

ONLINE CALENDAR SYSTEM (OCS)

by

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Abstract

During today's age of information, implementation of calendar system in the web is very general. This implementation also known as online calendar system, which is more interactive and attractive than manual planner or organizer. Online calendar system helps a user or community to organize their daily life more effective and efficient. Compare to manual organizer, online calendar system provide more features where users can always keep track the dynamic changing of every moment in their daily life. For example, user can change the schedule just with one click and search for needed information within few seconds. Unlike manual organizer, there is time consuming in searching page by page for the information. Although, manual planner have advantage in portability but it actually take risk where user can lost all the information once they lost the organizer. Where as, online calendar system is always keep track the information and the storing information neatly in database, which is secure and confidential. Since online calendar system is useful for personal or community. A prototype of online calendar system is introduced for Universiti Malaysia Sarawak (UNIMAS). This proposed system expected included all the main features in a planner with added features where user can have personal or community invitation, personal or community calendar and etc. With these features, it is expected to increase the quality of time management and task management for community of UNIMAS through the added features in this proposed system. Development of prototype will focus the needs' of community in Faculty of Information Technology in UNIMAS. Research by reviewing the existing online calendar system has been done. Besides that, studies on the technology and tools needed also have been done. The methodology used for developing the prototype is System Development Life Cycle (SDLC) integrated with prototyping approach. SDLC is the methodology usually used for developing system while the prototyping approach is used for designing and developing the prototype. Implementation of the prototype is based on studies and researches. Even though faced problem that are inevitable during developing the system, the objectives of the system is achieved. Comment and recommendation for future works have been done. This recommendation is used to produce a more efficient and effectiveness calendar system.

Abstrak

Dalam zaman teknologi ini, implementasi sistem kalendar dengan menggunakan laman web sudah menjadi kebiasaan. Implementasi ini dinamakan system kalendar dalam talian di mana lebih interaktif dan menarik daripada manual kalendar. System kalendar dalam talian menolong pengguna atau kcommunity untuk mengurus kehidupan mereka dengan lebih berkesan and cekap. Berbanding dengan manual kalendar, sistem kalendar dalam talian membekalkan lebih banyak fungsi di mana pengguna boleh sentiasa mengikuti perubahan yang dinamik pada setiap masa dalam kehidupan. Sebagai contoh, perubahan dalam perancang dengan "one click" dan pencarian maklumat cuma memerlukan beberapa saat sahaja. Berlainan dengan manual sistem, ia merupakan pembaziran masa dalam pemcarian maklumat daripada semuka surat ke semuka surat. Walaupun, manual perancang membawa kebaikan dalam kesenangan pembawaan, tetapi ia masih membawa ancaman di mana pengguna mungkin menghilangkan perancang itu. Berbeza dengan sistem kalendar dalam talian akan sentiasa mengikuti perubahan dari semasa ke semasa dan menyimpan maklumat penting dalam pangkalan data yang lebih selamat dan terjamin. Oleh sebab, system kalendar dalam talian adalah berguna bagi satu kcommunity. Maka, satu prototaip bagi sebaran system kalendar telah dicadangkan untuk UNIMAS. Prototaip ini dijangka merangkumi semua fungsi utama di mana perseorangan or kcommunity boleh membuat perjemputan perseorangan atau kcommunity, kalendar persendirian atau kcommunity. Dengan fungsi tersebut, dijangka akan meningkatkan kualiti dalam pengurusan masa dan pengurusan kerja untuk kcommunity dalam UNIMAS. Prototaip ini akan dihasilkan dengan fokus kepada keperluan Fakulti Teknologi Maklumat. Kajian terhadap sistem kalendar dalam talian yang wujud semasa ini telah dijalankan. Di samping itu, kajian terhadap teknologi dan alatan yang digunakan untuk membina sistem kalendar dalam talian juga dijalankan. Teknik yang digunakan untuk pembinaan sistem ini ialah "System Development Life Cycle" (SDLC) intergrasi dengan teknik prototaip. SDLC ialah satu teknik yang biasa digunakan untuk pembinaan sistem dan teknik prototaip ialah teknik yang digunakan untuk menghasilkan prototaip. Implementasi sistem ini adalah berdasarkan kajian telah dibuat. Namun demikinan, banyak halangan yang tidak dapat dielakkan telah berlaku dalam penghasilan sistem, objektif bagi sistem ini masih dicapainya. Komen dan cadangan bagi masa akan datang telah diberikan supaya sistem kalendar yang lebih efisien dan efektif dapat dibinakan.

