HEALTH AND BEAUTY CARE CURVE

WITH SMS NOTIFICATION

NUR AKMALIZA BINTI ZANURY

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

BORANG PENGESAHAN STATUS TESIS

JUDUL: HEALTH AND BEAUTY CARE CURVE WITH SMS NOTIFICATION

SESI PENGAJIAN: 2015/2016

Saya NUR AKMALIZA BINTI ZANURY
(HURUF BESAR)

mengaku membenarkan tesis (PSM/Sarjana/Doktor Falsafah) ini disimpan di Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dengan syarat-syarat kegunaan seperti berikut:

1. Tesis dan projek adalah hakmilik Universiti Teknikal Malaysia Melaka.
2. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan untuk tujuan pengajian sahaja.
3. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan tesis ini sebagai bahan pertukaran antara institusi pengajian tinggi.
4. ** Sila tandakan (/)

_____ SULIT	(Mengandungi maklumat yang berdarjah keselamatan atau kepentingan Malaysia seperti yang termaktub di dalam AKTA RAHSIA RASMI 1972)
_____ TERHAD	(Mengandungi maklumat TERHAD yang telah ditentukan oleh organisasi/badan di mana penyelidikan dijalankan)
___/___ TIDAK TERHAD	

(TANDATANGAN PENULIS)

Alamat tetap: LOT 3034,
KG KOTA JELASIN,
15100 KOTA BHARU,
KELANTAN.

Tarikh: 19/08/2016

(TANDATANGAN PENYELIA)

PN NOR HAFEIZAH BT HASSAN
Nama Penyelia

Tarikh: 25/8/2016

CATATAN: * Tesis dimaksudkan sebagai Laporan Akhir Projek Sarjana Muda (PSM)
** Jika tesis ini SULIT atau TERHAD, sila lampirkan surat daripada pihak berkuasa

HEALTH AND BEAUTY CARE CURVE

WITH SMS NOTIFICATION

NUR AKMALIZA BINTI ZANURY

This report is submitted in partial fulfillment of the requirements for the Bachelor of Computer Science (Software Development)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2016

DECLARATION

I hereby declare that this project report entitled

HEALTH AND BEAUTY CARE CURVE WITH SMS NOTIFICATION

is written by me and is my own effort and that no part has been plagiarized without citations.

STUDENT : _____ Date: 19/08/2016

(NUR AKMALIZA BINTI ZANURY)

SUPERVISOR : _____ Date: 26/8/2016.

(NOR HAFEIZAH BINTI HASSAN)

DEDICATION

To my beloved parent thank you very much for their endless support and always stay behind me all the time.

To my supervisor thank you for encouraging, motivating and believing in me.

ACKNOWLEDGEMENTS

Assalamualaikum Warahmatullahi Wabarakatuh and Greetings,

First and foremost, I would like to praise and thank God Allah SWT, the almighty, who has granted countless blessing, knowledge, and opportunity to the writer, so that I have been finally able to accomplish the thesis.

I would like to show my greatest appreciation to my beloved father, Mr Zanury Bin Ghazali and also my dearest mother, Madam Nor Asiah Binti Ali whom have been giving me extremely fully-support and non-stop motivation throughout completing this thesis.

I would like to extend my greatest appreciation and gratitude to my supervisor, Madam Nor Hafeizah Binti Hassan for all the knowledge and time she had spent to guide me throughout the completing this Final Year Project (FYP). The supervision and support she gave me truly had helped me with the progression and the smoothness towards the completion of this FYP. She guided and taught me lots regarding to the software development. Without her guidance, I might not have been able to complete the FYP project as planned.

Besides that, I would like to thank to the friends for the support that they have given me throughout the completing of this FYP project.

Last but not least, I would like to take this opportunity to thank everyone that has given me support either directly or indirectly throughout the completing this FYP project and thesis.

ABSTRACT

In this new era of globalization, the competition between one another is so rapid, therefore, a company at least must able to adapt with the environment in this globalized technology era. For those company whom already well-known amongst citizen, they are said to be lucky enough to promote their products to people, rather than company that is still new in this field. Hence, this project is built to facilitate the communication between the company (or seller) with the customer. This project allows customers to see the products available in the store by online. Customers can make a pre order for any products that are not in store and they then will be sent a notification which is an SMS message once the company has updated the products in their store. Nevertheless, this project also allows the customers to view their previous and current orders they have made.

.

ABSTRAK

Dalam era persaingan kerja saat ini yang begitu pesat, sesebuah syarikat harus mampu menyesuaikan persekitaran syarikat dengan persaingan yang ada. Iaitu dengan mempunyai kelebihan tertentu dan berkualiti bagi sesebuah syarikat untuk bersaing dengan syarikat lain dalam era globalisasi ini. Bagi syarikat yang sudah mempunyai mutu dan nama yang bagus di mata orang ramai, hasil yang diperoleh adalah sangat memuaskan berbanding dengan syarikat yang baru dibuka. Oleh kerana itu, projek ini telah dibina bertujuan untuk memudahkan komunikasi antara pihak syarikat dengan pelanggan. Projek ini membolehkan pelanggan melihat produk yang sedia ada di kedai tetapi secara atas talian. Pelanggan juga boleh membuat penempahan awal bagi produk yang tidak ada dalam stok dan mereka akan dihantar notifikasi iaitu SMS pemberitahuan apabila pihak syarikat sudah menambah stok bagi produk tersebut. Pelanggan juga boleh melihat transaksi yang pernah dibuat sebelum ini.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

1.1 Introduction

Health and Beauty Care project is a web-based system where customers can make order and purchase products without having to go to walk-in store. It delivers a wide range of health and beauty products available in stock. Both registered and unregistered customers can view the list of products available, but then unregistered customers will have to first login into the system to continue with their cart. The system functionality of products and orders is stored on server side in a web service. The mobile app is for customer usage which consists of customer side scripting for placing orders by connecting to the server side web service. However, the vendor can only view and control his system through the web-based version using the admin panel.

1.2 Problem Statements

Usually customers find it hard to purchase products where they need to wait in a long queue just to get to know whether their desired products are available in stock or not; this is because they have to struggle themselves with other customers at the shop. Vendor and customers facing difficulty during purchasing processes when face-to-face conversation due to other customers that need to be entertained as well. Sometimes, it is hard for vendor to keep track of how many units of products are on the floor, how many have sold and which products are selling the fastest. Plus, when customers go out to the shop and yet their desired products are not available at the moment, this wills just wasting their time going out to the shop as they need to wait for a certain time till the products are available.

1.3 Objectives

- To help customers view list of products available and make order in advance.
- To give the vendor to keep track how many units of products are on the floor, how many have sold and which products are selling the fastest.
- To set cut-off time for pre-orders products so that customers can be prepared and ready for pickup within a certain time period.

1.4 Scope

Its main aim is to simplify and improve the efficiency of the ordering process for both customer and vendor, minimize manual data entry and ensure data accuracy during order placement process. The system will provide a module which will have three level of access such as Administrators, Members and Guests. Administrator is fully responsible for monitoring and maintaining the system since they have access

on some modules which are hidden on guests and even members such as Product Management, Sales and Inventory, Order Management and others.

As for the members, the system will provide an area wherein they can view and manage their previous and current orders. They can also request for tracking status provided that they purchased an item. Unlike the members, the guest can only browse the website but no transactions can be held unless they would register.

1.5 Project Significance

The system is developed with a user-friendly function. The system functionality of products and orders is stored on server side in a web service. The mobile app is for customer usage which consists of customer side scripting for placing orders by connecting to the server side web service. Customers have to first login into the system to view the list of products available and add them into their cart. The vendor can control this system through the mobile version of admin panel. This system helps customers to view and make order in advance so customers do not have to wait in long queue. Next, this system can keep up the vendor with busy customers through mobile ordering system together to keep track of how many units of products are on the floor, how many have sold and which products are selling the fastest. Other than that, this system also developed to set cut-off time for pre-orders products so customers can well-prepared and ready for pickup within a certain time period.

1.6 Expected Output

Health and Beauty Care project will be developed to help customers viewing and making order in advance so customers do not have to wait in long queue. By using this to be developed system, the vendor can keep track of how many units of products are on the floor, how many have sold and which products are selling the fastest. Health and Beauty Care can also lessen time and human intervention which

resulting in saving on manpower cost; customers can easily making order and purchasing products through their mobile phones without having to wait in a long time.

1.7 Conclusion

The software has some striking features over manual work. Lots of paper works also have been eliminated. Future modification and enhancements have become quite easier now compared to the previous manual work. Hence, using this system, vendor and customers can communicate with one another with just a single and simple but effective procedure.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This topic explains about facts and findings related with the domain, the existing systems and the techniques involve. Other than that, this topic discusses about the project methodology and project requirements related to the software and hardware requirements. This topic also briefly describes about the project scheduling and milestones.

2.2 Facts and Findings

2.2.1 Domain

Following are the type of users:

- Admin
- Client

Admin uses the system for the purpose of:

1. To keep track of how many available products available, how many have sold and which products are selling the fastest.
2. To settling the purchasing orders.

Client uses the system for the purpose of:

1. To make new ready stock order and pre-order any unavailable products at the moment.
2. To view previous order made and current order.

2.2.2 Existing System

This system focuses on online shop system which is already widely existed in market but with different and more user-friendly features. There are several online shops available in market for example Beauty and Personal Care and Bom Store which provide almost all kinds of health and beauty care. Both online shops divide their products into several main parts such as health care, skincare, make up, hair care, and other parts of health and beauty products.

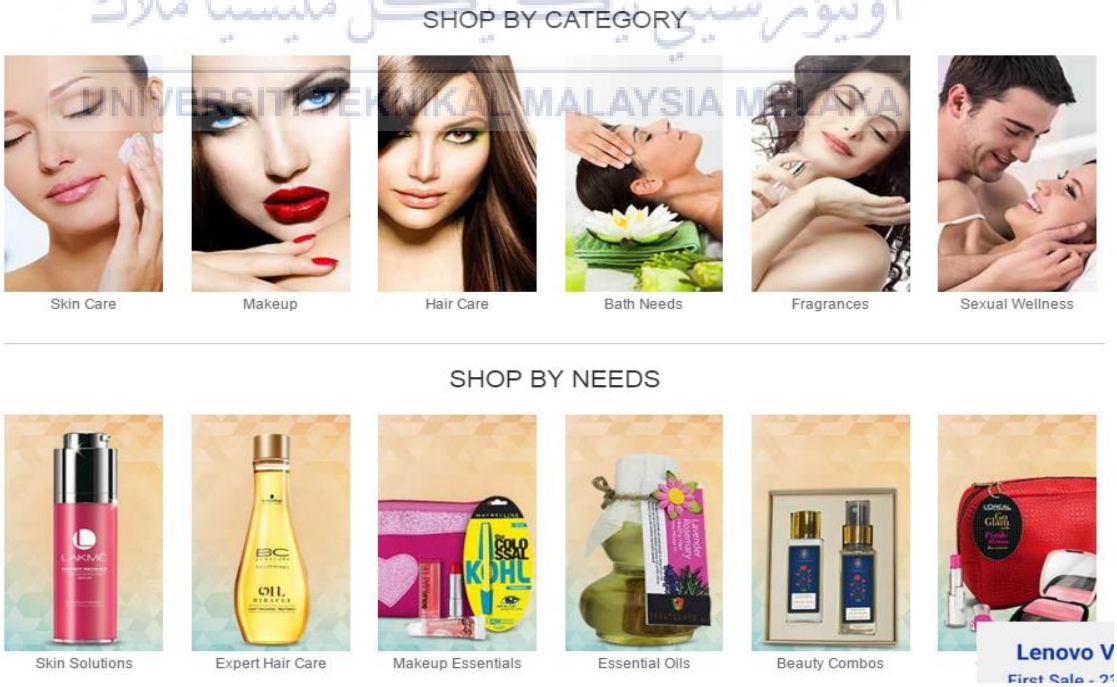

Figure 2.1 Beauty and Personal Care According to Categories/Needs

This Beauty and Personal Care shop does not provide mobile application for their shop as they only provide web-based system. They rarely update their products hence it is hard for customers to view any latest products available on the stock. Price range for products can be ranked as average, however does not provided together with the products' lists. The design of the webpage is poor hence it is hard to attract customers' to visit their online shop.

