



WEB-BASED MANAGEMENT SYSTEM FOR **SELF-PACE AC10 PROGRAM CHECKER**

NUR ALYA DALILAH BINTI MUHD AZAN





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FAKULTI SENI, KOMPUTERAN & INDUSTRI KREATIF **UNIVERSITI PENDIDIKAN SULTAN IDRIS**

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SARJANA MUDA KEJURUTERAAN PERISIAN (PERISIAN PENDIDIKAN) DENGAN KEPUJIAN

FAKULTI SENI, KOMPUTERAN DAN INDUSTRI KREATIF UNIVERSITI PENDIDIKAN SULTAN IDRIS













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Tarikh



Tandatangan Penyelia (Dr Roznim Binti Muhd Rasli)







APPRECIATION

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ABSTRAK

"Web-Based Management System for Self-Pace AC10 Program Checker" adalah berdasarkan keperluan pengajian dan pengijazahan dalam Program AC10. Sistem pengurusan berasaskan web ini bertujuan untuk menyelesaikan masalah yang biasa dihadapi oleh pelajar AC10 di mana tiada platform berpusat untuk pelajar merujuk. Metodologi yang digunakan dalam projek ini ialah Evolutionary Prototyping Model (EP). Model metodologi ini mempunyai 4 fasa iaitu keperluan awal, reka bentuk pantas dan membina prototaip, penilaian pengguna dan fasa terakhir ialah sistem penghantaran. Kaedah analisis yang digunakan dalam fasa ini melibatkan analisis kandungan perlu difokuskan dari segi kesesuaian kandungan dan sasaran pengguna. Kejayaan produk akan diuji melalui Skala Kebolehgunaan Sistem (SUS) yang digunakan dalam fasa penilaian yang akan menilai dari segi kebolehgunaan, kefungsian dan kebolehterimaan. Oleh itu, sistem pengurusan berasaskan web ini dibangunkan untuk memudahkan pelajar AC10 merujuk keperluan pengajian dan keperluan pengijazahan. Kesimpulannya, semoga sistem berasaskan web ini dapat membantu pelajar AC10 mempunyai platform pengurusan berpusat dalam membimbing pelajar untuk mengetahui keperluan pengajian dan keperluan pengijazahan.









ABSTRACT

Web-Based Management System for Self-Pace AC10 Program Checker are based on studies requirement and graduation in AC10 Program. This web-based management system are aim to solve problem that commonly faced by AC10 student where there are no centralized platform for students to refer for the studies plan and graduation requirement. Methodology used in this project is Evolutionary Prototyping Model (EP). This methodology model have 4 phases which are initial requirement, quick design and build prototype, user evaluation and last phase is deliver system. The analysis method used in this phase involves analysis content that is focused on the terms of content suitability and target users. The success of the product is tested through System Usability Scale (SUS) which is used in the evaluation phase that will evaluate from in terms of usability, functionality and acceptability. Therefore, this web-based management system is developed to ease AC10 student in refer the studies plan and graduation requirement. In conclusion, hopefully this web-based system will help AC10 student to have a centralized management platform in guide student for studies requirement and graduation requirement.









TABLE OF CONTENT

| TITLE | | | | Pages | |
|-----------------------------|----------|--|-------------|-------|--|
| PERAKUAN KEASLIAN PENULISAN | | | | 1 | |
| APPRECIATION | | | 2 | | |
| ABSTRAK | ABSTRAK | | | 3 | |
| ABSTRACT | ABSTRACT | | | 4 | |
| TABLE OF CO | NTEN | Г | | 5 | |
| CHAPTER 1 | INT | RODUCTION | | | |
| | 1.1 | Overview | | 7 | |
| | 1.2 | Research Background | | 8 | |
| | 1.3 | Problem Statemnet | | 9 | |
| 05-4506832 | 1.4 | Research Objective | u Bainun | 10 10 | |
| | 1.5 | Research Question | ur sam shan | 10 | |
| | 1.6 | Research Scope | | 11 | |
| | 1.7 | Significance of Study | | 12 | |
| CHAPTER 2 | LIT | ERATURE REVIEW | | | |
| | 2.1 | Management System | | 13 | |
| | 2.2 | Website | | 14 | |
| | 2.3 | Comparision of Existing Proje Management System | ct for | 16 | |
| | 2.4 | Conclusion | | 17 | |
| CHAPTER 3 | ME | THODOLOGY | | | |
| | 3.1 | Comparision of Methodology | | 18 | |
| | 3.2 | Evolutionary Prototyping Model (EP) | | 20 | |
| | 3.3 | Conclusion | | 24 | |





| CHAPTER 4 | PRODUCT DEVELOPMENT | | | |
|------------|---------------------------|-------------------------------|---------------|----|
| | 4.1 | Evolutionary Prototyping Mod | el | 25 |
| | 4.2 | Initial Requirement | | 26 |
| | 4.3 | Design and Development | | 26 |
| CHAPTER 5 | TES | TING AND ANALYSIS | | |
| | 5.1 | Research Sample | | 31 |
| | 5.2 | Research Instrument | | 31 |
| | 5.3 | Data Collection Procedure | | 33 |
| | 5.4 | Data Analysis Method | | 33 |
| | 5.5 | Result Finding | | 33 |
| | 5.6 | Calculation on SUS Final Scor | re | 35 |
| | 5.8 | Conclusion | | 37 |
| CHAPTER 6 | CONCLUSION AND SUGGESTION | | | |
| 05 450(000 | 6.1 | Conclusion Perpustakaan Tuan | u Bainun | 38 |
| | 6.2 | Future Study | ul Jalil Shah | 39 |
| | 6.3 | Project Limitation | | 39 |
| REFERENCES | | | | 40 |



