CoE Activity Monitoring System

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BORANG PENGESAHAN STATUS TESIS*

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CoE Activity Monitoring System

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This report is submitted in partial fulfilment of the requirements for the

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DECLARATION

I hereby declare that this project report entitled

CoE Activity Monitoring System

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

STUDENT : _____ Date: _____

(YIP CHAO YANG)

SUPERVISOR : _____ Date: _____

(PROF. DR MASSILA KAMALRUDIN)

DEDICATION

I would like to dedicate this project to parents for their endless support, without their supports, it would not be possible. I also want to dedicate this project to every single one of them who offered endless support and encouragement.

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ABSTRACT

CoE Activity Monitoring System is a web platform system develop to Officers of UTeM Center of Excellences(CoE). Before this system develop, lecturer always have to print out the application form send to the CoE Department and wait for approve. But there were a lot of lecturer work in UTeM, while apply activities, it results different application form, inconsistent templates. Furthermore, there were lot of activities were applied but lack of officers monitor it, thus that is why CoE Activity Monitoring System is developed. The objectives to develop this system is to provide a platform for Lecturer to apply an activity on web, so that lecturer don't have to print out the application form submit to CoE Department. Second to provide a platform for Manager, Coordinator, and Head of CoE to monitor activities. This system will list all of the application for all officers of CoE to view. Third, to provide only one application form, result a consistency templete. Waterfall model is chosen for software development processes. Waterfall model is a linear-sequential life cycle model. It is very simple to understand and use. It is easy to manage due to rigidity of the model. The Waterfall method makes the assumption that all requirements can be gathered up front during the Requirements phase. Once this stage is complete, the process runs "downhill". Expected results, lecturers are available to apply an activity. Manager, Coordinator and Head of CoE can monitor activities that lecturer apply for, and they have the right to decide decline or approve it. After Coordinator and Manager approve the event, they will send the form to Head of CoE. The role for Head of CoE is to sign off the event that have been approved. Finally, Lecturer can print the submission form to submit it.

ABSTRAK

CoE Activity Monitoring System adalah sistem platform web yang dibangunkan kepada Pegawai CoE. Sebelum sistem ini dimajukan, pensyarah perlu mencetak borang permohonan kepada Jabatan CoE dan menunggu untuk diluluskan. Tetapi ada banyak pensyarah yang bekerja di UTeM, sambil memohon aktiviti, ia menghasilkan borang permohonan yang berbeza, template yang tidak konsisten. Di samping itu, terdapat banyak aktiviti yang digunakan tetapi kekurangan pegawai memantau, oleh itu itulah sebabnya Sistem Pemantauan Aktiviti CoE dibangunkan. Objektif untuk membangunkan sistem ini adalah untuk menyediakan platform untuk Pensyarah untuk memohon aktiviti di web, supaya pensyarah tidak perlu mencetak borang permohonan kepada Jabatan CoE. Kedua untuk menyediakan platform untuk Pengurus, Penyelaras, dan Ketua CoE untuk memantau aktiviti. Sistem ini akan menyenaraikan semua permohonan untuk semua pegawai CoE untuk melihatnya. Ketiga, untuk menyediakan hanya satu borang permohonan, menghasilkan sebuah templet konsisten. Model air terjun dipilih untuk proses pembangunan perisian. Model air terjun adalah model kitaran hayat linear. Ia sangat mudah difahami dan digunakan. Ia mudah dikendalikan kerana ketegaran model. Kaedah Air terjun membuat andaian bahawa semua keperluan boleh dikumpulkan di hadapan semasa fasa Keperluan. Setelah tahap ini selesai, proses berjalan "menurun". Hasil yang dijangkakan, pensyarah boleh menggunakan aktiviti. Pengurus, Penyelaras dan Ketua CoE boleh memantau aktiviti yang dipohon oleh pensyarah, dan mereka mempunyai hak untuk memutuskan penurunan atau meluluskannya. Selepas Penyelaras dan Pengurus meluluskan acara tersebut, mereka akan menghantar borang kepada Ketua CoE. Peranan Ketua CoE adalah untuk menandatangani acara yang telah diluluskan. Akhirnya, Pensyarah boleh mencetak borang penyerahan untuk mengemukakannya.