Figure 2.2 Bom Store webpage preview

The Bom Store shop also does not provide mobile application for their shop. They only provide web-based system. They update their products frequently and the price range of the products available on their stock is affordable and could be ranked as low compared to other online shops. However, the design of this webpage shop is clearly poor; this is because the products listed are not in ordered arrangements so it is a bit messy to the eyes. Anyhow, the Bom Store shop is quite user-friendly as they have specific buttons for specific categories of products. Hence, users will just need to select which category they want then they will be linked directly to the list of products right away. Lastly, the Bom Store shop also offers great discounts for their customers that come with affordable price.

Meanwhile, Health and Beauty Care project comes with mobile application that can ease users to access the webpage. This system-to-be will provide latest update to the customers. For example, this system-to-be will let customers know latest update about the current products and also new products in stock which come with affordable price. This system-to-be will also give customers great discounts for both new and old customers, no matter for new order or pre-orders products.

2.2.3 Technique

Object Oriented Analysis and Design (OOAD) is the approach applied in software engineering which will be used to analyse and design an application or system of this project by applying the object-oriented paradigm and visual modelling throughout the development cycles.

For this system-to-be, OOAD is divided into two main parts: the modelling of dynamic behaviours of this system-to-be for example; business processes and use cases, and the modelling of static structures of this system-to-be for example; classes and components.

OOAD will next be modelled using Unified Modelling Language (UML); by using Microsoft Visio as a platform which tends to provide a standard way to visualize the design, for example; the design of the activity diagram, class diagram and uses cases for the system-to-be.

Last but not least, Android Studio and Java will be used as developing tools to develop this system. Whereas, the specification used during the development of this system is the SRS (Software Requirement Specification).

2.3 Project Methodology

Agile methodology is chosen as the methods to do this project. The agile method is way different from traditional methods as it can minimize the risk by developing software within a short time given which are called iterative work. This

iterative work meaning that the developer can have multiple iterations in each phase, allowing the developer to improve the system-to-be.

Each phase also have different aspects in which during the elaboration phase, at the same time the developer can also do coding. For example; the developer can go from phase two to phase three and phase three go back to phase one without affecting the whole development of the project, as the software can able to face regular adaptation that changes circumstances. The iteration is divided based on use-cases created. Clients also can change the objective without giving impact to the project's budget or schedule.

Agile methodology involves continuous planning, continuous testing, continuous integration, and other form of the continuous evolution. With agile method, the documentation of this project can be written less compared to the other methods.

Agile methodology also allows clients to use the site earlier even in the development process. Hence, this should give the clients to give feedback or comments about the status and functions of system-to-be together by verifying to the developer whether the system is built according to the clients' needs or not.

Figure 2.3 Iteration Development

From the figure above, the process is as below:

1. During feasibility phase, the developer will determine whether the idea of project's development has enough merit to continue to planning phase.

2. Once the idea is accepted, the developer continues to planning phase. The features of the project-to-be will be examined to reduce the risk and increase the value of the project.

3. At development phase, the developer will convert the previous phases into working code. The project's features then will be built, tested, and demonstrated to both customer and stakeholders.

4. Adapt phase means customer's feedback and comments are used to improve the plan for next phase.

5. After all the phases complete, the developer then will deploy the working code into environment's production.

Figure below shows example for Agile methodology which commonly used by developers out there.

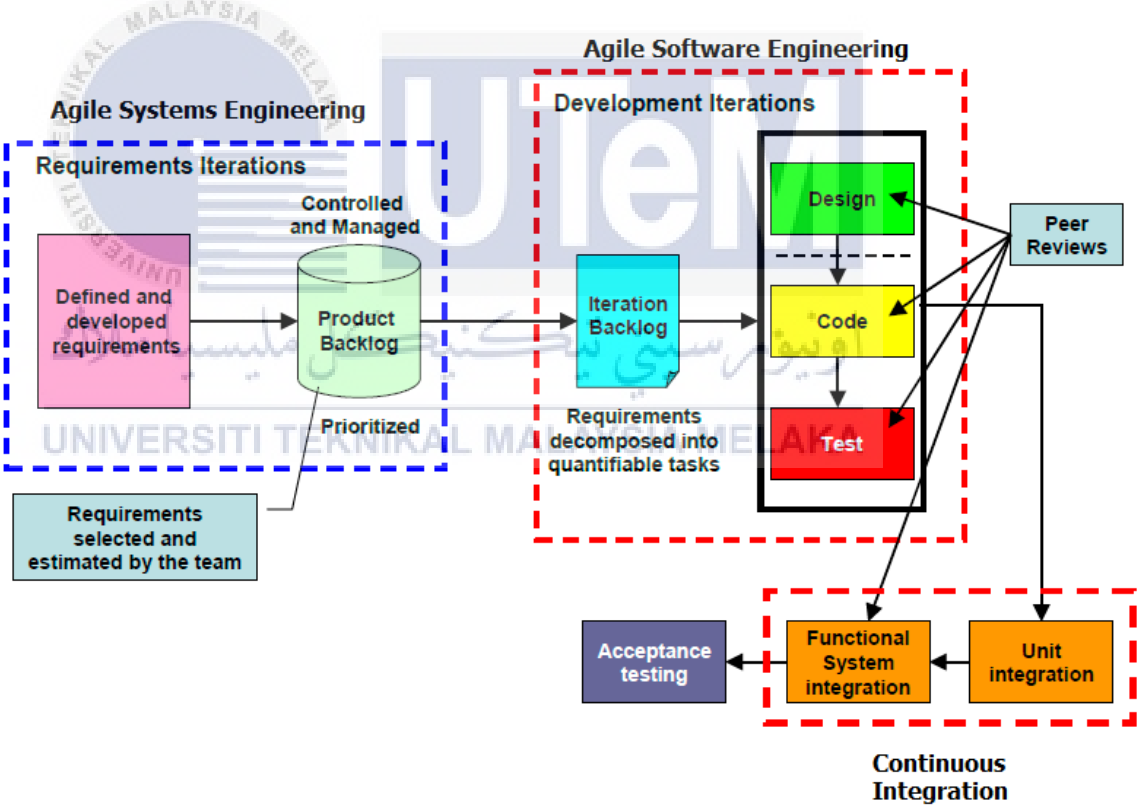

Figure 2.4 Example of Agile Methodology Development Process

2.4 Project Requirements

2.4.1 Software Requirement

Table 2.1 Software Requirements

Software	Purpose
Microsoft Office 2010	Contains Microsoft Office Word for documentation and Microsoft Office Project for creating chart.
Microsoft Windows 8	Operating system used as a platform for system development.
Android Studio	Tools for Java developers to develop the project.
MySql	Database system.
Microsoft Visio	Software for modelling tools.

2.4.2 Hardware Requirement

Table 2.2 Hardware Requirements

Hardware	Purpose
Laptop (Windows)	To develop the system and documenting.
Printer	To print the paperwork.

2.5 Project Schedule and Milestone

Table 2.3 Project Schedule and Milestone for PSM I

Week / Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Product
Proposal	■	■															Project Proposal
Analysis & Methodology			■	■	■	■	■										Chapter 1, 2 & 3
Design & Implementation							■	■	■	■							Chapter 4 & 5
Demo & Testing									■	■	■	■	■	■	■		Chapter 6
Presentation																■	Completed System

Table 2.4 Project Schedule and Milestone for PSM II

Week / Task	1	2	3	4	5	6	7	8	9	Product
Design & Implementation	■									Review Chapter 4 & Chapter 5
Implementation		■								Chapter 5
Testing			■	■						Chapter 6
Conclusion					■	■				Chapter 7 & Completed Report
Presentation							■	■		Completed System & Final Report
Report Correction									■	Final Report (Correction)

2.6 Conclusion

This chapter elaborates the details about literature review and project methodology that been used during the project's development. Facts and findings elaborate the research about the existing system. Lastly, project milestone is used as a guide for developers to manage and complete the project within the provided time.

The next chapter will elaborates in details about the analysis of the project for current and new system.

CHAPTER III

ANALYSIS

3.1 Introduction

This topic will discuss about the requirement of the project that has been developed. Requirement analysis is the process of determining user expectations for a new or modified project. These features, called requirements, must be quantifiable, relevant and in detailed. Requirement analysis involves frequent communication with system users in order to determine specific features expectation, conflict of the resolutions in requirements as required by different users or group of users, together to avoid features flaws of the project development process from start to end. Indirectly, this phase will cover the project goals and the purpose to align with the objectives that have been discussed earlier.

3.2 Problem Analysis

Problem analysis is used to gather the requirements and the elicitation of the information needed in order to improve for the better understanding of the problem found during the development of Health and Beauty Care project. Method that is going to be used during this development will be further analyzed.

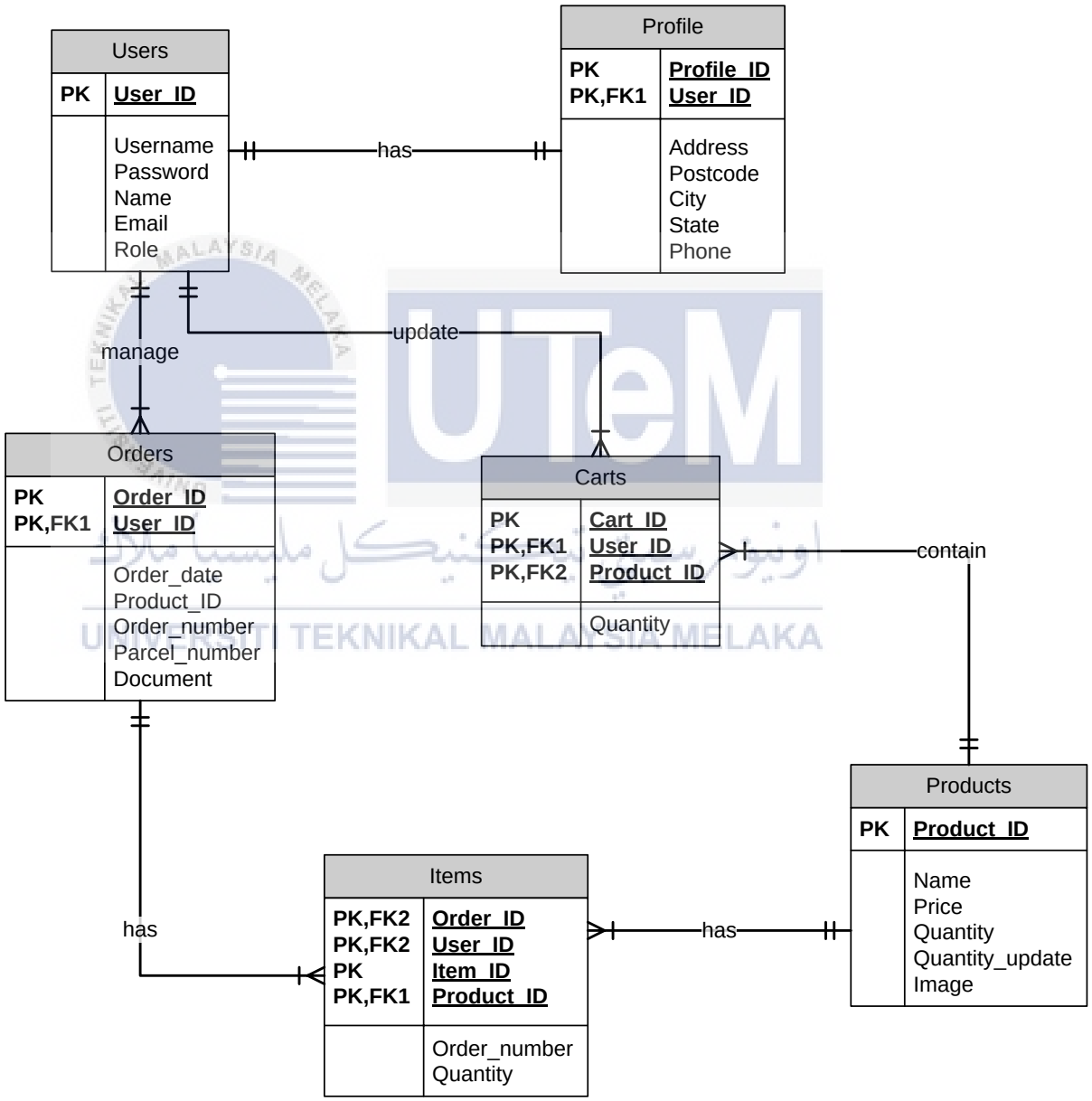

Figure 3.1 Entity Relationship Diagram for Health and Beauty Care Project

3.3 Requirement Analysis

3.3.1 Data Requirement

Table 3.1: Table - Users

Field Name	Data Type	Field Size	Description	Example
User_id	Int	11	Id number for user.	1
Username	Varchar	255	User's identification name.	Admin
Password	Varchar	32	User's identification password.	1234
Name	Varchar	255	User's name.	Liza Zanury
Email	Varchar	255	User's registration email.	admin@gmail.com
Role	Int	11	Identification of what role the user is.	1 - Admin 2 - Customer

