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E-Kualiti and ISO online system for KUITTHO / Shah
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E-KUALITI AND ISO ONLINE SYSTEM FOR KUITTHO

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This report is submitted in partial fulfillment of the requirements for the
Bachelor of Computer Science (Software Development)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
KOLEJ UNIVERSITI TEKNIKAL KEBANGSAAN MALAYSIA
2006

DECLARATION

I hereby declare that this project report entitled

E-KUALITI AND ISO ONLINE SYSTEM FOR KUITTHO

is written by me and is my own effort and that no part has been plagiarized

without citations.

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DEDICATION

I would like to thanks firstly to GOD that make my life full of joy and give me more time to live in this world. As I can work on my thesis and continue my life. I thanks my parents too for supporting me in continuing my study and all the lecturer that had give me the precious knowledge and support me in my work. Not to forget all my friends that help me in my study and always be with me all the time since I started study here.

Last word from me, be good all my family and friends. God bless you all.

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Firstly, thanks to god that makes me healthier until I finish up my PSM 1 and hopes will continue until I finish up my studied and gone through my life. I had learned new knowledge and gain more new idea in my studied. All the benefit that I got along the process will be my experience for my future life.

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ABSTRACT

The title for the *Projek Sarjana Muda* (PSM) is E-Kualiti and Iso Online System for Kuittho. The system is developed for the department of *Bahagian Pengurusan Kualiti dan Perancangan Korporat* Kolej Universiti Teknologi Tun Hussein Onn (KUiTTHO). The idea came from the staff in the department and it had been approved for development. The system is all about the transforming the quality document from paper base to the electronic form. The system will guide the staff in the KUiTTHO in completing their task according to the ISO and standard. The system will have the function to guiding and display all the task for the whole staff. The guidelines are the standard that came from the ISO organization and it must be follow in completing all tasks.

ABSTRAK

Tajuk untuk Projek Sarjana Muda (PSM) ini adalah E-Kualiti and Iso Online System for KUiTTHO. Sistem ini dibangunkan untuk jabatan *Bahagian Pengurusan Kualiti dan Perancangan Korporat* Kolej Universiti Teknologi Tun Hussein Onn (KUiTTHO). Idea ini datang dari kakitangan di dalam jabatan tersebut dan telah diluluskan untuk pembangunan. Sistem ini berfungsi untuk menukarkan semua dokumen kualiti dari helai kertas dan menjadi bentuk digital. Sistem ini akan menjadi panduan kepada semua staff di KUiTTHO dalam menyiapkan semua tugas mereka berdasarkan standard dan ISO. Sistem ini akan mempunyai fungsi dalam memberi panduan dan memaparkan semua tugas yang diperlukan untuk semua petugas. Panduan itu adalah standard yang telah dikeluarkan oleh organisasi ISO dan perlu diikuti dalam menyiapkan tugas.

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CHAPTER I

INTRODUCTION

1.1 Project Background

The purpose of the system is to display the quality document that can be viewed for all KUiTTHO staff that has the right. The system will use the online system to get the document. So, the system will help the staff in searching their task in completing the jobs. The system will searching their task and lists it according to the task. It means all the task in the document can be reached easily by using the system. They don't have to search it by manual and step by step. It will take time and may make the staff not willing to search it. When using this system, they can access all the document easily and fast. The user can search according to the designation, document type, standard and also the owner of the document.

The objective of the system are designing and implementing a new computerized information system for the MS ISO 9001:2000 quality documentation. It also creates a computerized information system with the graphical interface and user friendly. The system will help the KUiTTHO's management regarding the documentation and all the aspect of the MS ISO 9001:2000. And the system will helping to collect and manage all the data into a database and makes it more efficient and effective.

The system will be used for the internal access in KUiTTHO only. The system will be implemented for the first time in the KUiTTHO for the user to see all the documentation about quality and ISO.

1.2 Problem Statements

The system wanted to be created because the quality document must be exposed to all staff. The document is all about the responsibility of all staff in the KUiTTHO. So the document will become the reference to all the staff to do their work according to the standard of ISO. As a university with the standard, they have to obey the standard and make sure their job will do successfully.

The main problem is the documents are not well organized to add the staff in searching their specific task. As the documents are too many, how many staff will suffer in order to search and read it. To simplify the searching problem, a system had to be developed in order to handle the jobs. An idea is out and the board of the department had agreed to developed the system . The search function will handle many type of searching, such as according to the designation, according to document type, according to standard and also the owner of the document.

The document in now day were in the hard copy. So the documents are limited because there are not many copies were made. So after the e-Quality were develop, it easy to all user to review it. The content of the document will be used by all the staff to do their jobs according to the standard. So this system will help them to archive their goal by completing their task according to the guideline.

