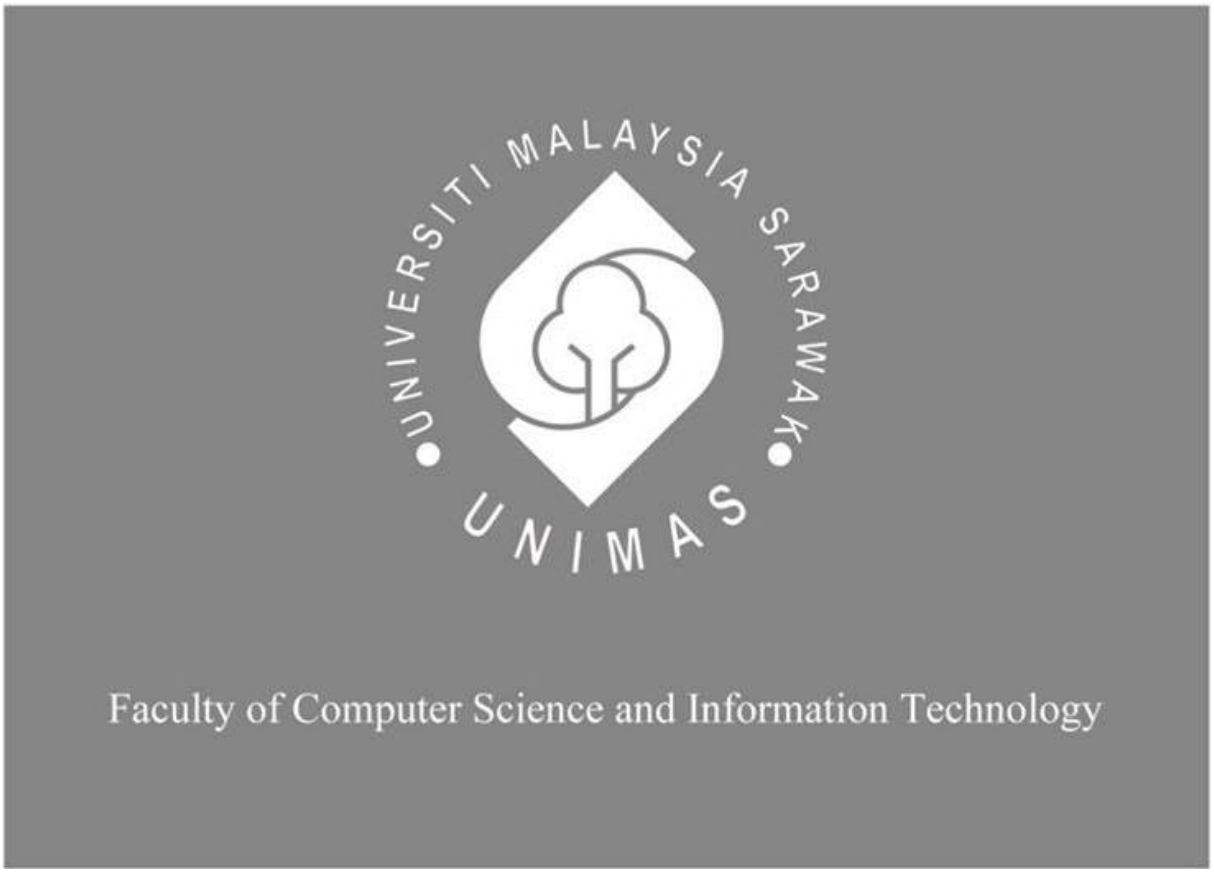

WeServe: Online Service Marketplace mobile application for UNIMAS

SEE YAO FUNG

Bachelor of Computer Science with Honours

(Software Engineering)

2019

WeServe: Online Service Marketplace mobile application for UNIMAS

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This project is submitted in partial fulfilment of the
requirements for the degree of
Bachelor of Computer Science with Honours

Faculty of Computer Science and Information Technology
UNIVERSITI MALAYSIA SARAWAK
2019

