

MOBILE APPLICATION FOR DELIVERY SERVICES



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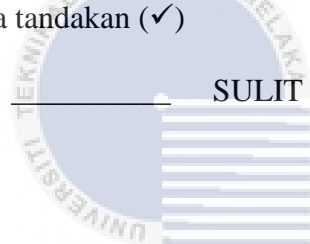
JUDUL: [**MOBILE APPLICATION FOR DELIVERY SERVICES**]

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MOBILE APPLICATION FOR DELIVERY SERVICES

LUHMAN MUSA BIN ABDUL MUTALIP



This report is submitted in partial fulfillment of the requirements for the Bachelor of [Computer Science (Software Development)] with Honours.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2021

DECLARATION

I hereby declare that this project report entitled
[MOBILE APPLICATION FOR DELIVERY SERVICES]
is written by me and is my own effort and that no part has been plagiarized
without citations.

STUDENT :  _____ Date : 5/9/21
(LUHMAN MUSA BIN ABDUL MUTALIP)

I hereby declare that I have read this project report and found
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Bachelor of [Computer Science (Software Development)] with Honours.

SUPERVISOR :  _____ Date : 5/9/21
([DR. UMMI RABA'AH BINTI HASHIM])

DEDICATION

In memory of my beloved father:

Almarhum Abdul Mutalip bin Mohd Amin

Who passed away on 8th of September 2008 while I was just nine years old.

Behind a success always need an effort to achieve it. Those who helped me such as my friends, my loved one and my supervisor, thank you so much for helping me to finish this project. It is such an honor and a success to do get help as much from a lot of people around me.

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First and foremost, I would like to praise the Almighty God for giving me the courage and the strength in completing this project. I am very thankful to my mother for her love, support and encouragement while I am doing this project.

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Besides that, I would like to express my sincere appreciation to my friends for the generous amount of support whenever I need some help. Last but not least, I would like to thank all my lecturers for their guidance during my present at Universiti Teknikal Malaysia Melaka and all those who were directly and indirectly involved throughout completing this final year project.

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ABSTRACT

Mobile Application for Delivery Services System is an android based application that implements location of users of the system for job purposes. This project aims to develop a system that can show the live location of the users to help them get their work done. This application is built to help users deliver their item that they want, and workers will deliver them to the designated location that is wanted by the user. This application can be used by the worker without following their work shift. They can just do the work during their free time or any time they want. Users can also have their item to be delivered anytime, anywhere, as long as there is a worker online. The mobile application will be developed, conducted and tested on android-based operating systems and devices.

ABSTRAK

Aplikasi Mobil Penghantaran adalah aplikasi berasaskan android yang melaksanakan lokasi pengguna untuk pekerjaan. Projek ini dibina untuk memaparkan lokasi langsung pengguna bagi membantu mereka menyelesaikan tugas yang diberi. Aplikasi ini dibina untuk membantu pengguna menghantar barang yang mereka ingini dan pekerja akan menghantar barang yg ke lokasi yang telah ditetapkan. Aplikasi ini boleh digunakan oleh pekerja tnpa mengikut shif kerja. Perkerja boleh berkerja mengikut kesesuaian masa mereka sendiri. Pengguna boleh menghantar barang mereka bila bila masa, di mana jua selagi terdapat perkerja yang berstatus “Online”. Aplikasi mudah alih akan dibangunkan, dijalankan dan diuji pada system operasi dan peranti berasaskan android.

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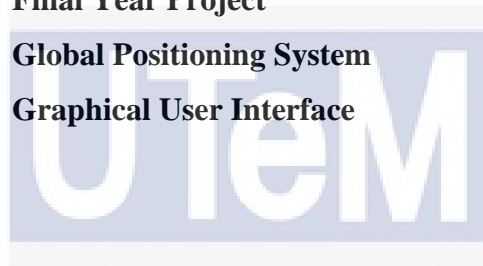


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LIST OF ABBREVIATIONS

API	-	Application Programming Interface
ERD	-	Entity Relationship Diagram
FYP	-	Final Year Project
GPS	-	Global Positioning System
GUI	-	Graphical User Interface

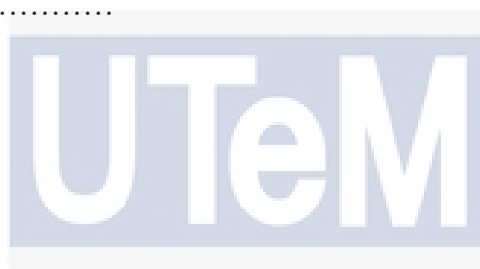


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CHAPTER 1: INTRODUCTION

1.1 Background of Study

Today's world has witnessed the advancement of technology in the 21st century which has the biggest contribution in easing the human's burden and saving more of their time. The online technology has rooted since the post-World War II era where it started in developing the commercialization of the network after the military era has slowly emerged into a civilian utility (Naughton, 2016). The internet that is being used today draws a lot of attention towards the technologist in enhancing the usage and expanding it to make life easier. The emergence of online food delivery services is one of the attributes of technological advancement.

Traditional way of restaurant is limited to dine in the physical dining restaurant and to take-away the food home. However, numerous food delivery service companies have changed the way of life among the urban consumer, where online food delivery services serve the consumer with a convenient and quick meal during the busy day. Earlier, most of the food delivery services were mainly focused on the urban area such as Klang Valley, Kuala Lumpur, Melaka, Johor and Penang, but to date the online food delivery services has extended their services to the sub-urban area which is also including Sabah and Sarawak.