1.3 Objective

- To build a system that can handle all the quality and ISO document by using internal networking. The system just can be reach by the staff of the KUiTTHO only;
- To make the clear way to all the staff viewing document because the document is in the digital form and the environment is different than using white paper.

- To make a system that can handle many type of searching method in order to serve the staff. It can be easier when it have many type of search type such as according to the designation, document type, standard and also the owner of the document.
- To make a printable document for the staff revision. The print function can be made by selecting the page that they wanted to print.
- To divide the document according to requirement because the document are not user friendly. It contains all the document in one folder and not well organized.

1.4 Scope

The project is for the KUiTTHO staff that will use the quality document and the ISO document. The system is used in the KUiTTHO community, and it scope just for the internal user. This is the scope of the project

- Internal networking system
The system will functioning in the KUiTTHO network only and cannot be access from outside.
- Document viewing
All the staff can view the document through their computer in the office and can print it from their table. The searching function will simplify the document and it will make the staff easy to read according their need.
- Document secure
The document will be exposed to the internal staff only. The other company cannot access it. And the system cannot be publishing to other.
- Document management
The document will have it own administrator to manage it. All the task of management will be done by the administrator such as the document insertion, document deletion and also document arrangement.

- Document printing

All the document can be print according to the staff need. It will save from having all the document paper printing.

1.5 Project significant

This is the first project in the KUiTTTHO that involve the the department, *Bahagian Pengurusan Kualiti dan Perancangan Korporat* of. KUiTTTHO. So the system not exists and hope it wills success. The usages of the system are to help the KUiTTTHO staff to track down their works and make sure their job will according to standard. In manual way, the documents are store in the hard copy and it has limited copy. So not all the staff can have the document and review it. So in the electronic way, the documentation can be viewed online and can be reached in the easy way. As the document was too many, the search function will help the staff in searching all the information. The searching function will simplified the document and display it to the user.

1.6 Conclusion

This chapter includes all the information of the system that wanted to be built. All the information shows the basic of the system. As the conclusion, the new system will help the KUiTTTHO community to finalize their jobs according to the standard that had been determined by the ISO organization.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

As the project is about the quality and the ISO of one company, so the main definition must to be understand are the quality document and the ISO document. So from the information that I get from the company, the quality document is the guideline for the all KUiTTHO staff in completing their works according to standard. So the documentation will help them in works.

The quality document is not arrange by themselves, it is a standard document that provided by the registered organization in Malaysia name Department of standard Malaysia (DSM). So all the document came from that organization and the KUiTTHO had been certified by that organization.

As the organizations give all the document in the hard copy, KUiTTHO wanted to make it computerized and the system had to be build. The function of searching and document simplified view is very important for the system.

2.2 Fact and Finding

2.2.1 History of the ISO (International Organization for Standardization)

The ISO organization is a network of the national standard institute in 165 countries. It is central in Geneva, Switzerland. It names is Central Secretariat and it coordinates all the system. The organization is non-government and it will give the standard certificate to the company or the organization that needs. The organization will follow the procedure and guide line before it can gave a certificate.

Now days, many company or organization wanted to get the certificate according to their business operation because it will show the standard of the

company and will give the trustable title for it. So the company will get the trust ability from the public in order to make business with them.

2.2.2 The manual way of the existing system

In the KUiTTTHO there is one department that will handle all the quality and standard of the KUiTTTHO community. The department is responsible to organized the document and inform all the staff about it and to use it. The quality document is a guideline for the KUiTTTHO staff to carry out the task in the proper way and standard.

The manual way to give out the quality document is by print it using paper and file it in a file. The file will contain all the four main chapter and the chapter are *Manual Kualiti, Prosedur Kualiti, prosedur Proses* and *Arahan Kerja*.

Each chapter will contain many documents but it is simplified. The user that wanted to review the document had to open one by one and read it. The reading is not the problem, but the searching function will be worst. The document is about three hundred pages, and it is hard to search the wanted document in the fastest way. The user had to open page by page in order to find the desired document. And it is hard to search it in that way.

The department had come with one idea in order to organize the quality and standard document. The idea is to build the system that can handle the document in computerized way. The system has to be easy to use, user friendly and has the searching function according to the desired information.

2.2.3 The technique that involve in the system development

This is the technique that has involved in the system development. All the technique will help in gathering all the information and use it in future for the system. The techniques are

1. Interview

This is one of the common ways to gather important information of the system. The project manager of the system, Mr. Shafie from the *Bahagian Pengurusan Kualiti dan Perancangan Korporat* department has been interview and many system requirements are clearly discuss. He is the one of the important member of the project that had all the info and understanding the document of quality.

2. Document review

The document that had been received is the copy of the quality document. It is one of the reference documents for the staff in order completing the task. From it, the system flows are clear and the system function will be easy to create.

