

**Universiti Teknologi Petronas Virtual FYP Communities
An Online Knowledge Sharing and Resource Centre**

By

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Dissertation Report submitted in partial fulfillment of
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CERTIFICATION OF APPROVAL

**Universiti Teknologi Petronas Virtual FYP Communities
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A project dissertation submitted to the
Information and Communication Technology Programme
Universiti Teknologi PETRONAS
In partial fulfillment of the requirement for the
BACHELOR OF TECHNOLOGY (Hons)
(INFORMATION COMMUNICATION TECHNOLOGY)

Approved By,



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**UNIVERSITI TEKNOLOGI PETRONAS
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July 2008

CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except in the reference and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.



MOHD ZULHAFIZ BIN TEMIZI

ABSTRACT

The emergence of knowledge management (KM) has made individual and organization realized the importance of managing knowledge as it should be. It allows community to acquire tacit knowledge of human expert and transfer it into explicit knowledge before document it and share among community. Information and knowledge is crucial asset the organization strain to obtain particularly from other competitor. However they sometimes overlooked the important asset which is information and knowledge that lies inside the organization itself. The objective of the proposal project is to provide a means of organization like Universiti Teknologi PETRONAS (UTP) Computer and Information Science (CIS) department to manage their intellectual capital via KM approach. In addition this system focuses on developing KM application that aims to create a virtual workplace for their community, where they can manage (upload, delete, edit, download, view and comment) the content and discover information. The development project will provide a means of collecting, managing, sharing, locating information and discover of knowledge within community. Through the concept that people learn by asking and getting answer, announcement and latest news update, The “UTP Virtual FYP Community” is being developed as a remarkably easy to use, yet highly effective KM tools. Lacking of knowledge sharing might as well affect the community performance. “UTP Virtual FYP Community” will provide a way for information and knowledge can be spread widely among community including students and lecturers. By having such knowledge management system, there will be a systematic way in storing and managing knowledge. It is hoped that this method of KM created can be leveraged by community and others. By using information technology, this project helps create the opportunities to capture knowledge which may require collaborative environment.

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LIST OF ABBREVIATION

UTP	Universiti Teknologi PETRONAS
FYP	Final Year Project
CIS	Computer and Information Science Department
KM	Knowledge Management
IT	Information Technology
LAMPP	Linux, Apache, MySQL, PHP/Python/Perl
PHP	PHP: Hypertext Preprocessor (HTML-embedded scripting language)
ASP	Active Server Page
HTML	Hyper Text Markup Language
WYSIWYG	What You See Is What You Get
FTP	File Transfer Protocol
OpenSSL	Open source implementation of the SSL and TLS protocols
SSL	Secure Socket Layer
TSL	Transport Layer
SQL	Structures Query Language
WWW	World Wide Web
SMF	Simple Machine Forum
GPL	General Public License (GNU)
RSS	Really Simple Syndication
URL	Uniform Resource Locator (world wide web address)
PDF	Portable Document Format (Adobe Acrobat)
MySQL	A database management application
ICT	Information Communication technology

CHAPTER 1

INTRODUCTION

1.0 Project Background

Virtual FYP Communities – “An Online Knowledge Sharing and Resource Centre” is an online system that is design to be one stop online centre of information for student and lecturer of Universiti Teknologi Petronas (UTP) regarding Final Year Project (FYP), by providing an environment for collaboratively developing, freely sharing, and rapidly publishing scholarly content on the web. The main idea behind this Virtual FYP Communities is to create a virtual community that involve all people that work closely with FYP such as student and lecturer. Communities can share their knowledge and experience as well learns new things from other people experience and lesson learned. Besides that, it can provide a flexible environment and framework for enterprise knowledge management that integrates content, business processes and people as that apply their experience and competencies in the course of learning activity. It provides opportunities for better accessibility to information, business collaboration, communities of practice, access to expert knowledge and innovation management. In term of relevancy, “UTP Virtual FYP community” is actually a platform or medium that can be used to share and transfer knowledge which is very crucial in preparing the community for facing the challenge of technological advancement, rapid change in way of learning and also to fulfill the lifetime learning capacity of the community itself. Besides having the available method of spreading an information and knowledge which cannot be achieve effectively by using traditional way.

1.1 Background of study

This project is remarkably is a development of a online community system that is easy to use, yet highly effective knowledge management tool based on simple concept that people learn by asking question and getting answer form community involved. In a nutshell, knowledge management solution is an open forum, content management system and blog, where allow community post question or problem and other can collaboratively answer those question. Content management system allows the whole system can be organized systematically and easy. Blog encourage people to share their experience in a form of daily update current project progress and lesson learned of past project. There is a vast of information and knowledge readily available for the user to view and download.

There are a lot of study and research that author need to focus on in order to realize this project. The first thing that author need to know is the open source application that will be used to develop this system. Open source is a set of principles and practices that promote access to the design and production of goods and knowledge. Open source software is similar in idea to "free software" but slightly less rigid than the free software movement. Users of open source software are (generally) able to view the source code, alter and re-distribute open source software. There is however less of an emphasis in the open source movement on the right of information and source code to be free and in some cases companies is able to develop proprietary products based on open source.

Open source is a development method for software that harnesses the power of distributed peer review and transparency of process. The promise of open source is better quality, higher reliability, more flexibility and lower cost. Author also needs to know what are the availability, reliability and maintainability of the open source. Besides that, author needs to consider also what the minimum requirement for the installation such as type of platform use, server, database, security and many more. This is very important because the efficiency and reliability of the system that will be develop depending on the selection of the appropriate open source.

Next things is a webhosting, this system temporarily will be running on a standalone server which is on my PC. But, it is only applicable in the development process of the

system, once system completed, it has to be publish online to worldwide via a webhosting service. A web hosting service is a type of Internet hosting service that allows individuals and organizations to provide their own websites accessible via the World Wide Web. There a several criteria that author need to consider such as type of hosting will be use. Such consideration includes database server software, scripting software, operating system, development platform, site management features and also hardware and software.

Do projects in KM required me to further study on some of it tools and enablers. Actually there are a number of technologies 'enabling' or facilitating knowledge management practices in the organization, including expert systems, knowledge bases, various types of Information Management, software help desk tools, document management systems and other IT support system. The advent of the Internet brought with it further enabling technologies, including e-learning, web conferencing, collaborative software, content management systems, wikis, blogs, and other technologies. Here author need to understand the function and usability of the enablers before implement it into the project. This is because each enabling technology can expand the level of inquiry available to an employee, while providing a platform to achieve specific goals or actions.

1.2 Problem Statement

1.2.1 Problem Identification

People are obviously reluctant to share their knowledge for fear that it will be make their skills less valuable, an experts leaving the organization without sharing their knowledge. That kind of situation will cause communities and the organization to lose access to large quantities of critical and beneficial knowledge. Therefore a knowledge management has to take part to effectively in capturing, managing knowledge and information that is valuable and widely available to all its member of the organization.

The other difficulty is problem that maybe occurs after the implementation of this system. During research, author found that there such a problems that will indicate when

this system implemented later which is how to encourage community to use and apply the system. However, all of this problem can be solve easily when the developer is providing sufficient information about the system to the user and structured properly the documentation of system process.

- There is no proper platform for people to share their knowledge.
- Currently knowledge is not organized and fairly distributed within community.
- Need to “push the user” to encourage user which is student, supervisor and lecturer to use the system.
- Users don’t always know where to place new knowledge because it tends to congregate in default location and also because there is no appropriate channel and platform to do so.
- Knowledge management system can descend into chaos if not well structured – user can be overloaded with choices and content. This system will provide on opportunities to proper sharing mechanism and will automatically replace the current manual system.

1.2.2 Significant of the project

Knowledge Management programs attempt to manage the process of creation (or discover), accumulation and application of knowledge across an organization. Knowledge Management, therefore, attempts to bring under one set of practices various strands of thought and practice relating to:

- Preserve the knowledge of workers as an intellectual capital of the organization by capturing and share best practices.

- The idea of the learning institution, since it was a knowledge management system that use as part of the learning method in the institution.
- Encourage student and lecturer or institutional practices, such as Communities of Practice.
- Make used of various enabling technologies such as knowledge bases and expert systems, help desks, corporate intranets and extranets, Content Management, wikis and Document Management.

1.3 Objective and scope of study

Virtual FYP Community is primarily concerned with the development of web-based application that performs some specific function related to the Knowledge management. Below are the lists of objectives that need to be accomplished at the end of the research:

- To develop a one stop online centre of information for student and lecturer regarding FYP, by providing an environment for collaboratively developing, freely sharing, and rapidly publishing scholarly content on the Web.
- Communities can share their knowledge and experiences as well learn new things from other people experience and lesson learned. Better accessibility to information and knowledge.
- To provides a flexible environment for enterprise knowledge management that integrates content, business processes and people as they apply their experience and competences in the course of learning activity
- To design a medium to manage and organize crucial and important information and knowledge (lesson learnt, best practices, experiences) by applying the idea of knowledge management concept.

- To develop and design a application which capable of keep, sharing and reuse knowledge within community.

1.4 Feasibility of the project within the scope and time frame

The Reliability and availability characteristic of the Virtual FYP Community that is going to be developed is the reason why author going to do this study. This study will be divided into two section which are the Part I and Part II.

In Part I, the author will cover the planning, analysis and development phases. The author will focus on the current technology and application used for the security system. Besides that, during the Part I, the author is required to produce a prototype of the system to be presented later at the end of the semester. And basically, during the Part II – development, implementation, testing, and go & live support phases will be accomplished.

The whole project task and timeline – Gantt chart is represented in **APPENDIX A**

CHAPTER 2

LITERATURE REVIEW

2.0 Data source for literature review

Source of data for literature review comprise of journal reading, books, conference research paper, online forum and also informative website and many more that relevant to my study and related to this project. Combination of searching method that author use during searching such as:

- Knowledge Management (KM)
- KM in education
- KM technology and approach
- KM enablers
- Internet / online forum / Online community
- Explicit knowledge & Tacit knowledge
- Science of classification
- Etc...

2.1 What is knowledge

According to the dictionary, knowledge is the sum of what is known, the body of truth, information and principles acquired by mankind. Knowledge is related to intellectual capacities, but it is also linked to observation, experience, study and investigation. Dictionary definitions are still lacking a connection to what knowledge means in the term "knowledge management". In that context, knowledge is very closely associated with the implications of ICT for our way of dealing with information. [Prof. A. Oosterlinck, 2002]

2.1.1 Tacit knowledge and explicit knowledge

The concept of tacit knowing comes from scientist and philosopher Michael Polanyi. It is important to understand that he wrote about a process (hence tacit knowing) and not a form of knowledge. However, his phrase has been taken up to name a form of knowledge that is apparently wholly or partly inexplicable.

By definition, tacit knowledge is knowledge that people carry in their minds and is, therefore, difficult to access. Often, people are not aware of the knowledge they possess or how it can be valuable to others. Tacit knowledge is considered more valuable because it provides context for people, places, ideas, and experiences. Effective transfer of tacit knowledge generally requires extensive personal contact and trust.

Explicit knowledge is knowledge that has been or can be articulated, codified, and stored in certain media. It can be readily transmitted to others. The most common forms of explicit knowledge are manuals, documents and procedures. Knowledge also can be audio-visual. Works of art and product design can be seen as other forms of explicit knowledge where human skills, motives and knowledge are externalized. Only definition [Polanyi, Michael, 1966]

2.2 Knowledge Management

Knowledge management is concerned with the exploitation and development of the knowledge assets of an organization with a view to furthering the organization's objectives. The knowledge to be managed includes both explicit, documented knowledge, and tacit, subjective knowledge. Management entails all of those processes associated with the identification, sharing, and creation of knowledge. This requires systems for the creation and maintenance of knowledge repositories, and to cultivate and facilitate the sharing of knowledge and organizational learning. Organizations that succeed in knowledge management are likely to view knowledge as an asset and to develop organizational norms and values, which support the creation, and sharing of knowledge. [Adisorn Na Ubon, Chris Kimble, 2002]

2.2.1 Approaches to knowledge management

There is a broad range of thought on Knowledge Management with no unanimous definition. The approaches vary by author and school. Knowledge Management may be viewed from each of the following perspectives:

- **Techno-centric:** A focus on technology, ideally those that enhance knowledge sharing/growth.
- **Organizational:** How does the organization need to be designed to facilitate knowledge processes? Which organizations work best with what processes?
- **Ecological:** Seeing the interaction of people, identity, knowledge and environmental factors as a complex adaptive system.

In addition, as the discipline is maturing, there is an increasing presence of academic debates within epistemology emerging in both the theory and practice of knowledge management. [Bellenger, Gene, 2002]

2.2.2 Motivation of knowledge management

There are a number of claims as to 'drivers', or motivations, leading to organizations undertaking a knowledge management program.