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INTRODUCTION

1 Introduction

This chapter will discuss the project background of Center of Excellences(CoE) Activity Monitoring System. After that are problem and the objective of this project to be developed. Scope, project significance and expected output of this project will be discussed. Last is conclusion for this chapter.

1.1 Project Background

CoE Activity Monitoring System is the web platform system for staffs of CoE to view and manage their activity. A universal application form is provided for lecturer to apply an activity in this system. The activity will be stored after lecturer submit their application form. Manager and Coordinator of CoE have access to view all of the activities.

1.2 Problem Statement

- ✓ Inconsistent application form format
  - There were a lot of lecturer work in UTeM, while apply activities, different lecturer will come out with different format of the form, it results different application form and inconsistent templates.

- ✓ Lack of monitoring
    - A lot of activities were applied by lecturer and submit to office, but they don't know their application when will be checked by Manager and approved by Ketua CoE.

1.3 Objective

- ✓ To provide a web platform system for Lecturer to apply an activity with consistent application form format and also allow Lecturer to manage and update their application form.

- ✓ To provide a web platform system for Manager, Coordinator, and Head of CoE to view the application form submitted by lecturer and also make a decision to approve the application.

- ✓ To provide only one application form, result a consistency application form format and allow Lecturer to print out after the application was approved by Head of CoE.

1.4 Scope

The project scopes are divided into three categories which are:

i. Users

The users of this project are lecturers, manager, coordinator, head of CoE and administrator. Lecturers can apply an activity through application form provided by this project. Lecturers are allowed to edit their application before it check by manager. After the application is approved by head of CoE, lecture need to print out the event to submit it.

Manager and Coordinator can view all the application form in the system but only Manager can check and reject the application. Head of CoE also same with Manager

can view all the application form, but at the end will grant with permission to approve or reject the application.

Administrator can manage the user who registered in this system and also can view all the application but do not have permission to approve or reject it.

ii. Functionality

There are a few functionalities in CoE Activity Monitoring System including user manager, event manager, email notification. For function of user manager, administrator can only register 3 kind of users which are Head of CoE, Manager, and Coordinator. Besides that, administrator have the permission to update the information of users and also delete the user. Administrator can search and sort the list of users through user manager. For event manager, the basically functions almost same with user manager, it allows lecture to update or print the application form, allow Manager and Head of CoE to approved the application. Email notification, Coordinator have the permission to notify Manager and Head of CoE through email when the application is pending more than 3 days

iii. Place to implement

Place to implement for this project is in FTMK first.

1.5 Project Significant

This project can increase productivity by reducing time, cost and storage consuming. Lecturer can save time in apply and submit the application by just submit the application form to the server instead create their own format application and print out then submit to Manager and Head of CoE to wait for check and approvement. Less using the paper to create the application form, it is good to save the cost of printing out all the documents, Lecturer only need to print out after the application is approved by Head of CoE. Furthermore, by using this project to manager the application, it can reduce the storage

consuming because if using paper-document will waste space to store it while uploading to server will not waste any space.

1.6 Expected Output

Expected results, lecturers are available to apply an activity. Manager, Coordinator and Head of CoE can monitor activities that lecturer apply for, and they have the right to decide decline or approve it. After Coordinator and Manager approve the event, they will send the form to Head of CoE. The role for Head of CoE is to sign off the event that have been approved. Finally, Lecturer can print the submission form to submit it.

1.7 Conclusion

CoE Activity Monitoring System can solve the inconsistent application form and lack of application form monitoring problem. Through this system lecturer will easier to know the status of their current application form. Lecture can make any changes when the application when the status is still on pending. Any changes will be done by this system, so that lecturer do not need to print the application form for many times to submit.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2 Introduction

This chapter of report discusses about the literature review and methodology used by doing this project. The facts and findings about the domain and the existing system are going to be explained in this chapter. Next section of this chapter discusses the techniques used in this project in order to make it successful. Besides that project requirements of doing this project which are software requirements, hardware requirement are also in this chapter.

2.1 Facts and findings

This section is mainly to talk about the domain, the existing system and the technique that has been done by pass researchers.

2.1.1 Domain

Google Calendars allow user to easily share their calendars and view the calendars of others in their organization. User most likely want to share their main calendar, but user may have secondary calendars that wish to keep private or only shared with certain users in their own domain.