3. Meeting

This is one of the other ways of gathering the information. The board of the *Bahagian Pengurusan Kualiti dan Perancangan Korporat* department had been gathered and all the information collected. All the board had given all of the idea on how the system will be.

2.3 Project methodology

Now days, the famous methodology is the Object Oriented Analysis and Design (OOAD). The methodology will assure the system will be done according it phase. So the developments will rules by it. And these are the six phases of the methodology.

1. Initial phase

This is the phase where to capture the system requirement. It must define the problem, scope, opportunities, and directives that make the system to be developed.

2. Requirement phase

This is the phase to define the main requirement of the system. The research of the requirement will determine the need of the user and the system.

3. Design phase

This phase will transform the analysis phase into a visual form to make it more meaningful.

4. Coding phase

The developers will start to code the system according to the requirement and the design phase. It will follow up all the requirement until it finish and functioning.

5. Testing phase

All the component in the system will be tested according to the system requirement. It will sure the component will functioning and have no errors.

6. Implementation phase

The system that had been finalized will be implement into the real environment. All the installation and setting will be done and ready to use.

2.4 Project Requirements

Basically, the project requirement is the tools needed to build the system and helps in finishing all the task in the project. It is very useful in order to develop a system. So the tools include the software and hardware requirements.

2.4.1 Software Requirement

The software is one of the important tolls. So in order to develop a system, the software is important and it will drive the system well. The list of the software as below.

a. Development tools

- Macromedia Dreamweaver
- Rational Rose
- Microsoft Visio

b. Operating system/ server

- Microsoft Windows XP Pro
- Apache Server

c. Database system

- MySQL database

2.4.2 Hardware Requirement

The hardware is the thing that will make sure the software will be installing and run. Without the hardware, the softwares are not functioning and vice versa. The list of the hardware as below

a) Personal Computer

The specification

1. AMD Athlon 3000+
2. 80 gigabyte hard disk
3. 512 Mb Ram

4. 10/100 Mb network card
5. 460W Enermax power supply
6. 128Mb 9200 ATI Radeon graphic card
7. Monitor

2.4.3 Other requirements

- Internal Networking

2.5 Project schedule and milestone

The project schedule is the important thing in developing the system. It is the process that to be plan from the beginning of writing the project proposal until finishing the project. When the time scheduling is good, the better the system will be. So the schedule and milestone of the project will be described by the Gantt chart.

1. Initial phase

This is the phase where all the statement will be collect from the KUiTTHO staff from the *Bahagian Pengurusan Kualiti dan Perancangan Korporat* department about the problem, scope and opportunities of developing the system.

2. Requirement phase

This is the phase to fully define the user requirement of the system. The information from the head of the department is very important. The need of the user and system will be collect and analyzed.

3. Design phase

This is the phase to make a design for the system. It will show on how it will look like and the flow of the system. All the requirement will

have it graphical look but not full functioning. Just for first impression of the system.

4. Coding phase

The code will be inserting to the system, and will make the design useful. The function will ready to be used.

5. Testing phase

The system will be testing using the real data or dummy data. It will be testing in KUiTTTHO or in the KUTKM environment. It will show up the real result when the data inserted. And the function error can be determined from the testing.

6. Implementation phase

The system will be put on the real server in KUiTTTHO and will be use.

To make sure the system will delivered on schedule, the Gantt chart had been deliver. So the system and the project will follow the schedule.

2.6 Conclusion

In this chapter, the fact and some research of the system are described. All the finding will help the developer and will be used as the fact in research. As the conclusion, the project methodology and the milestone will drive the system according to plan and the successful of the whole planning.

CHAPTER III

ANALYSIS

3.1 Introduction

The paper base work had been used in long time ago since the paper had been the main media in writing the information and data. Some people had the intension to use paper base document in order to get information.

So using the basic way, many of the documents still need the paper to preview it in the hard copy. Some of it had the best way of creation, likes adding some media such as picture, colour and graphic. But, what if the documents are plain for the standard and formal usage? It will be plain and not interesting. For some document it will be such a big problem. But what if the document is been used frequently. Must it have come into problem?

In other situation, the document is important but in not well ordered. It came into hundreds pages and the reader had to refers to the index in searching the document wanted. It will be a terrible job in searching it.

It seem goes to the KUiTTHO staff. The quality document are so plain and hundred of pages. The document is important and had to be the reference in every task in KUiTTHO. As the document came from the important organization, the ISO, it must be a guideline that cannot be break. So the document is important and must be followed.

3.2 Problem analysis

3.2.1 Current system

It is important to complete a task according a quality standard if the organization or company that had been awarded with the ISO certificate from the ISO Organization. The statements seem goes to KUiTTHO staff as their university had been awarded with the ISO 9004. So the staff in KUiTTHO had the policies in order to completing a task