To date, due to the pandemic that hit almost all parts of the country in Malaysia, the services now are not limited to food delivery services but also delivering goods or parcels. These services started to arise as the movement among the people were limited to their own region and territory. Because of the restriction, many individuals are in need of delivery services to ensure they are complying with the government standard

operating procedures. Hence, this current project is inspired by the emergence of delivering services due to a pandemic to help those people in need to sustain their small enterprise and those individuals that need to deliver goods to their family members or relatives.

All in all, the aim of this project is to develop an application as a platform to provide services to customers apart from offering job opportunities to the workers to engage in short-term tasks called the Mobile Application for Delivery Services System. The delivery application will help people conveniently deliver their goods and parcels to the other parties without the need to go out and deliver the goods by themselves. With the current situation, delivery service applications will help to limit the people's movement and reduce the spread of the viruses. Apart from that, through the application, people who lose their job during the pandemic will have opportunities to engage in this short-term task for their side income as a worker that completed the demand task in delivering the goods that were requested by the user.

1.2 Problem Statement

The current project is proposed based on several issues which are in recent years the situations now are jeopardized due to the new viruses that still have not yet resolved. The first issue is most people now are affected with the new viruses and when the government announced the restriction of movement is limited to 10 kilometres, individuals find it hard to deliver their foods and goods to customers or family members and relatives, mainly those who are solo entrepreneurs that selling goods as their main source of income is mostly affected. Thus, delivery service applications will help those individuals to get done things easier and conveniently.

The second issue is that working parents and children are now studying in a home based environment. Parents are busy with their own work while the need to attend to their children's needs will let them have limited time for groceries shopping and in getting their daily essential basic needs. Therefore, this current project will help the household to get access to their groceries and daily necessities through online delivery services quickly and saving more of their time.

The third issue is that the current situation is hardly to resist the economic turndown, hence many people have lost their jobs and they need to earn something for living. This proposed application involved a worker that was assigned to get the task

done as per requested by the customers. Hence, the delivery application will help the people affected by earning side income by becoming the workers of this application.

1.3 Objectives

The objective of this current project is:

1. To design a mobile application for online delivery services where the users are able to request a worker through the application to complete the task as per wish by the users. The application allows the user to cancel anytime according to user preferences.
2. To develop user-friendly online delivery services application with functionality of alert notification system. The system allows the workers to be automatically notified when there is an available task nearby through the application. The workers can accept the task or to decline the tasks available when they want to do so.
3. To enable users to keep track of the live location of the worker. The users are able to track the live location of the workers while delivering the goods to the other party. The application will provide estimated time and distance upon delivery process so the other party will be able to get ready in receiving the goods.

1.4 Scope

The scope of the current project focuses mainly on the users that employ the provided services through the application and the gig workers that benefit through accepting the tasks that are requested by the users.

1. Targeted customers

- Customers are able to log in and log out of the system.
- The customers are able to update their profile in the application.
- The customers are able to request for the available workers in delivering their goods and services.
- The customers can set their own preferable location to deliver the goods and services.
- The customers are able to cancel their request anytime.
- Upon completing the delivery, the customers are able to track their list of histories. The customers are able to track the services that they had employed before.

2. Workers

- Workers are able to log in and log out of the system.
- workers are able to go online to accept the task available to them anytime.
- The workers are able to go offline to cancel the request by the customer.
- Upon accepting the task, the workers are able to know the live location of the customers.
- The application allows the workers to be notified upon the location if there are any changes occurred during delivering the services.
- The workers are able to keep track of the past histories of the task that had been completed.

1.5 Project Significance

This user-friendly application is developed to provide convenient choices and quick delivery services which then will benefit both the workers and the customers. This application is also a platform to those that do not want to risk themselves or have a very limited time to do the delivery of the item due to the current situation of Covid 19 pandemic. The notification and the choices of transportation is implemented in the application to ease the users and the workers to do the job more efficiently. The choice of transportation in the application is the feature that allows users to choose which vehicle is suitable for the item to be delivered based on its weight and sizes to avoid any damage to the worker vehicle.

1.6 Expected Output

A well functioning mobile application of online delivery services will be developed where customers can deliver their goods or foods conveniently and quickly without the need to go out for delivery by themselves. While, workers can accept or decline the task assigned to them according to their flexibility and delivery to the preferred locations apart from earning side income.

1.7 Conclusion

This chapter has discussed the aim of the current project, the problem statement, and the expected output. In general, the chapter introduced the problem related to the current situation and the emergence of the gig economy which is parallel to technological advancement nowadays. Next chapter will discuss the insights of the past study and its relationship with the current project.

CHAPTER 2: LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter covers the details of project that related to the literature review and project methodology used to complete the current project. The focus will be on discovering facts, the methodology of the project, the requirement of the project and the schedule and milestone of the project which are utilized in order to achieve the objectives of the current project.

2.2 Facts and Findings Fact

There is a rapid rise of gig workers in the economy sector as the growth of online platform has increased and provide more job opportunities to the people. Gig economy served as a platform of digital technologies that act as a media between the gig workers and the clients. According to Schweltnus, Geva, Pak and Veiel (2019), gig economy has provide a flexibility to the workers because the workers are able to adjust their working hours as they wish to. Therefore gig economy has drawn more technology companies in creating more per-task based job as it is more convenient for the employers to pay lower wages to the gig workers compared to traditional way of working systems. Gig economy mostly employed the online mobile platform as a medium for the users to enjoy the services provided by the start-ups organizations or small businesses and enterprises. The Edge Market reported that Singapore had launched their new mobile platform application as part of their efforts in facilitating job matching in Singapore's gig economy. Singapore focused on the economy as they can see the potential of the beneficial in liquid workforce for both of their businesses