Table 3.2: Table - Products

Field Name	Data Type	Field Size	Description	Example
Product_id	Int	11	Identification for each product.	1
Product_name	Varchar	255	Product name.	Masker
Price (RM)	Decimal	10,2	Price for each product.	6.0
Quantity	Int	11	Product quantity to buy / sell.	5
Quantity_update	Int	11	Product's quantity updated.	10
Product_image	Varchar	255	Image identification for each product.	-

Table 3.3: Table - Orders

Field Name	Data Type	Field Size	Description	Example
Order_id	Int	11	Identification for customer's order.	1
User_id	Int	11	Id number for user.	2
Order_date	Date	-	Order date.	11-04-16
Paid_date	Date	-	Date for payment.	13-04-16
Status	Varchar	255	The status of the order.	Paid

Table 3.4: Table - Profile

Field Name	Data Type	Field Size	Description	Example
Adress_id	Int	11	Identification for customer's delivery address.	1
User_id	Int	11	Id number for user.	2
Address	Varchar	255	Customer's delivery address.	Tmn Bunga Raya
Postcode	Int	5	Postcode of the state.	75450
City	Varchar	255	City according to customer's address.	Bukit Beruang
State	Varchar	255	State according to customer's address.	Melaka
Phone	Varchar	255	Customer's contact number.	012-3456789

Table 3.5: Table - Carts

Field Name	Data Type	Field Size	Description	Example
Cart_id	Int	11	Identification for cart.	1
User_id	Int	11	Id number for user.	2
Product_id	Int	11	Identification for each product.	1
Quantity	Int	11	Product quantity to buy / sell.	10

Table 3.6: Table - Items

Field Name	Data Type	Field Size	Description	Example
Item_id	Int	11	Identification for each item.	1
Order_number	Bigint	30	Order number for each of the order.	201605241539530309
Quantity	Int	11	Product quantity to buy / sell.	10

Table 3.7: Table – Wishlists

Field Name	Data Type	Field Size	Description	Example
Wishlist_id	Int	11	Identification for wishlist.	1
User_id	Int	11	Id number for user.	2
Product_id	Int	11	Identification for each product.	1
Quantity	Int	11	Product quantity to buy / sell.	10

3.3.2 Functional Requirement

The functional requirements for this project are as shown in Table 3.1 below:

Table 3.8: Functional Requirements

User	Requirement	Description
Admin	Registration	The system allows admin to create new account.
	Login	The system allows admin to login to their account by entering their username and password.
	Forgot password	The system provides temporary password for admin whom forgot his password.
	Manage products	The system allows admin to add, edit and delete products from database.
	Manage orders	The system allows admin to manage customers' orders.
Customer	Registration	The system allows customer to create new account.
	Login	The system allows customer to purchase products once they logged in into the system.
	Forgot password	The system provides temporary password for customer whom forgot their password.
	Add to cart	The system allows customer to purchase products by adding products into cart.
	Add to wishlist	The system allows customer to make order for unready-stock products.
	Checkout order	The system allows customer to checkout their orders. Customer will need to upload their payment receipt as a proof of the payment.
	Manage profile	The system lets customer to edit their personal details.

3.3.3 Non-functional Requirement

Non-functional requirements are known as quality attributes in specifying how the system should work. Tables below show the non-functional requirements of the project:

Table 3.9: Performance

Requirement	**Description**
Response time	Database Update: (Response Time: 3 seconds – measured from the time of completion of input data item on screen to getting acknowledgement) Delays due to network congestion of IP packets will be offset from timing measurement.

Table 3.10: Integrity

Requirement	**Description**
Data Integrity	Consistency – Data shall be 100% consistent at all sites and at all times.

Table 3.11: Reliability and Availability

Requirement	**Description**
Availability	Must be available to users when they want to.

Table 3.12: Usability

Requirement	Description
Informative error message	The error message that will appears to user after user making some error action and inform user about the error they making.

Table 3.13: Reusability

Requirement	Description
Design	The solution must have common framework for generic services. The framework then is shared across the solution example login.

3.3.4 Other Requirement

Others requirements are tools that support the project's development analysis. It combines hardware requirements and software requirements together with human work force expertise in specific skills to do the algorithm method.

3.4 Conclusion

This chapter describes the analysis involved during the development of this project. The descriptions include data requirements, functional requirements, and non-functional requirements; also include some other requirements. Functional requirements identify the necessary tasks given, any action or activity that has to be accomplished. Non-functional requirements specify the criteria which going to use to check the system's operation. Other requirements elaborate the architecture requirements and the hardware requirements demanded during the development of this project. Architecture requirements explain stuffs that need to undergo throughout the project development. Lastly, hardware requirements are also important tools that provide partial support and are used throughout the completion of this project.

CHAPTER IV

DESIGN

4.1 Introduction

This chapter will discuss more details about the design of the project-to-be. The project design is commonly related with the problem solving and the project planning solution. The design phase is created based on the information gained from previous analysis requirement phase. During this phase, the project's requirement will then be transformed into suitable aspects of form in order to make users and developer easily understand the requirement demanded. The output of this phase later can be used during the implementation phase.

This phase covers high-level and detailed design; in which the high-level design will describes about the architecture of the system-to-be and the user interface design together with the database design which then will focuses on conceptual and logical design. Meanwhile, the detailed design will specifies about the software and physical database design.

4.2 High-Level Design

4.2.1 System Architecture

Data flow diagram (DFD) is a network which describes the data flow and the changes of the processes, or a transformation of data throughout the system. The network is constructed by using symbols which do not indicate the physical implementation. The purpose of this network is to clarify the requirements of the system-to-be and to identify the major transformation which then will turn into programs during system design. It is also a starting point of design phase which decompose the specifications' requirements down to the very lowest level details.

DFD also often referred as logical data flow diagram. The basic symbols of DFD are the data flow, data sources, data transformations and also data storage. The oval shape represents process which transforms the incoming data flow to outgoing data flow.

Figure 4.1 below shows the context diagram (DFD Level 0) for Health and Beauty Care project.

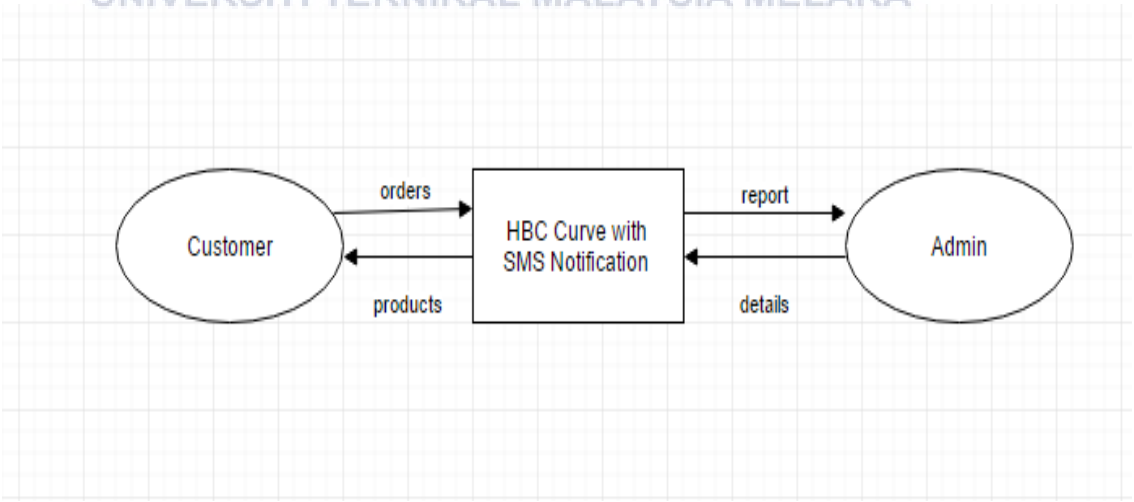

Figure 4.1 Context Diagram (DFD Level 0) for Health and Beauty Care Project

Figures 4.2 and 4.3 below show the Data Flow Diagram of Health and Beauty Care project for both users; admin and customer:

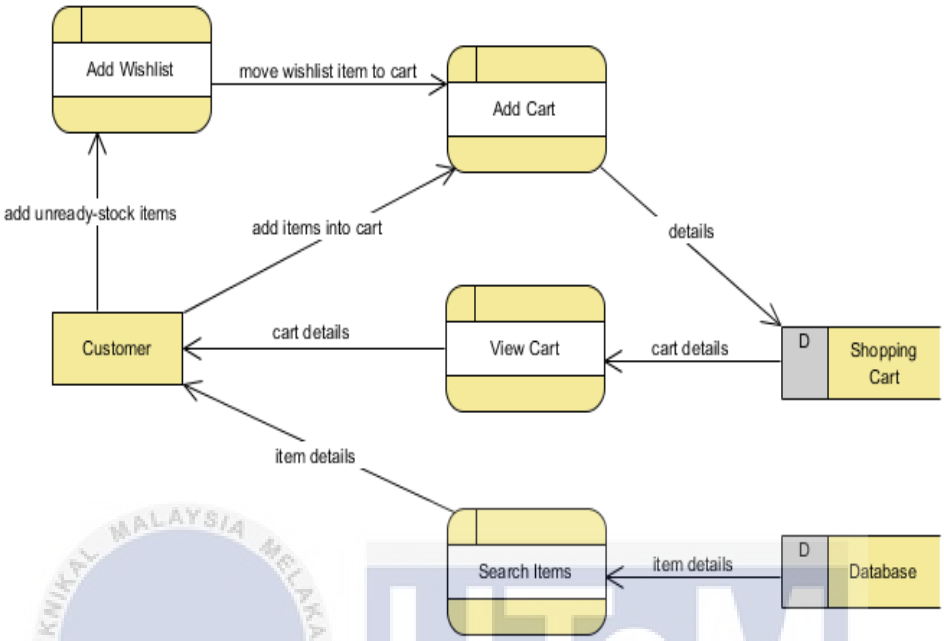

Figure 4.2 Data Flow Diagram of Health and Beauty Care Project for Customer

This project's data flow diagram contains four processes, one external entity which is customer, and two data stores.

Based on the figure above, customer can add unready-stock items to wish list by selecting items and once the items become available on stock, the items will be moved to cart and the details will be stored in Shopping Cart database.

Customer can receive Cart details from the View Cart process which is provided by Shopping Cart database.

Finally, customer can receive items details together with its images by performing the Search Items process. Customer must provide the item name for searching and the item details are returned from Database after searched.

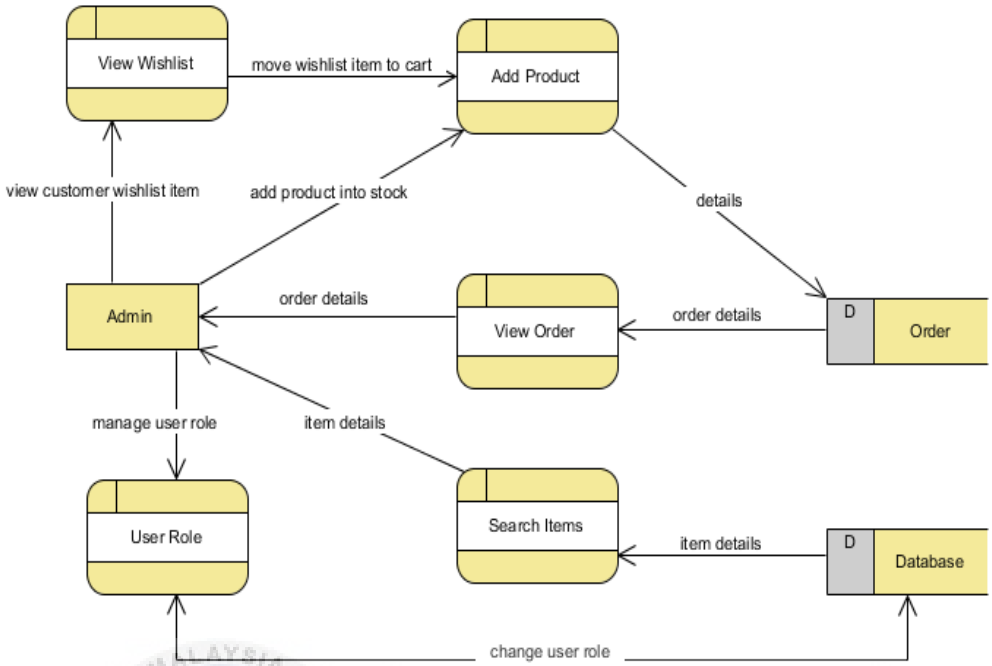

Figure 4.3 Data Flow Diagram of Health and Beauty Care Project for Admin

This project's data flow diagram contains five processes, one external entity which is the admin, and two data stores.

