 500-meter radius or 5000 meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B:** <br><br> This class of tests will test if the chosen locations lie beyond 1100-meter radius. | |
| 2 | Key in value for the location. | The interval chosen for this category of the testing phases is between 500 to 5000 meter radius. <br><br> Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively. <br> . | |

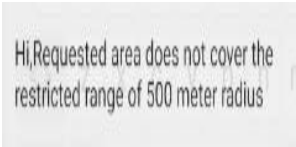| 3 | Check if Sports Toto Malaysia Sdn Bhd alls with the set range. | Location: Sports Toto Malaysia Sdn Bhd<br><br>Screenshot of the test steps:<br><br> | Screenshot of the test output:<br><br>Radius: 500 meters<br><br>Toast message:<br><br><br>Hi,Requested area does not cover the restricted range of 500 meter radius<br><br>Radius:5000 meters Toast<br><br>message:<br><br><br>Hi,the requested area falls within the restricted range. |
|---|---|---|---|

Test Case ID- TS_135:Verify whether test location 35 is either within the 500-meter radius or 5000 meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | | |
| 2 | Key in a value for the location. | **Test Class B:**<br><br>This class of tests will test if the chosen locations lie beyond 1100-meter radius.<br>The interval chosen for this category of the testing phases is between 500 to 5000 meter radius. | Screenshot of the test output: |
| 3 | Check if Urban Reforestation@Sg falls within the set range. | Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively.<br>.<br>Location: Urban Reforestation@Sg | |

| | | | Radius: 500 meters |
| --- | --- | --- | --- |
| | | | Toast message: |



Set Dropp Off Address

4, Lorong Setia 1,
Taman Ayer Keroh Heights,
Melaka

Urban Reforestation@Sg

Hi,Requested area does not cover the restricted range of 500 meter radius

Radius:5000 meters

Toast message:

Hi,the requested area falls within the restricted range.

Test Case ID- TS_136 :Verify whether test location  36 is either within the 500-meter radius or 5000 meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| --- | --- | --- | --- |
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B:** | Screenshot of the test output: |
| 2 | Key in a value for the location. | This class of tests will test if the chosen locations lie beyond 1100-meter radius. The interval chosen for this category of the testing phases is between 500 to 5000 meter radius.<br><br>Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively.<br>. | |

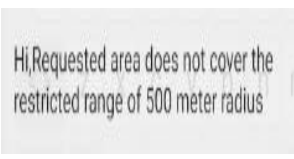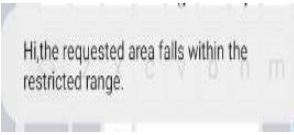| 3 | Check if Yees Bakery Sdn falls within the set range. | Screenshot of the test steps:  | Radius: 500 meters<br><br>Toast message:<br><br>Hi,Requested area does not cover the restricted range of 500 meter radius<br><br>Radius:5000 meters Toast<br><br>message:<br><br>Hi,the requested area falls within the restricted range. |
|---|---|---|---|

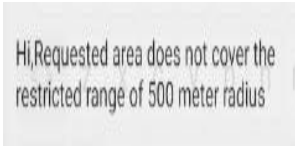| Test Case ID- TS_137:Verify whether test location 37 is either within the 500-meter radius or 5000 meter radius or both | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B:** | |

| 2 | Key in a value for the location. | This class of tests will test if the chosen locations lie beyond 1100-meter radius. The interval chosen for this category of the testing phases is between 500 to 5000 meter radius.<br><br>Locations that fall within 50 meters and 5000 meters in earlier test cases-the same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively.<br><br>Location: Mg Chong Heng Bakery<br><br>Screenshot of the test steps:<br><br>← Set Dropp Off Address<br><br>⊙ 4, Lorong Setia 1, Taman Ayer Keroh Heights, Melaka<br><br>🧍 Mg Chong Hen |

| 3 | Check if Mg Chong Heng Bakery falls within the set range. | | Screenshot of the test output:<br><br>Radius: 500 meters<br><br>Toast message:<br><br>Hi,Requested area does not cover the restricted range of 500 meter radius<br><br>Radius:5000 meters Toast message:<br><br>Hi,the requested area falls within the restricted range. |
|---|---|---|---|
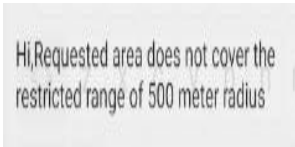
Test Case ID- TS_138:Verify whether test location  38 is either within the 500 meter radius or 5000 meter radius or both
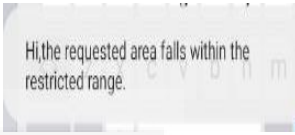
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B**:<br><br>This test class will test if the choosen locations  lie beyond 1100-meter radius. Locations that fall within 50 meters and 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively<br><br>Location: Bukit Beruang Food Court | Screenshot of the test output: Radius :500 meters<br><br>Screenshot of the test output:<br><br>Radius: 500 meters Toast message:<br><br>Hi,Requested area does not cover the restricted range of 500 meter radius |
| 2 | Key in a value for the location. | Screenshot of the test | Radius:5000 meters |

| 3 | Check if Bukit Beruang Food Court falls within the set range. | steps:<br><br>Set Dropp Off Address<br><br>4, Lorong Setia 1, Taman Ayer Keroh Heights, Melaka<br><br>Bukit Beruang Food Court | Toast message:<br><br>Hi,the requested area falls within the restricted range. |

Test Case ID- TS_139:Verify whether test location 39 is either within the 500-meter radius or 5000 meter radius or both

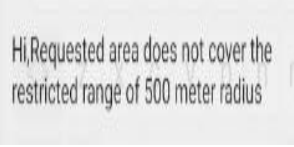| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | | Screenshot of the test output: |
| 2 | Key in a value for the location. | **Test Class B**:<br><br>This test class will test if the chosen locations lie beyond 1100-meter radius. Locations that fall within 50 meters and 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively | Radius :500 meters |

| 3 | Check if QQ Baby Store falls within the set range. | Location: QQ Baby Store<br><br>Screenshot of the test steps:<br><br>←     **Set Dropp Off Address**<br><br>📍   4, Lorong Setia 1,<br>     Taman Ayer Keroh Heights,<br>     Melaka<br><br>👤   Bukit Beruang Food Court | Screenshot of the test output:<br><br>Radius: 500 meters Toast message:<br><br>Hi,Requested area does not cover the restricted range of 500 meter radius<br><br>Radius:5000 meters Toast message:<br><br>Hi,the requested area falls within the restricted range.<br><br>←     Set Dropp Off Address<br><br>📍   4, Lorong Setia 1,<br>     Taman Ayer Keroh Heights,<br>     Melaka<br><br>👤   QQ Baby Store<br><br>📍 QQ Baby Store Sdn Bhd - Melaka<br>     Jalan MH3, Taman Muzaffar Heights, Ayer Keroh, ...<br>     Area Covered within restricted Range. |

Test Case ID- TS_140: :Verify whether test location  40 is either within the 500 meters radius or 5000 meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
| --- | --- | --- | --- |

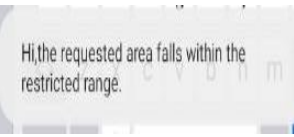| | | | |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B**: <br><br> Locations that fall within 1100 meters in earlier test cases. The same list of locations are searched and tested to see if they fall within 500 meters and 5000 meters of range respectively <br><br> Location: HTC <br><br><br> Screenshot of the test steps: <br><br>  | |
| 2 | Key in a value for the location. | | |

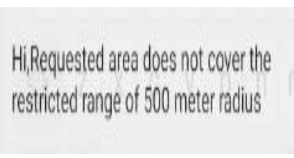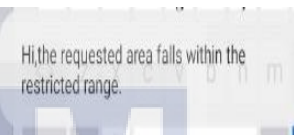| 3 | Check if HTC falls within the set range. | | |
|---|---|---|---|
| | | | |

Test Case ID- TS_141: :Verify whether test location 41 is either within the 500 meter radius or 5000 meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B**:<br><br>This test class will test if the choosen locations lie beyond 1100-meter radius. Locations that fall | Screenshot of the test output: Radius :500 meters |
| 2 | Key in a value for the location. | | |

| 3 | Check if Weirdo falls within the set range. | within 50 meters and 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall beyond 500 meters and 5000 meters of range respectively<br><br>Location: Weirdo<br><br><br>Screenshot of the test steps:<br><br> | Screenshot of the test output:<br><br>Radius: 500 meters Toast message:<br><br><br><br>Radius:5000 meters Toast message:<br><br><br><br> |
|---|---|---|---|