Perhaps first among these is to gain the competitive advantage (in industry) and/or increased effectiveness that comes with improved or faster learning and new knowledge creation. Knowledge management programs may lead to greater innovation, better customer experiences, consistency in good practices and knowledge access across a global organization, as well as many other benefits, and knowledge management programs may be driven with these goals in mind. [Buckman, R. H. 2004]

Considerations driving a Knowledge Management program might include:

- Making available increased knowledge content in the development and provision of products and services
- Achieving shorter learning and education cycles
- Facilitating and managing organizational innovation and learning
- Leverage the expertise of people across the organization
- Benefiting from 'network effects' as the number of productive connections between employees in the organization increases and the quality of information shared increases, leading to greater employee and team satisfaction
- Managing the proliferation of data and information in complex business environments and allowing employees rapidly to access useful and relevant knowledge resources and best practice guidelines
- Managing intellectual capital and intellectual assets in the workforce (such as the expertise and know-how possessed by key individuals) as individuals retire and new workers are hired

2.2.3 Knowledge management enablers

Historically, there have been a number of technologies 'enabling' or facilitating knowledge management practices in the organization, including expert systems, knowledge bases, various types of Information Management, software help desk tools, document management systems and other IT systems supporting organizational knowledge flows.

The advent of the Internet brought with it further enabling technologies, including e-learning, web conferencing, collaborative software, content management systems, corporate 'Yellow pages' directories, email lists, wikis, blogs, and other technologies. Each enabling technology can expand the level of inquiry available to an employee, while providing a platform to achieve specific goals or actions. The practice of KM will continue to evolve with the growth of collaboration applications, visual tools and other technologies. Since its adoption by the mainstream population and business community,

the Internet has led to an increase in creative collaboration, learning and research, e-commerce, and instant information. [Wilson, T.D. 2002]

2.3 Knowledge Management: The implications for online distance education

Today education is subject to the same pressures of the marketplace and educational institutions need to perform just as well as any other organization. In the recent years a wide range of business techniques, including performance management, quality assurance and total quality management, have had a direct or indirect impact on education, and KM is set to do the same. KM should have a resonance in education, as one major function of education is the imparting of knowledge. This implies that just as businesses attempt to improve the efficiency and effectiveness of their operations through KM, so educational institutions could use the potential of KM to enhance the learning of students. We can see that KM and online distance education share some common elements.

2.3.1 Community

Community is a group of people bound together by certain mutual concerns, interests, activities, and institutions. From KM perspectives, the concept of communities is essential because knowledge in an organization is often built up and generated by small, informal, self-organizing network of practitioners. In addition, the current advances in Information and Communication

2.3.2 Collaboration

Most organizations realize that they will improve performance if their staff works together. However, building collaboration is not an easy task. KM practitioners apply many different approaches to develop the type of culture that builds the desire for teamwork and a collaborative working. [8][9] Techniques such as meetings, forums and discussions are used extensively to create knowledge through the processes of social interaction and collaboration. Tools such as e-mail and intranets are also used to encourage active collaboration among people in organization.

2.3.3 Trust and knowledge sharing

In business organization, trust has been identified as an essential condition for people to share knowledge and expertise. People are reluctant to share their knowledge because of the risk of loss of control and influence. Remarkings a recent survey on KM in Europe, [Murray, P. and Myers, A. 1999] indicate that respondents acknowledge that the most valuable knowledge in their organizations is in people's heads but they are reluctant to share their knowledge for fear of losing influence and control.

2.3.4 Shared understanding

For effective knowledge sharing, individuals need to have the same meaning in their communication process, and need to converge it to shared understanding. Research in KM area shows that a shared understanding and a common ground among people in a community is essential for collaboration and productive knowledge transfer [Lave, J. and Wenger, E. 1991], [Clark, H. 1996]. Without it, individuals will neither understand nor trust one another [Davenport, T. H. and Prusak, L. 2000].

2.4 Knowledge Management System

Knowledge Management System (KM System) refers to a system for managing knowledge in organizations, supporting creation, capture, storage and dissemination of information. It can comprise a part of a Knowledge Management initiative. [Anderson, B. 1983].

The idea of a KM system is to enable employees to have ready access to the organization's based documented of facts, sources of information, and solutions. For example a typical claim justifying the creation of a KM system might run something like this: an engineer could know the metallurgical composition of an alloy that reduces sound in gear systems. Sharing this information organization wide can lead to more effective engine design and it could also lead to ideas for new or improved equipment.

A KM system could be any of the following:

- Document based i.e. any technology that permits creation/management/sharing of formatted documents such as Lotus Notes, web, distributed databases etc.
- Ontology/Taxonomy based: these are similar to document technologies in the sense that a system of terminologies are used to summarize the document.
- Based on AI technologies which use a customized representation scheme to represent the problem domain.
- Provide network maps of the organization showing the flow of communication between entities and individuals
- Increasingly social computing tools are being deployed to provide a more organic approach to creation of a KM system.

Knowledge Management System can be used for a wide range of cooperative, collaborative, adhocracy and hierarchy communities, virtual organizations, societies and other virtual networks, to manage media contents; activities, interactions and work-flows purposes; projects; works, networks, departments, privileges, roles, participants and other active users in order to extract and generate new knowledge and to enhance, leverage and transfer in new outcomes of knowledge providing new services using new formats and interfaces and different communication channels.

2.4.1 Technical aspect of KM system

- Representation
- Artificial intelligent in knowledge management
- Data mining
- Meta knowledge and meta data
- Mobility

2.4.2 Knowledge transfer and knowledge management system process

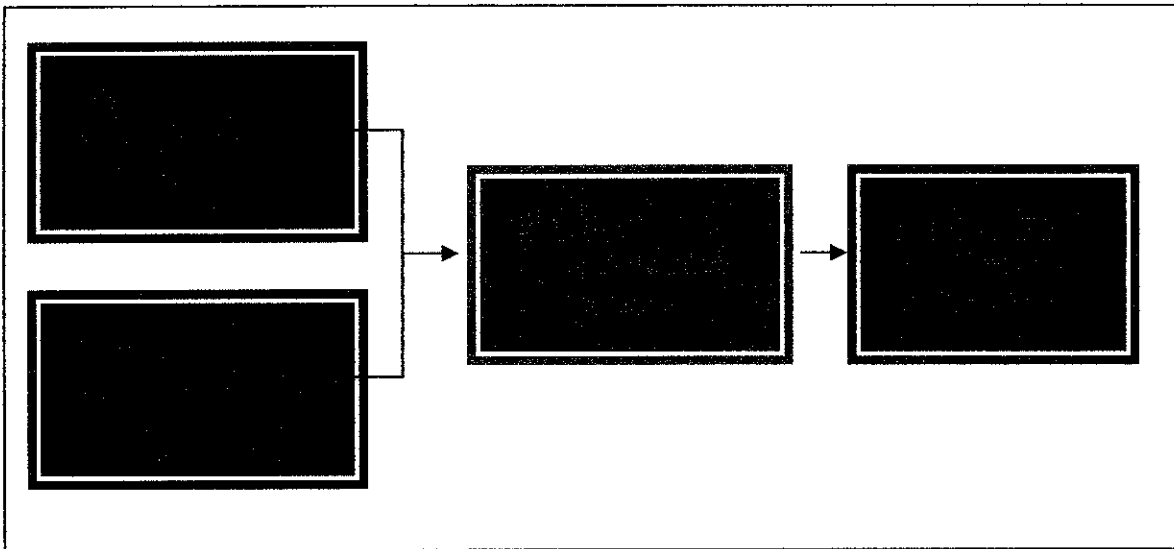


Figure 2.1: KM Process [Serenko, A. and Bontis, Nick. 2004]

2.5 Virtual Community

A virtual community, e-community or online community is a group of people that primarily interact via communication media such as letters, telephone, email or Usenet rather than face to face. If the mechanism is a computer network, it is called an online community [Farmer, F. R. 1993]. Virtual and online communities have also become a supplemental form of communication between people who know each other primarily in real life. Many means are used in social software separately or in combination, including text-based chatrooms and forums that use voice, video text or avatars. Significant socio-technical change may have resulted from the proliferation of such Internet-based social networks

2.5.1 Virtual community design

Below are some guidelines that can be of use when trying to design an online community or foster a better knowledge sharing environment in your organization:

Design Guideline	
Trust the member's input. Make it easy to contribute to your knowledge base and make it accessible to others.	Sense of Efficacy
Enable your knowledge base to evolve as processes and concepts change.	Sense of Efficacy
Allow the member to be known and get credit by measuring their contributions.	Build Reputation, Anticipated Reciprocity, Sense of Community
Allow other members in the community to measure and respond to contributions.	Sense of Community, Build Reputations

Table 2.1: Guideline in designing online community [Bishop, J. 2007]

2.6 Taxonomies of knowledge

Knowledge type	Definition	Examples
Tacit <ul style="list-style-type: none"> • Cognitive Tacit • Technical Tacit 	Knowledge is rooted in actions, experience. Mental model. Know how applicable to specific work.	Best means of dealing with specific customer Individual believe – cause. Surgery skill.
Explicit	Articulated, generalized knowledge	Knowledge of major customer in a region
Individual	Create by and inherent in the individual	Insight gained from completed project
Social	Created by and inherent in collective action of a group.	Norms for intergroup communication
Declarative	Know-about	What drug appropriate for an illness
Procedural	Know-how	How to administer a particular drug
Causal	Know-why	Understanding why the drugs works
Conditional	Know-when	Understanding when to prescribe the drug
Relational	Know-with	Understanding how the drug interact with other drugs
Pragmatics	Useful knowledge for an organization	Best practices, business framework, project experiences, engineering drawing, market report.

Table 2.2: Taxonomies of knowledge [Philippe En Dior, 2002]

CHAPTER 3

METHODOLOGY

3.1 Information Gathering Method

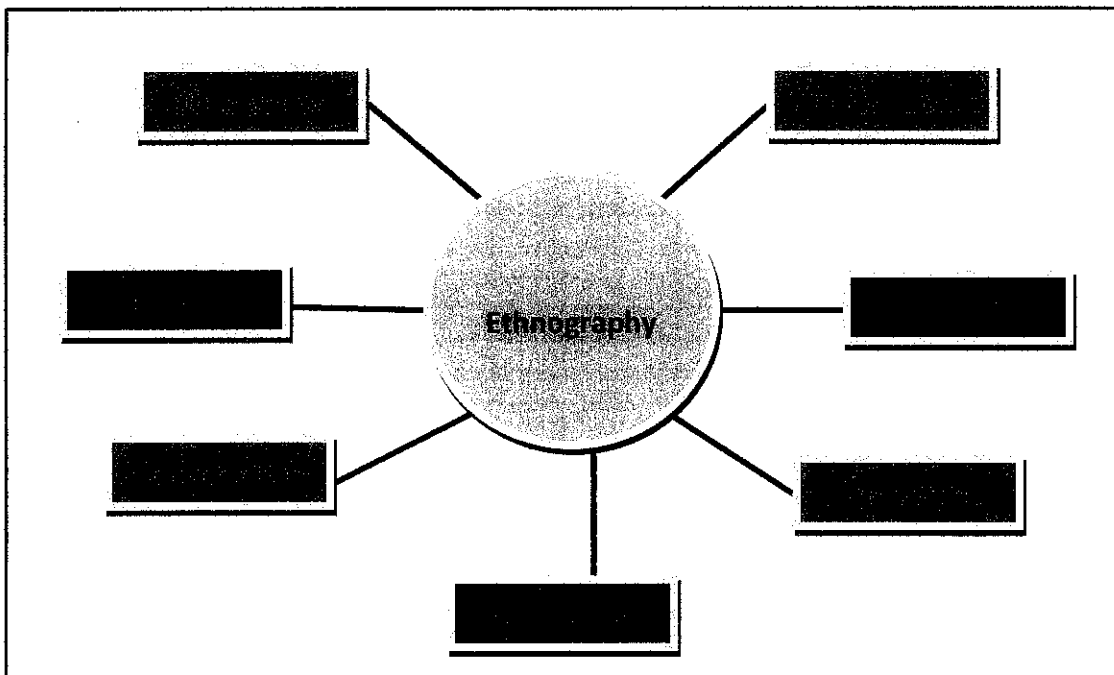


Figure 3.1: Information Gathering Method

3.2 Ethnography

Ethnography is the genre of writing that presents varying degrees of qualitative and quantitative descriptions of human social phenomena, based on fieldwork. Ethnography presents the results of a holistic research method founded on the idea that a system's properties cannot necessarily be accurately understood independently of each other. The genre has both formal and historical connections to travel writing and colonial office reports. Several academic traditions, in particular the constructivist and relativist

paradigms employ ethnographic research as a crucial research method. Many cultural anthropologists consider ethnography the essence of the discipline. [Hymes, Dell. 1974]

3.2.1 Use of ethnography

"Illuminative" evaluation:

Ethnography is useful for long-term and longitudinal studies of programmes. It concentrates on accounting for the observed setting rather than comparison between settings.

Evaluation of use and the user:

Ethnographic evaluation can investigate the user's point of view. It can help in forms of participative design eliciting the point of view of those who will use the system, both educators and students. In particular, ethnography can draw out 'tacit' knowledge, the taken for granted aspects of work often overlooked.

"Continuous phase" evaluation:

This is an iterative design process in which ethnographic research plays two roles. First, it is used to clarify requirements prior to the design of a new system. Then, it is used to provide continuous feedback for redesign and modification.

3.2.2 Ethnography Technique

- Direct, first-hand observation of daily behavior. This can include participant observation.
- Conversation with different levels of formality. This can involve small talk to long interviews.
- Detailed work with key consultants about particular areas of community life.
- In-depth interviewing.
- Discovery of local beliefs and perceptions.
- Problem-oriented research.
- Longitudinal research. This is continuous long-term study of an area or site.

