

TESIS^ APPROVAL STATUS FORM

JUDUL: EDUCATOR CONTENT MANAGEMENT SYSTEM

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(HURUF BESAR)

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EDUCATOR CONTENT MANAGEMENT SYSTEM

LAI YEOW KIT

This report is submitted in partial fulfillment of the requirements for the Bachelor of Information and Communication Technology (Software Development).

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
NATIONAL TECHNICAL UNIVERSITY COLLEGE OF MALAYSIA
2004


ADMISSION

I admitted that this project title name of

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DEDICATION

To my beloved parents and family.....

ACKNOWLEDGEMENTS

This project would not have been success without the help of many people. Some helped directly, others by sharing insight and knowledge throughout the years.

First, I would like to express my sincere gratitude to En. Abdul Samad Hasan Basari as willing to be my supervisor of this final year project. Although he had been busy for his study but he did tried his best to assist me along this documentation phase.

Highest appreciation convey to Madam Goh Siang Shu, who had spend her valuable time advice me on how to structured a question paper generation on behalf of elder educator.

During this documentation phase, I have to stay at rent house around college area which is quite far from supervisor office. I was lacking of transport for every meeting with supervisor. However, my housemate who is also my course-mate, Lee San Ling offered a lift for me. Without her, I may not be able to regularly meet with supervisor. Therefore, I am indebted to San Ling.

I am grateful to my entire housemate for their comradeship which had created a best environment for me. They had motivated me to do research and give me spiritual support to finish this PSMI. Without them staying with me, I can say this project will not exist.

Finally, deepest gratitude for the constant support, financial support and love that I received from family especially my parents during the past years.

ABSTRACT

Educator Content Management System is especially dedicated to elder educators, who are not IT-literate as my final year project of Information and Communication Technology (ICT) course major software in KUTKM. The purpose of having this web application is to motivate elder educators to involve in Internet to study cyber youth mind and also simplify their work in question paper generation. As a user of Educator Content Management System can enjoy the personal page builder, forum, question paper management function. Chatting feature of Educator Content Management System is a place for educators to exchange their ideas immediate among each other. From the available functions, even not an IT-literate user as elder educators can easily update their personal page, which using provided builder tool from Educator Content Management System. This system based on Windows XP, IIS, ASP and Microsoft Access allows easy editing and updating of information on web pages with little knowledge of web technology. This system is developed by adapting spiral model as the development methodology. Spiral model is proposed by Boehm as an evolutionary software process model. This model enables this web application developed in a series of incremental releases. As a conclusion, this system will tempt elder educators which not involve with Internet to explore the cyber world with this Educator Content Management System.

ABSTRAK

Sistem Pengendalian Kandungan Pengajar dibangunkan sebagai tanda terima kasih kepada pihak pengajar dan juga memberi peluang untuk mereka melibatkan diri dalam dunia siber walaupun tidak mahir teknologi maklumat. Tujuan mewujudkan aplikasi web ini adalah untuk memotivasikan pengajar yang lebih tua membabitkan diri mereka dalam Internet. Sebagai pengguna Sistem Pengendalian Kandungan Pengajar dapat memberi kemudahan iaitu muka surat peribadi web, chatting, kertas soalan serta pengendalian fungsi. Chatting bagi Sistem Pengendalian Kandungan Pengajar ialah ruang bagi pengajar menukar idea serta merta. Terdapat juga servis muat-naik. Pengguna yang tidak mahir teknologi seperti pengajar yang lebih tua mampu mengemaskini muka surat web peribadi mereka dengan menggunakan alat pembangun yang terdapat dalam Sistem Pengendalian Kandungan Pengajar. Sistem ini dibangunkan berdasarkan pada peskitaran Windows XP, IIS, ASP dan Microsoft Access yang membenarkan kemudahan penyuntingan dan pengemaskini bagi maklumat pada laman web dengan sedikit pengetahuan teknologi web. Sistem ini dibangunkan dengan mengikut metodologi model pusran. Model ini dicadangkan oleh Boehm sebagai satu model untuk proses pembangunan perisian yang bersifat evolusi. Model ini membolehkan aplikasi web dibangunkan dalam beberapa siri pembangunan. Kesimpulannya, sistem ini akan menarik minat pengajar yang lebih tua yang tidak melibatkan diri dengan Internet untuk melayari dunia siber.

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LIST OF ACRONYMS

ASP	-	Active Server Page
CBT	-	Computer Based Test
CD-ROM	-	Compact Disc Read Only Memory
CD-RW	-	Compact Disk Read-Write device
DSS	-	Decision support system
ECMS	-	Educator Content Management System
HTML	-	Hyper Text Markup Language
IIS	-	Internet Information Service
IT	-	Information technology
KUTKM	-	<i>Kolej Universiti Teknikal Kebangsaan Malaysia</i>
OOA	-	Object-oriented analysis
PC	-	Personal Computer
PSM	-	<i>Projek Sarjana Muda</i>
RAM	-	Random Access Memory
UML	-	Unified Modeling Language

CHAPTER I

INTRODUCTION

1.1. Overview

Today is an IT world. Almost everyone access to Internet for entertainment, research, conferencing, even running business online. However, educators of primary school and secondary school in thirties and above usually seldom play with Internet. They have involved themselves in educational field for quite a long time since they start to work. Thus, most of them lack of IT knowledge unless they taken up extra relevant courses.

