Universiti Teknologi MARA

Development of Futsal Management Hybrid Mobile Application (Instamatch)

Muhammad Hafifi Bin Suhaimi

Thesis submitted in fulfillment of the requirements for Bachelor of Information Technology (Hons) Faculty of Computer and Mathematical Sciences

January 2017

ACKNOWLEDGEMENT

In the name of Allah, who is the Most Gracious and only Him alone is worthy of all praise. Alhamdulillah, in making the project done. I have made a lot of actions in order to ensure the success of this project. Upon producing the project, it needs a lot of efforts from other individuals and myself. First and foremost, I would like to express my deepest thanks to Sir Fauzi Bin Mohd Saman which is my supervisor for his guidance, suggestions, comments, support and motivating throughout the completion of my thesis. Thank you for having faith in me in doing this project. I also want to thank my entire friend who have support and encourage me all the way. Finally, thank you to anyone who involved directly and indirectly towards the success of this project. And last but not least, I also want to wish my heartiest appreciation to my beloved family for their concern and support in everything that I do.

ABSTRACT

This study is focusing on the problem faced by the futsal enthusiast with the current futsal management system and to come out with an idea to develop a futsal management hybrid mobile application. The current system which is walk-in booking and call booking consume time and considered problematic. In addition, futsal players find it hard to look for a team to set up a friendly match. Therefore, a comprehensive system which covers the court booking and automatic friendly match-making system will be develop to change the way of futsal enthusiast view on futsal management. The objective of the project is to identify requirements, design and develop an application for public user (futsal enthusiast) and web-based system to control booking for Indoor Football Center. The method used in getting the requirements is by interviewing Indoor Football Center manager and futsal enthusiasts. The development tools used in developing the application are Atom, Adobe Dreamweaver CC and PHP/Client-server and as of developing the web-based system are Atom, Adobe Dreamweaver CC, PHP/Client-server and WAMP server. The database for the application and web-based system will place in an online server which is hosted by Hostinger. The methodology that is most suitable in developing this system is the Mobile Application Development Life-Cycle also known as MADLC model, because of its systematic approach in developing mobile application. In research and findings, the functional and non-functional requirements, use-case description, work system, and storyboard of the system were defined. The propose application will help the futsal enthusiast to do court booking and to set a friendly match.

TABLE OF CONTENTS

CONTENT	PAGE
SUPERVISOR APPROVAL	ii
STUDENT DECLARATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	V
TABLE OF CONTENTS	vi
LIST OF FIGURES	ix
LIST OF TABLES	X
CHAPTER 1: INTRODUCTION	
1.1 Research Background	1
1.2 Problem Statement	3
1.3 Research Question	3
1.4 Research Objectives	4
1.5 Research Scope	4
1.6 Research Significance	
1.6.1 Futsal Enthusiast	5
1.6.2 Business – Indoor Football	5
Center (IFC)	
1.7 Summary	5
CHAPTER 2: LITERATURE REVIEW	
2.1 Introduction	6
2.2 Definitions	
2.2.1 Futsal Management	6
2.2.2 Booking System	7
2.2.3 Mobile Application Development	8
2.2.4 Hybrid Mobile Application Development	9
2.3 Reviewing Existing / Similar System	
2.3.1 Comparison Study Table	10

Chapter 1

INTRODUCTION

In this chapter, an introduction for Futsal Management Hybrid Mobile Application (FMHMA) project will be explained. In addition, the study for FMHMA is also one of the content in this chapter.

1.1 Research Background

In this technological era, people expect to have everything "on-a-tip of a finger" which means to do everything online or systematically. One of the example that help people in their daily life is a booking system. Basically, a booking system handles people request on booking. Booking system has two types of booking which is the manual booking and automated booking system. The manual booking system is based on paper or books whilst the automated booking system is based on an online web-based system or mobile application. One of the example of a booking system in the current days is "Trivago", which handles a hotel booking. This application collecting from more than 200 websites available on the Internet and filtered the websites offer based on the price, ratings and origin. It allows the user to do booking directly by using the application.

Futsal is a sport that is adapted from football. In a futsal game each team will have five players playing in the court and minimum of two substitute players. The rules in this sport is almost similar with football rules except in futsal, offside is not applicable and every outsides will kick not throw. Next, there is no specific measurement for the court played. The court is based on any measurement the owner wants to have, for example at Indoor Football Center they have a static measurement for all the court which is 50 meters long and 20 meters wide. Indoor Football Center is one of the venue that do futsal based business which offer futsal enthusiast to rent the court available at