Test Case ID- TS_142: :Verify whether test location 42 is either within the 500-meter radius or 5000 meter radius or both.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Set Drop of address " page. | **Test Class B**:<br><br>Locations that fall within 1100 meters in earlier test cases. The same list of locations | |
| 2 | Key in a value for the location. | | Screenshot of the test output: |

| 3 | Check if Restoran Wee hian falls within the set range. | are searched and tested to see if they fall within 500 meters and 5000 meters of range respectively<br><br>Location: Restoran Wee Hian<br><br>Screenshot of the test steps:<br><br> | Radius: 500 meters Toast message:<br><br><br>Hi,Requested area does not cover the restricted range of 500 meter radius<br><br>Radius:5000 meters Toast<br><br>message:<br><br><br>Hi,the requested area falls within the restricted range.<br><br> |

Test Case ID- TS_143 :Verify whether test location  43 is either within the 500-meter radius or 1100  meter radius or both

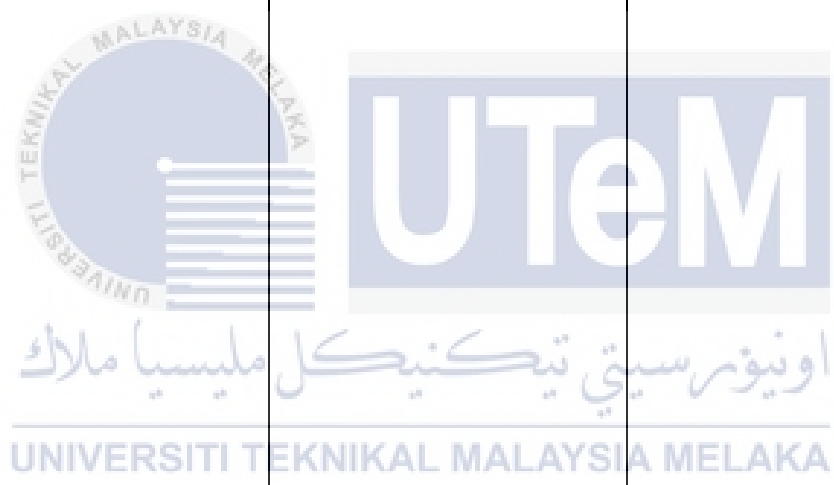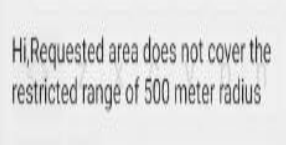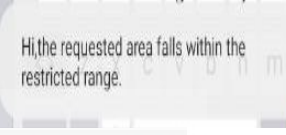| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class C**:<br><br>Locations that fall within 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall within 1100 meters and 500 meters of range respectively<br>Location: Universiti Teknical Malaysia Melaka | Screenshot of the test output:<br><br>Radius: 1100 meters Toast message: |
| 2 | Key in a value for the location. | | |
| 3 | Extend the radius now.<br>Set it to 1100 meters. | | |
| 4 | Navigate to "Set Drop off Address"page. | | |

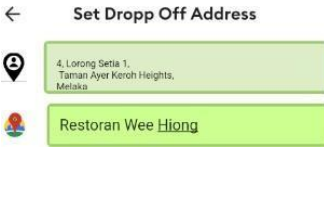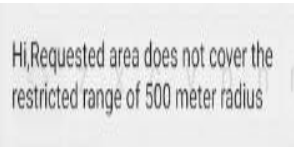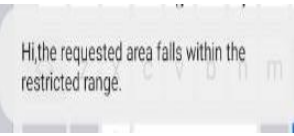| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 5 | Key in the value for the location. | Radius:500,1100 meters<br><br>Screenshot of the test steps: | Hi,Requested area does not cover the restricted range of 1100 meter radius |
| 6 | Inspect if the area preferred is found within the radius set in step 3. | ← Set Dropp Off Address<br><br>4, Lorong Setia 1, Taman Ayer Keroh Heights, Melaka<br><br>Universiti Teknika Malaysia Melaka | Radius:500 meters |
| 7 | Perform step 3 and set the radius to 500 meters | | Hi,Requested area does not cover the restricted range of 500 meter radius |
| 8 | Inspect if the area preferred is found within the radius set in step 7. | | |

Test Case ID- TS_144: Verify whether test location 44 is either within the 500-meter radius or 1100-meter radius or both.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class C**:<br><br>Locations that fall within 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall within 1100 meters and 500 meters of range respectively Location: Universiti Teknical Malaysia Melaka Radius:500,1100 meters | Screenshot of the test output:<br><br>Radius: 1100 meters Toast message: |
| 2 | Key in a value for the location. | | Hi,Requested area does not cover the restricted range of 1100 meter radius |
| 3 | Extend the radius now. Set it to 1100 meters. | | |
| 4 | Navigate to "Set Drop off Address"page. | Location: UTem Holdings Sdn<br><br>Screenshot of the test steps: | Radius:500 meters |
| 5 | Key in the value for the location. | ← Set Dropp Off Address<br><br>4, Lorong Setia 1, Taman Ayer Keroh Heights, Melaka | Hi,Requested area does not cover the restricted range of 500 meter radius |
| 6 | Inspect if the area preferred is found within the radius set in step 3. | UTem Holdings Sdn | |

| 7 | Perform step 3 and set the radius to 500 meters | | |
|---|---|---|---|
| 8 | Inspect if the area preferred is found within the radius set in step 7. | | |

Test Case ID- TS_145: Verify whether test location 45 is either within the 500-meter radius or 1100-meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class C**:<br><br>Locations that fall within 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall within 1100 meters and 500 meters of range respectively | Screenshot of the test output:<br><br>Radius: 1100 meters Toast message: |
| 2 | Key in a value for the location. | | |
| 3 | Extend the radius now. Set it to 1100 meters. | Location: Universiti Teknical Malaysia Melaka<br><br>Radius:500,1100 meters | Hi,Requested area does not cover the restricted range of 1100 meter radius |
| 4 | Navigate to "Set Drop off Address"page. | Location: Kolej kediaman utem makmur | Radius:500 meters |
| 5 | Key in the value for the location. | Screenshot of the test steps:<br>← Set Dropp Off Address<br><br>4, Lorong Setia 1, Taman Ayer Keroh Heights, Melaka<br><br>Kolej kediaman utem makmur | Hi,Requested area does not cover the restricted range of 500 meter radius |
| 6 | Inspect if the area preferred is found within the radius set in step 3. | | |
| 7 | Perform step 3 and set the radius to 500 meters | | |
| 8 | Inspect if the area preferred is found within the radius set in step 7. | | |

Test Case ID- TS_146:Verify whether test location 46 is either within the 500-meter radius or1100-meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|

| | | Test Class C: | Screenshot of the test |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | Locations that fall within 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall within 1100 meters and 500 meters of range respectively | output:

Radius: 1100 meters

Toast message: |
| 2 | Key in a value for the location. | | |
| 3 | Extend the radius now. Set it to 1100 meters. | | Hi,Requested area does not cover the restricted range of 1100 meter radius |
| | | Radius:500,1100 meters

Location: Campus FTM and FKM Utem

Screenshot of the test steps: | |
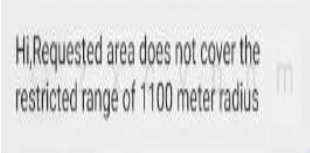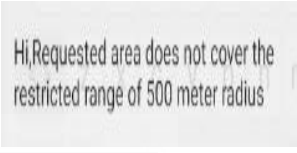| 4 | Navigate to "Set Drop off Address"page. | | Radius:500 meters |
| 5 | Key in the value for the location. | | |
| 6 | Inspect if the area preferred is found within the radius set in step 3. | | Hi,Requested area does not cover the restricted range of 500 meter radius |
| 7 | Perform step 3 and set the radius to 500 meters | | |
| 8 | Inspect if the area preferred is found within the radius set in step 7. | | |

