UNIVERSITI TEKNOLOGI MARA

DEVELOPMENT MODULE OF SCRUTINIZATION AND REPORT GENERATOR FOR WEB-BASED ARCA SYSTEM

MOHD FAHMY IZWAN BIN ZULKHAFRI

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

JANUARY 2020

STUDENT DECLARATION

I certify that this thesis 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.

.....

MOHD FAHMY IZWAN BIN ZULKHAFRI 2016758447

JANUARY 03, 2020

ABSTRACT

The manual method of taking student attendance activity is not effective because there are several challenges to that kind of method. The data collected through the conventional method is difficult to manage: time-consuming to be scrutinized, and it causes the wastage of human and material resources. Therefore, the aim of this project is to develop a module of scrutinization of college application in UiTM Perlis and also module report generator to be integrated with existing system of ARCA system. This report generator module will retrieve the data from the database and will save as the PDF format. The study involved three main phases which are requirement identification phase, design and development phase, and testing phases in part of the research methodology. The study also involves usability and functionality testing by using unit test, script testing and distributed post-task questionnaires respectively to the college manager, college staff, staff resident college and also to the students in UiTM Perlis branch, Campus Arau. The results of usability testing show all of the users have been agree with ARCA system that very usefulness to use as their day-to-day work and also very satisfy with the ARCA system. In short, this project is conducted to find the feasible solution for the related issues by implementing this module for the research and development purpose.

Keywords: student attendance, attendance record, college activities, scrutinization, web-based application, report generator

TABLE OF CONTENTS

CONTENT		
SUPERVISOR APPROVAL	II	
STUDENT DECLARATION	III	
ACKNOWLEDGEMENT		
ABSTRACT	V	
TABLE OF CONTENTS		
LIST OF FIGURES	IX	
LIST OF TABLES	XI	
CHAPTER ONE: INTRODUCTION		
1.1 Background of Study	1	
1.2 Problem Statement	3	
1.3 Objectives	4	
1.4 Project Scope		
1.5 Project Significant		
1.6 Summary	5	
CHAPTER TWO: LITERATURE REVIEW		
2.1 Web Technologies	6	
2.1.1 HTML5	7	
2.1.2 Accessing Camera from Web-Based Using Smartphone	7	
2.2 Scrutinize Module	8	
2.3 Report Generator		
2.4 Barcode Technology	10	
2.4.1 Types of Barcode	11	
2.5 CodeIgniter	12	
2.6 ARCA Web-Based	13	

4.3	4.3 Implementation		47
	4.3.1	Administrator	47
	4.3.2	College Staff	56
	4.3.3	Staff Resident College	57
	4.3.4	Organizer	63
4.4	Sum	mary	66
CHAI	PTER F	FIVE: RESULT AND DISCUSSION	
5.1	Unit	Testing	67
5.2	5.2 Test Script		
5.3	Usab	pility Testing	83
	5.3.1	Administrator	84
	5.3.2	College Staff	89
	5.3.3	Staff Resident College	93
	5.3.4	Organizer	96
5.4	5.4 Summary		
CHAI	PTER S	SIX : CONCLUSION AND RECOMMENDATION	
6.1	Conc	clusion	102
6.2	Cont	tribution of the study	103
	6.2.1	To System Developer	104
	6.2.2	To UiTM Perlis branch, Campus Arau College	104
6.3	Proje	ect Strength	105
6.4	6.4 Project Limitations and Problems		106
6.5	6.5 Recommendation		
REFE	ERENC	ES	107
APPE	ENDICE	ES	109