The diagram above shows that admin can view unready-stock item that is wish list by customer. Admin then will update unready-stock item then once the item is in stock, admin will move the wish list item by adding product into stock. Once the item becomes available in stock, the items will be stored to Order database.

Admin can receive order details from the View Order process which is provided by Order database.

Admin can also receive items details by performing the Search Items process. Admin must first provide the item name for searching and then the item details will then be returned from Database after searched.

Lastly, admin can manage the user role by changing the role from customer to admin or from admin to customer. However, Health and Beauty Care project has provided a feature where there must be at least one admin to manage the webpage. The User Role process then will be stored in Database once admin has changed the role and at the same time, the information will be returned back from Database after the changes done.

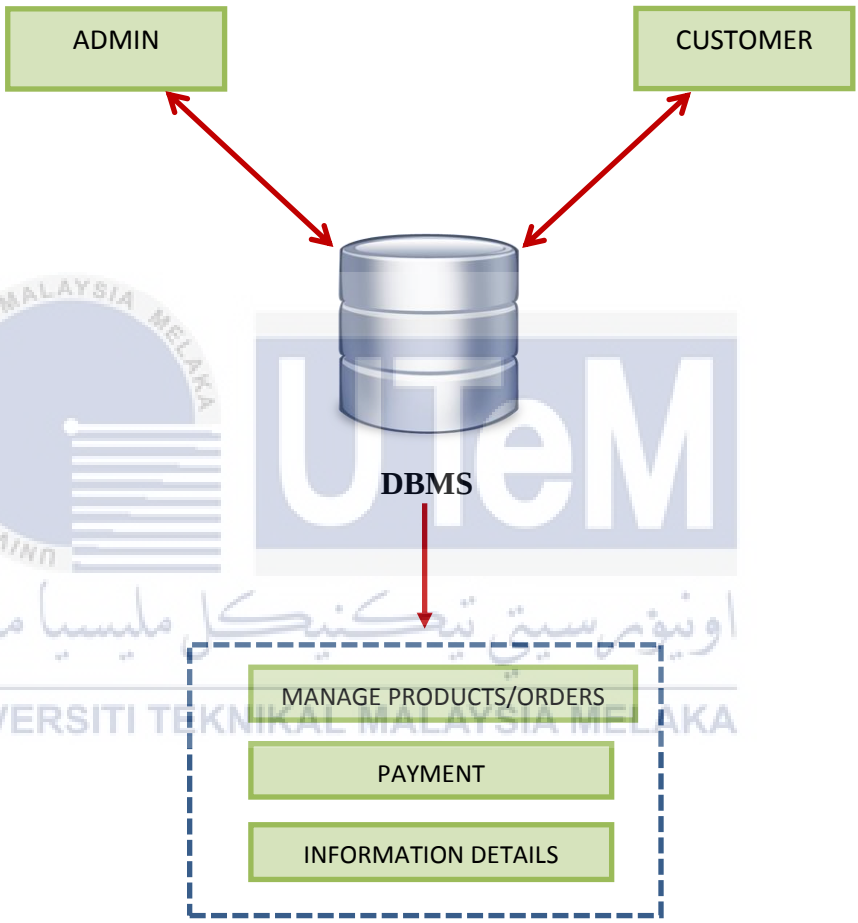

Figure 4.4 System Architecture of Health and Beauty Care project

Figure 4.4 above shows how users interact with the system. The figure shows admin uses the system to insert, edit and delete products from the database. Admin is responsible in managing the customer's order. Other than that, the figure also shows customer uses the system to view products and to purchase products by adding them into cart. Once customer finished with their cart, they need to checkout their orders

to proceed to the payment. Customer can also update their personal details to ease the admin to do the delivery process.

4.2.2 User Interface Design

a) Navigation Design

This Health and Beauty Care project has two different users, which is the admin and the customer. They are both come with different functions and flows of the navigation. The navigation designs for both users are illustrated separated figure as shown on the next page.

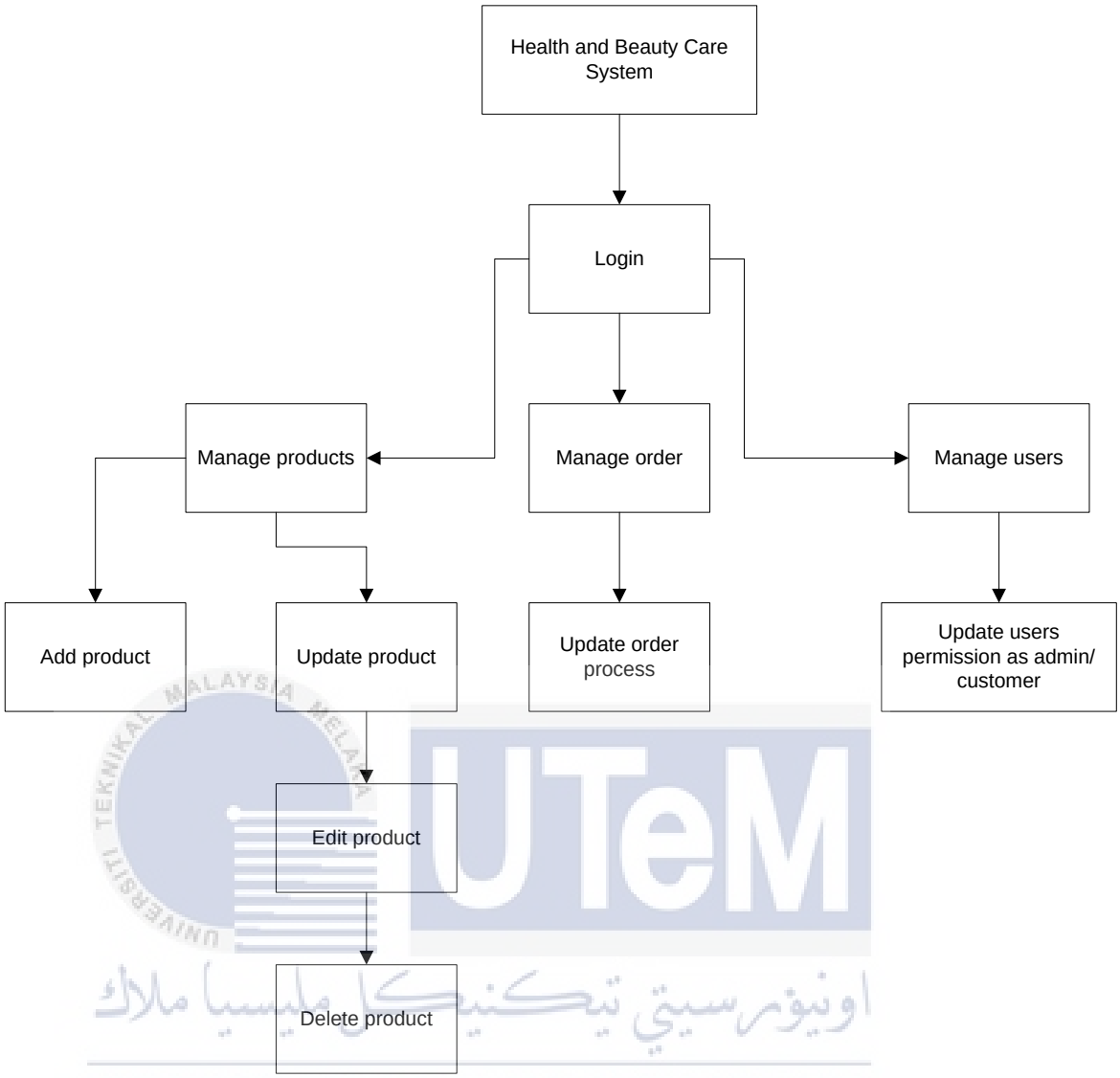

Figure 4.5 Navigation Flow of Admin of Health and Beauty Care Project

Figure 4.5 above shows the navigation flow for admin of Health and Beauty Care project.

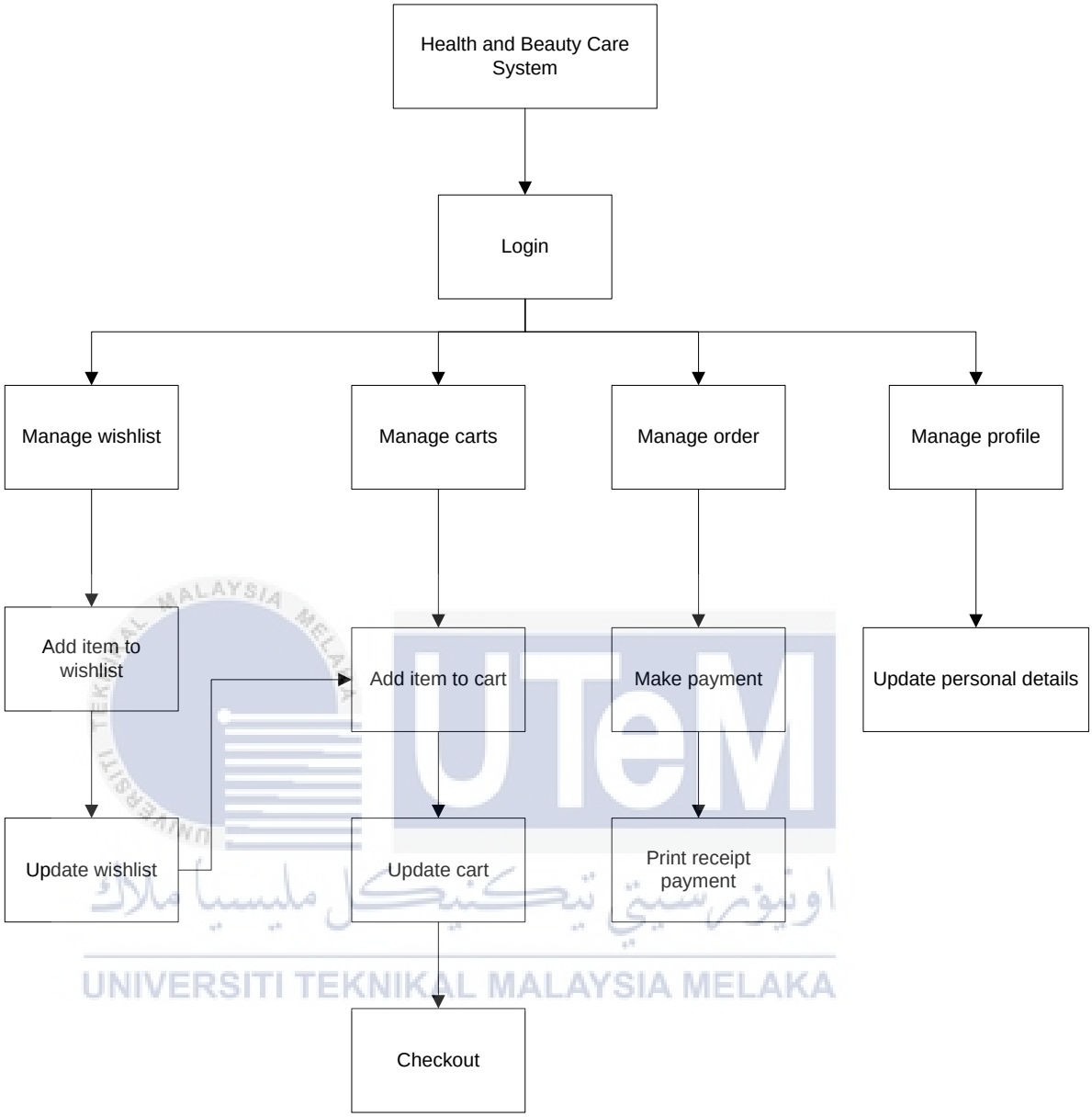

Figure 4.6 Navigation Flow of Customer of Health and Beauty Care Project

Figure 4.6 above shows the navigation flow for customer of Health and Beauty Care project.