Test Case ID- TS_147:Verify whether test location 47 is either within the 500-meter radius or1100-meter radius or both
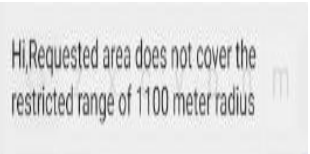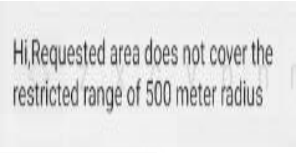
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | Test Class C:

Locations that fall within 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall | Screenshot of the test output:

Radius: 1100 meters

Toast message: |
| 2 | Key in a value for the location. | | |
| 3 | Extend the radius now. Set it to 1100 meters. | within 1100 meters and 500 meters of range respectively

Radius:500,1100 meters

Location: Composite Technology Research Malaysia | Hi,Requested area does not cover the restricted range of 1100 meter radius |
| 4 | Navigate to "Set Drop off Address"page. | | Radius:500 meters |

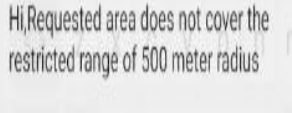| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 5 | Key in the value for the location. | | Hi,Requested area does not cover the restricted range of 500 meter radius |
| 6 | Inspect if the area preferred is found within the radius set in step 3. | Screenshot of the test steps:  | |
| 7 | Perform step 3 and set the radius to 500 meters | | |
| 8 | Inspect if the area preferred is found within the radius set in step 7. | | |

Test Case ID- TS_148: Verify whether test location 48 is either within the 500-meter radius or1100-meter radius or both

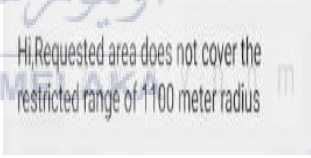| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class C**: Locations that fall within 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall within 1100 meters and 500 meters of range respectively | Screenshot of the test output: Radius: 1100 meters Toast message: Hi,Requested area does not cover the restricted range of 1100 meter radius |
| 2 | Key in a value for the location. | | |
| 3 | Extend the radius now. Set it to 1100 meters. | Radius:500,1100 meters Location: Cohu Malaysia Sdn Bhd | |
| 4 | Navigate to "Set Drop off Address"page. | | Radius:500 meters |
| 5 | Key in the value for the location. | Screenshot of the test steps: | Hi,Requested area does not cover the restricted range of 500 meter radius |
| 6 7 | Inspect if the area preferred is found within the radius set in step 3. Perform step 3 and set the radius to 500 meters |  | |
| 8 | Inspect if the area preferred is found within the radius set in step 7. | | |

Test Case ID- TS_149 :Verify whether test location 49 is either within the 500-meter radius or1100-meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class C**:<br><br>Locations that fall within 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall within 1100 meters and 500 meters of range respectively | Screenshot of the test output:<br><br>Radius: 1100 meters<br><br>Toast message: |
| 2 | Key in a value for the location. | | Hi,Requested area does not cover the restricted range of 1100 meter radius |
| 3 | Extend the radius now. Set it to 1100 meters. | | |
| | | Radius:500,1100 meters | |
| 4 | Navigate to "Set Drop off Address"page. | | |
| 5 | Key in the value for the location. | Location: Fun Bake Enterprise | Radius:500 meters |
| 6 | Inspect if the area preferred is found within the radius set in step 3. | Screenshot of the test steps: | Hi,Requested area does not cover the restricted range of 500 meter radius |
| 7 | Perform step 3 and set the radius to 500 meters |  | |
| 8 | Inspect if the area preferred is found within the radius set in step 7. | | |

Test Case ID- TS_150: Verify whether test location 50 is either within the 500 meter radius or 1100-meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class C**:<br><br>Locations that fall within 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall within 1100 meters and 500 meters of range respectively | Screenshot of the test output:<br><br>Radius: 1100 meters Toast message: |
| 2 | Key in a value for the location. | | Hi,Requested area does not cover the restricted range of 1100 meter radius |
| 3 | Extend the radius now. Set it to 1100 meters. | Radius:500,1100 meters<br><br>Location: Family Store | |

| 4 | Navigate to "Set Drop off Address"page. | Kipmart | Radius:5000 meters |
|---|---|---|---|
| 5 | Key in the value for the location. | Screenshot of the test steps: | |
| 6 | Inspect if the area preferred is found within the radius set in step 3. | | Hi,Requested area does not cover the restricted range of 500 meter radius |
| 7 | Perform step 3 and set the radius to 500 meters |  | |
| 8 | Inspect if the area preferred is found within the radius set in step 7. | | |

Test Case ID- TS_151 : Verify whether test location 51 is either within the 500 meter radius or 1100-meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class C:**<br><br>Locations that fall within 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall within 1100 meters and 500 meters of range respectively | Screenshot of the test output:<br><br>Radius: 1100 meters Toast |
| 2 | Key in a value for the location. | | message:<br><br>Hi,Requested area does not cover the restricted range of 1100 meter radius |
| 3 | Extend the radius now. Set it to 1100 meters. | Radius:500,1100 meters Location: Zanna Nasi Lemak | |
| 4 | Navigate to "Set Drop off Address"page. | | |
| 5 | Key in the value for the location. | | Radius:500 meters Toast |
| 6 | Inspect if the area preferred is found within the radius set in step 3. | Screenshot of the test steps: | message:<br><br>Hi,Requested area does not cover the restricted range of 500 meter radius |
| 7 | Perform step 3 and set the radius to 500 meters | | |

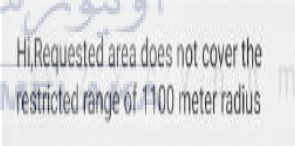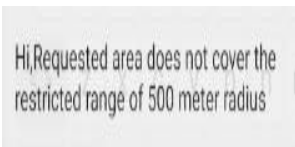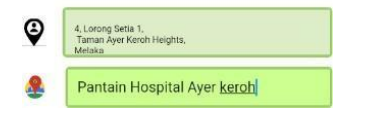| 8 | Inspect if the area preferred is found within the radius set in step 7. |  | |
|---|---|---|---|

Test Case ID- TS_152 :Verify whether test location 52 is either within the 500 meter radius or 1100-meter radius or both

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the "Range of areas covered" from the list of menus popping up upon opening the drawer. | **Test Class C**:<br><br>Locations that fall within 5000 meters in earlier test cases. The same list of locations are searched and tested to see if they fall within 1100 meters and 500 meters of range respectively<br><br>Radius:500,1100 meters<br><br>Location: Pantai Hospital Ayer Keroh<br><br>Screenshot of the test steps:<br> | .<br><br>Screenshot of the test output:<br><br>Radius: 1100 meters Toast message:<br><br><br>Radius:500 meters<br><br> |
| 2 | Key in a value for the location. | | |
| 3 | Extend the radius now. Set it to 1100 meters. | | |
| 4 | Navigate to "Set Drop off Address"page. | | |
| 5 | Key in the value for the location. | | |
| 6 | Inspect if the area preferred is found within the radius set in step 3. | | |
| 7 | Perform step 3 and set the radius to 500 meters | | |

| | | | |
|---|---|---|---|
| 8 | Inspect if the area preferred is found within the radius set in step 7. | | |

| | | | |
|---|---|---|---|

Test Case ID- TS_153: For the driver's application, verify login with an incorrect email format..