- Team research.
- Case studies

3.3 System development method

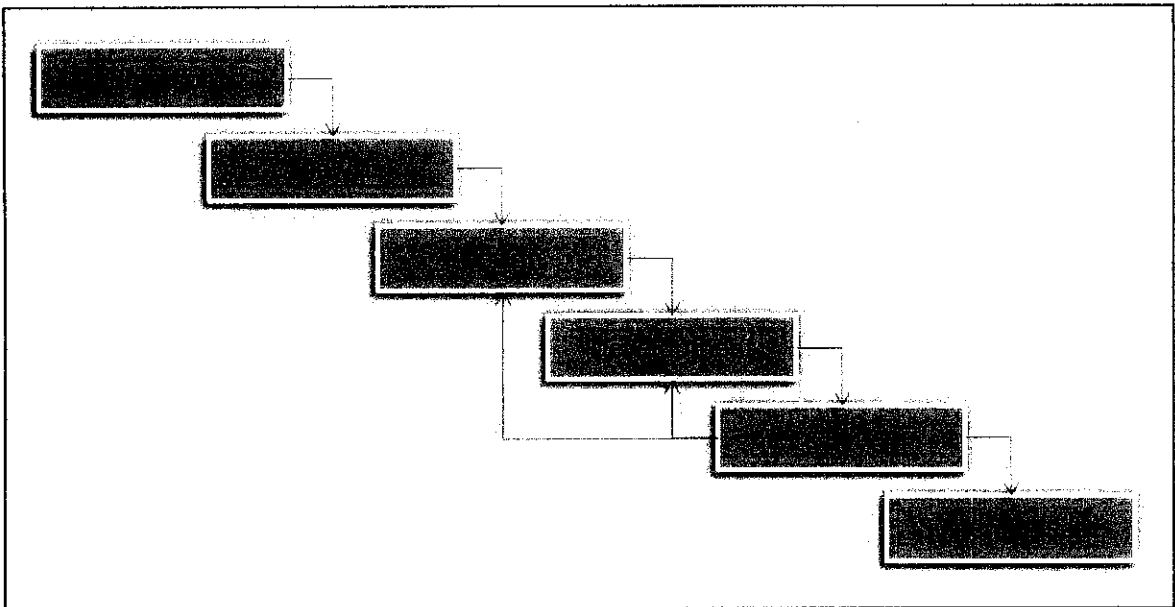


Figure 3.2: Waterfall Development Method Model

A system usually consists of several components that perform their own function. This is one of the methodologies available for application development, which can be used as a standard problem-solving technique, as shown in [figure 2]. The software component technology conforms to the design strategy. Component technology brings independent extension and rapid application development to the software industry. With the benefit of the component technology, software development can be based on existing components. Reuse in software development improves aspects from the source code and library level to the direct use of the software component. Software components unite the component concept across the design, implementation and deployment phases in software development. A component-based system is based on a number of distinct components, each of which plays a specialised role in the system. A component model is the set of components, their interfaces and a specification of the nature of the interactions among components.

The method that had been choosing to be used in development process of the system is Waterfall Model which is considering of:

1. **Planning**
2. **Analysis**
3. **Design**
4. **Development**
5. **Testing**
6. **System Release**

Each of the phases has its own role and usage on how the author can relate it with the development of the system. Later, waterfall model will be combining with phased development model [Figure 3] in order to produce different version of improvement.

3.3.1 Planning and Analysis

3.3.1.1 Identifying symptoms

- A symptom is evidence that an existing information system is inefficient or ineffective.
- Try to determine the symptom of an example of KM system and observing the system in operation.
- It will also help to set target for new system to achieve and provide base figures against which to measure the new system contribution.
- Observing system is also important to gain additional information.

3.3.1.2 Determining system objectives

Author understand that system objective describe the business goal of the system. Benefit will be obtained by developing the new system is dividing by 3 categories:

1. Efficiency benefits

Include reduce labor costs, increased transaction and improved accuracy or reliability

2. Effectiveness benefits

Include more complete and or timely information for decision making

3. Competitiveness benefits

Include helping the organization to implement its competitive strategy.

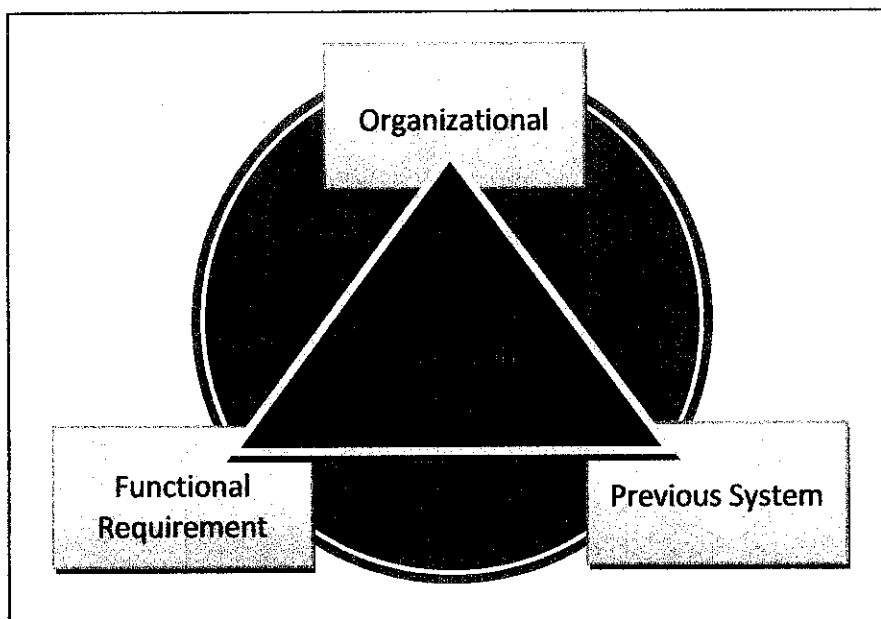


Figure 3.3: Key area of system analysis

3.3.1.3 Determining Resources

Resource can be described in three area of feasibility, Technical Feasibility, Economic Feasibility and Operational Feasibility.

1. Organizational Feasibility

How well the proposed system supports this system priority of the organization.

2. Technical Feasibility

Author has all the hardware and software that use to develop this system. Author has ensured that all the hardware is working properly and did not have any technical problem during developing process. The hardware such as, Monitor, keyboard, mouse, CPU, printer and speaker. And software such as XAMPP, Adobe Dreamweaver, Adobe Photoshop etc.

3. Economic Feasibility

Economic feasibility is a second part of resources determination. The concerned project development must be able to see the value of investment before committing to the entire system. The basic resources that author have to consider developing this system is:

- The cost of doing full system study.
- The estimated cost of hardware use.
- The estimated cost of software use.
- The cost of system documentation.

4. Operational Feasibility

Even though the technical and economic resources are both have been consider, author must still consider the operational feasibility on the project. It is depend on the human resources. Author also has to know who the user is in order to have a clear picture on what user really want. In this point, determining operational feasibility required creative imagination. So author must listen carefully to what users really want.

3.3.2 Design and development

As what author understands, Design is a process of developing a product or artifact or system and to the various representations (simulation or model) of the product that are produced during the design process. In designing this system, author consider on three main criteria:

- **User centered** and involved user as much as possible so that the can influence the design
- **Integrated knowledge and expertise** from different disciplines that contribute to human computer interaction design.
- **Be highly iterative** so that testing can be done to check that the design does indeed meet user requirement.

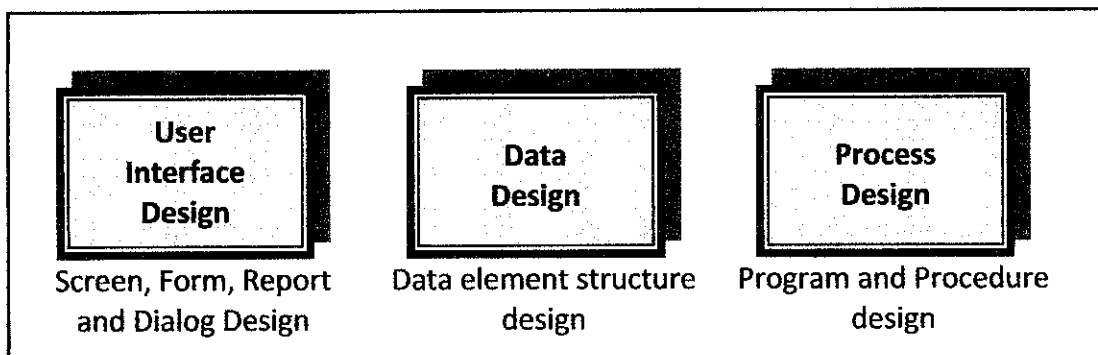


Figure 3.4: System design requirement

3.3.2.1 Designing effective output

Author has to get what is the meaning of output design and found that output means, information delivered to user through the information system. There are several objectives that author try to attain when designing output:

- **Design output to serve the intended purpose.**
All output should have a purpose. Output is designed based on that purpose. If the output is not functional, it should not be created, since there are cost of time and materials associated with all output from the system

- **Design the output to fit the user**

It is more practical to create a user specific or user customizable output when designing it for a decision support system or other highly iterative application such as those mounted on the web.

- **Deliver the appropriate quantity of output.**

Part of the task of designing output is deciding what quantity of output is correct for users.

- **Assure that the output is where it is needed.**

Output also must be providing to right user.

- **Provide the output on time.**

Timing plays a large part in how useful output will be to the decision makers. By using well-publicized output can alleviate some problems with the timing of output distribution as well.

- **Choose the right output method.**

Choosing the right output method for each user is another objective in designing output. Author has to recognize the changes involved in choosing output method.

3.3.2.2 Designing screen output

Author knows that screen output is different from printed output. Screen display is not permanent in the same way that print out are. In developing the system interface four guidelines has been use to facilitate the design of screen.

- Keep the screen simple.
- Keep the screen presentation consistent.
- Facilitate user movement among screens.
- Create and interactive screen.

3.3.2.3 Designing effective input

Author knows that designing an effective input will determine the quality of system output. Author focus on several objectives when designing input:

- **Effectiveness** - Input form, input screens and fill-in form serve specific purpose in the information system.
- **Accuracy** - Refer to design that assure proper completion.
- **Simplicity** - Refer to keeping the same design purposely uncluttered in a manner that focuses that user attention.
- **Consistency** - Means that all input forms group data similarly from one application to the next.
- **Attractiveness** - Implies that user will enjoy using input form, output screen and fill-in form through system appealing design.

3.3.2.4 Designing the file and database

In designing the file and database of this system, approaches to the storage of data in a computer based has been used, which is:

- **First approach**
Is to store the data in individual files, each unique to a particular application.
- **Second approach**
To the storage of data in a computer based system involves building a database.

A database is formally defined and centrally controlled store of data intended of use in many different process or transaction.