(i) Input Design

Admin has several functions which to manage the functionality of the data in the database. One of the input designs is add function. This function lets admin to add new restock products. Other functions are to manage orders made by customer, manage customer's wish list, and to update the permission of the users of Health and Beauty Care System.

Whereas, customer has several functions such as to manage cart (add into cart, edit cart and delete item from cart), manage orders, manage their wish list products and then proceed to the payment process and lastly to manage their own personal details.

Examples of admin functions for the whole system are as below:

1. **Add Product** - Admin can add new item into stock. Admin can edit the item's name, price per item, quantity and also the image for the item to be added into stock.

Figure 4.7 Add Product by Admin

2. **Update Parcel Number -** After customer has made the payment together with the document proven, admin then will update the order details to insert customer's parcel number so they can check the status of their parcel number.

Order Details : 201605271029340467 Paid

Address:

No. 58, Road Sri Iskandar

87521

Johor Bahru

Johor

Contact:

012-9825121

Parcel Number:

EM173957550MY

No.	Items	Price (RM) per Item	Quantity	Total (RM)
1	Perla White (Pills)	85.00	1	85.00
2	Jus Tok Guru	20.90	1	20.90
3	Shipping Fee			6.00
	Total			111.9

Document Proven:

Figure 4.8 Update Customer's Parcel Number by Admin

3. **Change Role of Admin/Customer -** Admin can change the permission of the user for example from customer to admin or from admin to customer. Health and Beauty Care System provides validation where there must be is at least one admin manages the system.

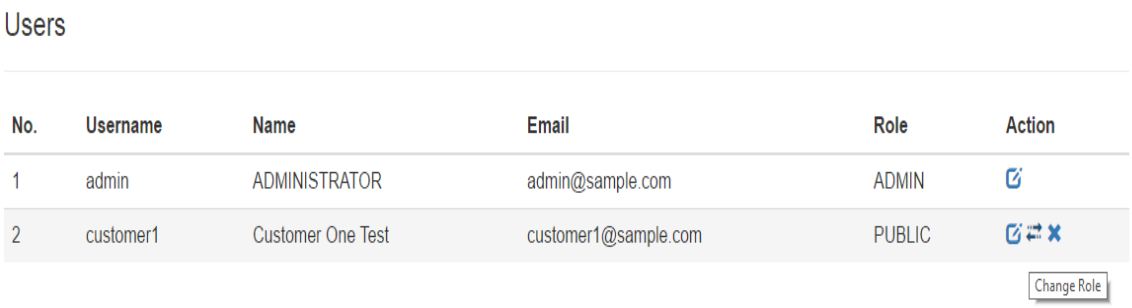

Figure 4.9 Role: Customer to Admin

Examples of customer functions for the whole system are as shown below:

1. **Search Product -** Customer is provided with search button to ease them to search for their desired item. This feature has been set to if for example customer only key in letter P, the system will display all items with letter P in their name.

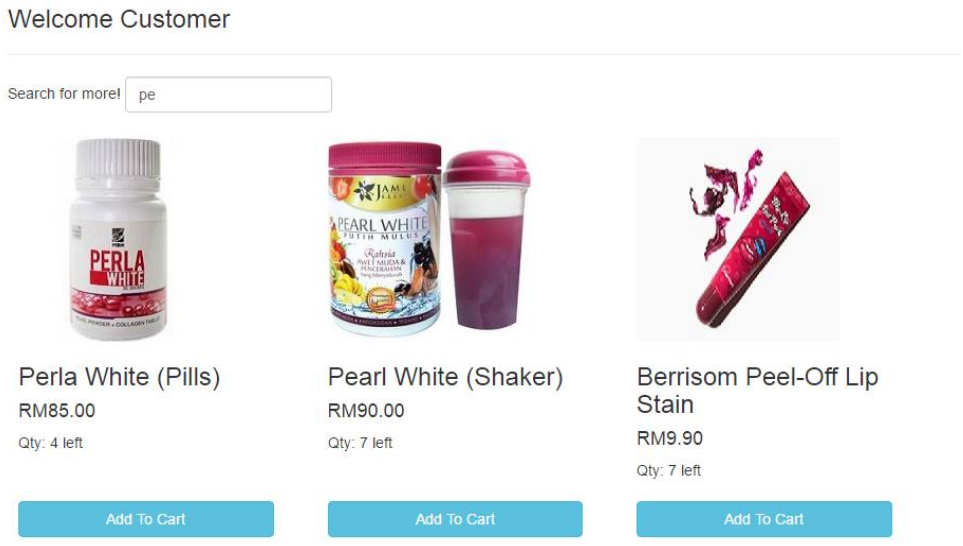

Figure 4.10 Search Product Button at Customer's Side

2. **Checkout Process with Alert Box -** Customer will need to checkout their order after finishing purchasing items. This checkout button process is provided with alert box for customer's confirmation before continuing to payment process.

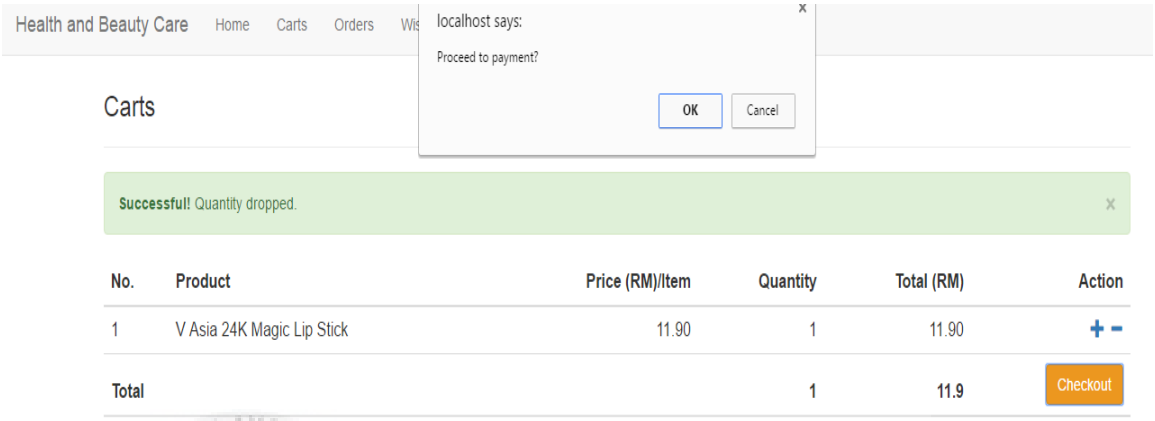

Figure 4.11 Alert Box Popup after Customer Clicks Checkout Button

3. **Payment Process -** After checkout process, customer will be directed to "Unpaid" order details page. At this page, customer can update their personal details to avoid any problems during delivery process. Customer has to upload document proven before they able to click the pay button.

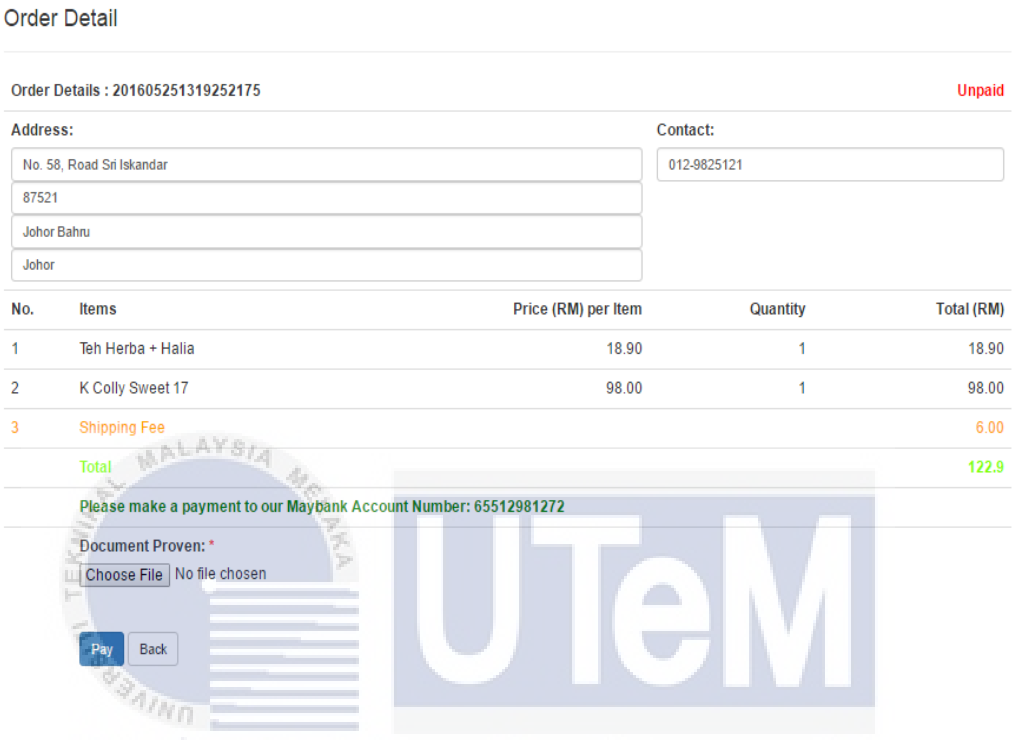

Figure 4.12 Unpaid Order before Customer Continues to Payment Process

4. **Wish list Order -** For unready-stock items, customer can add their desired item to wish list table and they will be informed later through short messaging system (SMS) when the items are on the stock.

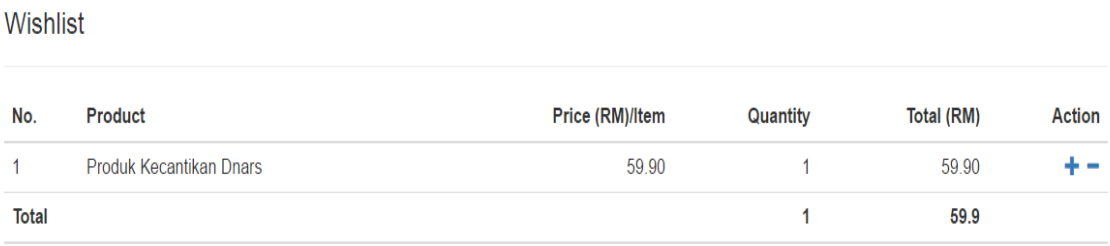

Figure 4.13 Wish list Order for Unready-Stock Product

5. **Update User Details -** Customer can change their name, email or password at this page.

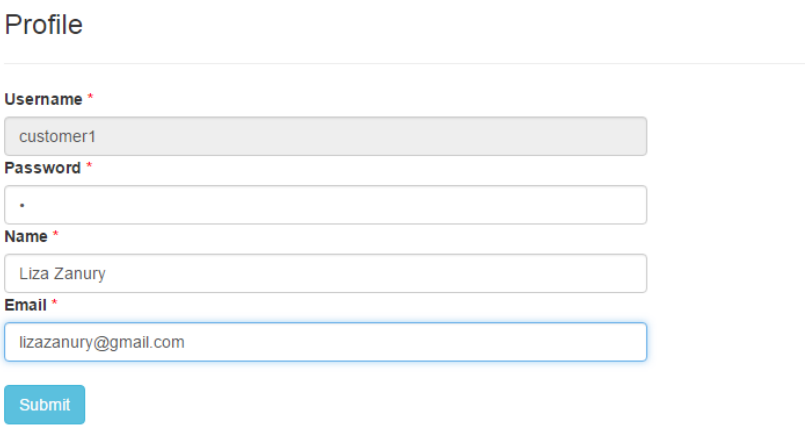

Figure 4.14 Customer Update Details Form

(ii) Output Design

For output design, products are the main functions of output for the Health and Beauty Care project. The system wills displays products purchased by customer and the transaction processes.

Figure below shows order and customer details after payment process. The "Paid" with green color on the right bottom shows customer has successfully made the payment. Admin also has provided their parcel number here. Admin and customer can print the order details for future referrence.

