

MyRA Performance Dashboard System (MPS)



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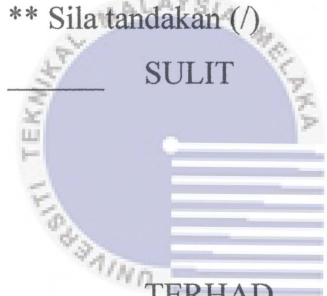
JUDUL : MyRA Performance Dashboard System

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MyRA Performance Dashboard System (MPS)



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

This report is submitted in partial fulfilment of the requirements for the
Bachelor Degree of Computer Science (Database Management)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

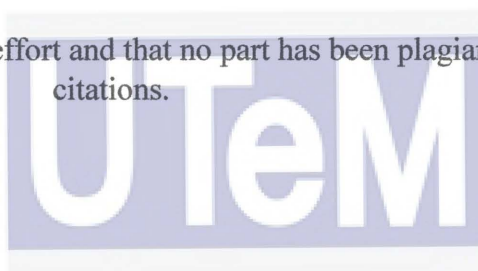
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2017

DECLARATION

I hereby declare that this project report entitled
MyRA Performance Dashboard System (MPS)

Is written by me and is my own effort and that no part has been plagiarized without citations.



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DR. NURUL AKMAR BINTI EMRAN

DEDICATION

This final project is dedicated

To my beloved mother, Pn. Rokiah binti Abdul Karim for giving me moral support and inspiration and valuable advices.

To my respected supervisor, Dr. Nurul Akmar binti Emran

Who has guided me through this project.

To my fellow friends for all the co-operations and knowledge sharing in completing this project.

Thank you very much.

ACKNOWLEDGEMENT

In the name of ALLAH S.W.T, The Most Gracious, The Most Merciful. Pray and peace upon the Prophet Muhammad S.A.W.

Firstly, I really be grateful to Allah S.W.T. because give the opportunity to me to undergo this learning process in healthy and safely condition. I would like to thanks to my supervisor, Dr. Nurul Akmar binti Emran that inspired me greatly to finish this bachelor degree project and thanks a lot with her willingness to motivate me to not be give up if any problems come.

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Last but not least, thank you very much too all friends for your guidance and supportive support in order to finish this final year project.

ABSTRACT

MyRA Performance Dashboard is a web-based application that provides a platform to measure the research performance of a university. The system will collect all the required information before proceeding to do a research assessment procedure. Upon successful collection of the required information, the system will generate a graphical report and summary of the university's research performance. In order to measure and calculate the performance of a university's research activities and performance, it requires a lot of calculation formulas that need to be obeyed accordingly. So, this project is about solving those issues by developing a web-based application which will perform all the calculations required effectively. Besides that, the system will also assist users on how to improve stars rating gained by UTeM by adjusting the details of the information such as the number of academic staff and increase the postgraduate students. This system is developed by using PHP programming language with MySQL as the database. The software that are used to develop the system are Adobe Dreamweaver, XAMPP Web Server, MySQL Workbench and Microsoft Visual Studio Code

ABSTRAK

MyRA Performance Dashboard merupakan satu sistem aplikasi web yang menyediakan platform to mengukur prestasi penyelidikan sesebuah universiti. Sistem ini menyimpan semua maklumat yang diperlukan sebelum melalui proses penilaian penyelidikan. Selepas selesai mengumpul maklumat yang diperlukan, sistem ini akan menghasilkan laporan secara grafik dan rumusan berkenaan prestasi penyelidikan. Dalam proses mengukur dan mengira prestasi penyelidikan sesebuah universiti, ia melibatkan sejumlah formula pengiraan yang perlu dipatuhi. Oleh itu, projek ini akan menyelesaikan isu-isu tersebut dengan membangunkan sebuah aplikasi web yang akan melakukan semua pengiraan yang diperlukan dengan kaedah yang berkesan. Selain itu, sistem ini akan membantu pengguna tentang bagaimana untuk menambah baik *rating* bintang MyRA yang diperoleh UTeM dengan mengubah suai input seperti bilangan staf akademik UTeM dan bilangan pascasiswazah. Sistem ini dibangunkan dengan menggunakan bahasa pengaturcaraan PHP dengan pangkalan data MySQL. Antara perisian yang digunakan untuk membangunkan sistem ini ialah Adobe Dreamweaver, XAMPP Web Server, MySQL Workbench dan Microsoft Visual Studio Code.