3.3.2.5 Proposed Storyboard

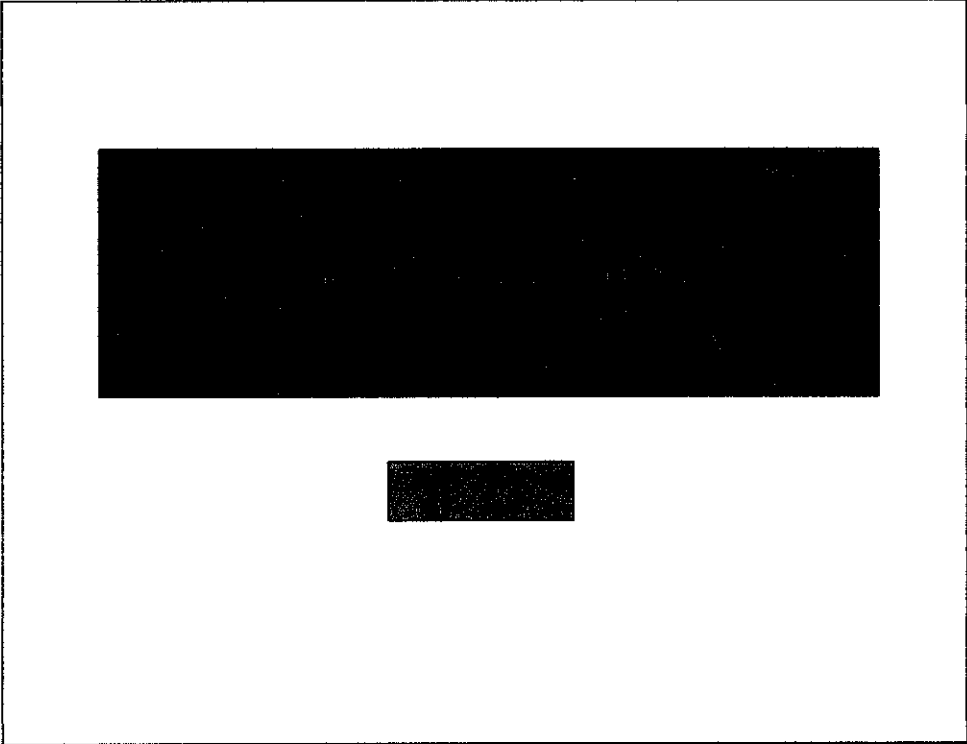


Figure 3.5.1: Welcome Page

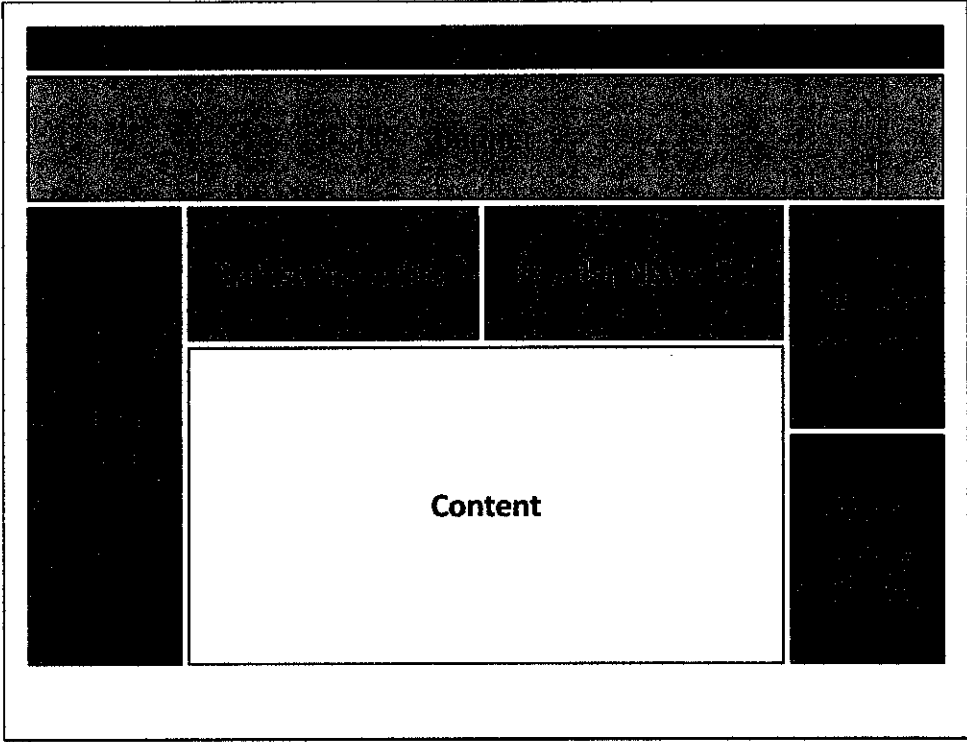


Figure 3.5.2: Main Page (General)

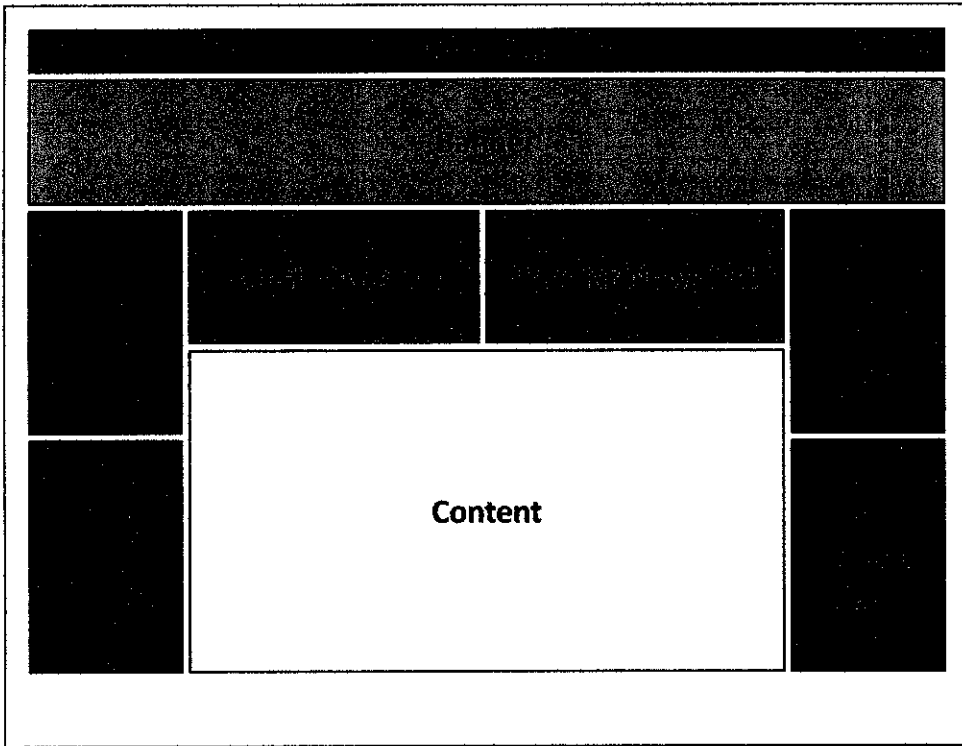


Figure 3.5.3: Main Page (Registered User)

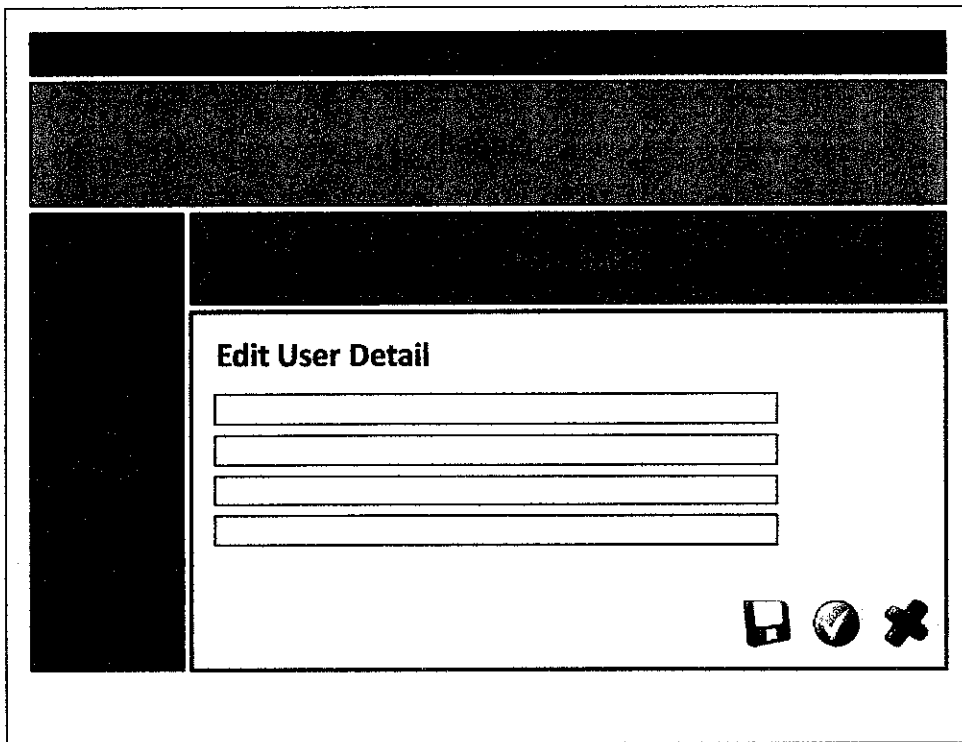


Figure 3.5.4: Edit User Detail

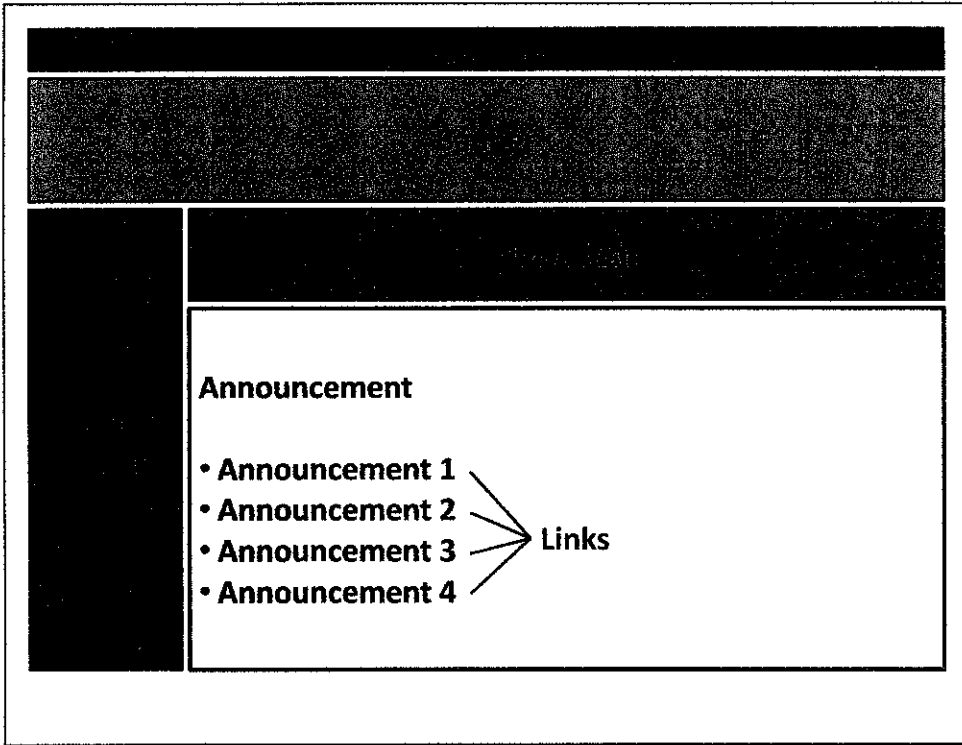


Figure 3.5.5: Announcement

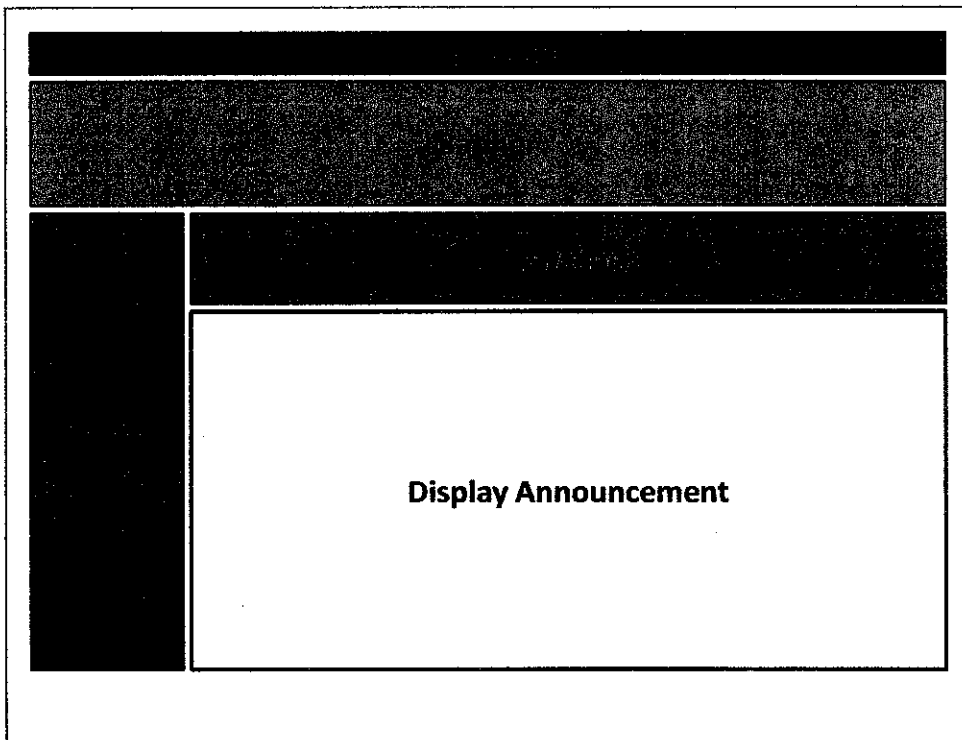
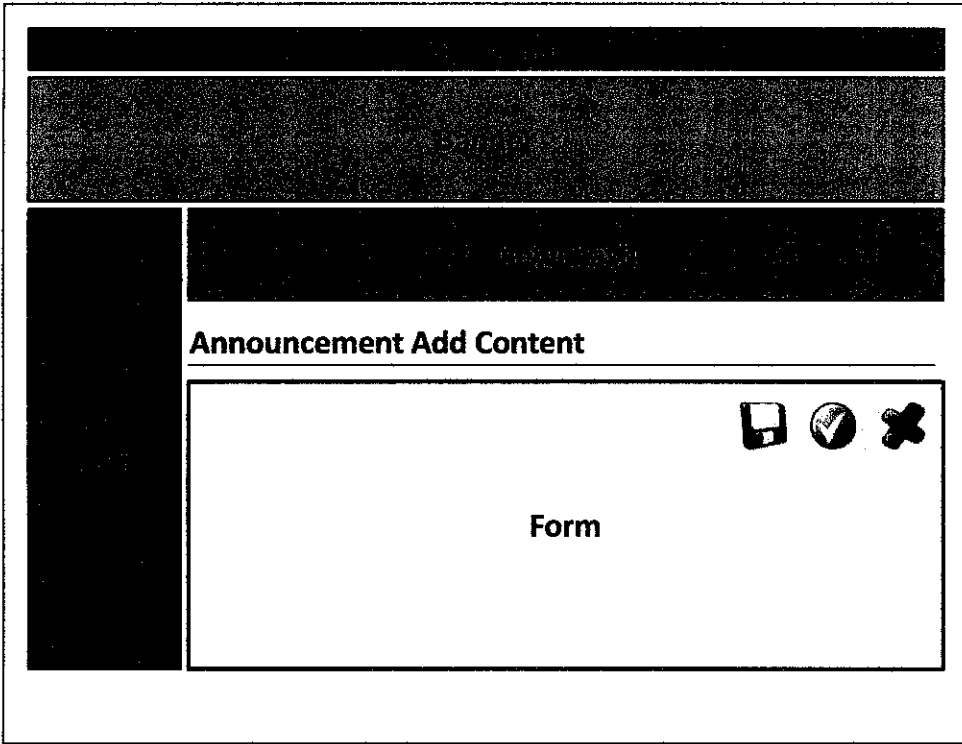