Since these educators have been spending a lot of time and effort for youngster; we should do something for them, it's the time for us to repay their effort on us. The persons we are today are result from their guides. Thus, I decided to develop an Educator Content Management System to lighten their burden.

As a non-IT literate user, even though they can create their website with existing site builder tools but they will be failed to keep their site updated. The phenomenon just like those non-IT literate Internet user only have static and totally outdated websites.

This site will as simple to use as possible to provide a user friendly updateable site for educators to exchange their examination paper and lecture notes.

1.2. Problem Statement(s)

As non-IT-literature user, educators will not be familiar with HTML hand coding. Even if they willing to learn, there will be a repetitive and time-consuming process. It requires some technical knowledge; it often produces inconsistent results.

At the meanwhile, available CMS systems manage to provide an updatable websites to manage content and produce dynamic websites, but the software is much too expensive and complex for small organization.

1.3. Objective

1.3.1. Streamline and Automate Content Administration

Historically, Web content has consisted of static pages/files of HTML, requiring HTML programming experience and manual updating of content and design. This is time-consuming. In contrast, this system significantly reduces this overhead by hiding the complexities of HTML and automating the management of content.

1.3.2. Apply Web-forms-based Content Administration

With an ideal Web content management system, all content administration is performed through Web forms using a Web browser. Proprietary software and specialized expertise like HTML are not required of content management. User simply copy and paste existing content of fill in the blanks on a form.

1.3.3. Create Reusable Content Repositories

This system allows reuse of content. Objects such as templates, graphics, image, and content are created and entered once and then reused as needed throughout the websites.

1.3.4. Enable Central Graphic Design Management

Graphic design in this content management system becomes template-driven and centrally managed. Templates are the structures that format and display content following a request from a user for a particular Web page. Templates ensure a consistent, professional look and feel for all content on the site. They also allowed for easy and simultaneous modification of an entire site's graphic design.

1.3.5. Implement Content Administration Database-driven

The database is the key to content management system. In a true content management system, static, flat HTML pages no longer exist. Instead, the system places most content in a relational database capable of storing a variety of binary and text materials. The database becomes the central repository for content, templates, graphics, users and metadata.

1.3.6. Manage Question Papers

Educator always needs a lot of question papers as references for examination questions creation. This Educator Content Management System can apply paperless concept in keeping those question in database as it is a question bank. Educators can now manage their question paper easily and securely with password protection. They

can conduct examination online where question will be selected randomly or they can administer the tests in conventional method by printing the question papers.

1.4. Scopes

As a system to achieve mentioned objectives, the possible modules will be like follows:

1.4.1. Alternative Layout

There will be couple samples of personal website template which are available for users.

1.4.2. Edit Pages

Members of educator categories are allowed to edit their detail display page.

1.4.3. Upload Function

This function enables certain authorized users to upload images to image library and achieve the reusable repository objective. This objective not only applies to images but files like lecture notes and also question papers, which are the main concern of this site function for educators. They can utilize this site to communicate to each other in a convenient way, which save transport problem result of the geographical differences.

1.4.4. Instant Messaging Function

This function enables users to send instant message to whomever in chat room.

1.4.5. Backend Functions

This is the administration function for a website maintenance purpose. Administrator owns the full manipulation of this site. Administrator is able to define specific member specific privilege. Administrator also able deletes useless pages or files, users, who had violated the use of this website.

1.5. Contributions

This system intended to enhance our nation, our educators towards Information Technology in this information era. Try to promote and encourage educators to use Internet, Online Resources and Information. To create, develop and appreciate the positive values of IT. This system also will establish a good and an ongoing Malaysian Educators communities and enabling them to interact, discuss and exchange ideas. Through this system, a caring and learning society / community that will benefit the nation will be able to result of this project.

1.6. Expected Output

At the end of this project, this Content Management System should monitor by an authority who willing to help educators to communicate across platform, geography and culture.

This system will allowed educators to upload their question papers and notes. And yet, educators can exchange relevant information in this system. Those anonymous visitors will only allow browsing over this system as non-restricted section and not allowed to upload or download any notes and question papers.

CHAPTER II

LITERATURE REVIEW

2.1. Introduction

Generally, research of literature activity is a preliminary analysis phase in software development. Main purpose of research is to carry out imagination about the relevant topic-topic will be develop in project. Due to this point, Internet is a main place to search information and make research about it.

Reference book is another way to get information about advantage of programming language, database server, generate report tool, web design tool, web base language, etc. Through this method, research will be done to generate the list comparison about software. Hence, developer can be determining the software and hardware use to develop Educator Content Management System based on budget project.

During research, survey current system can give some ideas to determine the function in new system and replace weakness of old system. Apart of this, all the information from research is very useful to help the developer develop a new system and solve the problem faced by users.

2.2. Fact and Finding

2.2.1. Reference 1: Exam Software¹

Exam Software is a Test Management Software to create and conduct computer based online examination. This software offers a complete solution for Computer Based Test (CBT).

Overall Features

2.2.1.1. Multi Language Question Sheet Generation

User able to create test, quiz and online-test with question bank feature. And tests can be created by randomise stored questions.

2.2.1.2. Six Types Question Generation

Able to manage multiple choice questions in single answer and multiple answers, fill in the blanks, true false, matching and essay feature. Student can enter descriptive answer and examiner can evaluate the answer later

2.2.1.3. Multimedia Support

To enhance a computer-based test, graphics, audio and video are supported.

¹ A free source application available online to manage question papers, which required installation.