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Naviagate to login page. | Email:testemail Password:Abc12345@ | Email address is not in valid format. Screenshot of the test output below: |
| 2 | Insert an email with an incorrect format. | Test email field with an incorrect email format not containing @. Screenshot of the test steps: | |
| 3 | Insert a valid password | | |
| 4 | Press the login button. | | |
| | |  |  |

Test Case ID- TS_154:For the driver's application,verify login with an unregistered email.
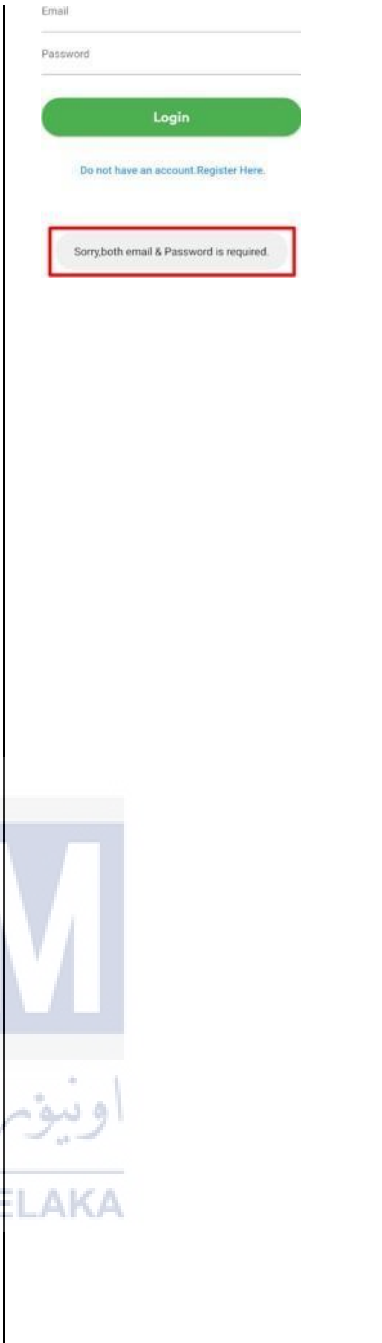
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to Login page. | Use unregistered email and a valid password. | Failed to login to the firebase database- unable to match any of the data in the list of registered users. The error message says "Sorry either the |
| 2 | Enter a wrong email not registered among the Firebase uid in the database | Email:wrongemail@gmail.com Password: Abc12345@ Screenshot of the test | |
| 3 | Enter any password in valid format i.e a mix of uppercase,lowercase and | | |

| | special characters. | steps: | email or password is not valid. Please try again." |
|---|---|---|---|
| 4 | Press Login Button |  | Screenshot of the output below: |
| 5 | Navigate to Login page. | |  |

| Test Case ID- TS_155:For the driver's application, verify login Empty email and an empty password. | | | |
|---|---|---|---|
| Steps | Test Steps | Test Data/Test Requirements: | Actual Result |
| 1 | Navigate to login page. | Email:null<br>Password:null | The error message pops up "Sorry, both email & Password is required." |
| 2 | Leave the email field blank. | Email: The email field is left empty. | Screenshot of the test output below: |
| 3 | Leave the password field blank. | Password: The password field is left empty.<br>Screenshot of the test steps: | |
| 4. | Press the login button | | |
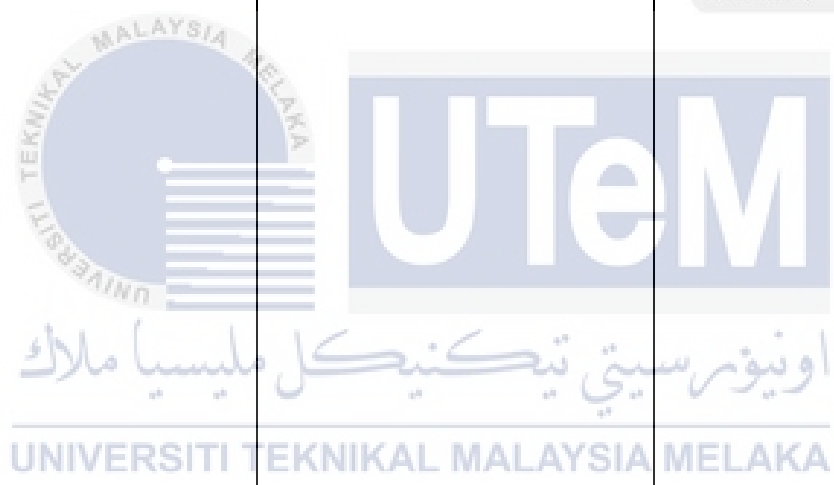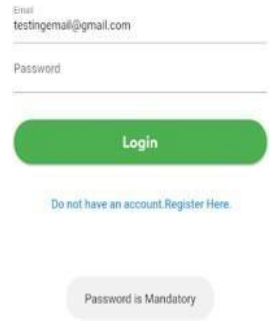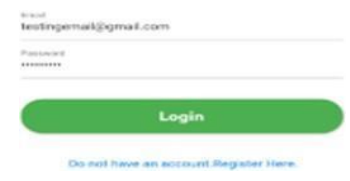
Test Case ID- TS_156:For the driver's application, verify login with an empty password only.

| Steps | Test Steps | Test Data/Test Requirements: | Actual Result |
|---|---|---|---|
| 1 | Navigate to login page | Email:testingemail@gmail.com Password:null<br><br>Test Password field with null value.<br>Key in a valid email in the email field. | An error message is displayed and it says "Password is mandaroty."<br><br>Screen shot of the test output: |

| | | | testingemail@gmail.com |
| | | | Password |
| | | | |
| | | | Login |
| | | | |
| | | | Do not have an account.Register Here. |
| | | | |
| | | | Password is Mandatory |

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 2 | Enter valid email | | |
| 3 | Leave the password field blank. | Test both the email and password fields with a valid email and null value for the password.. | |
| 4 | Press "Login" button | | |
| | | Screenshot of the test steps: | |
| | | Email testingemail@gmail.com | |
| | | Password | |
| | | Login | |
| | | Do not have an account.Register Here. | |
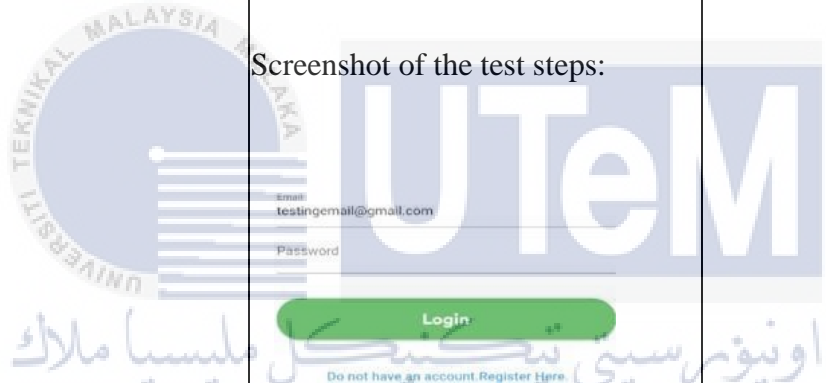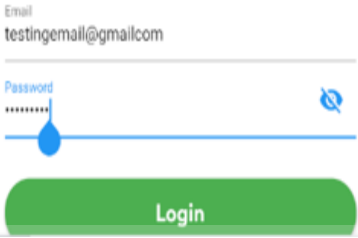
Test Case ID- TS_157:For the driver's application, verify login with a valid email and a valid password.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to Login Page | Email:testingemail@gmail.com Password:Abc12345@ | A success message pops up saying "You are logged in now". |
| 2 | Enter valid email | Test email field with email in correct format and key in a valid passoword.Test Data/Test Requirements for an email in these is the registered user.<br><br>Screenshot of the test steps:<br><br>Email testingemail@gmail.com<br>Password ••••••••••<br><br>Login<br><br>Do not have an account.Register Here. | |
| 3 | Enter valid password | | |
| 4 | Press "Login" button | | |

Test Case ID- S158:For the driver's application, verify login with an email not containing "."