Figure 3.5.6: Display Selected Announcement



3.5.7: Add Content (Announcement)

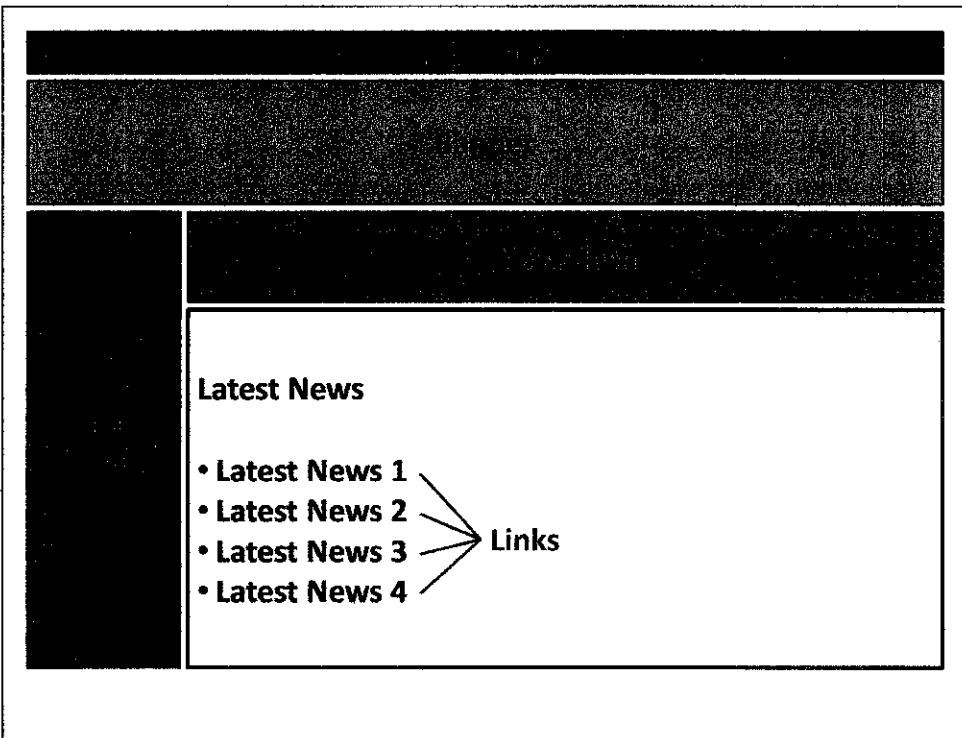
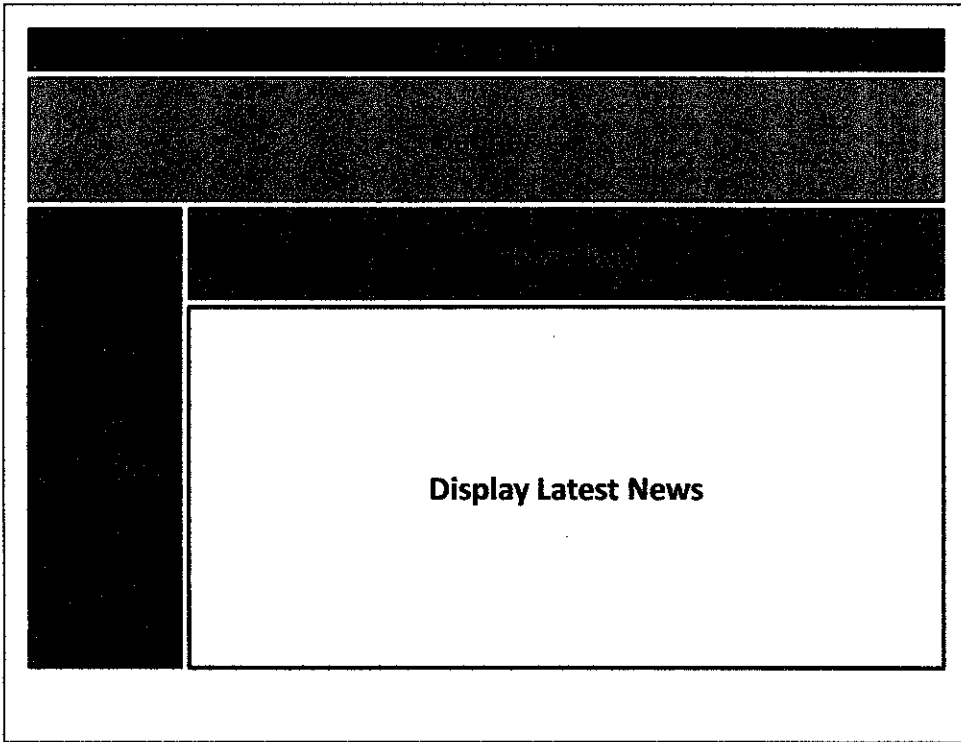
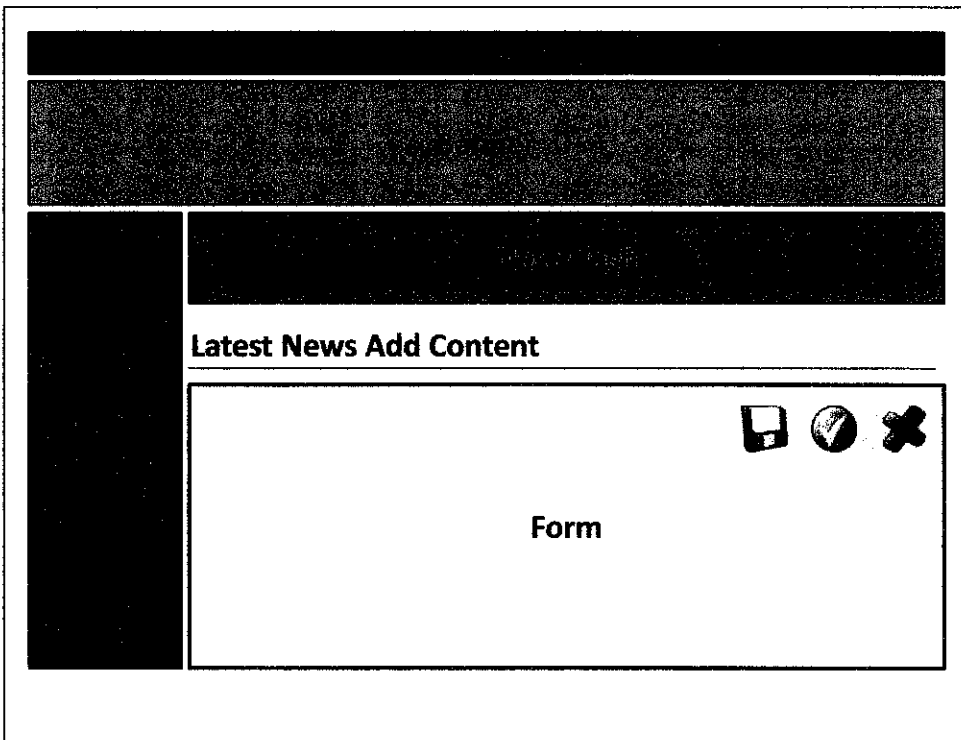


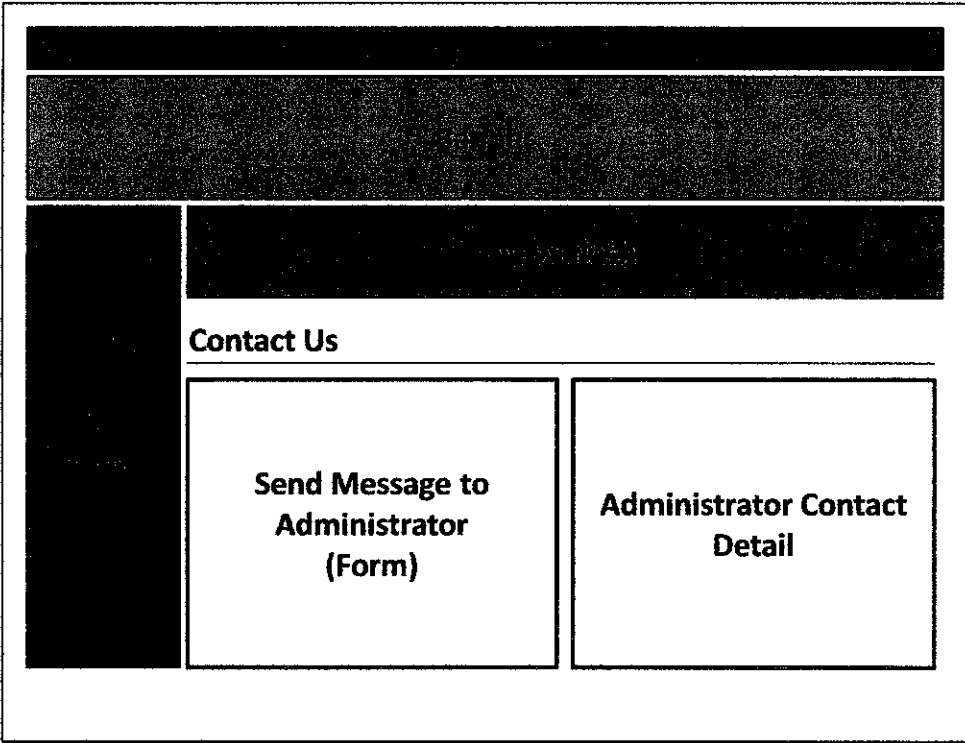
Figure 3.5.8: Latest News



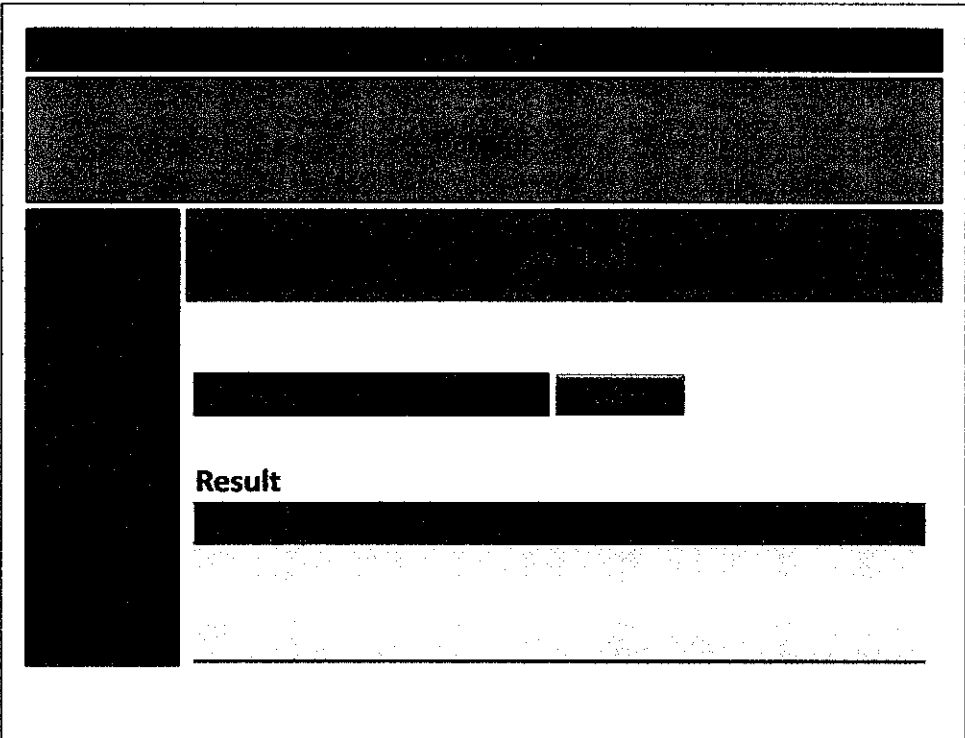
3.5.9: Display Selected News



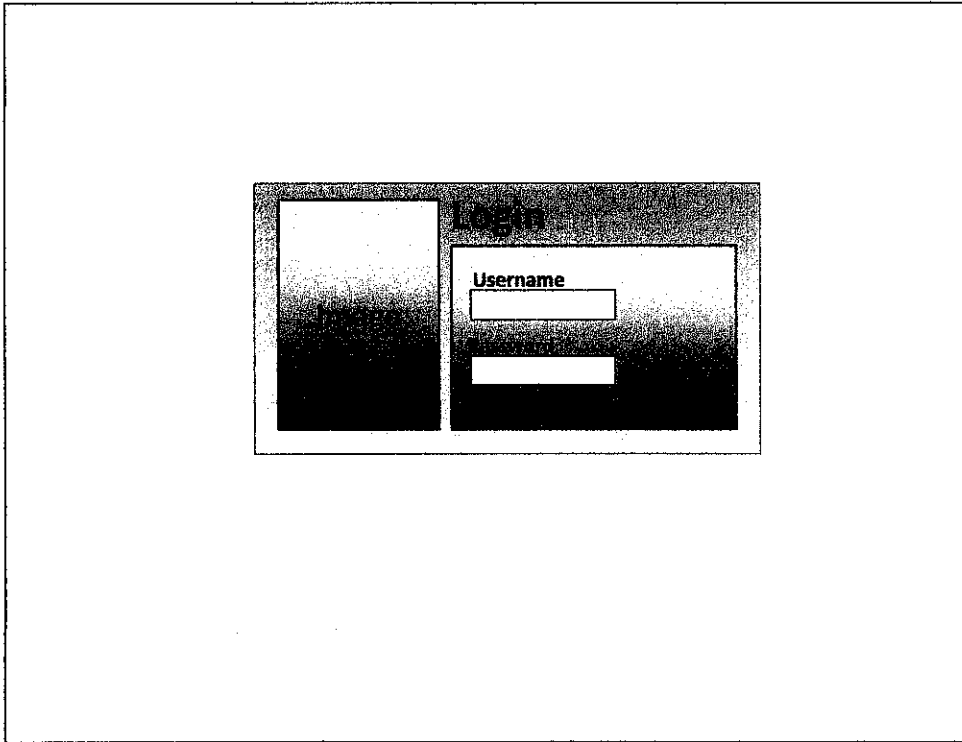
3.5.10: Add Content (Latest News)



