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SRMKutkm portal / Khairul Ashraf Muhamad.

KHAIRUL ASHRAF BIN HAJI MUHAMAD

KOLEJ UNIVERSITI TEKNIKAL KEBANGSAAN MALAYSIA

SRMKutkm Portal

KHAIRUL ASHRAF BIN MUHAMAD

This report is submitted in partial fulfillment of the requirements for the
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Saya : KHAIRUL ASHRAF BIN MUHAMAD.

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 / TIDAK TERHAD


(TANDATANGAN PENULIS)


(TANDATANGAN PENYELIA)

Alamat tetap : 207, Taman Dato' ,
Shahbandar, Ampangan,
70400, Seremban,
NEGERI SEMBILAN DARUL KHUSUS.

Pn Safiza Suhana Binti Kamal Baharin

Tarikh : 22 Oktober 2004.

Tarikh : 22 / 10 / 2004

ADMISSION

I admitted that this project title name of

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STUDENT :  Date : 24 September 2004.
(KHAIRUL ASHRAF BIN MUHAMAD)

SUPERVISOR :  Date : 22/10/04
(MS. SAFIZA SUHANA BINTI KAMAL BAHARIN)

DEDICATION

I would like to dedicate my final year project and this thesis to the lecturers who had without any hesitation and as they are filled with precious knowledge, spirit and initiative to thought me about the ICT (Information and Communication Technology) knowledge and practiced me with lots of practical concept and application oriented elements. It is also my honor to appreciate and present this thesis to the continuously used, for further reference, whether by other students or for research work and presentation by KUTKM.

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ABSTRAK

Perkembangan pesat dunia teknologi maklumat secara amnya dan perkembangan elemen multimedia secara khususnya telah membuktikan kepentingannya dalam pembangunan portal untuk aplikasi web. Tujuan projek ini adalah untuk membangunkan portal yang bertemakan sukan dan rekreasi untuk pelajar di dalam kampus KUTKM yang bertajuk SRMKutkm Portal. Portal ini menyediakan maklumat dalam bentuk aplikasi web yang berintegrasi dengan pangkalan data yang dikawal dan diselia oleh pelayan. Laporan ini mengandungi kombinasi keseluruhan aktiviti, kajian berkenaan fungsi, penggunaan warna, susunatur antaramuka dan tema portal itu sendiri. Semua teknik pembanguna produk multimedia berasaskan aplikasi web telah dibincang dan dipraktikkan di dalam pembangunan portal ini secara keseluruhan, dimana rangkuman kesemua aktiviti itu telah dihimpunkan di dalam laporan akhir ini. Melalui portal ini kumpulan sasarannya, iaitu pelajar KUTKM dapat melayari maklumat, berinteraksi antara satu sama lain, memberikan pendapat dan menjadi sebahagian daripada komuniti SRM itu sendiri, secara online. *MDP* dipilih sebagai teknik pembangunan projek bersama dengan *SDLC*. Setiap tahap dalam *Waterfall Model* yang dibentuk dengan konsep *SDLC* telah menepati keseluruhan proses pembangunan projek ini, dimana ia termasuklah untuk mencapai matlamat dan perkaitannya dengan tahap-tahap yang wujud. Walaupun elemen dalam projek ini telah dapat disiapkan dengan jayanya, ia tetap memiliki beberapa kekangan dan kelemahan yang memerlukan kajian dan olahan lebih lanjut dimasa hadapan, supaya kelak ia dapat dijadikan kekuatan untuk projek ini. Kekuatan utama projek ini adalah koordinasi antara hasil kajian iaitu kajian mengenai fungsi, penggunaan warna susunan antaramuka dan tema portal ini telah dapat dikoordinasikan dengan baik. Kelemahan yang wujud pula adalah seperti penggunaan lebih banyak elemen multimedia tidak dapat dilaksanakan kerana pembangun tidak memiliki tahap penguasaan yang tinggi dalam penggunaan aplikasi yang berkaitan seperti penguasaan dalam membangunkan portal ini seperti menggunakan PHP.