Chapter 1: An Overview

1.1 Introduction

The Internet in its broadest sense can be defined as a collection or interconnection of many different networks of the computer hosts, clients, and servers that collectively provide and use information and connection services. (Mark Swank and Drew Kittel, 1996) On the other hand, the Internet is a network of computer to link various points around the world.

The Internet began as a small network project called Advanced Research Projects Agency Network (ARPANET) in 1969. (Mark Swank and Drew Kittel, 1996) the primary goal is to create a system communication to overcome disruption caused by enemy attacks during the Cold War.

Nowadays, the Internet has become quite common and important to human daily life. The Internet is a system communication that can be access in anywhere at anytime that has Internet access.

Calendar system in other hands, is a very important instrument for mankind not only as a date reference but also use to schedule events and a tool to record and remind of all kinds of events. Calendar system

had been existed since thousand years ago. It has been used to organize our daily activities. Therefore, it plays a crucial role in our daily life. Without calendar an organization cannot do their planner, a housewife cannot plan their daily work, a manager cannot manage their planner and a president cannot set their mission.

As calendar cannot be excluded from our daily life, an software calendar system allows users to flexibly modification of the contain and more features can be added, such as reminder, auto-update, searching and etc. Moreover, with the advance development and implementation of Internet that connected the whole world, it is required to develop an online calendar system that provided all the benefits of a software calendar and at the same time can be accessed at anywhere and anytime. Thus, Online Calendar System is proposed.

Online Calendar System is a web based calendar system. This system allows the users to organize their personal daily events and also community events effectively. This system emphasizes on user personalize, which means it is implemented based on individual needs for a calendar system and from there more support features will be added. Additional features such as contact manager, to do list, reminder service, task manager, community calendar, and print calendar.

The target user of this calendar system will be mainly focus on community of UNIMAS, especially students and staff of Faculty of Information Technology. This system will be developed based on users' requirement; thus the users can easily adapted to all of the provided features that help users to organize their work easily and efficiently.

Basically, this system has two types of users, which are administrator and system user. Administrator will provide the holiday scheduler, school events and manage the database in the system. More over administrator will manage 'housing cleaning'. For each created community will have a community leader that will manage their communities' profiles. This system will keep track all the events that are organized by community in FIT, UNIMAS.

1.2 Problem Statement

Currently, students in UNIMAS are facing a lot of problem in time management, such as scheduling their daily planner and timetable. This is because student in UNIMAS always has timetable-clashing problem between their core course subject and generic subject as they are usually offered by different faculty and is not possible to suit everyone timetable.

Besides that, the lecturers also face the problem in getting free slot for replacement class. Sometimes, they have to spend about an hour with

student just to discuss about getting a free slot, which will usually end up with no solution to the problem. For many students are from different faculty, as a result it causes many problems in scheduling the time and date for examination. In response to this problem, lecturer has to choose the most appropriate examination slot according to the convenience of majority, which sometimes will cause some of students have to sit for a few examinations in one day.

Other than that, some of the common problems that are faced by communities of UNIMAS are sharing event information between lecturers or inter community's member, such as Indoor Games, Tennis Club, Table Tennis and etc. Although currently some of UNIMAS staff are using the LOTUS for managing their time. However, LOTUS is not opened for students use, as it is not for educational purposes. Therefore, UNIMAS actually do not have any proper communication tools that can be used for both parties (staff and students) in scheduling the event efficiently.

On the others hand, the existing calendar system have limited features, which is not enough to help users to organize and manage their daily activities. For example, features such as reminder should be added to help users in remembering special events such as friend's birthday, father's day and etc. More over, not of the existing current system can solve all of the problems that are faced by lecturer as stated above.

Nowadays, contact information not only just keeps track the address only. But also includes email address, house phone number, office phone number, hand-phone number and etc. Hence, it increases the difficulty for the user to search for particular people information from a big community and database manually.

To solve this problem we proposed Online Calendar System that can be used by all of UNIMAS staff and students. It will provide easy and quick search that can let user retrieve all the information in a few seconds.

Besides that, Online Calendar System also provides some special feature such as automatic updating and collaborative calendar (as a public calendar). The user can create their own personal calendar embedded with their personal daily planner. Every special event such as holiday, user can view through public calendar and they can be imported to their personal calendar automatically. The user can easily view and get the detail information about their timetable according to major or the course taken. Then it can update to their personal calendar once they select it. The administrator will update detail information regarding the timetable for every subject and also holiday.