1. Keep Calendar Private

As a default, any new calendar user create will remain private. This means that others cannot access, view or add events to said calendar.

2. Share Collaborative Calendar Publicly

At times user may wish to embed an events calendar on a website, but in order to ensure site visitors can view the calendar, user will need to make the calendar public. To do so, click the gear icon in your Calendar then select the 'Calendars' tab and choose the calendar user wish to work with. Then select 'Share this Calendar,' select 'Make this calendar public' and click save.

3. Share Calendar with Specific People

If user wish to share a calendar only with specific people – like an administrative assistant or team member, user can do so in the Calendar sharing settings. Simply type the email address of the person user wish to share with.

4. Determine Sharing for Specific People

Once user have shared a calendar with a specific person, they can also choose how that person is allowed to interact with the calendar. User can allow another user to make changes and manage sharing, make changes to events, see all event details, or see only free / busy (essentially hiding event details). After sharing the calendar, make sure to click save.

2.1.2 Existing System

2.1.2.1 Google Calendar

Google Calendar application allows users to create personal or public calendars after signing up for a Google account. The accounts are free, and Google stores the calendars within its cloud computing system. That means that the company stores the application and user information on its own servers. The user doesn't have to download special software to access the calendar -- all access is through a Web browser.

With traditional desktop software, users store information to their own computers' hard drives or other storage devices. That means if they want to access their information, they always have to use the same computer. Since the information in Google Calendars exists on the Web, users can view and make changes to calendars from any computer connected to the Internet. Storing calendars on the Internet also means that it's easier to share information with other users. In turn, scheduling events and creating invitations becomes easier.

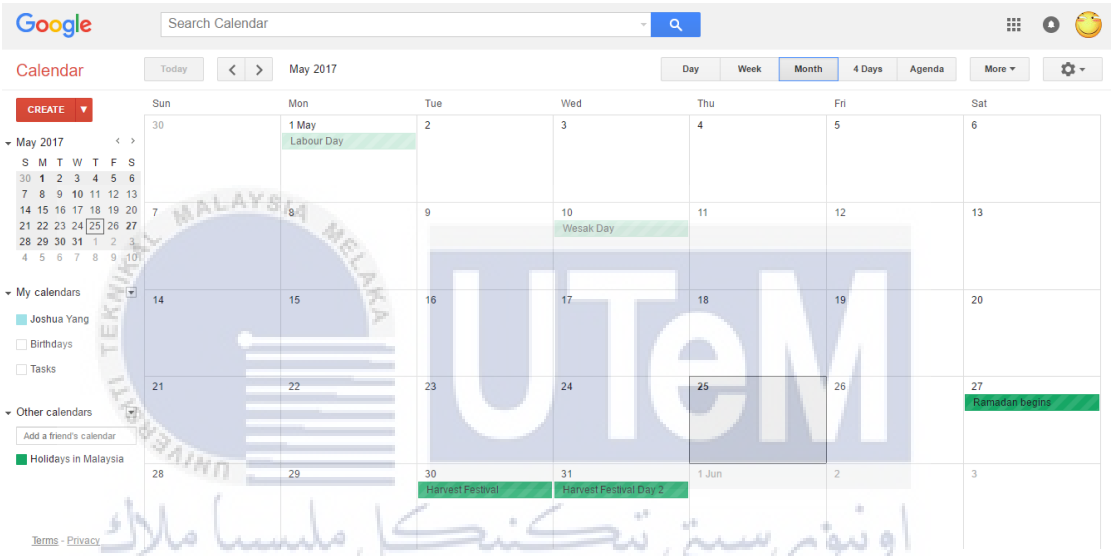

Figure 2.1: Interface of Google Calendar

2.1.3 Technique

There are two techniques being used in developing the project.

2.1.3.1 Web Based Technique

Web based applications are coded in a browser supported language such as HTML, ASP or PHP which can be accessed by clients through a web browser. It combines with the HTML code that determines the visual layout and the CSS style sheet, the HTML, JavaScript and CSS are executed via the browser. Besides, JavaScript instructions are contained within the web page that is retrieved from a website. One main software version is installed and maintained on a server so that more than one client can access this version.