ABSTRACT

The vast expanding world of Information Technology and the developing of multimedia elements especially has proven its importance in the development of the portal for the web application. The purpose of this project is to developed a portal that was themed for the sports and recreational organization for the usage of the KUTKM students inside the campus, entitled SRMKutkm Portal. This portal offers information in form of web application that was integrated with the database that was controlled and was supervised by server. This report combines the whole activities, and the output of the project research bout functionality, colours used, interface and layout arrangements and the theme of the portal itself. All of the development technique fo multimedia product based on web application has been discussed and practiced during the whole development process of this portal, where it has been documented in this final thesis report. Through this portal and the user group, that is the KUTKM students, they can surf for information, interact to each other, giving comments and opinions and become the SRM community via online. MDP has been chosen as the development technique for this project alongside the SDLC. Each of the steps inside the Waterfall Model that was built using the concept of SDLC has achieved the whole development process, where it also includes achieving goals and the relation between the steps that exist. Although the elements for this project has been successfully completed, it still has several limitation and weaknesses needs further studies in the future, so it will in other way become the strength for the project. The strength of this project is the coordination between the research outcome about functionality, colours used, interface and layout arrangements and the theme of the portal has been done effectively. The weakness that exist inside this portal is some of related multimedia elements can not be applied and implemented, since the developer does not really has much expertise especially when dealing and producing the elements using related application such as PHP.

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LIST OF ABBREVIATION

| | |
|--------|---|
| KUTKM | Kolej Universiti Teknikal Kebangsaan Malaysia |
| FTMK | Fakulti Teknologi Maklumat Dan Komunikasi |
| PSM | Projek Sarjana Muda |
| MS | Microsoft |
| CPU | Control Processing Unit |
| MDP | Multimedia Development Process |
| CD-ROM | Compact Disc-Read Only Memory |
| ICT | Information and Communication Technology |
| CD | Compact Disc |
| HEP | Hal Ehwal Pelajar |
| PHP | Hypertext Preprocessor |
| SRM | Sekretariat Rakan Muda |
| OS | Operating System |
| ACD | Architecture Context Diagram |
| BMP | Windows Bitmap |
| GIF | CompuServe GIF |
| JPG | Joint Picture Group |

CHAPTER I

INTRODUCTION

1.1 Introduction of the Project

Nowadays, there are several portals that concentrate in exchanging notes, recent research and outcomes, online tutorials, allows students to attending academic related topic forums, chat with their respective business lecturers and supervisors as well as other students and to access results on recent exams. However, there are no portals that allows students to keep them up to date with recreational activities, sports and related news.

The project developed is a portal entitled SRMKutkm Portal. The SRMKutkm Portal tries to became a 'medium' or a 'field' to carry out a research on , and this project eventually in other way created a portal that contains information about SRM activities for its members. Rakan Muda Secretariat or widely known as SRM (Sekretariat Rakan Muda) is the only society inside the campus that handle extracurricular activities, alongside with Students Affairs Department (HEP). By developing the portal that contains information about SRM itself, students can access this portal to review recreational activities that will be held, results on participated tournaments and other extracurricular activities, news on recent happenings, forums and download any recreational related web elements, such as wallpapers, images, and miscellaneous items that appropriate with the members favor. Members are informed about dates and news for various activities, links for various other websites that indulge in recreational and

SRM activities, as Rakan Muda itself has ten different fields or disciplines. It is used as promoting agents to non member of SRM to become one of them. The portal offers online registration form and member's own personal profile, as a new way of attracting user to keep on coming to the portal once they logged in. The portal also offers additional portal functions such as forums, personal username and password to login, and download functions, available once users had register as members.

Back to the core research of the portal itself, the research elements inside the project is to carry out a research on how a certain interface and displays functions as the major attraction for the user, and to find the elements that can be fitted out inside a portal and find the best solution, how they can attract more user, and make them come back for more. By executing the research for the project, it has carried out some statistics, graphics and solution how a good portal should be, in a context of not only the composition of the contents itself, but in a matter of how the multimedia elements, and in this case, how the graphical and designing can contribute to become a subject of attraction and interaction to make the user understand, enjoys and to satisfy their needs, according to their own usage. This statistics is gathered by undergoing a series of handing out questionnaires to the scope of the project, or in the other word, the user itself.

1.2 Project Objectives

For the purpose of developing and completing this project, some objectives has been gathered and has become a guideline on structuring the project itself. The objectives include:

- Finding the best solution on how to develop the best backbone, alignments and the graphical display for a youth and recreational related portal.

- Discovers what is should and what is not during the development process, find what is missing and what are the other elements that should be added inside a youth and recreational related portals.
- To create a portal that will become a one stop information centre for members and non members of SRM, especially inside the campus.
- To create an online registration for non members to become a member of SRM.
- To promote KUTKM SRM as a well organized body inside the campus that handles various recreational activities.

1.3 Project Scope

The project scope for the development of the portal is simple where it uses the concept of creating a well functioning portal that will recognize members and non members, where members has an extra additional access throughout the portal, and the non members has to become a members in order to access these additional functions and information. The user are the students of KUTKM. It is developed under a close supervision of HEP and SRM itself, where they became the 'administrator' as well as another user of the portal. They by themselves can add and edit news, dates, information and events that kept on happening throughout the time. The portal used mainly inside the campus only, but may available on the internet, allowing others outside the campus to access the information provided.

