



**PROJECT MONITORING SYSTEM**

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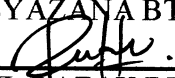
## DECLARATION

I here by declare that this project report entitled

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## **DEDICATION**

To my beloved parents for standing by my side and supporting me in all the way in completing this report. Also to my friends for their support and ideas.

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I would like to thank to my Projek Sarjana Muda supervisor, Dr. Razak for the help and guidance toward this short semester period in order to finish this report. I also would like to thank my parents for their support in every way for me to continue finishing this report.

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## ABSTRACT

Monitoring phases during development process is an essential phase for construction industry. Tools that used to monitor project development were report submission and weekly meeting. This however will cause a problem to some individuals that cannot attend the meeting due to some emergency. According to progress activity an issue is brought up in an meeting that was held weekly. What if the issue can't wait until the next meeting because the issue is the most important factor that will lead to next progress? An online monitoring system will be design to help solve this kind of problem or situation. Based on anywhere and anytime principle where internet connection and a personal computer are available, individual such as consultant can respond to the issue that occur. Not limited to one consultant but any other consultant can help by giving suggestion that can help solve the issue. The system implemented a Rational Unified Process Approach as a result of opting an object-oriented method that would be an advantage for a internet based system and encourage the development of small, free-standing systems that are capable of providing user benefit. Previous cases that related to this system was studied to obtained some information regarding to the system. Outcomes however can be measure after the system is develop. A web – enable system for monitoring project is expected from it. However, few improvement for future recommendation on Project Monitoring System is needed and being stated in this report.

## ABSTRAK

Fasa pemantauan didalam projek pembinaan adalah fasa yang sangat penting dalam industri pembinaan. Selalunya bagi melaporkan pemantauan projek, mesyuarat akan diadakan bagi membincangkan masalah dan isu yang wujud semasa kerja-kerja pembinaan. Laporan akan dibuat setelah persetujuan dicapai setelah mesyuarat selesai. Walaubagaimanapun ini sume tidak dapat dijalankan sekiranya ada individu yang terlibat contohnya seperti jururunding tidak dapat hadir ke mesyuarat itu atas sebab-sebab tertentu. Ini mungkin akan menyebabkan kelewatan proses seterusnya. Mungkin juga ada isu atau masalah yang dibangkitkan tidak dapat dibincangkan dan diselesaikan ketika mesyuarat diadakan kerana ketidakhadiran individu-individu yang berkenaan. Ada juga isu-isu yang perlu diselesaikan dalam masa yang singkat dan tidak boleh dibiarkan sehingga mesyuarat seterusnya. Ini semua diharap dapat diselesaikan dengan *Project Monitoring System (PMS)* yang berasaskan teknologi web yang boleh digunakan dimana sahaja pada bila-bila masa. Sistem ini dapat dicapai ditempat yang mempunyai rangkaian internet dan juga komputer. Sistem ini juga diharap dapat membantu menyelesaikan isi-isu yang dibangkitkan pada masa yang singkat kerana jururunding dapat memberi respon apabila mereka melayari sistem ini. Selain itu, isu juga dapat diselesaikan bukan sahaja dengan bantuan jururunding bahkan dengan cadangan-cadangan pengguna lain. Sistem ini dibina mengikut kaedah Rational Unified Process dimaan ianya di pilih kerana sistem ini menggunakan kaedah "*object-oriented*". Kes-kes kajian yang terdahulu yang berkaitan dengan sistem ini juga dikaji untuk mendapatkan maklumat. Satu sistem yang berorientasikan web akan dihasilkan melalui projek ini. Walaubagaimanapun, sedikit pembaikan adalah perlu dan telah dijadikan sebagai cadangan untuk masa hadapan dan telah dinyatakan di dalam laporan ini.

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## LIST OF ABBREVIATIONS

ACTH	- Adrenocorticotropin-Releasing Hormone
CRH	- Corticotrophin-Releasing Hormone
CSS	- Cascading Style Sheet
DBMS	- Database Management System
DFD	- Data Flow Diagram
ERD	- Entity Relationship Diagram
FK	- Foreign Key
GUI	- Graphical User Interface
HTML	- Hypertext Markup Language
IE	- Internet Explorer
LAN	- Local Area Network
MFS	-Microsoft Framework Solution
PHP	- PHP Hypertext Preprocessor
PK	- Primary Key
PMS	-Project Monitoring System
PSM	- Projek Sarjana Muda
RUP	-Rational Unified Process
UTeM	- Universiti Teknikal Malaysia Melaka
WAN	- Wide Area Network
XAMPP	- X-Apache-MySQL-PHP-Perl

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## **CHAPTER I**

### **INTRODUCTION**

#### **1.1 Project Background**

Project monitoring activity play an important role in construction industry. This activity help prevent overdue projects from happening. This issue is not a new to construction arena but it's a problem that occurs from time to time. The Prime Minister of Malaysia once said that development's project should be complete within the time because project that behind schedule will increase other cost and would be a burden to the citizen.

A conscientious monitoring action will be prepared and it will be followed correctly in order to reduce overdue projects in future. Management is responsible to make sure that the monitoring and controlling activity is design and practice at construction site. Producing a report is one of the methods that used to monitor the development of the project. Thus this helps the management to organize the information and developments on the related project.