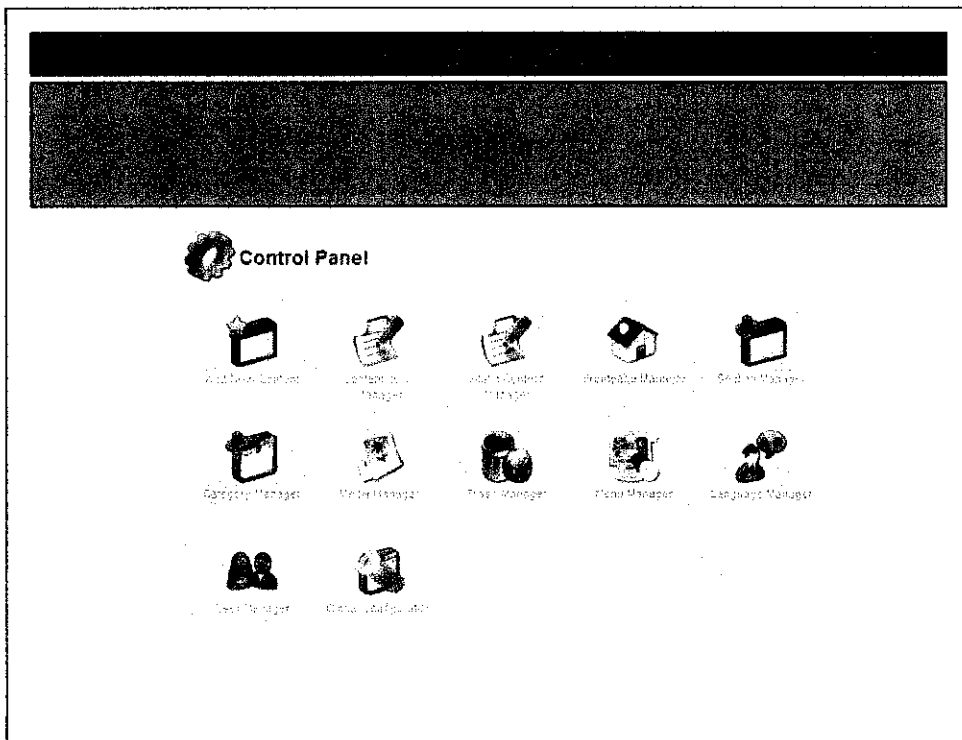
3.5.11: Contact Us



3.5.12: Search



3.5.13: Administrator Login



3.5.14: Administrator Control Panel

3.3.3 Testing and maintaining the system

At this phase author has been deciding that the system newly written or modified application program must be tested thoroughly. Testing is done throughout system development, not just at the end at the development process. It is important to reveal the unknown problems. Testing will help to assure the quality of the system. Author has implement four testing technique in developing the system:

- **Program testing with test data**

Test the system-using list of test data. It will check the system to verify the way the system will work. After that, author can try to create both valid and invalid test data. These data are then run to see if base routine work and also to catch errors. After ensuring that the system did not have any problem with test data, author go to another approach of testing the system.

- **Link testing with test data**

This testing also known as string testing. In this system, appropriate link has been use to link the system and database. So, link testing will checks to see if programs that are interdependent actually work together as planned. If the system works with normal transaction, then variations are added, including invalid data used to ensure that the system can properly detect error.

- **Full system testing with test data**

When the link tests are satisfactorily concluded, the system, as a complete entity must be tested. This testing including reassures the quality standard of the system performance. In this stage of testing, author measure of errors, timeliness, ease of use, proper process of transaction, understandable procedure manual and etc.

- **Full system testing with live data**

When system test using test data prove satisfactory, the system will be tested with several passes on what is called “live data” data that have been successfully processed through the existing system. The new system flow will be compare with the existing system flow to determine the effectiveness of the new system.

This step allows an accurate comparison of the new system output with correctly processed output, as well as how actual data will be handled.

3.4 Development tools

In the system design and development, a number of software and application is used such as Adobe Dreamweaver, Xampp, PhpMyAdmin, and Adobe Photoshop. The language and script that will be used are PHP, ASP, Html and Javascript.

3.4.1 Adobe Dreamweaver 8

Adobe Dreamweaver, or simply Dreamweaver, is a web development tool originally created by Macromedia (now part of Adobe Systems). Initial versions of the application served as simple WYSIWYG (what you see is what you get) HTML editors but more recent versions have incorporated notable support for many other web technologies such as CSS, JavaScript, and various server-side scripting frameworks. [David Orfao, 2001]

Dreamweaver allows me to preview websites in many browsers, provided that they are installed on their computer. It also has some site management tools, such as the ability to find and replace lines of text or code by whatever parameters specified across the entire site, and a templatization feature for creating multiple pages with similar structures. Dreamweaver is really user friendly and easy to use. Experience using Dreamweaver since 2002; really help me in development process. That's why I'm choosing Adobe Dreamweaver as webpage editor.

3.4.2 Xampp

XAMPP is a full-featured AMPP (Apache MySQL, PHP, Perl) package that is one of the few non-commercial AMPP middleware stacks available on Linux. With its tight integration, XAMPP makes it possible to run anything from a personal home page to a full-featured production site.

XAMPP from Apache Friends are simplifying open source development by making it easier to write and distribute applications in a stable and standardized environment. Traditionally, AMPP -- Apache, MySQL, PHP, and Perl -- have all been installed and configured as separate products. The trend of combining them into integrated middleware stacks promises to make open source development more competitive.

Basic packages include system, programming, and server software:

- Apache, the famous Web server
- MySQL, an excellent, free, open source database
- PHP, the programming language (in versions 4.3.8 and 5.0.1 at the time of this writing)
- Perl, the programming language
- ProFTPD, an FTP server
- OpenSSL, for secure sockets layer support

3.4.3 PhpMyAdmin

PhpMyAdmin is a tool written in PHP intended to handle the administration of MySQL over the Web. Currently it can create and drop databases, create/drop/alter tables, and delete/edit/add fields, execute any SQL statement, manage keys on fields, manage privileges, and export data into various formats. PhpMyAdmin can manage a whole MySQL server (needs a super-user) as well as a single database. To accomplish the latter I have to properly set up MySQL user who can read/write only the desired database.

Currently PhpMyAdmin can:

- Browse and drop databases, tables, views, fields and indexes
- Create, copy, drop, rename and alter databases, tables, fields and indexes
- Maintenance server, databases and tables, with proposals on server configuration
- Execute, edit and bookmark any SQL-statement, even batch-queries
- Load text files into tables

- Create1 and read dumps of tables
- Administer multiple servers
- Manage MySQL users and privileges
- etc

3.4.4 Adobe Photoshop

Adobe Photoshop, or simply Photoshop, is a graphics editor developed and published by Adobe Systems. It is the current market leader for commercial bitmap and image manipulation, and is the flagship product of Adobe Systems. It has been described as "an industry standard for graphics professionals."

[Adobe official site 2007] Live filters boost the comprehensive, nondestructive editing toolset for increased flexibility. And a streamlined interface and new timesaving tools make your work flow faster.

Adobe Photoshop really help me to do photo editing on still image. In this project, there is a lot of part and section that need to add with some image and picture in order to make it more attractive to user. Adobe Photoshop also can be used to create a button, banner, interface and many more that is really useful.

3.5 Knowledge sharing system architecture

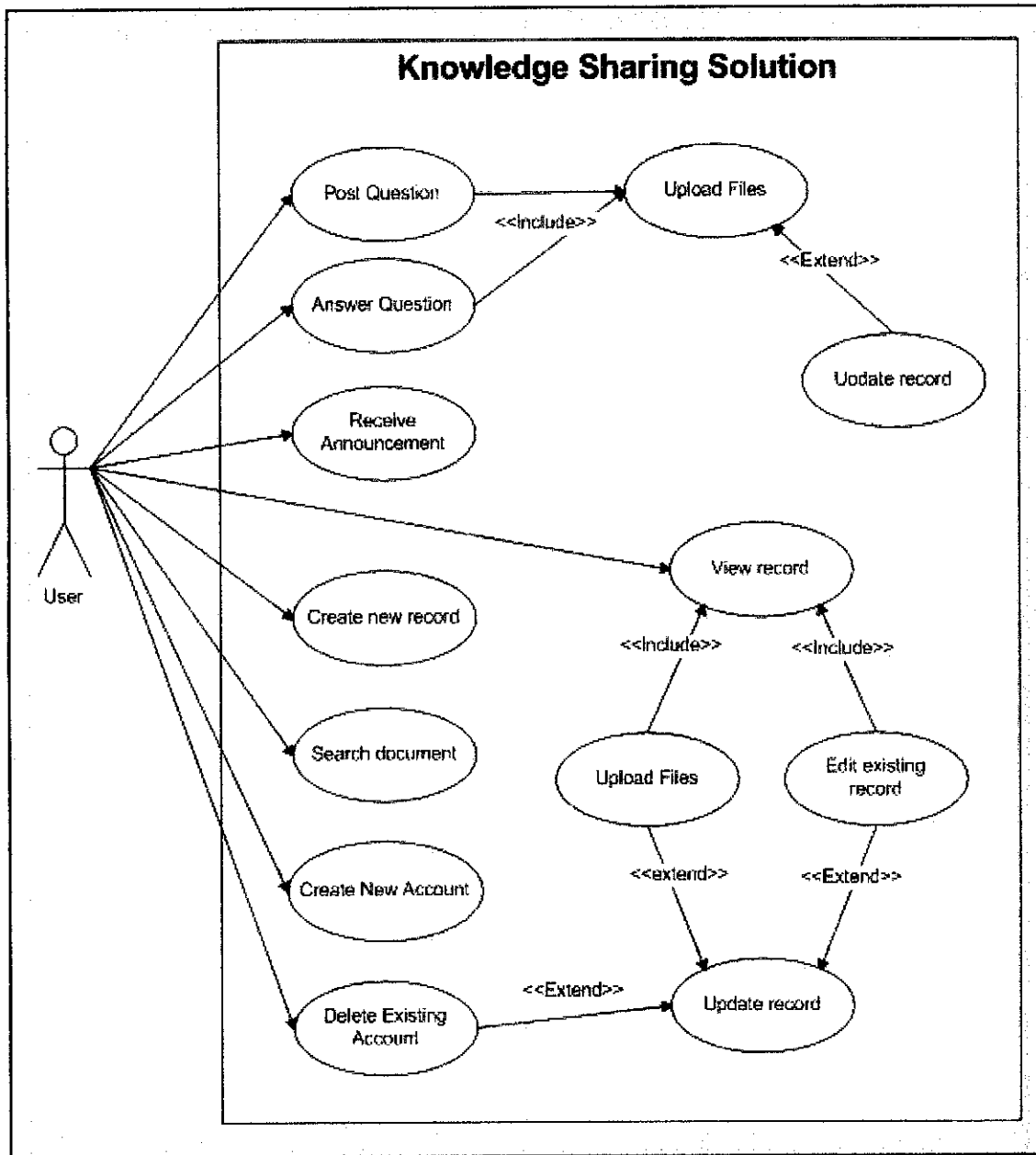


Figure 3.6: Knowledge sharing solution architecture

Refer to *figure 3.6*. User interact with database through the system, all user can post any question to the system. Then only the authorized registered user can answer or reply feedback on those questions. When user post a question and answer, they can attached any files, for example image, whitepaper to support their post. Each time there occur data transactions or data exchange in the system, the system will automatically updates the record. The administrator can post any announcement in the system and user can view and retrieve it. All users also can perform search function for any information, forum, announcement and latest updates that they require at any time, any place and at

any occasion. Only the administrator has the power to create and record and edit existing record of user account. The admin also has power to delete any account. The system will update automatically after any changes being done.