In this project, web based technique is used and the language used to develop this project is php. CSS style sheet has been applied on this project and make the layout more beautiful. This project can be opened via web browsers such as Internet Explorer, Google Chrome, FireFox and so on.

2.1.3.2 Automated Software Technique

Automated software engineering is the computation that used in the software engineering activities. The objective is to partially or fully make the system's activities to be automated to increase the quality and productivity. This includes the study of techniques for understanding, constructing, adapting and modelling software artefacts and processes. Automated software engineering techniques have also been used in many fields of domains and application areas such as industrial software, embedded and real-time systems, aerospace, automotive and medical systems, Web-based systems and also computer games.

In this project, automated detection is triggered when admin edit user information. The system automatically refresh the table when update is done.

2.2 Project Methodology – Waterfall (Traditional)

This project uses Waterfall Methodology to implement the whole work flow.

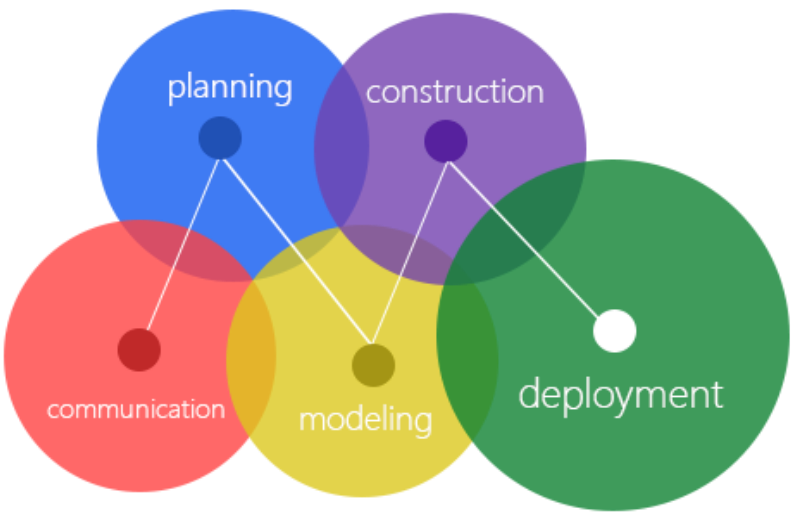

Figure 2.2: Waterfall Model

This methodology has been in practice for decades before the new methodologies were introduced. In this model, development lifecycle has fixed phases and linear timelines. This model is not very capable of adopting the challenges in the modern software development domain.

The sequential phases in Waterfall model are:

- Requirement Gathering and analysis: All possible requirements of CoE Activity Monitoring System to be developed are captured in this phase and documented in a requirement specification document. This phase gathers all information and the requirements in developing this project and analysis the flow of project and what the project can do. The requirements for this project includes submit application form to server, approve the application form, printing application form, and so on.

- System Design: The requirement specifications from first phase are studied in this phase and system design is prepared. System Design helps in specifying hardware requirements such as which brand of laptop is able to use CoE Activity Monitoring System and also helps in defining overall system architecture. The page navigation design is prepared and for the system requirements are using php and xampp server.

- Implementation: With inputs from system design, the system is first developed in small programs or units which are many parts of functionalities of CoE Activity Monitoring System such as submit application form, user manager, send notification and etc. and all these parts are integrated in the next phase. Each unit is developed and tested for its functionality which is referred to as Unit Testing. Coding started in this phase. With all the information gathered, using PHP programming language, starting to develop the project.

- Integration and Testing: All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures. Most important thing in this phase is to ensure each unit can function well after integrated together. After the project is done by part to part, functional and non-functional testing will be carry out in this phase and solve any errors if found.

- Deployment of system: Once the functional and non-functional testing is done, the project prototype is deployed in the customer environment. Project is ready to be used by CACT members in UTeM.

- Maintenance: There will have some issues come up in the client environment. To fix those issues, release patches and some better versions will be release to enhance the product. Maintenance is done by delivering those changes in the customer environment. Follow up by some maintenance if necessary.

2.3 Project Requirements

This section describes the software and hardware requirement.

2.3.1 Software Requirements

Software requirements are important to know in order to make a successful project. In this project, software that needed are Windows 10, Atom, XAMPP server, MySQL Database and web browsers. Table 1 describes the software requirements that are used in this project.