WeServe: Online Service Marketplace mobile application for UNIMAS

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Projek ini merupakan salah satu keperluan untuk

Ijazah Sarjana Muda Sains Komputer dengan Kepujian

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ABSTRACT

Nowadays, online marketplace become more trendy for people to do transaction. People can buy and sell variety of goods, product, or services via online platform. Like most other people, student of UNIMAS familiar with the usage of these online platforms in order to enquire services such as rent car, request tuition services, and so on. Nevertheless, the efficiency of these online platform cannot satisfy their normal daily usage on the online platform. Students are not able to enquire for various of local services around the campus efficiently through these online platforms. Hence, a mobile applications platform named WeServe is proposed to solve this issues as it provide the features of post and search for services in the form of classified-advertisement which are simple and easy to be searched too. Furthermore, students can also get themselves involve into small business too as if they want to. They can become one of the services provider where promoting their business services via this WeServe, Overall, this proposed system aim to ease and benefits UNIMAS students by allowing them to acquire or posting services onto the systems.

ABSTRAK

Pada zaman ini, pasaran dalam talian menjadi lebih bergaya untuk orang ramai melakukan transaksi. Semua orang boleh membeli dan menjual pelbagai barangan, produk, atau perkhidmatan melalui platform dalam talian. Seperti majoriti lain, pelajar UNIMAS mahir dengan penggunaan platform dalam talian ini bagi menanyakan perkhidmatan seperti sewa kereta, meminta perkhidmatan tuisyen, dan sebagainya. Walau bagaimanapun, kecekapan platform dalam talian tidak dapat memenuhi penggunaan harian biasa mereka terhadap platform dalam talian. Pelajar susah untuk menyiasat pelbagai perkhidmatan tempatan di sekitar kampus melalui platform dalam talian ini. Oleh itu, platform aplikasi bimbit bernama WeServe telah dicadang untuk menyelesai isu-isu tersebut kerana ia mempunyai fungsi untuk menerbitkan dan mencari perkhidmatan dalam bentuk classified advertisement yang dicari juga. Selain itu, pelajar juga boleh melibatkan diri dalam perniagaan kecil seolah-olah mereka mahu. Mereka boleh menjadi salah satu penyedia perkhidmatan di mana mempromosikan perkhidmatan perniagaan mereka melalui WeServe ini Secara keseluruhan, sistem yang dicadangkan ini bertujuan untuk memudahkan dan memberi manfaat kepada pelajar UNIMAS dengan membenarkan mereka memperoleh atau menyiarkan perkhidmatan ke sistem.

CHAPTER 1: INTRODUCTION

1.1 Title

WeServe: Online Service Marketplace mobile application for UNIMAS

1.2 Introduction/ Background

Business services are one of the popular topic in business field for the past few years as the building of service systems gives the chances for service provider to deliver value to consumer who acquires their services. One of the user group that requires for services are students, especially students in UNIMAS that always acquire for local services in order to deal with their study life or solving various kind of daily problems. Few popular services that UNIMAS students tend to acquire are local services such as car rental, food delivery and requests tuition services. So, let say if students want to rent a car they might get the service through some of the specific groups on FACEBOOK such as "CAR RENTAL UNIMAS" or "Penetap Luar UNIMAS". Furthermore, if they want to have food delivery service then they might get it by using GRABFOOD application. Even if students require for other services, they may get some those services on the MUDAH.my too whereas it is a well-known online classified-ads website and mobile application that primarily to the Malaysian market which allow people acquire and offer services under different categories. At the end, a mobile application named WeServe that act as a platform or an online marketplace for UNIMAS students to acquire and offer services is proposed to be developed.

1.3 Problem Statement

However, those service acquire platform has their own issue to be solved. On FACEBOOK, there are too many redundant or duplicate post of advertisement in the group

that acquire hence is not efficient for services provider to promote their services. GRABFOOD are not convenient for UNIMAS students that live outside the campus to use because the delivery services do not cover those areas such as UNIGARDEN. Furthermore, MUDAH.my it is not very user friendly for UNIMAS students too because the market of MUDAH.my is too wide in terms of service's categories therefore students' needed services are limited. Since each of the service providing platform have issues of being an efficient platform for UNIMAS students acquire services, hence a mobile application that act as the centralized platform of services that compile and gather various popular services for UNIMAS students to acquire and offer services are proposed.