CHAPTER 4

RESULT AND DISCUSSION

4.1 Introduction

This chapter will conclude all result, finding and research that have been done for the past 32 weeks. Most of the findings were gathered through internet and reference book, journal and also research paper. This progress report I only focusing on what I have been done with the webhosting registration and the use of Simple Machine Forum (an open source application)

4.2 Web Hosting

Saturday, 29 September 2007. Author went to Exabytes Network Sdn Bhd which is a company that provides a webhosting services. This company is located at Bayan Lepas, Penang. Author takes the opportunity to be at the company to register directly a webhosting for this project. Webhosting is one of the main requirements of this project since it will be up and running in World Wide Web (WWW) upon completion on next semester. Besides that, the purpose to rent a webhosting is to undergo continuous testing and run the project online instead of run it on author workstation. Below are details of subscription and payment for the registration:

Domain: *www.utpfinalyearproject.com* RM 55.00 @ 1 year
Main Package: Exabyte EBiz 1 linux RM 199.00 @ 1 year + free setup

Domain Total	RM 55.00
Package Total	RM 199.00
Total	RM 254.00

4.2.1 Registration Detail

The domain that has been chosen for this project is *www.utpfinalyearproject.com*. Luckily this domain name still available and haven't use by any parties before this. Domain registrations require me to pay a fee RM 55.00 per year. Package of service that chooses during the registration is *Exabyte EBiz 1 Linux Package*. This package is the cheaper packages that offer by the company worth RM 199.00 per year, but it is sufficient enough to run this project later on. Author will state the specification and benefit that will receive with this package on next section. Since both domain and hosting package is only for one year starting 29 September 2007. So the renewal date is on 28 September 2008. To avoid from expired or being block by the company, we have to renew in order to continue rent the hosting.

4.2.2 Webhosting Package Specifications and features

Key Features	
Domain Hosted	1
Add-on Domain	10
Parked domain	50
MySQL Databases	50
Disk Space	10GB
Monthly Data Transfer	50GB
Unlimited email support	✓
24 x 7 x 365 support	✓
Hosting Account Features	
Max CPU Consumption	100Mhz
Max Memory Consumption	64MB
Max MySQL User Connection	45
No. of accounted hosted per-server	300

Table 4.1: Webhosting package specification

4.3 Simple Machine Forum (Open Source)

Once have registered a webhosting, author start to use a Simple Machine Forum to develop a simple online forum as part of the whole system to be develop. Simple Machines Forum — SMF in short — is a free, professional grade software package that allows you to set up your own online community.

Its powerful custom made template engine puts you in full control of the lay-out of your message board and with our unique SSI - or Server Side Includes - function you can let your forum and your website interact with each other.

SMF is written in the popular language PHP and uses a MySQL database. It is designed to provide you with all the features you need from a bulletin board while having an absolute minimal impact on the resources of the server. SMF is the next generation of forum software - and best of all it is and will always remain completely free!

Why author using to try SMF, because it provides a lot of useful feature and benefit to user. This forum is using PHP and MYSQL, which is one of the most famous and widely use open source script. It also provide extra security features such as All actions seamlessly require a session based authorization code, Administrative actions require the user's password (and do not rely solely on cookies.) and Major actions are time and IP locked, preventing 'hammering'.

4.4 Joomla (Open Source)

Joomla! Is one of the most powerful Open Source Content Management Systems on the planet. It is used all over the world for everything from simple websites to complex corporate applications. Joomla! is easy to install, simple to manage, and reliable. The system includes features such as page caching to improve performance, RSS feeds, and printable versions of pages, news flashes, blogs, polls, website searching, and language internationalization. Joomla is licensed under the GPL, and is the result of a fork of Mambo.

It is written with the PHP programming language and uses the MySQL database by default.

Joomla! Can be used to easily manage every aspect of your website, from adding content and images to updating a product catalog or taking online reservations.

4.4.1 Joomla Features

The Joomla package consists of many different parts, which are built to be as modular as possible, allowing extensions and integrations to be made easily. Examples of such are extensions called "Plug-in". (Formerly known as "Mambots".) Plug-in are background extensions that extend Joomla with new functionality. The WikiBot, for example, allows the author of Joomla content to use "Wiki tags" in Joomla articles which will auto-create dynamic hyperlinks to Wikipedia articles when displayed. There are over 2,500 extensions for Joomla available via the Extensions Directory, a site that OpenSourceMatters runs as an official directory of extensions.

In addition to Plug-in, more comprehensive extensions are available. "Components" allow webmasters to perform such tasks as build a community by expanding user features, backup a website, translate content and create URLs that are friendlier to search engines. "Modules" perform such tasks as displaying a calendar or allowing custom code like Google Ad Sense etc to be inserted within the base Joomla code.

4.5 System Interface

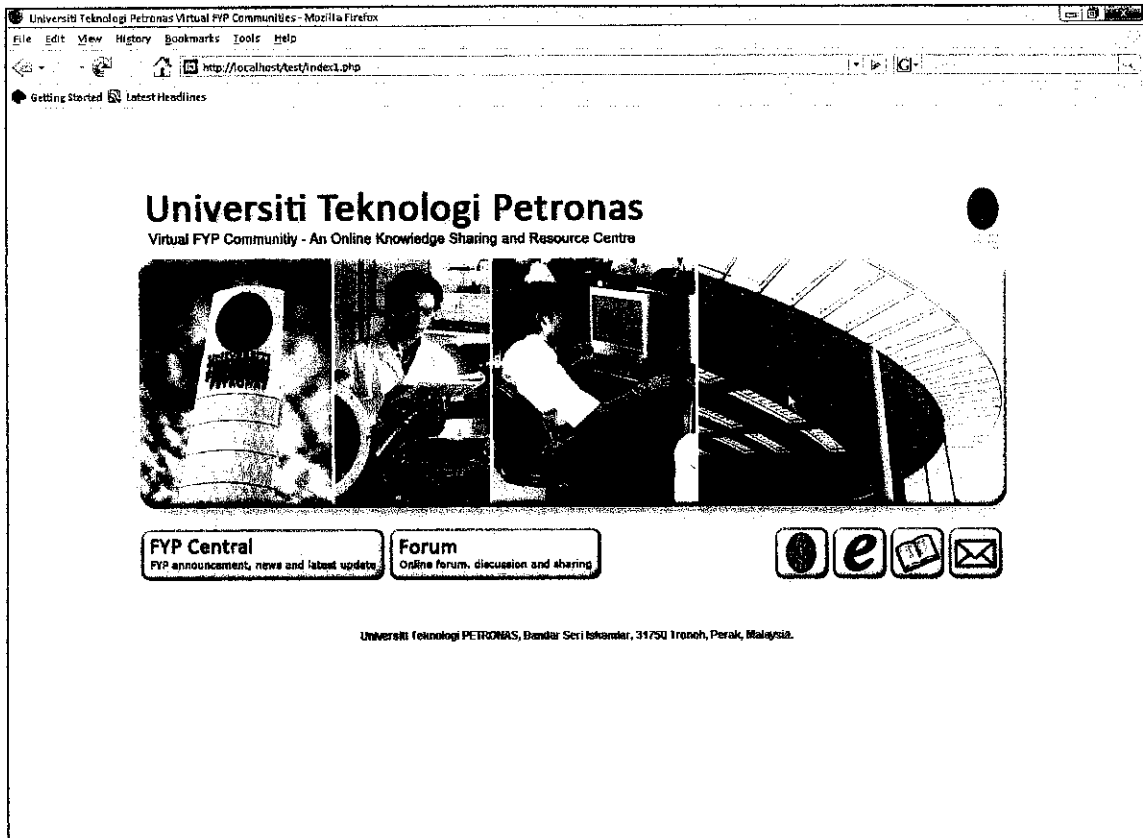


Figure 4.1: Welcome Page

Figure 4.1 show us a welcome page which is the first page of the whole system. This page will appear when user type in URL www.utpfinalyearproject.com. Basically author design this page to be simple and attractive. Author really takes into part about user first impression when they view this page. There are several links under the banner that user can click which is “Forum” and “FYP Central” at the left hand side and also quick link to UTP official homepage, UTP E-Learning, UTP Information Resource Centre and UTP Webmail at the right hand side. These links will provide user an option for them in order to proceed to the next section. “Forum” will bring user to the online forum of the system. Which focusing on forum discussion, knowledge sharing, lesson learnt, tips and tricks and many more. Otherwise “FYP Central” will take user to page that contain latest announcement and news regarding Final Year Project (FYP). This section is created for administrator and FYP Committee to updates any news and announcement. Student and lecturers can use this as a medium for them to get update with latest announcement and news.

UTP VIRTUAL FYP COMMUNITY Thursday, 27 March 2008

Home Contact Us Announcement News & Update Online Forum search..

UTP Virtual FYP Community

Welcome to UTP Virtual FYP Community

Virtual FYP Community: Reporting and Submitting

Home Thursday, 27 March 2008

MAIN MENU

- Home
- Announcement
- News & Update
- Site Blog
- Online Forum
- Links
- Contact Us
- Search
- Recommend this site
- Administrator
- LOGIN FORM
- Username
- Password
- Remember me
- Login
- Lost Password?
- No account yet? Register
- SYNDICATE

NEWSFLASH

Final Year Project I & II provides students with opportunities to enhance skills that may not be easy to accomplish in the traditional classroom setting such as interacting with users, developing formal problem specifications, reviewing research journal, building prototypes, scientific writing and making oral presentations.

LATEST NEWS

Presentation Tip and tricks
Final Draft /interim report submission
Exhibition/PreEdx
2nd Progress Report
How to evaluate information from internet

POPULAR

Pre EDX Guideline
FYP II Briefing
Welcome to UTP Virtual FYP Communities
NEW : APA Formatting and Style Guide
FYP I Briefing

PRESENTATION TIP AND TRICKS

Written by Administrator

Hi guys... your FYP presentation just around the corner, either Pre-EDX, EDX, final presentation. Are you ready to deliver a good and effective presentation...?

Here are some tips and trick about oral presentation that you can use as guideline

Take a look and get prepare

Quick Oral Presentation Checklist

Top 7 PowerPoint presentation tips and hints that grab your audience

Guidelines for Oral Presentations 2

Guidelines for Oral Presentations 1

FINAL DRAFT / INTERIM REPORT SUBMISSION

Written by Administrator

FYP Part 2 students....


Submission of final draft / interim report...

EXHIBITION/PREEDX

Written by Administrator

FYP Part 2 students....

Exhibition/PreEdx (One day event) is schedule tentatively on Wednesday 2nd April 2008..



CALENDAR

Feb March 2008 Apr

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SECTIONS

- News and Updates
- Announcement
- Newsflashes
- FAQs

WHO'S ONLINE

We have 3 guests online

Figure 4.2: FYP Central main page (General)

This is the first page will appear when user click “FYP Central” at the welcome page, refer *Figure 4.1*. As what explain before, this page contains latest announcement and news regarding FYP. FYP Coordinator and committee will use this section as a medium of communication to update any latest info such as event, reminder of important date, news, announcement and any other information. There is a main menu at the left side of the page that contain menu like “Home”, “Announcement”, “News and Update”, “Links” archive and etc. *Figure 4.1* actually is a screen capture of FYP Central main page without login to the system. If user login to the system, there is a user menu will appear under the main menu at the left side of the page. Please refer to *Figure 4.3*. A login form is provided below the main menu for user to log into the system. The full screen shot of the FYP Central main page represented in APPENDIX C.

UTP VIRTUAL FYP COMMUNITY Thursday, 27 March 2008

Home Contact Us Announcement News & Update Online Forum search...

Universiti Teknologi PETRONAS

Virtual FYP Communities

Using Knowledge, Building our tomorrow's leaders

Home Thursday, 27 March 2008

<p>MAIN MENU</p> <p>Home</p> <p>Announcement</p> <p>News & Update</p> <p>Site Blog</p> <p>Online Forum</p> <p>Links</p> <p>Contact Us</p> <p>Search</p> <p>Recommend this site</p> <p>USER MENU</p> <p>Your Details</p> <p>Submit Announcement</p> <p>Submit News & Update</p> <p>Submit WebLink</p> <p>Check-in My Items</p> <p>Logout</p> <p>Administrator</p> <p>LOGIN FORM</p> <p>Hi, Administrator</p> <p>Logout</p> <p>SYNDICATE</p>	<p>NEWSFLASH</p> <p>Virtual FYP Communities – "An Online Knowledge Sharing and Resource Centre" is an online system that is design to be one stop online centre of information for student and lecturer of Universiti Teknologi Petronas (UTP) regarding Final Year Project (FYP), by providing an environment for collaboratively developing, freely sharing, and rapidly publishing scholarly content on the Web.</p> <p>LATEST NEWS</p> <p>Presentation Tip and tricks</p> <p>Final Draft / Interim report submission</p> <p>Exhibition/PreEdx</p> <p>2nd Progress Report</p> <p>How to evaluate information from internet</p> <p>PRESENTATION TIP AND TRICKS</p> <p>Written by Administrator</p> <p>Hi guys... your FYP presentation just around the corner, either Pre-EDX, EDX, final presentation. Are you ready to deliver a good and effective presentation...?</p> <p>Here are some tips and trick about oral presentation that you can use as guideline</p> <p>Take a look and get prepare</p> <p>Quick Oral Presentation Checklist</p> <p>Top 7 PowerPoint presentation tips and hints that grab your audience</p> <p>Guidelines for Oral Presentations 2</p> <p>Guidelines for Oral Presentations 1</p> <p>FINAL DRAFT / INTERIM REPORT SUBMISSION</p> <p>Written by Administrator</p> <p>EXHIBITION/PREEDX</p> <p>Written by Administrator</p> <p>FYP Part 2 students....</p> <p>Exhibition/PreEdx (One day event) is schedule tentatively on Wednesday and April 2008.</p>	<p>POPULAR</p> <p>Pre EDX Guideline</p> <p>FYP II Briefing</p> <p>Welcome to UTP Virtual FYP Communities</p> <p>NEW: APA Formatting and Style Guide</p> <p>FYP I Briefing</p> <p>CALENDAR</p> <p>Feb March 2008 Apr</p> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>S</th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>S</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> </tr> <tr> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> </tr> <tr> <td>9</td> <td>10</td> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> </tr> <tr> <td>16</td> <td>17</td> <td>18</td> <td>19</td> <td>20</td> <td>21</td> <td>22</td> </tr> <tr> <td>23</td> <td>24</td> <td>25</td> <td>26</td> <td>27</td> <td>28</td> <td>29</td> </tr> <tr> <td>30</td> <td>31</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>SECTIONS</p> <p>News and Updates</p> <p>Announcement</p> <p>Newsflashes</p> <p>FAGS</p> <p>WHO'S ONLINE</p> <p>We have 1 guest and 1 member online</p> <p>admin</p>	S	M	T	W	T	F	S							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
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Figure 4.3: FYP Central main page (registered user)

The above main page will appear when user login to the system. Basically this view of FYP Central main page is almost the same like main page that without login to the system. The only different is when user login to the system a new menu called "User Menu" will appear, which is place under the main menu. This menu is more like control panel that allow user to edit user profile and also to insert new data such as new announcement and news. It contains a link like "Your Detail", "Submit Announcement", "Submit News & Update" and also "Submit Web link". User can use the correct link to submit new updates, announcement or web links. User can click on "Your Detail" in order to update or modify user name, email address, and also password.

