Universiti Teknologi MARA

Development of Online Shopping with Management System Using Hybrid Mobile Application

Zulhilmi bin Mohd Zahid

Thesis submitted in fulfilment of the requirements for
Bachelor of Information Technology (Hons.)
Information Systems Engineering
Faculty of Computer and Mathematical Sciences

January 2017

STUDENT'S DECLARATION

I certify that this report and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

……

ZULHILMI BIN MOHD ZAHID
2014586169

FEBRUARY 10, 2017

ABSTRACT

Rm30Shop Company is an online shop that provides a shopping platform in Malaysia, particularly through Instagram. Rm30Shop activities range of a series of sales, review services, fashion trend which focuses business activity with the customer. Through an observation that has been conducted, it is found out that there is an inefficiency of data management during a buy and sells activities, whereby one of the activities in the shop; data management of customer and taking orders process is still using the manual process. The current way of doing the data management of orders, product, customers in the shop is through log book, in which the log book reduce the effectiveness and efficiency of the shop and sometimes it might be unorganized and may results in information mixed-up. Additionally, the shop encountered a challenge to enhance the medium to advertise their product to the world. They currently make sell using Instagram which is the only resource to use for advertising. The motivation that drives to the construction of this project is to develop a Hybrid mobile application that will handle the data management aspect besides providing the ability to produce cross platform apps using a single set of work which makes the shop has a wider resource as a medium to advertise and overall enhanced their profit. Moreover, it has been found out during the interview conducted that there is no system has yet to be developed to assist the process. The first objective of the project is to gather and analyze the requirement of Online Shopping with Management System for Rm30Shop. Second objective is to design the application for Rm30Shop. The final objective of this project to develop the application for Rm30Shop. The significance of this project would be to help academician to analyse the development of Hybrid Mobile Application process in a more orderly manner as such the massive amount of data will be more efficient to be used using an ICT-based tool rather than manually. The methodology used to develop this project is the Modified Waterfall System Development Life Cycle, which contains 3 phases; Requirement Gathering and Analysis, Design, and Implementation phase. One of the deliverables from the phases is the Software Requirements Specifications that will be the basis for producing the design documentation. This work can be further extended in the concept of Human-Computer Interaction (HCI) elements to enhance the user experience and make it more interactive.

TABLE OF CONTENT

CONTENTS **PAGE**

SUPERVISOR'S APPROVAL ii
STUDENT'S DECLARATION iii
ACKNOWLEDGEMENT iv
ABSTRACT v
TABLE OF CONTENT vi
LIST OF FIGURES ix
LIST OF TABLES x
LIST OF ABBREVIATIONS xi

CHAPTER ONE: INTRODUCTION 1

1.1 Background of Study 1
1.2 Problem Statement 4
1.3 Research Aim 5
1.4 Research Objectives 5
1.5 Research Scope 5
1.6 Research Significance 6
1.6.1 Academician 6
1.6.2 Stakeholder 6
1.7 Research expected Outcome 6

CHAPTER TWO: LITERATURE REVIEW 7

2.1 Introduction 7
2.2 Overview of Shopping 10
2.3 Overview of Traditional System of Rm30Shop 11
2.4 Overview of Online Shopping with Management System 12
2.4.1 Customer Relationship Management (CRM) 13
2.4.2 Review Online Shopping System 14

2.4.3 Type of payment in Online Shopping 15
2.5 Application Development 15
2.5.1 Framework of Application Development 16
2.5.2 Hybrid mobile application Comparison Web Application 19
2.5.3 Hybrid mobile application Framework comparison to Native Application Framework 20
2.5.4 Mobile Application System Development 22
2.5.5 Hybrid mobile application Development Architecture 24
2.5.6 Choices of Language 25
2.6 Overview of the Database Used for the Project 27
2.7 Related Work 29
2.8 Review of software development lifecycle 32
2.8.1 Waterfall Model Lifecycle Methodology 34
2.8.2 Mobile Application Development Lifecycle 34
2.9 Chapter Summary 35

CHAPTER THREE: METHODOLOGY 36

3.1 Modified Waterfall Model Software Development Life Cycle 36
3.1.1 Requirements Gathering Analysis Phase 38
3.1.2 Design Phase 40
3.2 Implementation Phase 40
3.2.1 Hybrid mobile application Implementation 42
3.3 Hardware and Software Requirements for the Project 43
3.4 Project Timeline 44
3.5 Chapter Summary 44

CHAPTER FOUR: ANALYSIS AND RESULT 46

4.1 Gather and analyzed requirements 46
4.1.1 A Knowledge Comprehension of Application Development 46
4.1.2 Understanding Existing System 47
4.1.3 Interview Session with Stakeholder 48
4.1.4 Construction of Software Requirement Specification (SRS) 51
4.2 To design Online Shop with management System that focusing in Hybrid Mobile Application Development 68