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to login page. | Email: testingemail@gmail.com | Email address in invalid. |
| 2 | Enter an email with an incorrect format not containing "." | Password: Abc12345@ Test the email field with an incorrect email format. Email should not contain "." Key in a valid password with a correct format.<br><br>creenshot of the test steps:<br><br> | Screenshot of the<br><br>test output:<br><br> |
| 3 | Enter valid password | | |
| 4 | Press "Login" button | | |

|  |  |  |  |
|---|---|---|---|
|  |  |  |  |
|  |  |  |  |

Test Case ID- TS_158:For the driver's application, verify registration keeping all the fields' values

| | ps | a/Test Requirements | Result |
|---|---|---|---|
|  | Navigate to Registration Page. | Name:null<br>Phone:null<br>Email:null<br>Password:null | An error message is displayed says, "All the fields are required. Please key in your<br><br><br>Screenshot of the test elow: |

gister Now

quried. Please key in your
details

| | | | |
|---|---|---|---|
| 3 | Leave the name password field empty. | | |
| 4 | Leave the email field empty. | | |
| 5 | Leave the phone field empty. | Screenshot of the test steps:<br><br>Name<br><br>Phone<br><br>Email<br><br>Password<br><br>**Register Now**<br><br>Already have an account.Login Here. | |
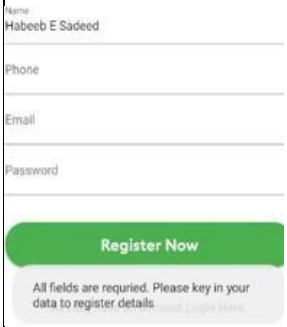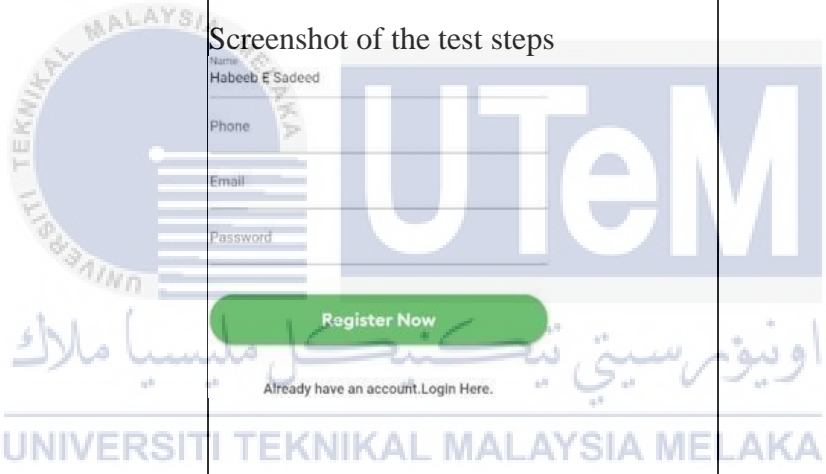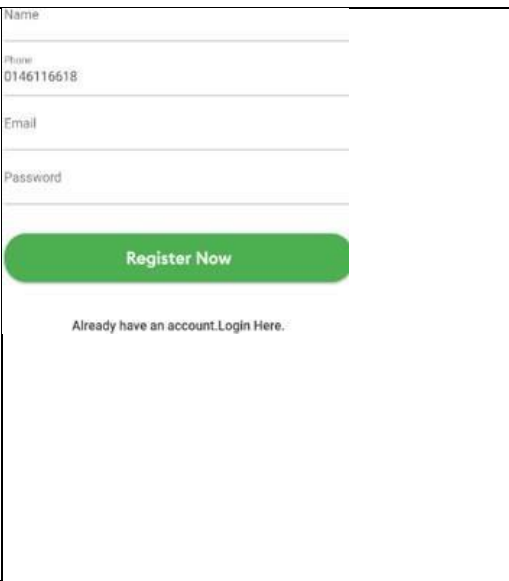
Test Case ID- TS_159:For the driver's application, verify registration with all fields emptyexcept the name field.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to registration page. | | An error message is displayed says "All fields are required.Please key |
| 2 | Fill in the name field. | Name:Habeeb E Sadeed : | in your data to register details". |
| 3 | Leave the phone field blank. | Phone:null | Screenshot of the test output |

| | | | |
|---|---|---|---|
| 4 | Leave the email field blank. | Email:null | below: |
| 5 | Leave the password field blank. | Password:null | |
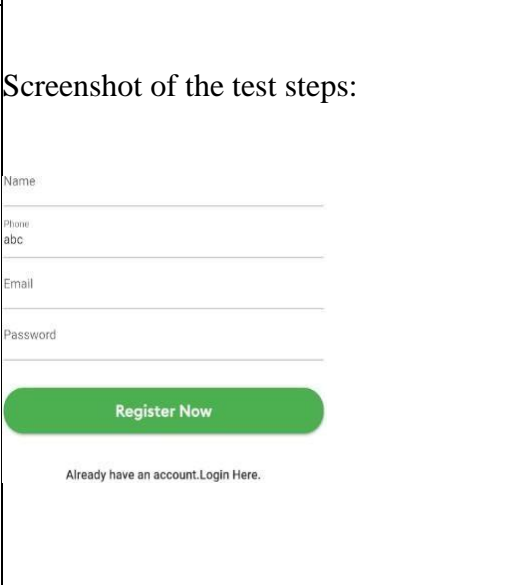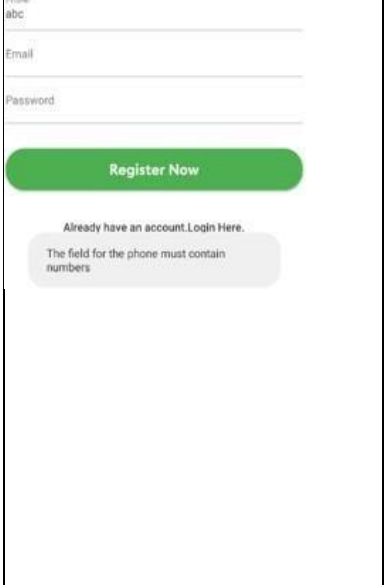
Screenshot of the test steps

Test Case ID- TS_160:For the driver's application, verify whether the correct length for the phone data is 10.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to registration page. | Name:null<br>Phone:0146116618<br>Email:null<br>Password:null<br>Screenshot of the test steps: | An error message is displayed says "All |
| 2 | Leave the name field blank. | | fields are required.Please key |
| 3 | Fill in the field for the phone. | | in your data to register details". Screenshot |

| 4 | Leave the email field blank. | | of the test output below: |
|---|---|---|---|
| | |  |  |
| 5 | Leave the password field blank. | | |

Test Case ID- TS_161:For the driver's application, verify whether the phone field accepts arecharacter or non integer values.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the register page. | Key in a non integer values in the phone field. | An error message is displayed says "The |
| 2 | Leave the name field blank. | Name:null Phone:abc | field for the phone must contain numbers". |
| 3 | Fill in the field for phone. | Email:null Password:null | |
| | | | Screenshot of the test output below: |
| | | |  |
| 4 | Leave the email field blank. | Screenshot of the test steps: | |
| | |  | |
| 5 | Leave the password field blank. | | |

Test Case ID- S162:For the driver's application, verify whether the phone field accepts length of digits below 10.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to registration page. | Key in a phone number for which the number of digits <10. Phone: 01461166 | An error message is displayed saying "Phone numbers must be 10 digits". |
| 2 | Leave the name field blank. | Screenshot of the test output: | Screenshot of the test output below: |
| 3 | Fill in the field for the phone. | | |
| 4 | Leave the email field blank | | |
| 5 | Leave the password field blank | | |

Test Case ID- TS_163:For the driver's application, verify whether the email fields accept anemail without at "@"

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to register page. | Email: testemailgmail.com Key in the value for this field. The value should not contain "@". Screenshot of the test steps: | The error message is displayed saying "Email address is not in correct format". Screenshot of the test output below: |
| 2 | Leave the name field blank. | | |
| 3 | Leave the phone field blank. | | |
| 4 | Fill the field for email. | | |
| 5 | Leave the password field blank. | | |
| 6 | Press the "Register Now" button. | | |

