UNIVERSITI TEKNOLOGI MARA

CITY i-TICK: MOBILE APP FOR ENHANCEMENT OF LECTURER TAKING ATTENDANCE SYSTEM AT CITY UNIVERSITY

SITI ROHAIDA BINTI ALIMIN

Computing Project submitted in partial fulfilment of
the requirements for the degree of
Master of Science in Information Technology

Faculty of Computer and Mathematical Sciences

July 2018

ABSTRACT

Attendance Management System is a software developed for daily student attendance in schools, colleges and institutes. It facilitates to access the attendance information of a particular student in a particular class. The information is sorted by the operators, which will be provided by the teacher for a particular class. This system will also help in evaluating attendance eligibility criteria of a student. Currently, in City University the lecturers use City Management System (CMS Portal) to do their work especially key in an attendance of the students. CMS Portal is a web-based system and the tool to use this system must thru computer and desktop. However, using the current system the lecturer got some issues thru the system and sometimes it's possible from self-negligence. The highlight of the issues, lecturer forget and not key in an attendance in CMS Portal. Nowadays, the smartphone very close with the people. Commonly they use the smartphone to attend the daily affairs. The aim of this study is to develop lecturer taking attendance system using a mobile application in City University, Petaling Jaya. This study focuses on the City University Staff especially the lecturers. Managing the student attendance during lecture periods has become a difficult challenge. The research objectives for this study are (1) to identify user requirement for City i-Tick, (2) to design and develop City i-Tick (3) to demonstrate the prototype of City i-Tick. The study is a narrative participatory design and exploits Design Thinking as the research methodology. The artefact evaluation of this study was conducted on the 14 participants in City University, Petaling Jaya. We proposed a modified and adapted conceptual framework Mobile App for the lecturers who taking attendance system. The study of City i-Tick was successfully validated to the lecturers taking attendance system using a mobile app. City i-Tick uses the System Usability Scale (SUS) model to determine the findings of the study. City i-Tick is effective for lecturers taking attendance system because is very easy to use, easy to learn quickly and the users feel confident when using this app. For the future of the study, City i-Tick will do development for the admin system to show the notification of class has been held, furthermore the system will be improved by the graphical user interface of the City i-Tick and the system will be improved by adding the function to alert the lecturers like notification in a smartphone status bar.

ACKNOWLEDGEMENT

First and foremost, the deepest gratitude of all shall be bestowed to Allah the Almighty and The Merciful for all the insight which He gave to us that lead to the completion of this research. Without His blessings and consent, I might not have enough courage and determination to complete this research. All my thanks and appreciation will be lay upon Him.

My sincere appreciation to City University Staff especially lecturers for their cooperation and constants help given during of the project. Special thanks to my colleagues and friends for helping me with this project.

I wish to thank God for giving me the opportunity to embark on my study and for completing this long and challenging journey successfully. My gratitude and thanks go to my supervisor Dr. Nor Hayati Abdul Hamid

Finally, this thesis is dedicated to my beloved parents and family member for the supported me in writing, to strive towards achieving my goals. This piece of victory is dedicated to all of you. Alhamdulilah.

TABLE OF CONTENT

CHAPTER ONE: INTRODUCTION

CHAPTER TWO: LITERATURE REVIEW

CHAPTER ONE
INTRODUCTION

1.1   Introduction

In this chapter, the overview of the research is provided. It covers the discussion on mainly the research background, problem statement, research questions, research objectives, research scope, research significant and also the research summary of the chapter. This research is to develop City i-Tick, a mobile application for enhancement of lecturer taking attendance system in City College.

1.2   Research Background

All the colleges and universities have their own system to do marking attendance in the class meeting session and recording the marks of the students are the prime tasks of the subject handlers, since marking the attendance can regulate the students to attend the classes (Asir et al., 2017). The management and maintenance of student information is a key task for any institution. The task of marking attendance and making entry of the exam makes are traditionally carried out manually on the paper. Later, this task is carried out by the desktop applications. The desktop application is a standalone application installed in the particular desktop or laptop and the tasks can be performed only with that particular desktop system.

The mobile application let the end user install this application on their mobile devices. The user can update the student attendance and mark details in the local mobile database by connecting their mobile devices with the server which keep the attendance and mark details through the internet (Asir et al., 2017).

1.2.1   History of City University

In April 1984, Unity College International was established and a masters group with extensive experience at both local and overseas public universities and universities. Petaling Jaya Community College (PJCC) were registered with the Ministry of Higher Education under the former Education Act 1961. It was established at a time when there