It also facilitates the process event scheduling of community by letting user quickly search through all free slot in personal calendar and group calendar. With it, user can set the detail of meeting as a reminder,

which will remind user from time to time. Here, it can help user remember all the special events easily and increase their work progress.

Personal Calendar is fully manipulated by individual user. User also can publish any detail of information to community calendar and public calendar. Users can also create their own group and act as a community leader that has legitimate to edit or modify all the information in the community calendar.

Since this proposed system is tends to be dynamic changing from time to time according to the changes make by users. The easiest way to implement this system is connect it to Internet and built as a web-based system that can updateable and editable at anywhere that can access to Internet.

1.3 Objectives

1. To study the existing web-based calendar system that available on the Internet in order to determine the required features to develop the proposed Online Calendar System.
2. To study web-based technologies and identify that technologies suitability for this project development.
3. To study the user requirement of communities in Faculty of Information Technology toward a calendar system.

4. To develop a prototype that included all the features such as personal calendar, community calendar and public calendar, contact manager, create new community, create new invitation and to do list that based on the defined requirement and specifications.
5. To evaluate and redefine the prototype system that is Online Calendar System.

1.4 Scope and Limitation

Due to time constrains, developing prototype of the system only focus on certain group user of the UNIMAS, which is community in Faculty of Information Technology.

Synchronization as a stand-alone software and integrated to the palm or WAP is a part of features for the Online Calendar System, but it is beyond the scope of project. So it will be a suggestion for future work to develop such a system.

Basically for the personal calendar it must be personalize to each user need. Security features, such as encryption stressed on the database is beyond the scope of project, but it will be a basic for the future work of developing such a system.

1.5 Significant of Outcome

This proposed system would help users to coordinate their works effectively in corresponding with one another. More over, it is expected to increase the quality of time management and task management for community of UNIMAS through the added features in this proposed system.

This system is hoped can be use as a general tool such as daily planner. Lecture can view the daily event such as lecturer hours, meeting, appointment, and etc. On the other hand, student can view their daily event such as class or lecture, timetable, examination's date, assignment due date, and others. User also can schedule their task to do by using the task to do features. Besides that, user would avoid from forgetting the special events by using the features that they can adopt from the proposed system such as reminder.

This system is expected to allow user create the new community. Information or event of community can easily share among the members in the community. Besides that, features that can keep track contact information also will be included. User can easily use the information for creating the new community. Besides that, user also can use the information like email address for creating the invitation.

In chapter three will present the methodology of project. Requirement analysis and requirement specification will be discussed.

In chapter four, the system will be studied in more detail. The specification and the design will be explained clearly by using data flow diagram and data dictionary.

In chapter five will cover all of the issued about project's implementation. Analysis of implementation of the prototype for the calendar system will be done.

In chapter six will explain the result of testing and the limitation of the prototype for the calendar system.

In chapter seven the conclusion overall the prototype of calendar system will be done and defines the future works for this project.

1.7 Conclusion

This chapter has provided an overall picture for Online Calendar System in terms of this project objectives, significant outcome, scope and limitation and etc. However, the success of the proposed system will depend on the initial planning and researches.

This prototype can be used as a model for full development of Online Calendar System in the future. Thus, it is expected can be integrate with WAP technology or Palm in the future, which can enhance the functionality of calendar system.

1.6 Outline of Project Report

Basically this final year project is divided into seven chapters including Chapter One, Overview, Chapter Two, Literature Review, Chapter Three, Methodology, Chapter Four, System Design, Chapter Five, Implementation, Chapter Six, System Testing, Chapter Seven, Future Development and Conclusion

In chapter one will introduce the proposed system. The brief idea about this system will be presented. Besides that, problem statements of project also will be elaborate in this chapter. The objective for the project also will be explained.

In chapter two is concerned to the literature review. It will discuss the history of the calendar and review to some existing online calendar system. Different state approaches to technologies used to develop the calendar system will be explained.

Chapter 2: Literature Review

2.1 Introduction

Literature review is performed to do research on the currently existing calendar system. This proposed prototype of Online Calendar System is to be developed as a web-based system, hence the review on the existing calendar system, the available features, technologies, programming tools and interface from World Wide Web (WWW) or also known as Internet has been taken into considerations.

Through the literature review, it will provide insights regarding existing web-based calendar system design and presentation methods. In addition, studies on the available web technologies can ensure that they are pertaining to their suitability in the project development.

Consideration on the design criteria and learning strategies are important in the proposed system, which cater to the personal needs of the user that can be adopted in the Online Calendar System.