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
|  |  |  |  |
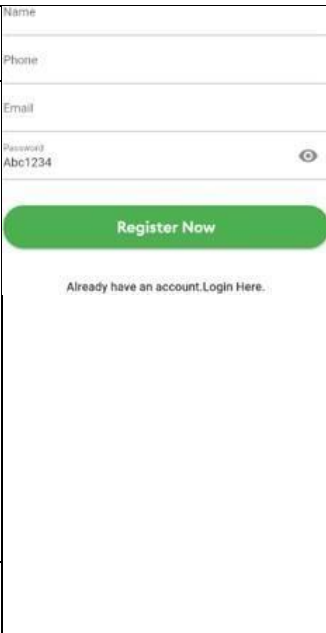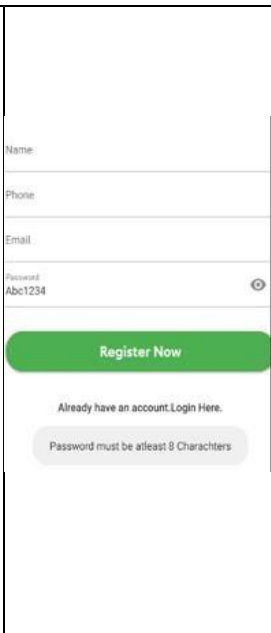
Test Case ID- TS_164:For the driver's application, verify whether the email containing"@" but does not contain "." is accepted in this field.
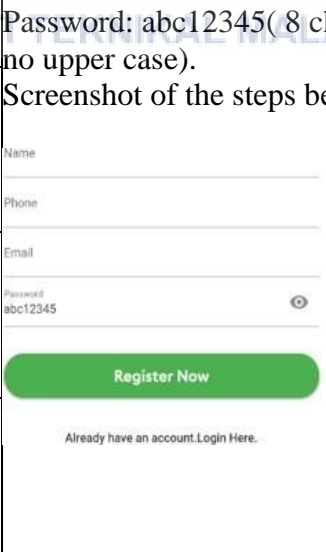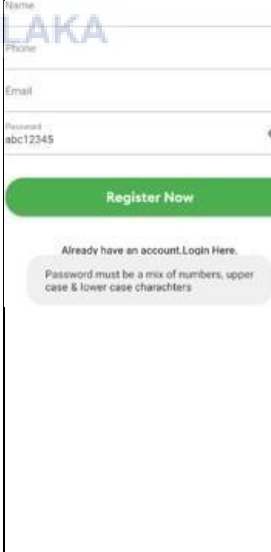
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to register page | Email: testemail@gmail.com | The error message is displayed saying "Email address is not in the correct format." Screenshot of the test output below: |
| 2 | Leave the name field blank. | Key in the value for this field containing "@" but excluding "." | |
| 3 | Leave the phone field blank. | | |
| 4 | Leave the email field blank. | Screenshot of the test steps: | |
| 5 | Leave the password field blank. | | |
| 6 | Press the "Register Now" button. | | |

Test Case ID- TS_165:For the driver's application, verify whether the password has 8characters in length.
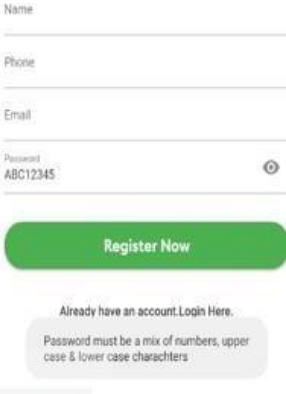
| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
|  |  |  |  |
| 1 | Navigate to register page. | Test if the password of below 8 characters in length is valid. | The error message pops up saying "The password must be at least 8 characters in length." |
| 2 | Leave the name field blank. | Password:Abc1234 (7 characters). | |
| 3 | Leave the phone field blank. | Screenshot of the test steps: | Screenshot of the test output below: |

| | | | |
|---|---|---|---|
| 4 | Leave the email field blank. | | |
| 5 | Fill in the field for the password. | | |
| 6 | Click on the "Register Now" button. | | |

Test Case ID- TS_166 :For the driver's application, verify whether the password contains
a mixture of uppercase, lower case ,numbers and special characters where at least one of these criteria is missing.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to the registration page. | Test if the password contains the mixture of upper case letters,lower | The error message pops up saying "The password must be a |
| 2 | Leave the name field blank. | case letters,number and a special characters. | mix of numbers, upper and lower case characters." |
| | | Key in an alphanumeric value for the password with no uppercase characters. | Screenshot of the test output below: |
| | | Password: abc12345( 8 characters and no upper case). | |
| 3 | Leave the phone field blank. | Screenshot of the steps below: | |
| 4 | Leave the email field blank. | | |
| 5 | Fill in the password field. | | |
| 6. | Click on the "Register button" | | |

Test Case ID- TS_167: For the driver's application, verify whether the password contains a
a mixture of uppercase, lower case ,numbers and special characters where at least one of these criteria is missing.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|-------|-----------|----------------------------|---------------|
| 1 | Navigate to registration page. | Test if the password contains a mixture of upper case letters,lower case letters,number and a special characters.<br><br>Key in an alphanumeric value for the password with no lowercase characters.<br><br>Password: ABC12345( 8 characters and no upper case).<br><br>Screenshot of the steps below: | The error message pops up saying "The password must be a mix of numbers, upper and lower case characters."<br><br>Screenshot of the test output below: |
| 2 | Leave the name field blank. | | |
| 3 | Leave the phone field blank. | | |
| 4 | Leave the email field blank. | | |
| 5 | Fill in the field for password. | | |
| 6. | Click on the "Register button" | | |

Test Case ID- TS_168: For the driver's application, verify whether the password contains a mixture of uppercase, lower case,numbers and special characters where at least one of these criteria is missing.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|-------|-----------|----------------------------|---------------|
| 1 | Navigate to register page. | Test if the password contains a mixture of upper case letters,lower case letters, numbers, and special characters. | The error message pops up saying "The password must be a mix of numbers, upper and lower case characters." |
| 2 | Leave the name field empty. | Key in alphanumeric value for the password having both upper and lower case characters but no special characters. | Screenshot of the test output below: |
| 3 | Leave the phone field empty. | | |
| 4 | Leave the email field empty. | Password: Abc12345 | |
| 5 | Fill in the field for password. | Screenshot of the steps below: | |
| 6 | Click on register | | |

button

Name

Phone

Email

Password
Abc12345 👁

**Register Now**

Already have an account.Login Here.

---

Name

Phone

Email

Password
Abc12345 👁

**Register Now**

Already have an account.Login Here.

Password must be a mix of numbers, upper case & lower case characters

---

Test Case ID- TS_169:For the driver's application, verify whether the password contains a mixture of uppercase, lower case ,numbers and special characters where at least one of these criteria is missing.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|---|---|---|---|
| 1 | Navigate to register page. | Test if the password contains a mixture of upper case letters,lower case letters, numbers, and special characters. | The error message pops up saying "All fields are required.Please key in your data to register |
| 2 | Leave the name field empty. | | details." |
| 3 | Leave the phone field empty. | Key in alphanumeric value for the password having both upper and lower case characters but atleast one special character. | |
| 4 | Leave the email field empty. | | Screenshot of the test output below: |
| 5 | Fill in the password field. | Password: Abc12345@ | |
| 6 | Click the register button. | Screenshot of the steps below: | |

Name

Phone

Email

Password
Abc12345@ 👁

**Register Now**

Already have an account.Login Here.

Name

Phone

Email

Password
Abc12345@ 👁

**Register Now**

Already have an account.Login Here.

All fields are requried. Please key in your data to register details

Test Case ID- TS_170: For the driver's application, verify whether all the fields on the registration page accept valid inputs.

| Steps | Test Steps | Test Data/Test Requirements | Actual Result |
|-------|-----------|----------------------------|---------------|
| 1 | Navigate to register page. | Fill in all the fields with valid inputs.<br>Name: Habeeb E Sadeed<br>Phone:0146116618 | A new record is created. The user is successfully registered in the database of driver's. Screenshot of the test output: New user UID in firebase: |
| 2 | Fill in the field for name. | Email:habeeb9016@gmail.com<br>Password:Abc12345@ | |
| 3 | Fill in the field for phone. | Screenshot of the test steps: | |
| 4 | Fill in the field for email | | |
| 5 | Fill in the field for password. | | A new node is created for this user in the database: |
| 6 | Click on the register button. | | |
| | | | Success page: |