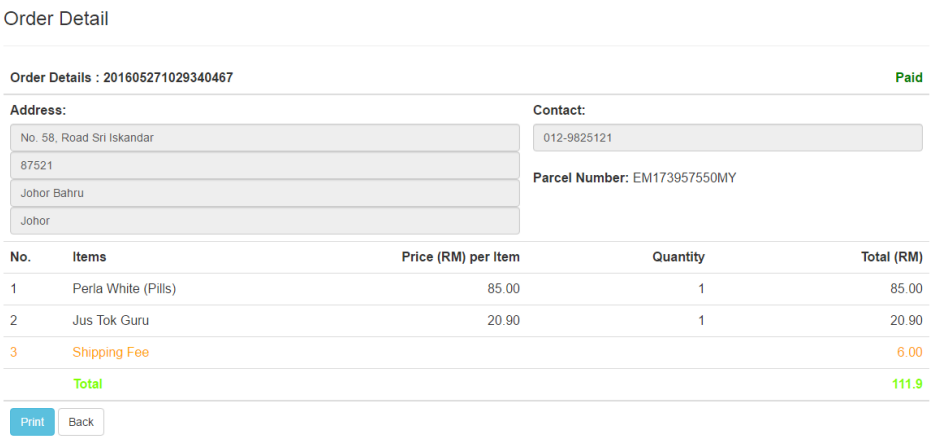

Figure 4.15 Successfully Paid Order Details

4.2.3 Database Design

a) Conceptual And Logical Database Design

Health and Beauty Care project will store the data into the MySQL database which consist of six tables, which are users, profile, orders, carts, products, and items.

Table users is used to store the user's data for example user id, username, password name, email and also the role for each users as table users consist of data about admin and customer. Table profile only created for customer, which consist of customer's personal details such as address, postcode, city, state and contact number. Table orders is used to store data regarding customer's order that consist of order's details for example order date, product id, order number, and parcel number. Table carts and items are bridge tables which generated when table users interacted with table products and table orders interacted with table products.

The business rule is listed as below:

i. One user owns exactly one profile.
ii. One profile owned by exactly one user.
iii. One user purchase one or many products.
iv. One product purchased by one or many users.
v. One user has one or many carts.
vi. One product is stored at one or many carts.
vii. One order has many products.
viii. One order has one or many items.
ix. One product has many orders.
x. One product contains one or many items.

Entity Relationship Diagram is shown as in Figure 4.16 on the next page.

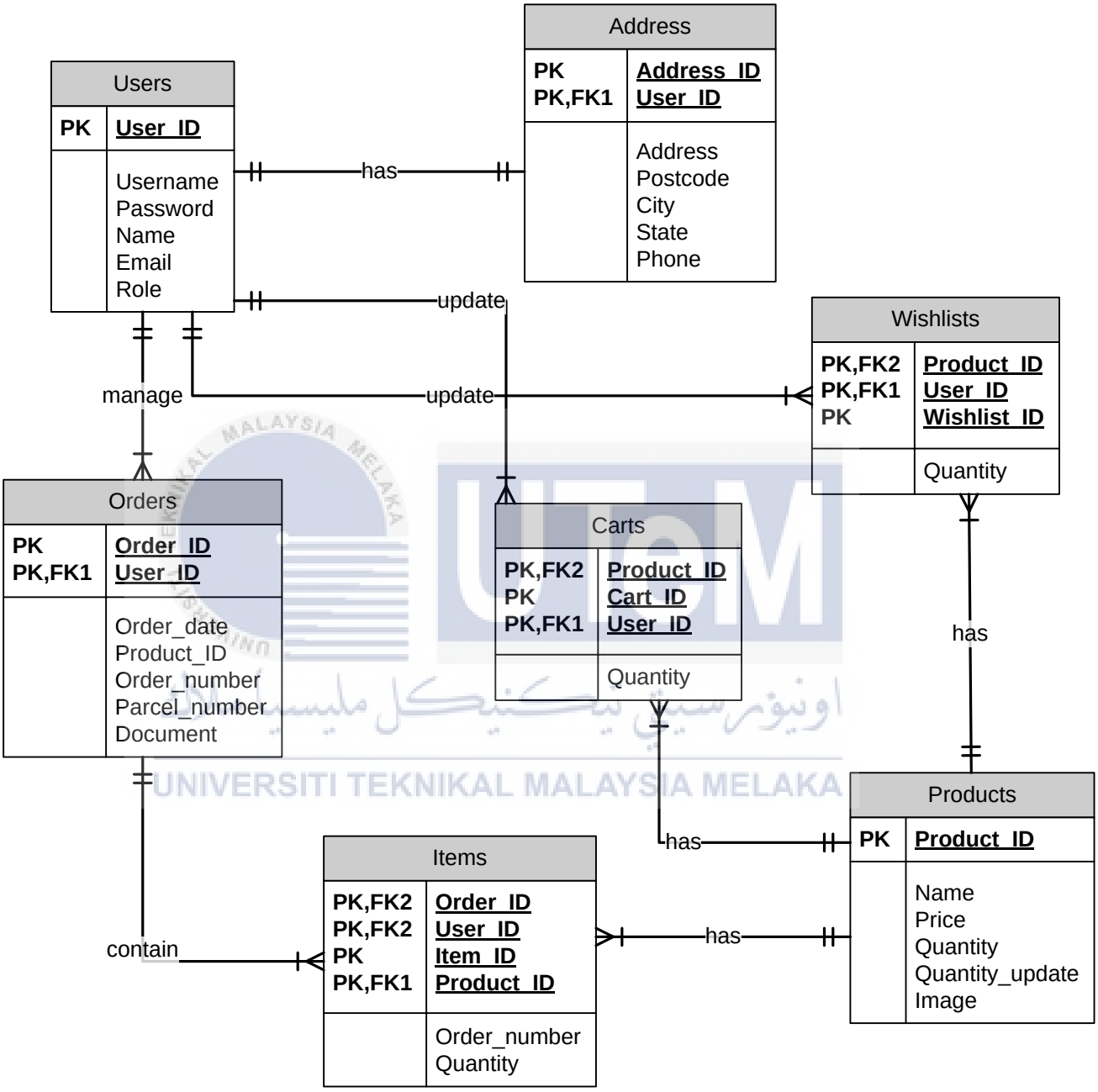

Figure 4.16 Entity Relationship Diagram for Health and Beauty Care Project

b) Data Dictionary

Data dictionary is use to define the objects and data within the database system. It does not contain any of database's data. The data dictionary of the Health and Beauty project is shown as below:

Table 4.1: Table - Users

Attribute	Data Type	Field Size	Key
User_id	Int	11	Primary Key
Username	Varchar	255	-
Password	Varchar	32	-
Name	Varchar	255	-
Email	Varchar	255	-
Role	Int	11	-

Table 4.2: Table - Products

Attribute	Data Type	Field Size	Key
Product_id	Int	11	Primary Key
Product_name	Varchar	255	-
Price (RM)	Decimal	10,2	-
Quantity	Int	11	-
Quantity_update	Int	11	-
Product_image	Varchar	255	-

Table 4.3: Table - Orders

Attribute	Data Type	Field Size	Key
Order_id	Int	11	Primary Key
User_id	Int	11	Primary Key, Foreign Key
Order_date	Date	-	-
Paid_date	Date	-	-
Status	Varchar	255	-

Table 4.4: Table - Profile

Attribute	Data Type	Field Size	Key
Address_id	Int	11	Primary Key
User_id	Int	11	Primary Key, Foreign Key
Address	Varchar	255	-
Postcode	Int	5	-
City	Varchar	255	-
State	Varchar	255	-
Phone	Varchar	255	-

Table 4.5: Table - Carts

Attribute	Data Type	Field Size	Key
Cart_id	Int	11	Primary Key
User_id	Int	11	Primary Key, Foreign Key
Product_id	Int	11	Primary Key, Foreign Key
Quantity	Int	11	-

Table 4.6: Table - Items

Attribute	Data Type	Field Size	Key
Item_id	Int	11	Primary Key
Order_number	Bigint	30	Unique Number
Quantity	Int	11	-

Table 4.7: Table - Wishlists

Attribute	Data Type	Field Size	Key
Wishlist_id	Int	11	Primary Key
User_id	Int	11	Primary Key, Foreign Key
Product_id	Int	11	Primary Key, Foreign Key
Quantity	Int	11	-

4.3 Detailed Design

4.3.1 Software Design

The software design for Health and Beauty Care project is illustrated in class diagram as shown below:

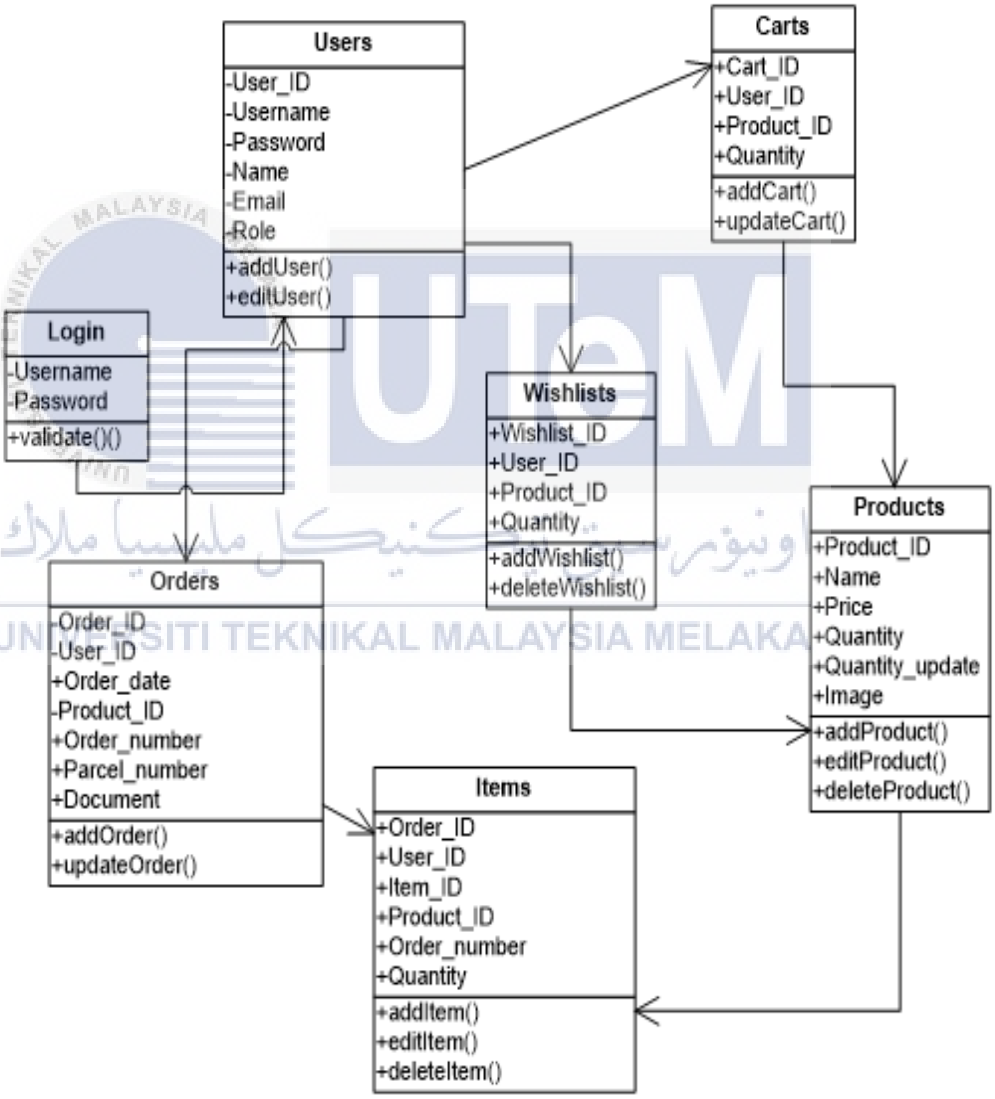

Figure 4.17 Class Diagram for Health and Beauty Care Project

4.3.2 Physical Database Design

a) Create “psm” database

```
CREATE DATABASE sample;
```

b) Create “users” table

```
CREATE TABLE users
(
id int(11),
username varhcar(255),
password varchar(32),
name varchar(255),
email varchar(255),
email varchar(255),
role int(11),
);
```

c) Create “profile” table

```
CREATE TABLE profile
(
id int(11),
user_id int(11),
address varchar(255),
postcode int(5),
city varhcar (255),
state varchar(255),
phone varchar(255),
);
```

d) Create “orders” table


```
CREATE TABLE orders
(
id int (11),
user_id int(11),
order_date date,
paid_date date,
status varchar(255),
order_number bigint(30),
parcel_number varchar(255),
document varchar(255),
);
```

e) Create “products” table

```
CREATE TABLE products
(
id int(11)
name varchar(255),
price decimal(10,2),
quantity int(11),
quantity_update int(11),
image varchar(255),
);
```

f) Create “carts” table

```
CREATE TABLE carts
(
id int(11),
user_id int(11),
product_id int(11),
quantity int(11),
);
```

g) Create “items” table

```
CREATE TABLE items
(
id int(11),
order_number bigint(11),
product_id int(11),
quantity int(11),
);
```

h) Create “wishlists’ table

```
CREATE TABLE wishlists
(
id int(11),
user_id int(11),
product_id int(11),
quantity int(11),
);
```

4.4 Conclusion

This chapter describes the overall view of how the system is designed or is typically known as system design. System design is the process of defining the system architecture, user interface and database design. A few diagrams have been included to illustrate more how the view designs of a new system.