1.4 Scope

a) This project is targeted only for UNIMAS students.
b) This application will only involve mobile application development whereas the data for administration purpose will be uploaded to the database manually when necessary.
c) This application will not involve any money transaction whereas client are expected to deal with the service provided personally

1.5 Objectives

a) Design a free centralized platform of services that compile several popular services among students of UNIMAS.
b) Develop an android based mobile application for UNIMAS students that allow them to acquire and offer services.
c) To perform usability testing on the mobile application.

1.6 Methodology

Waterfall Model is a Software Development Life Cycle (SDLC) by using linear sequential design approach in software developing which is straightforward and simple to be manage. There are total six (6) phases in this method which include of requirement analysis, system design, implementation, testing, deployment and maintenance. These phases are visualised by Figure 1.1.

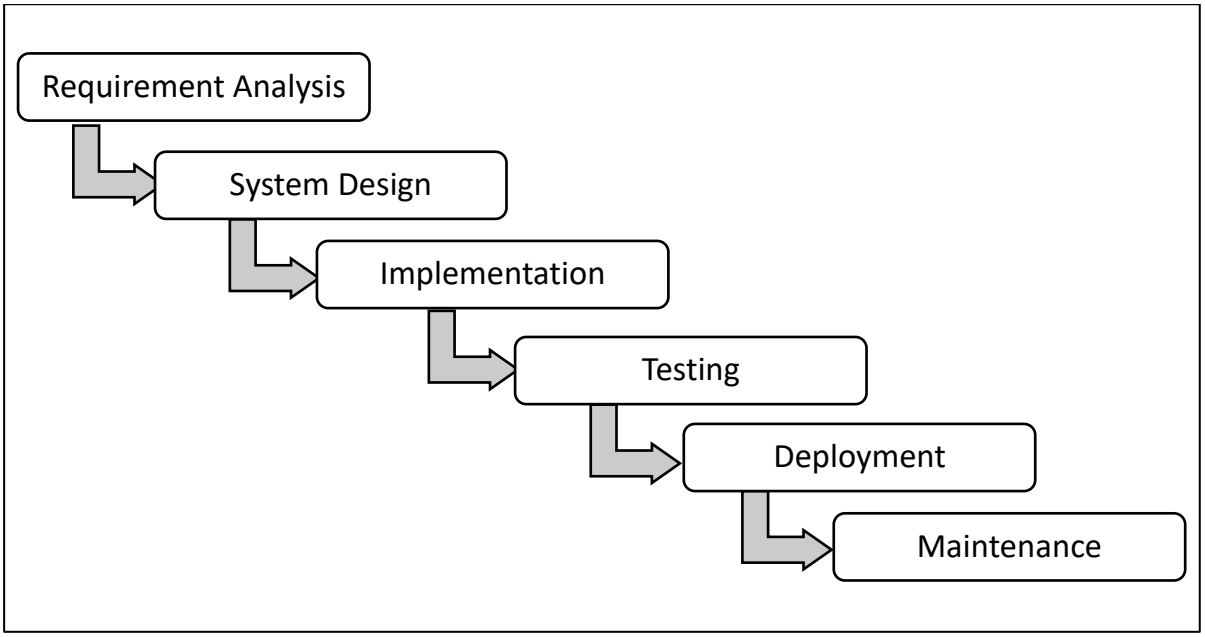

Figure 1.1: SDLC - Waterfall Model. From "Waterfall Model" by, tutorialspoint, (n.d.)., https://www.tutorialspoint.com/sdlc/sdlc_waterfall_model.htm

1.6.1 Requirement Analysis

This is the initial phase of waterfall methods where in this phase, developer supposed to elicit the requirements from customers or potential users to ensure all the following steps can refer the requirement gathered from this stage.