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CHAPTER 1

1.0 INTRODUCTION

1.1 Overview

Technology is evolving rapidly nowadays and has become a part of our lives. According to P. Raja* and P.C Nagasubramani (2018) technology nowadays plays an important role in our lives. It is fundamental to economic development. Economies that are not advanced in technology will not thrive in the current scenario. This is because technology further simplifies our work and saves time. As such, technology is very important from every angle including the management system angle. 4506832 pustaka.upsi.edu.my Kampus Sultan Abdul Jalil Shah PustakaTBainun top ptbupsi

A management system according to ISO is a set of standards that sets a requirement or guideline to help organizations manage policies and processes to achieve certain objectives. Most management systems nowadays have adopted web-based management systems, including university management systems.

According to D.N.P Attanayake and R.G.S Thilanka (2021), interest in web-based management systems has developed across the country and such management systems also have advantages for educational institutes. Educational institutes today need a webbased management system where the web can be accessed by every user anywhere.





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1.2 Background Research

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According to Arinah and Azul (2017), the Internet has facilitated the process of communication, the process of information delivery, and also the process of interaction between communities. The Internet has become an effective and important medium in the dissemination of information to increase knowledge among the community. With this, it is already certain that the students at the university nowadays have been exposed to the use of the internet, web, web applications, and even mobile applications.

However, the management system to handle specific information to students is less introduced by the management. Usually, students will experience problems in specific registration where students have to search manually related to the courses that must be registered for a particular semester. In addition, students will find all academically relevant information only in the handbook. For example, if students want to check the latest graduation requirements, they can only refer to the academic handbook. This also can create a few problems where there are changes to the academic handbook without the student receiving the information. It also poses a problem to the management if many students receive information that is not updated.

Therefore, a web-based management system is one of the possible ways to solve this problem. According to Nor Arinah and Mohd Azul (2017), a website is defined as an electronic site that contains various information in the form of text, graphics, animation, audio, and video built using web programming language based on the taste and creativity of a website builder. Creating a web-based management system can help students at the university to get information on the courses they should take, check academic info, and also receive the latest information related to academic matters.







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1.3 Problem Statement

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Every management system will face problems. "Every organization/university whether large or small has challenges to overcome and manage student information, faculty, enrollment, courses at the management level" (Sheetal et.al, 2017). These challenges and problems will cause problems for the next party. There are few problems that have been identified in order to conducted this study:

- Students do not have a centralized platform to assist in AC10 studies requirements and guideline including graduation qualification. A centralized platform helps management to do the work more efficient (Che Wan Shamsul et al, 2020).
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1.4 Research Objective

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"Web-based management system for self-pace AC10 Program Checker" is a web to help students majoring in Software Engineering (AC10) to get the right guidance regarding subject registration each semester. Apart from that, this web can also facilitate the management work carried out manually. Therefore, there are several objectives that have been formulated for the problems that have been identified:

1. To identify main problem related to studies information for AC10 students from the requirement analysis

2. To develop a prototype of a website using HTML, CSS and PhP based on problems discovered.

3. To evaluate the usability of the prototype by using the System Usability Scale (SUS).

1.5 Research Questions

As a guide to achieve the objectives of this study, some research questions presented as follows:

- 1.5.1 What are the suitable features to be build to solved the problem facing by AC10 students?
- 1.5.2 What are the most suitable methodology in order to develop Web-based management system for self-pace AC10 Program Checker?
- 1.5.3 What are the most suitable instrument to be use for evaluation for Web-based management system for self-pace AC10 Program Checker?





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1.6 Research Scope

This web-based project focuses on management system platform that can help students self-pace checker for the study program which is AC10. This web-based management system supports HTML, CSS, JavaScript, and PHP. The main content of this web-based management system is about studies and graduation requirements states in the AC10 program. Next, there are few functions in solving the problem statement. First function is check subjects registration where user can choose the subject want to register and will check either the subject are available to register based on pre-requisite or not and have suggested subject for registetration. Next function is check graduation qualification where graduation information can be at any time, so students can just chek in website instead of using manual book. Other than that, student can also get announcement from this webbased management system such as event announcement or any latest studies requirement. Other than that, management from faculty also can do for add, update abd delete for the subject and announcement. Next, targeted user for this project is AC10 students in all semester which is from semester 1 to semester 8 and management staff from the faculty. Other than that, geographical for this project is for AC10 program that is conducted under Computing Department, FSKIK, UPSI, Tanjung Malim, Perak.









1.7 Significance of Study

The following are the importance of the study that will be gained by the use through the development of this web-based management system:

1.7.1 Students

The importance of developing this web-based management system is to help AC10 students get important information through this website. In addition, students will have accurate guidelines regarding subject registration each semester such as getting an accurate list for subject registration and checking the suitability of the subjects to be registered. This can prevent students from enrolling themselves in subjects whose prerequisites are not met. Furthermore, AC10 students will also have a course platform to check info such as general graduation requirements, credit hours that must be met, and info related to actions to be taken if the student does not meet any requirements for graduation.

1.7.2 Management Staff

Management staff will easily update the announcement in this web-based management system as this system have the features to make announcement for the students. Therefore, it will be easy for management staff to update any news to the students as this platform will be the main platform for students to check subject registration and check graduation qualification.