## 6.6  Test Results and Analysis

Table 6-6  Test Results and Analysis

| Test Case ID- | Tester ID: | Test Case Result |
|---|---|---|
| TS_1 | TS04 | Success |
| TS_2 | TS04 | Success |
| TS_3 | TS04 | Success |
| TS_4 | TS04 | Success |
| TS_5 | TS04 | Success |

| | | |
|---|---|---|
| TS_6 | TS04 | Success |
| TS_7 | TS04 | Success |
| TS_8 | TS04 | Success |
| TS_9 | TS04 | Success |
| TS_10 | TS04 | Success |
| TS_11 | TS04 | Success |
| TS_12 | TS04 | Success |
| TS_13 | TS05 | Success |
| TS_14 | TS05 | Success |
| TS_15 | TS05 | Success |
| TS_16 | TS05 | Success |
| TS_17 | TS05 | Success |
| TS_18 | TS05 | Success |
| TS_19 | TS05 | Success |
| TS_20 | TS05 | Success |
| TS_21 | TS05 | Success |
| TS_22 | TS06 | Success |
| TS_23 | TS06 | Success |
| TS_24 | TS06 | Success |
| TS_25 | TS06 | Success |
| TS_26 | TS06 | Success |
| TS_27 | TS06 | Success |
| TS_28 | TS06 | Success |
| TS_29 | TS06 | Success |
| TS_30 | TS06 | Success |
| TS_31 | TS06 | Success |
| TS_32 | TS07 | Success |
| TS_33 | TS07 | Success |
| TS_34 | TS07 | Success |
| TS_41 | TS08 | Success |
| TS_42 | TS08 | Success |
| TS_43 | TS08 | Success |
| TS_44 | TS08 | Success |
| TS_45 | TS08 | Success |
| TS_46 | TS08 | Success |
| TS_47 | TS09 | Success |
| TS_48 | TS09 | Success |

| TS_49 | TS09 | Success |
|-------|------|---------|
| TS_50 | TS09 | Success |
| TS_51 | TS09 | Success |
| TS_52 | TS09 | Success |
| TS_53 | TS09 | Success |
| TS_54 | TS09 | Success |
| TS_55 | TS09 | Success |
| TS_56 | TS09 | Success |
| TS_57 | TS09 | Success |

| TS_58 | TS09 | Success |
|-------|------|---------|
| TS_59 | TS09 | Success |
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| TS_61 | TS09 | Success |
| TS_62 | TS10 | Success |
| TS_63 | TS10 | Success |
| TS_64 | TS10 | Success |
| TS_65 | TS10 | Success |
| TS_66 | TS10 | Success |
| TS_67 | TS10 | Success |
| TS_68 | TS10 | Success |
| TS_69 | TS10 | Success |
| TS_70 | TS10 | Success |
| TS_71 | TS10 | Success |
| TS_72 | TS10 | Success |
| TS_73 | TS10 | Success |
| TS_74 | TS10 | Success |
| TS_75 | TS10 | Success |
| TS_76 | TS10 | Success |
| TS_77 | TS11 | Success |
| TS_78 | TS11 | Success |
| TS_79 | TS11 | Success |
| TS_80 | TS11 | Success |
| TS_81 | TS11 | Success |
| TS_82 | TS11 | Success |
| TS_83 | TS11 | Success |
| TS_84 | TS11 | Success |
| TS_85 | TS11 | Success |
| TS_86 | TS11 | Success |
| TS_87 | TS11 | Success |
| TS_88 | TS11 | Success |
| TS_89 | TS11 | Success |
| TS_90 | TS11 | Success |
| TS_91 | TS11 | Success |
| TS_92 | TS12 | Success |
| TS_93 | TS12 | Success |

| TS_94 | TS13 | Success |
|-------|------|---------|
| TS_95 | TS13 | Success |
| TS_96 | TS13 | Success |
| TS_97 | TS13 | Success |
| TS_98 | TS13 | Success |
| TS_99 | TS13 | Success |
| TS_100 | TS13 | Success |
| TS_101 | TS14 | Success |
| TS_102 | TS14 | Success |
| TS_103 | TS14 | Success |
| TS_104 | TS14 | Success |
| TS_105 | TS14 | Success |
| TS_106 | TS14 | Success |
| TS_107 | TS14 | Success |
| TS_108 | TS14 | Success |
| TS_109 | TS14 | Success |
| TS_110 | TS14 | Success |
| TS_111 | TS14 | Success |
| TS_112 | TS14 | Success |
| TS_113 | TS14 | Success |
| TS_114 | TS14 | Success |
| TS_115 | TS14 | Success |
| TS_116 | TS15 | Success |
| TS_117 | TS15 | Success |
| TS_118 | TS15 | Success |
| TS_119 | TS15 | Success |
| TS_120 | TS15 | Success |
| TS_121 | TS15 | Success |
| TS_122 | TS15 | Success |
| TS_123 | TS15 | Success |
| TS_124 | TS15 | Success |
| TS_125 | TS15 | Success |
| TS_126 | TS15 | Success |
| TS_127 | TS15 | Success |
| TS_128 | TS15 | Success |
| TS_129 | TS15 | Success |

| TS_130 | TS15 | Success |
|--------|------|---------|
| TS_131 | TS15 | Success |
| TS_132 | TS15 | Success |
| TS_133 | TS16 | Success |
| TS_134 | TS17 | Success |
| TS_135 | TS17 | Success |
| TS_136 | TS17 | Success |
| TS_137 | TS17 | Success |
| TS_138 | TS17 | Success |
| TS_139 | TS17 | Success |
| TS_140 | TS17 | Success |
| TS_141 | TS17 | Success |
| TS_142 | TS17 | Success |
| TS_143 | TS17 | Success |
| TS_144 | TS17 | Success |
| TS_145 | TS17 | Success |
| TS_146 | TS17 | Success |
| TS_147 | TS17 | Success |
| TS_148 | TS17 | Success |
| TS_149 | TS17 | Success |
| TS_150 | TS17 | Success |
| TS_151 | TS17 | Success |
| TS_152 | TS18 | Success |
| TS_153 | TS18 | Success |
| TS_154 | TS18 | Success |
| TS_155 | TS18 | Success |
| TS_156 | TS18 | Success |
| TS_157 | TS18 | Success |
| TS_158 | TS18 | Success |
| TS_159 | TS18 | Success |
| TS_160 | TS18 | Success |
| TS_161 | TS18 | Success |
| TS_162 | TS18 | Success |
| TS_163 | TS18 | Success |
| TS_164 | TS18 | Success |
| TS_165 | TS18 | Success |

| | | |
|---|---|---|
| TS_166 | TS18 | Success |
| TS_167 | TS18 | Success |
| TS_168 | TS18 | Success |
| TS_169 | TS19 | Success |
| TS_170 | TS19 | Success |

**Test Class _A_**- Description of the Test Cases-ID: Starting from TS_101 to TS_122

**Test Class _B_**- Description of the Test Cases-ID: Starting from TS_123 to TS_142

**Test Class _C_**- Description of the Test Cases-ID: Starting from TS_143 to TS_152

In line with our discussion in Table 6.4 the test cases conducted for the above these case ID's results in the following statistical output.   The graph below shows the overall output of all the test case
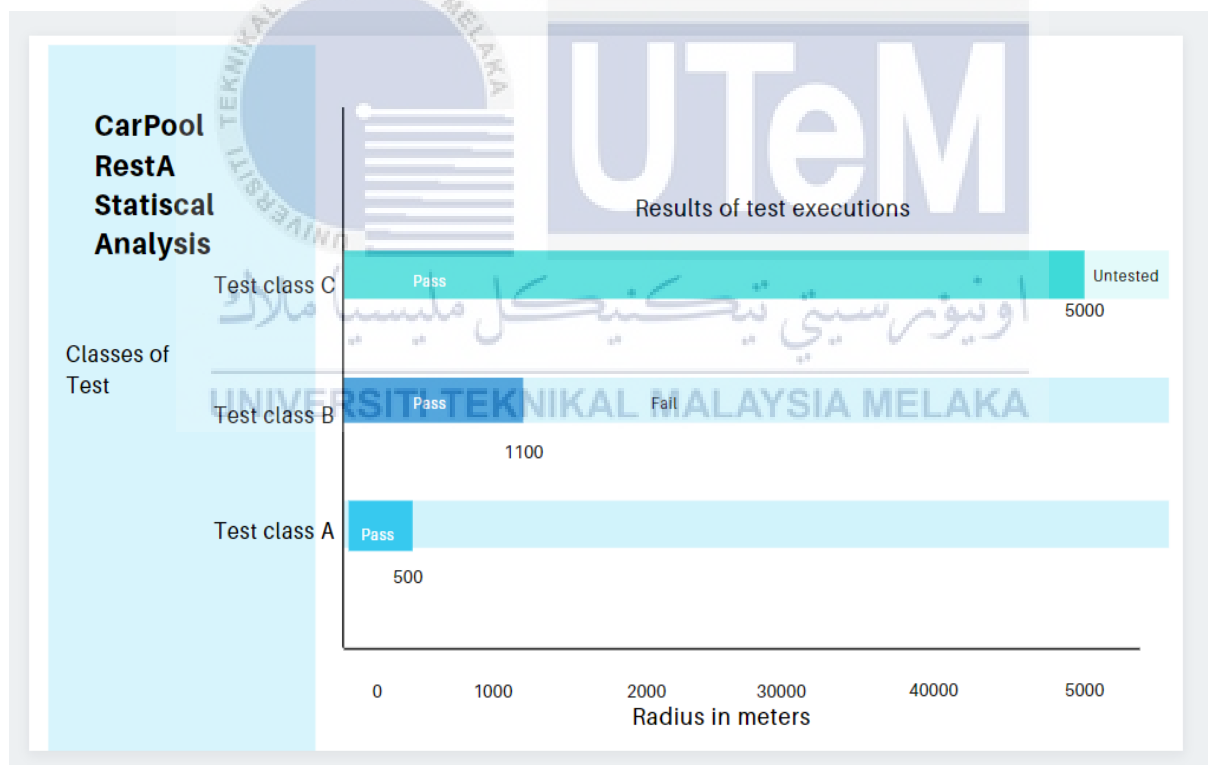


executions of  CarPool RestA.