1.4 The Importance of the Project

The development of the portal discovers some findings and facts, which can be used as a guideline of creating a good functional portal. By the research findings, others can see what sort of interface that will be most likely preferred to be used, colours that best suits a portal, and functions that should be added inside a portal and other web

elements that might strengthen the attraction power of a certain portal, which it will make sure a user keep coming for more.

Besides that, it has give a good perspective and image of how a technical based university should be, as by completion of the portal itself, it shows to the public how we manage not just academic and curricular activities, but how we manage extracurricular activities as well, technically, practically and systematically. By using the portal, the students accessed various types of information, and take part in a forums and sign the guestbook to interact with others and to give opinions about the portal, online. SRM used this portal to tell the students about recent news and activities, organize online activities, host a related forums and topics and announce any sort of information and announcements, and even upload some web elements, such as wallpapers, utilities and images from various activities that related to recreational, extracurricular and out campus activities, to be downloaded by the user.

Besides sharing and exchanging information via online, the portal help SRM to attract more non members to become member of SRM. This also helps the SRM committee as having a strong reputation among students, thus strengthen their role and enhance their credibility as the main bodies inside the campus that organize and handle extracurricular activities

Finally, the portal is important to the whole citizen of KUTKM itself where it became the sole medium of exchanging ideas and information, bringing the whole KUTKM into a new dimension of providing the best all in one portal that consist of extracurricular activities news and information. This improved its image to the public, showing their capabilities of managing and producing good students in academic fields, and creating students that comes as a package, best in academic and even better in extracurricular activities.

1.5 Introduction Summary

In brief, this chapter invoke the purpose and introduction of the project. There are four subsections in this chapter that explains the significance of developing the project, including the objective of the project, the scope of the project and the importance of the project. This chapter is the introductory chapter for the whole report that related to the core research element for the whole project itself. This chapter comprises several elements from the first project proposal, as it applies some approaches that has been mentioned earlier on the proposal. This chapter also explains the differences between the project and the research that follows the completion of the project, where the SRMKutkm Portal is the product that will be developed and is the outcome of the project, while the research element is the research on the backbone of portal development that consist of discussion and arguments of portal functionality, colours used, interface and themes of a portal.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction of Literature Review

Literature review of this project is a basic factor that was continuously followed throughout the development process and an important aspect that detailed and reviewed critically, ensuring the success of this project. Inside the introduction of literature research, the discussion about how the information and facts related to this project was gathered. There are explanation about Hypertext Preprocessor (PHP) , the web development language that will be used throughout the development of the portal itself.

PHP is the web development language written by and for web developers. The product was originally named Personal Home Page Tools. PHP is a server side scripting language, which can be embedded in HTML or used as standalone binary. Proprietary products in this niche are Microsoft's Active Server Pages, Macromedia's Cold Fusion and Sun's Java Server Pages. Some developer used to call PHP 'the open source ASP', because its functionality is similar to that Microsoft product and concept. PHP is an official module of apache HTTP Server, the free web server. This means that the PHP scripting engine can be built into the web server itself, leading to faster data and manipulation. Like Apache Server PHP is fully cross platform, meaning it runs native on several flavors of Unix, as well as on Mac OS X. All projects under the aegis of the Apache Software Server Foundation, including PHP are open source software.

Past research has uncovered the concealed facts about the development of web elements generally. It has erupted a series of revolution on web development techniques and process. It also changes how a certain web elements should be, the do's and don'ts and other criteria that should not be forgotten during the development process. Past research also changed the perspective of designers, especially on the involvement and contribution of ideas by young designers and the existence of multimedia and interactive media, and the creation of faster and powerful machine. In short, past research has evolved even a new and better road for other idea to contribute in the making and development of web element itself (Converse Tim, PHP Bible; 2001 Wiley Inc).

2.2 Case Study

Practically, there are some theories that was used during the development process of the portal itself in order to allow research findings to be implemented. Four elements will be taken into consideration, that is functionality, colours used, interface arrangements and the themes for the portal itself. The case study itself has been taken into consideration on explaining what the portal is all about and the title that will be used, where the meanings on terms will be explained in this section. This by the end will conclude in creating a portal that function perfectly and automatically compose a good research finding for future use. Below are some explanations on the terms and theories that will be implemented on the portal.

2.2.1 Portal

Portal products continue to be one of the hottest technologies of the Internet. These tools, frequently called Enterprise Information Portals (EIP), are used to deploy vertical and business-to-business portals, but primarily are deployed as enterprise portals. The portal has become the most desired user interface in Global 2000