Nowadays, the usage of technology can be seen in every inch of live. The increasing of IT practice also comprise in the construction area. "Information Technology can be regard as utopia dream of paperless where shared information doesn't need to be writing in a paper(Yahya, S.A, 2006)." Thus, Project Monitoring

System is a web-enable application design to help especially the construction area to monitor the project's movement and activity.

## **1.2 Problem Statement**

Currently, a paper based system is used to monitor the projects activity.

### **1.2.1 Time Constraint**

Monthly or annual reports were submitted to the responsible person in turn to ensure the development and process of the project. Through this, activity of the project will be supervised according to the milestone that was agreed between the clients. Via this report also the management party will be able to plan specific strategy that assist to enhanced the activity of the project.

This report later will be present to the involve persons that connected with the project. Meeting that held monthly or once a week depends on agreement that was made before will converse about improvement of the project. Issues that occur also will be discuss during the meeting.

Completing the entire task required more time than usual. To attend a meeting, ones must spent their precious time so that everyone will gathered together face to face to discuss the developments of projects.

### **1.2.2 Absence of Important Member**

There are some individuals weren't able to attend the meeting due to sudden matter. This will be a huge problem if that person is an important person that responsible or that individual is the person whom they refer for consultation. Furthermore, this absent person will not be able to follow the progress of the

project. Thus from this situation this system will be develop to ensure that all the involve individuals are interact with each other.

### **1.2.3 Unorganized of Material**

Current system is a paper based system. Graphical document and other document are not well organized in one place. Some material maybe lost due to lack of spaces. It also difficult to search, retrieve or edit information on projects due to the unorganized material.

## **1.3 Objectives**

The objectives of this system are:

- To develop a monitoring system that efficiently supervised project's activity and enables the development's information to be access systematically.
- To develop a system that provides information on projects and displays the progress of the project's activity.
- To provide a web-enable monitoring system that can be access by user at any time.

## **1.4 Scope**

Project Monitoring System's scope are:

- System will be developed using a PHP script. It works with the Apache web server. The database of this sytem is MySQL. However

all of this can be found in a package called XAMPP where it contains the Apache web server together with the MySQL database.

- The user scope for this system are client and administrator. Client will consists of the construction company(Urusbina Sdn. Bhd) and all of their officers such as engineers and others. Administrator who will maintain the account of Urusbina Sdn. Bhd.
- There are four major modules that will be developed in this system. The modules are:

i. Projects Information

This module will include the information about each project. It also contains data on related construction. Issues that occur also will be recorded here.

ii. Project Monitoring

Here stated the information about the development or progress of the project. It shows the activity of the project.

iii. User Information

This module includes the information regarding on the user that used this system.

iv. Image Information

A module include the related image regarding to the construction project itself.

## **1.5 Project Significance**

Project Monitoring System is design to assist a construction company (Urusbina Sdn. Bhd.) to have more organized monitoring system while conventional ways to monitor a project is using a report. This system also helps the construction company to systemize their clients and the related individuals that commonly works with construction organization.

It will also reduces the usage of time of user. This is because clients can access their projects at anytime and anywhere that have an internet connection and a personal computer.

An issue can be discuss without fearing that the responsible person would not be attending any meeting since that individual can respond it although he or she is not near them. This is since the system is web-enable and can be access anywhere at anytime where there are internet connection and a computer.

## **1.6 Expected Output**

This project is expected to be a one of an online tool for monitoring system since it is develop to be a web-enable system. It also should have a user-friendly interface and will be a simple to used application.

## **1.7 Conclusion**

This chapter briefly explained about the background of this system. It also include the problem of the old system that was used to monitor a construction project. Generally, it discuss about the purpose of the Project Monitoring System and who's going to used it.

The next chapter will converse about the literature review and the methodology that Project Monitoring System used.

## **CHAPTER II**

### **LITERATURE REVIEW AND PROJECT METHODOLOGY**

#### **2.1 Introduction**

A dynamic web-based system will be developed for the project's monitoring activity to replace the former manual system where it based on the producing of the report. Using this online system, all related person or organization can track the development and progress of the project while administrator or consultant can respond to the project's information.

Previous topic discuss about the project background, scope and objectives. Here, the discussion on the project's methodology or how will the project be implemented during the analysis and design that will be discuss on next chapter.

#### **2.2 Fact and Finding**

In this sub chapter, it's explained on the current system that exists before developing Project Monitoring System(PMS). It also includes a brief description on this system domain and also technique that used in order to approach user's target toward this new system. Case study also added to help understand more about system.

### **2.2.1 Domain**

The identified domain of this system is Computer System for Building Construction. The domain is as above because this system is developed based on a project development for construction project. Other than that, it was defined as a computer system domain because its web based system.

### **2.2.2 Existing System**

This existing system is a manual approach to monitor project. These approaches includes weekly or monthly meeting. Everybody that related to the project will gathered together to discuss about the issue or problem that arise during the project development. A weekly or monthly report also will be produced manually for future reference and as prove that issues have either been respond or still idle.

#### **2.2.2.1 Case Study 1: Web Based Management and Information System**

A researched made by Najib bin Khalid(2001) about the development of *Kompleks Usahawan Teknologi(KUT) MARA*, Technovation Park UTM Skudai owned by *Majlis Amanah Rakyat(MARA)* and the responsible contractor was Andromeda Dinamika Sdn.Bhd..

He develops a website to watch the project progress using Microsoft Front Page 2000 with the cooperation Data Access Page to store the related information on the project progress. The module contain in system are

- a) Project Main Information