The architectural design focuses on the design of the systems architecture which describes the structure, behaviour, and the views of the system. User interface design focuses on the system's interface design. Lastly, the database design uses an entity relationship diagram which also has been included to illustrate information system's entities together with the relationship between those different entities in the data store.

Next chapter will discuss about the implementation of the Health and Beauty Care project. It will describe the setup and the use of the system.

CHAPTER V

IMPLEMENTATION

5.1 Introduction

This chapter will discuss about the implementation of Health and Beauty Care project. It will define the project's processes and how the project is going to be built. This is the most important part for ensuring the system really meets quality standards states.

5.2 Software Development Environment Setup

- **Web Server Software**

During the development of this project, Apache http server has been chosen as the web server software. It is a software server which comes in packages with XAMPP server version 3.2.1 that bundled together with Apache http server version 2.4.9, PHP version 5.5.11 and MySQL database server version 5.6.16. Apache is chose because of its high demand on

market, which automatically proves it as one of the top software server that meets with the online distribution of website services standard. It is open source software that comes with limited budget.

- **Relational Database Management System**

As mentioned above, MySQL has been chosen during the development of the project. It is also a world's most popular open source database which is widely used by world's largest and fast-growing organizations due to its consistent fast performance, high reliability and easy to use.

- **Programming Languages**

Programming languages used for this are HTML, CSS, PHP, and JavaScript (Js). PHP is a popular general-purpose scripting language that is especially suited to web development. It is fast, flexible and pragmatic. CSS is a language that is responsible for the styling of the webpages. HTML is the backbone of the webpage, any displaying or even not displaying content of the webpages is rendered because of the existing of HTML. Lastly, JavaScript (Js) is responsible for creating the webpages responsive to user interaction with the webpages as it can enhance the user experience.

- **JavaScript Framework**

This system will also be using JavaScript (Js), jQuery, a robust library for Js, is a must for this system. It can reduce the effort in writing the codes and also make the codes more readable thus easier to be debugged.

- **Code editor**

To develop a system, code editor might not be the most important part of the development, but it can surely make the development process a lot different and easier for different developers. This system uses Notepad++ which is a small light-weighted, free source and easy to use code editor. Notepad++ is a development platform that is designed from the ground up for building integrated application development tools.

5.3 Software Configuration Management

5.3.1 Configuration Environment Setup

5.3.1.1 MySQL Server

1. Choose the appropriate Setup Type for your system. Typically you will choose Developer Default to install MySQL server and other MySQL tools related to MySQL development, helpful tools like MySQL Workbench. Or, choose the Custom setup type to manually select your desired MySQL products.

2. Complete the installation process by following the MySQL Installation wizard's instructions. This will install several MySQL products and start the MySQL server.

3. MySQL is now installed. You probably configured MySQL as a service that will automatically start MySQL server every time you restart your system.

5.3.2 Version Control Procedure

1. Project title name

   Project's title will be in short form, HBC.

2. Version Number

   The number of system version that listed after the project's name.

Table 5.1: Version control of Health and Beauty Care Project

Version	Approved by	Description
HBC 1.0	Madam Nor Hafeizah Bt Hassan	Module in HBC (Admin) : ▪ Login ▪ Manage Products ▪ Manage Orders ▪ Manage Users ▪ Logout
HBC 1.1	Madam Nor Hafeizah Bt Hassan	Module in HBC (Customer): ▪ Login ▪ Manage Carts ▪ Manage Orders ▪ Manage Profile ▪ Logout
HBC 2.0	Madam Nor Hafeizah Bt Hassan	New update module in HBC (Customer): ▪ Login ▪ Manage Wishlists ▪ Manage Carts ▪ Manage Transaction Process ▪ Manage Profile ▪ Logout

5.4 Implementation Status

Table 5.2: Implementation Table Module for Health and Beauty Care Project

MODULE	DESCRIPTION	DURATION
Login for Admin	1. Design admin interface. 2. Create login button function. 3. Create database. 4. Make the database connection. 5. Test log in function.	1 day 2 days 2 days 2 days 3 days
Admin Home	1.Create and design navigation bar. 2.Connection between pages. 3.Make connection to xampp server. 4.Test navigation bar function.	2 days 3 days 4 days 3 days
Login for Customer	1.Design customer interface. 2 Create login button function. 3. Test the customer function.	5 days 2 days 3 days
Logout function for admin	1.Design logout interface. 2. Make connection to database. 3.Test logout function.	1 day 3 days 2 days
Logout function for customer	1.Design logout interface. 2. Make connection to database. 3.Test logout function.	1 day 2 days 2 days
User home features at HBC System	1.Design both users interface for admin and customer. 2.Make the connection to database each pages. 3. Test return function. 4. Fix any flaws appeared throughout the entire system progress.	3 days 5 days 7 days 7 days

5.5 Conclusion

This chapter shows the flow of the one complete project; Health and Beauty Care project developed that combine the system design, system implementation and system testing in order to produce a complete and success system.

The next chapter will describe about system testing where Health and Beauty Care project will be analysed in more details to verify if there is any bugs found before the system's completion.

CHAPTER VI

TESTING

6.1 Introduction

System testing is about testing a system or application after the system has been fully developed, unit testing and usually the system also undergone integration testing. Testing a system is the essential steps before the system or application being launched. This is because during this phase, the developers can make sure whether the system meets the early requirements or not. Testing is divided into two methods; black box testing method and white box testing method.

In this case, for Health and Beauty Care project, the system tester or client themselves will use this developed system to test whether the system is fully functional according to the requirements or not.

However, the most important thing is, the tester must test this project to ensure that this project has achieved their objectives.

6.2 Test Plan

Test plan is a document which describing the scope, approach, resource, and the schedule of the testing activity. The details are given in these following sub chapters.

6.2.1 Test Organization

Test organization describes person who involve in the testing phase. The person is responsible to test each of the system modules. Table 6.1 below shows the test organization for Health and Beauty Care project.

Table 6.1 Test Organization of Health and Beauty Care project

Testing Activity	Testing Member
Unit Testing	Nur Akmaliza Bt Zanury
Integration Testing	Nur Akmaliza Bt Zanury
System Testing	Madam Nor Hafeizah Bt Hassan
User Acceptance Testing	Mr Mohd Arif Bin Ali

The test processes mostly will be tested by the developer of the project; Nur Akmaliza Bt Zanury. The developer has already experiences in programming techniques and languages for about three years during her studies in previous years at Universiti Teknikal Malaysia Melaka (UTeM).

Meanwhile, the supervisor; Madam Nor Hafeizah Bt Hassan herself will validates the satisfaction of this developed system to ensure this system has followed the objectives and requirements.

6.2.2 Test Environment

The Table 6.2 below show the test environment for Health and Beauty Care project.

Table 6.2 Test Environment for Health and Beauty Care Project

Software Configuration	Specification
Operating System	Windows 8
Database	Xampp
RAM	8.00 GB
Processor	Intel(R) Pentiun

This project is tested at Universiti Teknikal Malaysia Melaka (UTeM), using the PHP environment which running on a development machine (laptop); where the project is developed and tested. The hardware used is setup with the software stated in Software Development Environment Setup in previous Chapter V.

6.2.3 Test Schedule

The Table 6.3 on next page shows the schedule for the test which consist of the list of the activities, descriptions, durations of the activity, start date, and end date for each of the test**.**

Table 6.3 Test Schedule for Health and Beauty Care project

Activity	Description	Duration
Unit Testing	**Unit Testing** is a test to ensure the unit of the project meets with all the requirements that stated in previous Chapter III.	3 days
Integration Testing	**Integration Testing** is a test to ensure that the modules developed for this project is integrated properly as planned.	3 days
System Testing	**System Testing** is a test to identify whether the developed system's function is done properly and accepted by users or not.	5 days
User Acceptance Testing	**User Acceptance Testing** is a test to ensure the end users is satisfied with the developed system.	3 days

Table 6.3 above shows the details of test schedule for each of the testing of Health and Beauty Care project. For unit testing and integration testing, it took the duration of 3 days to complete for each testing. Next, it took 5 days to complete the system testing. The last but not least, it took 3 days to complete the testing for user acceptance testing.

6.3 Test Strategy

Test strategy outlines the testing approach of the developed system. It is different from the earlier test plan. Typically, the test strategy is known as a sub set of the test plan.

The Health and Beauty Care project uses bottom up strategy as an approach in integration testing. This bottom up approach indicates that the integration testing will starts from the lowest module of Health and Beauty Care project and it will gradually progresses towards the upper modules of the system. This integration will continuously progress until all the modules of the Health and Beauty Care project are integrated and the entire system is tested as a single unit.

Advantage of this approach is, if a major flaw exists at the lowest unit of the program, the cost of the maintenance will be cheaper compared to other approach. Hence, it will be easier for the developer to do the maintenance process. The corrective measures also can be taken properly.

6.3.1 Classes of Test

Classes of test can be divided into four categories, which are Unit Testing, Integration Testing, System Testing, and User Acceptance Testing. The details for each testing is elaborate more on each of the classes below.

6.3.1.1 Unit Testing

Unit testing is a software development process in which the smallest testable parts of an application, called units. The units are individually and independently inspected for proper operation. Unit testing is often automated but it can also be done manually.

For Health and Beauty Care project, unit testing involves the characteristics that are only crucial to the performance of this project's unit. This then will encourages the developer to easily modify this project's source code to do the project's maintenance without hesitating about how such changes might affect the functions of the project's units, or the program as a whole completed project. Once the units of the program found to be effectively working; without any major or minor faults, other larger program's components can be properly evaluated during the next project's integration testing.

6.3.1.2 Integration Testing

During Integration testing, there are fundamentally two approaches:

1. **Bottom up approach**

Bottom up testing starts from the lowest or the innermost unit of the application, and gradually moves up. This also gives the definition that the integration testing starts from the lowest module and gradually progresses towards the upper modules of the application. This integration continues until all the modules of the Health and Beauty Care project are integrated and the entire application is tested as a single unit.

Advantage of this approach is, if a major fault exists at the lowest unit of the program, it is easier to detect the faults, and corrective measures also can be taken properly.

Whereas, the disadvantage of this approach is that the main program will not exist until the last module is completely integrated and tested. As a result, the higher level design flaws will only then be detected at the end of the process.

2. Top down approach

Top down testing starts from the top most module and gradually progress towards the lower modules. In this approach, only the top module is unit tested in separation. Meanwhile, the lower modules are integrated one by one. This process will be repeated until all the modules are completely integrated and tested.

For example, this approach is applied on Figure 4.4 Navigation Flow of Admin for Health and Beauty Care project.

6.3.1.3 System Testing

System testing is the testing to check the behaviour of a complete and fully integrated software product based on the Software Requirements Specification (SRS). The main focus of this testing is to evaluate business, functional, or end-user requirements.

This testing is carried out only after Integration testing is completed, where both functional and non-functional requirements are verified.

System testing is concentrated on finding flaws or defects based on software application behaviour, software design and expectation of the end-user.

6.3.1.4 User Acceptance Testing

User acceptance testing (UAT) which also called as beta testing is a level of the software testing where a system is tested in the “real world” for acceptability. The purpose of this test is to evaluate the system’s compliance with the business requirements and assess whether

the developed system is acceptable for delivery or need some improvements before releasing the software commercially.

The tester which is the end-user of the Health and Beauty Care System will test this system whether it meets with its functional requirements or not. If the result is negative, the end-user is giving the choice whether they want to use the system or ask the developer to re-develop the system. However, if the result is positive, the Health and Beauty Care System will be released commercially.

6.4 Test Design

6.4.1 Test Description

Test description consists of test case ID, description and expected result.

The given Table A in Appendix A represents the test description for Health and Beauty Care project.

6.4.2 Test Data

Test data consist of modules, field of modules and data which is valid or invalid data when testing the system.

The given Table B in Appendix B represents the test data details for Health and Beauty Care project.

6.5 Test Results and Analysis

Test results and analysis consists test case ID, result and remark.

The given Table C in Appendix C represents the completed test result and analysis details for Health and Beauty Care project.