1.6.2 System Design

System design is the phase when developer use to design their system architecture by referring the requirements specification that gathered from requirement analysis phase.

1.6.3 Implementation

After system architecture is being designed, this phase come after it to implement the design into actual coding.

1.6.4 Testing

At this stage, full test on the system is performed by developers through different scenarios to find out any potential bugs and error. If any bugs or error found during testing stage, it should be fixed before release to the users. Objectives and user requirement have to be check whether it being achieved and implement correctly into the system. Furthermore, few user is selected to conduct usability testing on the mobile application before carry on the next phase. This feedback collected could bring improvement on the mobile application.

1.6.5 Deployment

This phase is to launch or deploy the system into customer environment. Where in this real user environment, it can help to enhanced the system by providing positive or bad feedback regard the system.

1.6.6 Maintenance

Quality of a system is important which it shows the stability of a system. Maintenance checking are constantly performed to check any bugs and to fix those bugs in order to improve system performance and stability. This fix can be included in the related upcoming patch of updates.

1.7 Significance of Project

The purpose of creating WeServe is to provide students a centralised platform that compile various kind of popular services for students need. Generally, WeServe would ease students by including most of the popular services into this centralized platform and most importantly is to allow students acquire and offering these services to solve their daily issues. In addition, the advantage of using a computerized platform is to give people chances to offer services in term of advertisement at the platform without the need of physical shop or a registered company which are the traditional way to acquire services that gives much restriction for students who want to initiate or run a business therefore it will boost the business transaction rate among UNIMAS students.

1.8 Project Schedule

The whole project can divide into two parts which are FYP 1 and FYP 2. FYP 1 start on 24th September 2018 and end at 4th January 2019 whereas FYP 2 start on 28th January 2019 and end at 31st May 2019. The Gantt chart as show as in Appendix A.

1.9 Expected Outcome

The outcome of this project is a mobile application called WeServe which act as a centralised platform that allow users to post or acquire popular services among students of UNIMAS such as car rental service, food delivery service, tuition service to be posted on the application. Furthermore, a report of product evaluation is done after perform usability testing.

1.10 Project Outline

This section described generally on the project outline which divides into six (6) chapter of Introduction, Literature Review, Requirement Analysis and Design, Implementation, Testing, and Conclusion and Future Work.

1.10.1 Chapter 1: Introduction

Chapter 1 describes about the details of the proposed system. In this chapter, it consists of problem statements, objectives, scope, methodologies, significance of project, project schedule and the expected outcome of the proposed system. Problem statement describes on the issue of this project to be addressed. Objectives define the goals that planned to achieved. Scope means the planning list of goals, functions, features or limitation of this system to be achieved at the end of the project. Methodologies states down the description of methods for the project development lifecycle. Significance of project means the contribution that brings along with this project. Project schedule shows the milestones, activities, and deliverables of this project in terms of start and finish dates. Expected outcome basically is the product that expected to be completed or developed at the end of this project.

1.10.2 Chapter 2: Literature Review

Chapter 2 discuss about the review done on similar existing system to the proposed system. Based on article, journal, research paper and other Internet documentation, investigate and compare the difference between existing system and this proposed system in terms of function and the limitation. Furthermore, brief description on the software and tools that used for the software development are being discussed.

1.10.3 Chapter 3: Requirement Analysis and Design

Chapter 3 further discuss on the first two phases in the methodologies use to develop the system, which are requirement analysis and system design. Furthermore, this chapter discuss on the method to acquire user's requirements in requirement analysis phase whereas use case diagram, sequence diagram, and activity diagram are used to visualise the analysis result. At the end, class diagram and wireframe are included in this chapter to represent the design of the system.

1.10.4 Chapter 4: Implementation

Chapter 4 talk about system implementation in detail whereas system interface and structure will be screenshotted and gives further detail explanations on it.

1.10.5 Chapter 5: Testing

Chapter 5 is about testing on the system and evaluation of usability will be carried on to improve the systems which making sure it getting ready to be launched.