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CHAPTER I

INTRODUCTION

1.1 Project Background



MyRA Performance Dashboard is an web-based application that provide a platform to measure the research performance of an university. This system covers for all the research center and faculties research informations. The system will collect all the required information before proceeding to do a research assessment procedure. After finished collecting the required information, the system will generate a graphical report and summary of the university's research performance.

In order to measure and calculate the performance of an university's research activities and performance, it requires a lot of calculation formulas that need to be obeyed accordingly. These calculation also has used up a lot of time in order to get the overall mark before the proposed project comes up. So, this project is about solving those issues by developing a web-based application which will do all the calculation in an efficient and effective way. It will be developed by using PHP programming language and using MySQL database.

The system will provide interface for user to store information regarding UTeM research activities into database. The system will then make all the calculations needed and transform the information into an info-graphic report. Beside that, the system will also assist on user on how to improve star gained by UTeM by altering the details of the information such as increasing the number of academic staff and increase the postgraduate students.

1.2 Problem Statement

- i. To measure the performance of the university research achievement, it needs a lot of information. The current system has shown that the information required for the assessment are isolated.
- ii. There are a lot of sections to be calculated in order to obtain the overall performance score. The current system is unable to provide a report on performance that is easy to understand.
- iii. It is important to know which sections need to be improved. From that, the performance score will increase eventually. Thus, a simulation of data needs to be made to obtain future MyRA score.

1.3 Literature Review

Introduction

Much has been said and written about business intelligence dashboard systems. To begin the research, study begins with collecting information from periodicals, journals and reports. Business intelligence dashboard systems are used almost in all the sectors of industry for different purposes like reporting, analysis and decision making. This research concentrate specifically on its applications for the decision support process .This section provides information from several articles that I believe are relevant to this area.

Definition

In information technology, a dashboard is a user interface that, somewhat resembling an automobile's dashboard, organizes and presents information in a way that is easy to read. However, a computer dashboard is more likely to be more interactive than an automobile dashboard. To some extent, most graphical user interfaces resemble a dashboard. (Rouse, 2005).

Dashboards are expected to improve decision making by amplifying cognition and capitalizing on human perceptual capabilities. (Oana, 2012).

Purpose

Based on the literature study that have done on this research, there a lot of organizations has made dashboard system as a medium to help them achieving their purposes. One of the cases which have found is that, dashboard system was used to present a financial reporting system for the hospital industry. They used the dashboard system to analyse the factors affecting the financial performance of hospitals. (Cleverley, 2001).

There is also a research that has been discovered it has closer scope to the proposed project scope which is to be applied to university. Based on the study, they proposed a dashboard system to help the higher institution to explore the insight of student performance by analysing significant patterns and tacit knowledge of the experts in order to improve decision making process. This research was being proposed and implemented in Universiti Malaysia Pahang with the project name of Knowledge-Based Dashboard.(Wan Mohd, Embong, & Zain, 2008).

Conclusion

Dashboards have become popular in recent years as uniquely powerful tools for communicating important information at a glance. Although dashboards are potentially powerful, this potential is rarely realized. The greatest display technology in the world won't solve this if it fail to use effective visual design. And if a dashboard fails to tell precisely what need to be known in an instant, it will be never being used, even if it's filled with cute gauges, meters, and traffic lights. (Few, 2006).

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As a conclusion of this literature review, a business intelligence dashboard system can be useful and effective when it is developed in accordance to the requirements correctly. It is also important for the users of the system to easily understand the dashboard contents and able to improve decision making from the help of the dashboard system.