For this table, there is a column for remark which lets the tester to test the whole functional of the completed project. Pass indicates that the result of testing is success; whereas fail indicates the testing result is not success. Another column is for remark. None indicates that result of testing does not have any errors.

6.6 Conclusion

This chapter describes how the test plan for the Health and Beauty Care project is carried out. As a conclusion, the Health and Beauty Care project has already covered all the specifications demanded.

Finally, within the testing results, any improvements in developing this system will be studied back in order to develop successful and effective system.

CHAPTER VII

CONCLUSION

7.1 Introduction

The Health and Beauty Care project has been developed as web-based that can be run on any web browser. The interface of Health and Beauty Care Curve is user-friendly, minimal yet simple environment for user to use and understands. The interface is consistent in term of the layout arrangement, font size and family, button and graphics.

In this chapter will conclude the whole system that has been developed and will describe about the strength and weakness of this system. It also covers the propositions on what to be done to improve this system.

7.2 Observation on Weaknesses and Strengths

The last chapter of the documentation concludes all chapters which started from literature review, methodology, analysis and design, implementation, and testing. This chapter shows the weaknesses and strengths of the Health and Beauty

Care project. Any suggestion or improvement will be done to improve this new developed system.

The weaknesses that have been identified in the Health and Beauty Care project during the implementation phase are as stated below:

i. System is not able do an online payment.
ii. System does not provide features for customer to include quantity items they want to add into wish list table.
iii. System could not detect the legalised of the uploaded bank receipt.

The strengths that have been identified in the Health and Beauty Care project during the implementation phase such as:

i. System can separate between paid orders and unpaid orders.
ii. System enforced the validation of users as its security features.
iii. System validate whether customer want to proceed with payment process or not.
iv. System validate when customer add new items into cart, delete items from cart.

7.3 Propositions for Improvement

Suggestions for the improvement of the Health and Beauty Care project:

i. Health and Beauty Care project needs extra features to secure the system to prevent hacking activities take place. Since the system is not secure enough in preventing the hacking activities by hackers out there. Customers might feel insecure to deal with the owner. Hence, the system should provide extra features to protect customers' private information.

ii. Health and Beauty Care project only provides payment process by prompting the customers to snap and upload their document proven or payment receipt to the system as a payment proven. Admin then has to check the payment process made by customer one by one to avoid any faults. This will takes some time for admin to finish his work. Hence, in future, this system should enable online payment such as Visa and PayPal to ease both users in dealing with the payment.

iii. Health and Beauty Care project is developed purposely for admin side which means to ease admin in using handling the system. This system might not has much attractive design but it is definitely user-friendly especially for admin where he can easily handle the system smoothly and he can also view several details about the items in stock; such as quantity left, highest selling products per update and which products are out of stock to be alert. But still, this system's interfaces should be more user-friendly not only for admin, but also for customers in order to attract more customers to view the site.

7.4 Project Contribution

This project is developed successfully to ease vendor (owner) to promote his products to the real world, since nowadays technology is very well-known amongst the people. This project gives vendor and customer to connect with each other better, without having the customer to walk-in to the store, for customer whom lives far from the physical store. This means, both users can save their time in dealing the online shopping efficiently.

7.5 Conclusion

This project has its own weaknesses and strengths. Some suggestions have been noted and will be done to improve the quality of the project.

Nevertheless, this project has been fully developed and is successfully met with its earlier objectives. Finally, the Health and Beauty Care project is completely developed to ease both users with the online shopping, without having the customer to walk-in to the store.

REFERENCES

12 e-Commerce Sites with the Most Inspirational Checkouts. (2014). Retrieved June, 2016, from http://ecommerce-platforms.com/ecommerce-selling-advice/12-e-commerce-sites-inspirational-checkouts

Padini. (n.d.). Retrieved July, 2016, from http://www.padini.com/

Beauty, Skin Care & Health @ HiShop.my | Online Shopping Malaysia. (n.d.). Retrieved July, 2016, from http://www.hishop.my/

How To Write A Test Case. (n.d.). Retrieved July, 2016, from http://www.guru99.com/test-case.html

12 Principles Behind the Agile Manifesto | Agile Alliance. (2015). Retrieved Jul, 2016, from https://www.agilealliance.org/agile101/12-principles-behind-the-agile-manifesto/

APPENDIX A

Table A Test Description Details for Health and Beauty Care project

Test Case ID	Functional Requirement	Test Case Title	Description	Expected Result
L001	System Login	Login username or password field is empty	Test login into system without inserting username or password	Display "Please fill out this field" for each of empty field
L002		Login using an invalid or unregistered username	Test login into system using an invalid or unregistered username	Display "Username or Password is invalid or not exist."
L003		Login using an invalid password	Test login into system using an invalid password	Display "Unsuccessful! Username or Password is invalid or not exist."
L004		Login as an admin	Test login as an admin	Logged in as an admin then proceed to "Admin's Home Page"
L005		Login as a registered customer	Test login as a registered customer	Logged in as a customer then proceed to "Customer's Home Page"
R001	Customer Registration	Register with all fields are empty	Test register as customer with empty field	Display "Please fill out this field" for each of empty field
R002		Register with "Username" field is empty	Test register as customer with 'Username" field is empty	Display "Please fill out this field"
R003		Register with "Password" field is empty	Test register as customer with 'Password" field is empty	Display "Please fill out this field"

R004		Register with "Name" field is empty	Test register as customer with 'Name" field is empty	Display "Please fill out this field"
R005		Register with "Email" field is empty	Test register as customer with 'Email" field is empty	Display "Please fill out this field"
R006		Register with an existing username	Test register customer with an existing username	Display "Unsuccessful! Username already exist."
R007		Registration with complete information at each field	Test register new customer with complete information at each field	Display "Successful! You can login to our site now."
U001	Updating Customer Profile	Directing to other page while updating profile	Test directing/going to other page while updating profile without clicking button submit	Display "Do you want to leave this page? Changes you have made may not be saved. Continue?" When click "Leave" the system will be direct to other page. Whereas when click "Stay" the system will stay on the current page.
U002		Updating with all fields or one of the field is empty	Test updating customer profile with all fields or one of the field is empty	Display "Please fill out this field" for all empty fields or each of the empty field
C001	Update Items	Admin will update new stock when	Test updating new stock with all fields are	Display "Please fill out this field" for all

	on Stock	current stock runs out with all fields are empty or one of the field is empty	empty or one of the field is empty	empty fields or each of the empty field
C002		Admin will update new stock without uploading image of the item	Test updating new stock without uploading image of the item	Display “Please select a file”
O001	Update Customer Orders	Admin will update customer orders when customer made the payment with broken document proven	Test updating customer orders once the customer made the payment but with broken document proven	Change the status to “Reject” and no parcel number is given
O002		Admin will update customer orders when customer made the payment with document proven	Test updating customer orders once the customer made the payment but with document proven	Approve the order, change the status to “Done” and the parcel number is given

APPENDIX B

Table B Test Data Details for Health and Beauty Care project

No	Module	Field	Test Data	
			Valid	**Invalid**
1.	Login - Admin	Username	admin	admi
		Password	1	1234
2.	Login - Customer	Username	liza	lee
		Password	1	1234
5.	AddNewCustomer	Username	liza2	liza
		Password	1	1234
		Name	lyzanury	Liza04
		Email	lyza.zanury@gmail.com	leeyaa@g.com
6.	UpdateCustomerProfile	Username	liza2	liza
		Password	1	1234
		Name	lyzanury	Liza04
		Email	lyza.zanury@gmail.com	leeyaa@g.com
		Phone Number	0123456789	012-3456789
		Address	No 13, Taman Bunga Raya	NULL
		Postcode	75450	nal2
		City	Bukit Beruang	13y3
		State	Melaka	99
7.	UpdateStock	Name	Jus Kesihatan	33da3

		Price (RM)/Item	45.60	a.19
		Quantity	10	p
		Details	New Stock	939js
		Image	.jpg	.mp4
10.	UpdateOrders	Address	No 13, Taman Bunga Raya, 75450 Bukit Beruang, Melaka	002ha
		Contact	0123456789	12340
		Parcel Number	MY12345678	981hs
		Document Proven	.jpg	.mp4

APPENDIX C

Table C Test Description Details for Health and Beauty Care Project

Test Case ID	Functional Requirement	Test Case Title	Description	Test Data	Expected Result	Pass/ Fail
L001	System Login	Login username or password field is empty	Test login into system without inserting username or password	Username = “ ” Password = “ "	Display “Please fill out this field” for each of empty field	Pass
L002		Login using an invalid or unregistered username	Test login into system using an invalid or unregistered username	Username = “Lee” Password = “1234”	Display “Username or Password is invalid or not exist.”	Pass
L003		Login using an invalid password	Test login into system using an invalid password	Username = “liza” Password = “123”	Display “Unsuccessful! Username or Password is invalid or not exist.”	Pass
L004		Login as an admin	Test login as an admin	Username = “admin” Password = “1”	Logged in as an admin then proceed to “Admin’s Home Page”	Pass

L005		Login as a registered customer	Test login as a registered customer	Username = “liza” Password = “1”	Logged in as a customer then proceed to “Customer’s Home Page”	Pass
R001	Customer Registration	Register with all fields are empty	Test register as customer with empty field	Username = “ ” Password = “ ” Name = “ ” Email = “ ”	Display “Please fill out this field” for each of empty field	Pass
R002		Register with “Username” field is empty	Test register as customer with ‘Username” field is empty	Username = “ ”	Display “Please fill out this field”	Pass
R003		Register with “Password” field is empty	Test register as customer with ‘Password” field is empty	Password = “ ”	Display “Please fill out this field”	Pass
R004		Register with “Name” field is empty	Test register as customer with ‘Name” field is empty	Name = “ ”	Display “Please fill out this field”	Pass
R005		Register with “Email” field is empty	Test register as customer with ‘Email” field is empty	Email = “ ”	Display “Please fill out this field”	Pass
R006		Register with an existing username	Test register customer with an existing username	Username = “liza”	Display “Unsuccessful! Username already exist.”	Pass
R007		Registration with complete information at each field	Test register new customer with complete information at each field	Username = “liza2” Password = “1” Name = “lyzanury”	Display “Successful! You can login to our site now.”	Pass

				Email = "lyza.zanury@gmail.com"		
U001	Updating Customer Profile	Directing to other page while updating profile	Test directing/going to other page while updating profile without clicking button submit	Username = "liza2" Password = "1" Name = "lyzanury" Email = lyza.zanury@gmail.com Phone Number = "0123456789" Address = "No 13, Taman Bunga Raya" Postcode = "75450" City = "Bukit Beruang" State = "Melaka"	Display "Do you want to leave this page? Changes you have made may not be saved. Continue?" When click "Leave" the system will be direct to other page. Whereas when click "Stay" the system will stay on the current page.	Pass
U002		Updating with all fields or one of the field is empty	Test updating customer profile with all fields or one of the field is empty	Username = "liza2" Password = "" Name = "" Email = Phone Number = "" Address = "" Postcode = "" City = ""	Display "Please fill out this field" for all empty fields or each of the empty field	Pass

				State = “”		
C001	Update Items on Stock	Admin will update new stock when current stock runs out with all fields are empty or one of the field is empty	Test updating new stock with all fields are empty or one of the field is empty	Name = “ “ Price (RM)/Item = “ “ Quantity = “ “ Details = “ “ Image = “ “	Display “Please fill out this field” for all empty fields or each of the empty field	Pass
C002		Admin will update new stock without uploading image of the item	Test updating new stock without uploading image of the item	Name = “Jus Kesihatan “ Price (RM)/Item = “45.60 “ Quantity = “10 “ Details = “For healthy life “ Image = “ “	Display “Please select a file”	Pass
O001	Update Customer Orders	Admin will update customer orders when customer made the payment with broken document proven	Test updating customer orders once the customer made the payment but with broken document proven	Address = “No 13, Taman Bunga Raya, 75450 Bukit Beruang, Melaka” Contact = “0123456789” Parcel Number = ” “ Document Proven = NULL”	Change the status to “Reject” and no parcel number is given	Pass
O002		Admin will update customer orders when customer	Test updating customer orders once the customer made the payment but with document	Address = “No 13, Taman Bunga Raya, 75450 Bukit Beruang,	Approve the order, change the status to “Done” and the parcel	

		made the payment with document proven	proven	Melaka” Contact = “0123456789” Parcel Number = ”MY12345678“ Document Proven = “img1.jpg”	number is given	Pass