Figure 6.5.0 – Statical graph for test case executions
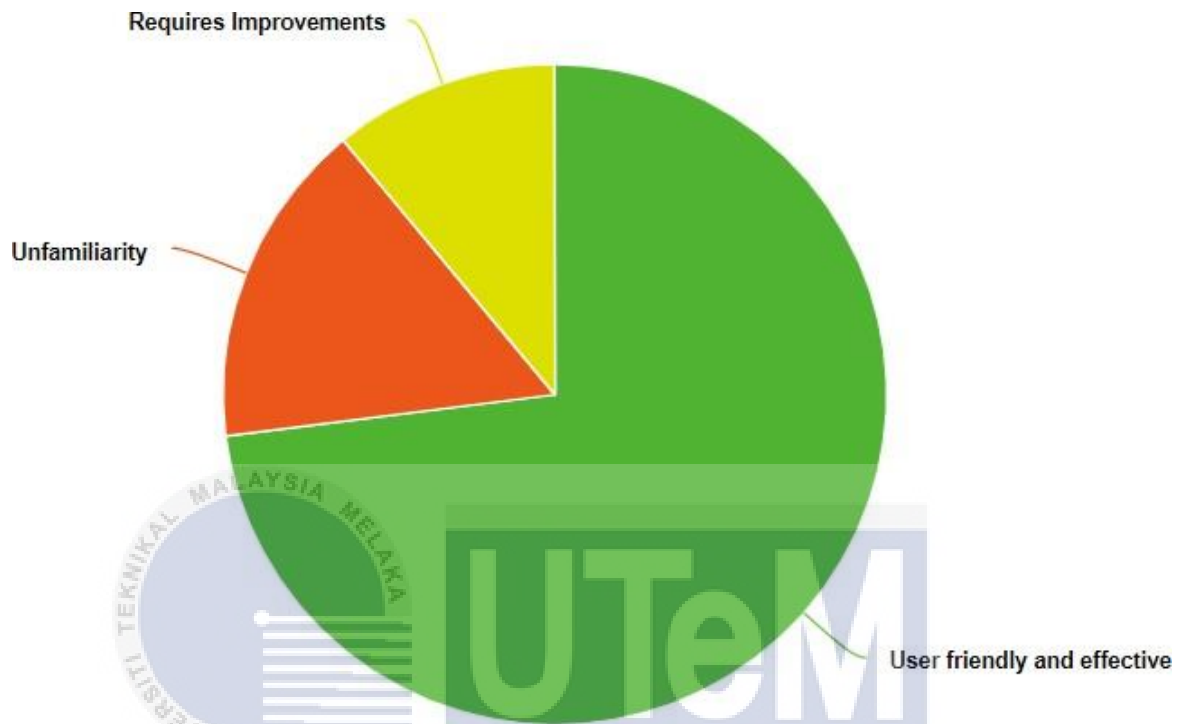
### 6.6.1 *Results from user acceptance test*



Figure 6-2- Results of Google form surveys derived from feedbacks of 50 participants

75% of the participants felt that the application is UI friendly and highly effective.14% of the participants felt that both the idea and application felt very new to them. 11% of the participants felt that the application required improvements.

## 6.7 Conclusion

In conclusion, this section describes the technique used to test and verify the system to ensure that its quality meets all criteria. It is a big move before actual consumer implementation. The test plan includes several tests that examine different elements of the system. The test plan is made up of several tests that examine various system aspects. The following chapter would be the last to describe the system's shortcomings and strengths.

# CHAPTER 7: CONCLUSION

## 7.1 Observation on Weaknesses and Strengths

The limitations and strengths of this method will be discussed further below.

## 7.2 Strength

- Users can access this system from anywhere as long as they have an internet connection in their environment, which is the case with this system because it is a mobile one.

- The system provides a priority ride service.

- The system provides a phone call feature as a quick way to communicate between the rider and a driver.

- The system is limited to be used within a set radius.

- The system provides a notification service and live tracking features.

- The system is very fast and easy to use.

- The system provides open income opportunities for anyone choosing to become a driver.

### 7.2.1 *Weaknesses*

Because of the system's insufficient security, it is still feasible for information to be leaked.

### 7.2.2 *Propositions for Improvement*

It is still conceivable to improve the system, even though it has met all users' criteria since user requirements vary with time. To ensure that sensitive information remains secure, it is necessary to strengthen the security of the network. The system's capabilities can be further increased with the addition of a notifications service to update the driver on the rider's status after dropping him off at his destination. Depending on the after-drop quality, the driver might choose to off his rider further assistance if required.

### 7.2.3 *Project Contribution*

This project is designed to assist the residents of Malaysia. It serves all people in a social setup, especially those who do not have transport of their own which causes them to face troubles daily. The second group of people hails from all walks of life and, at times, might see the need for an emergency ride service during peak days. The project might therefore be a starting point opening a window of opportunities for prospective drivers next door. Those who will be using this service might be of great relief during critical moments in their lives.

## 7.3 Conclusion

In conclusion, the project's goal and the primary difficulty identified earlier in this report have both been met and resolved successfully. However, it will take more time and effort to improve the system to be more efficient and complete in the future.

# REFERENCES

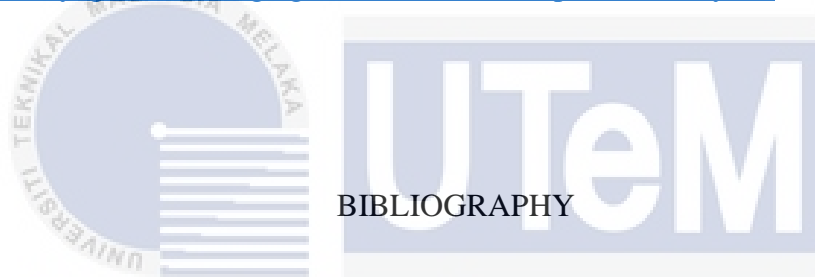[1] 4 Challenges Uber will face in the coming years

   <https://www.investopedia.com/articles/investing/072215/4-challenges-uber-will-    face-next-
   years.asp>

[2] Your guide to Agile Software Development Life cycle.

   < https://www.easyagile.com/blog/agile-software-development-life-cycle >

[3] How to write a good test case in Software Engineering?

   <https://www.easyagile.com/blog/agile-software-development-life-cycle/ >

# BIBLIOGRAPHY

[1] Challenges faced by Uber drivers and consumer satisfaction in Pune city.

   <https://www.worldwidejournals.com/global-journal-for-research-analysis-
   GJRA/recent_issueTS_pdf/2018/February/February_2018_1518701910_52.pdf >

[2] To Grab or Not to Grab? Passenger ride intention towards e-hailing services

   <https://www.worldwidejournals.com/global-journal-for-research-analysis-
   GJRA/recent_issueTS_pdf/2018/February/February_2018_1518701910_52.pdf>

[3] The sharing economy: An analysis of ride-hailing services in Penang

   < (PDF) The Sharing Economy : An Analysis of Ride-Hailing Services in Penang
   (researchgate.net)>

[4] 8 Other Ride-Hailing Apps To Choose From Instead Of Grab

   <https://hype.my/2019/166064/ride-hailing-apps-grab/>