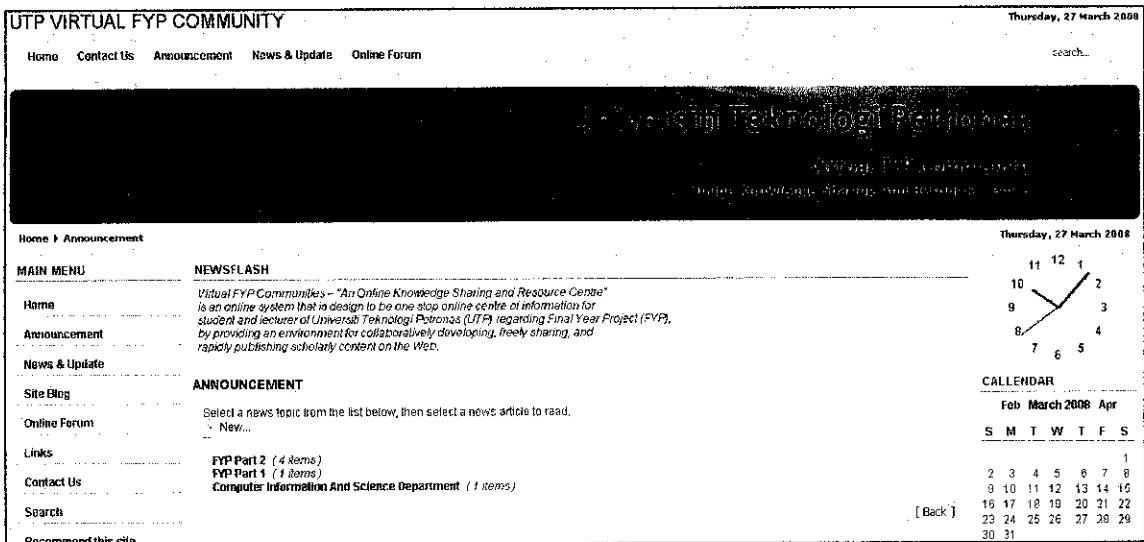


Figure 4.4: Announcement category

In order to view latest announcement, user just can click at the mainpage as it sort by latest date. If user what to view previous or all available announcement, user can click at “announcement” at the main menu. This page will appear which show the category of the announcement, refer *figure 4.4*. The category are “FYP part 2”, “FYP Part 1” and “CIS Department”.

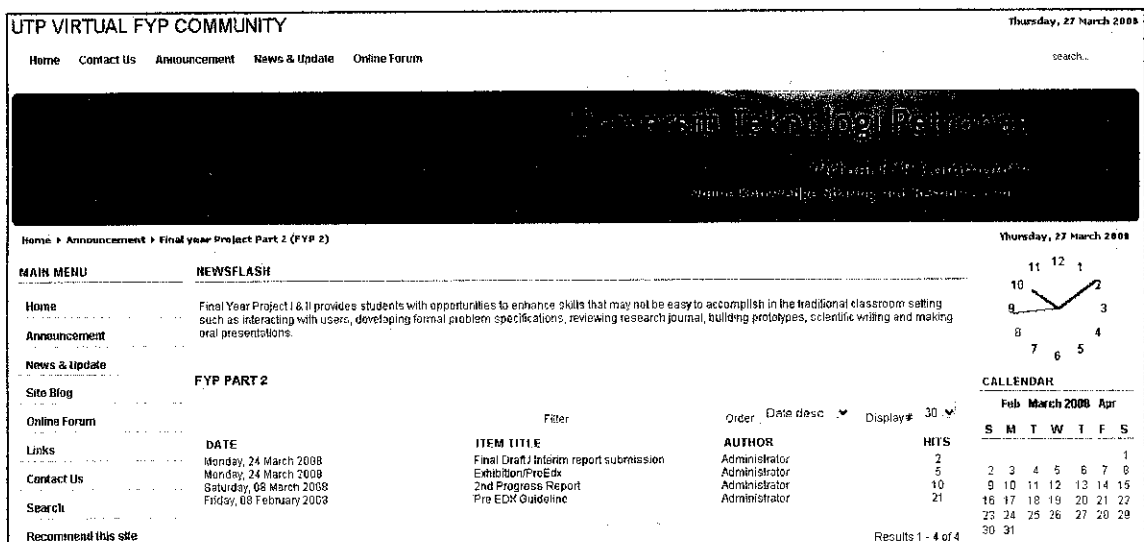


Figure 4.5: Announcement list

Above screenshot show list of announcement available in category “FYP Part2”. This page will appear when user click to the category stated in *Figure 4.4*. User just click the the respective announcement in order to view it. The announcement detail will be display in new windows.

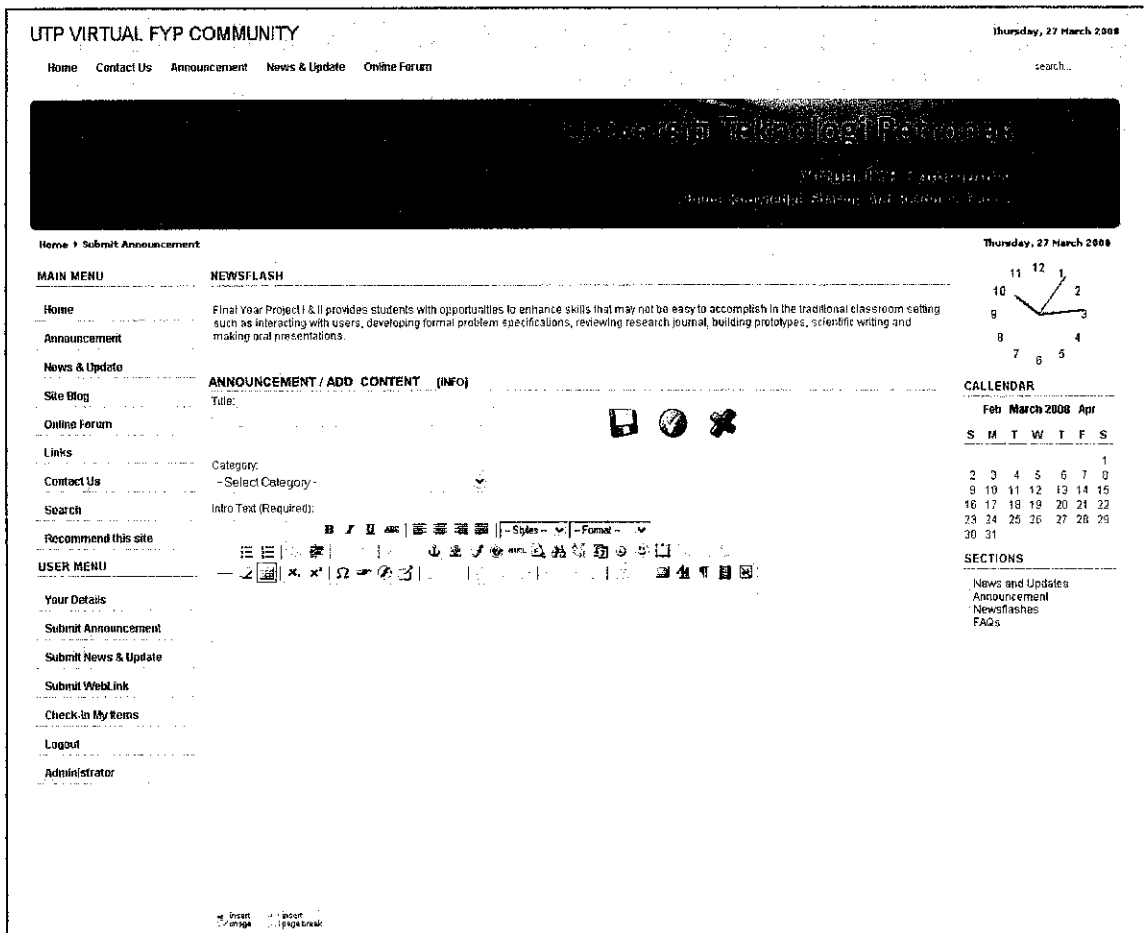


Figure 4.6: Add Content (Announcement / news and update)

FYP coordinator and other FYP committee can add new announcement, add new news and updates at anytime and anywhere in the world as long as they has a internet connection. They just have to log in to the system. *Figure 4.4;* show the page how to add new content. Same method is using to both add announcement and add news. Basically this page contains a form that allow user to write content. Firstly user has to enter title of the content, than select content category from the drop down menu provide either FYP1, FYP2, General, CIS Department and etc. And finally user has to write the content itself. The tools provided are simple and user friendly. “What you see is what you get” (WYSIWYG) method has been use in order to provide smooth process of inserting or submitting data. What is mean here is, what actually user input is going to be display exactly same, in term of formatting and paragraph.

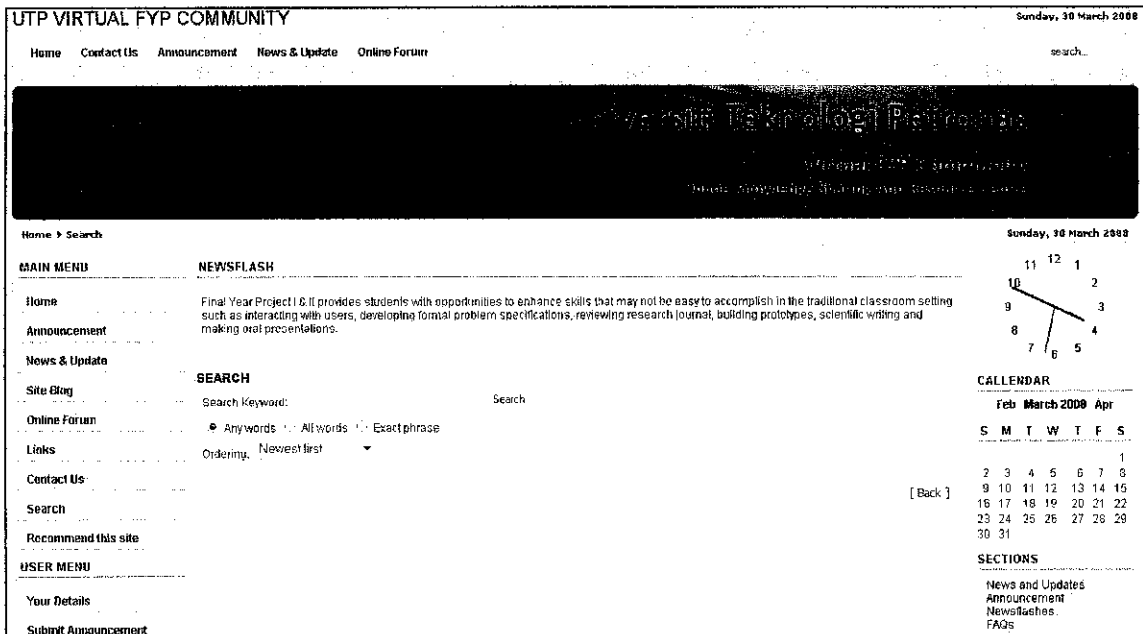


Figure 4.7: Search

Figure 4.7; show a screenshot from a search page provided in the system. Author strongly believes that search function is one of the most important features in a web based application. Adding a search function on a web site helps visitors find information really quickly.

There are 3 steps for user in order to make a searching process, firstly user have to insert a keyword, then user can choose either to for search engine search based on “any word”, “All word” or “Exact phrase”. Finally user can select the ordering for the result that going be display such as by newest first, by oldest first, by most popular, by alphabetical and by section/category. The full screen shot of the sample of search result represented in APPENDIX D.

Benefit of having a search function:

- Easier site navigation.
- Give visitors more control.
- Reveal the hidden Web.

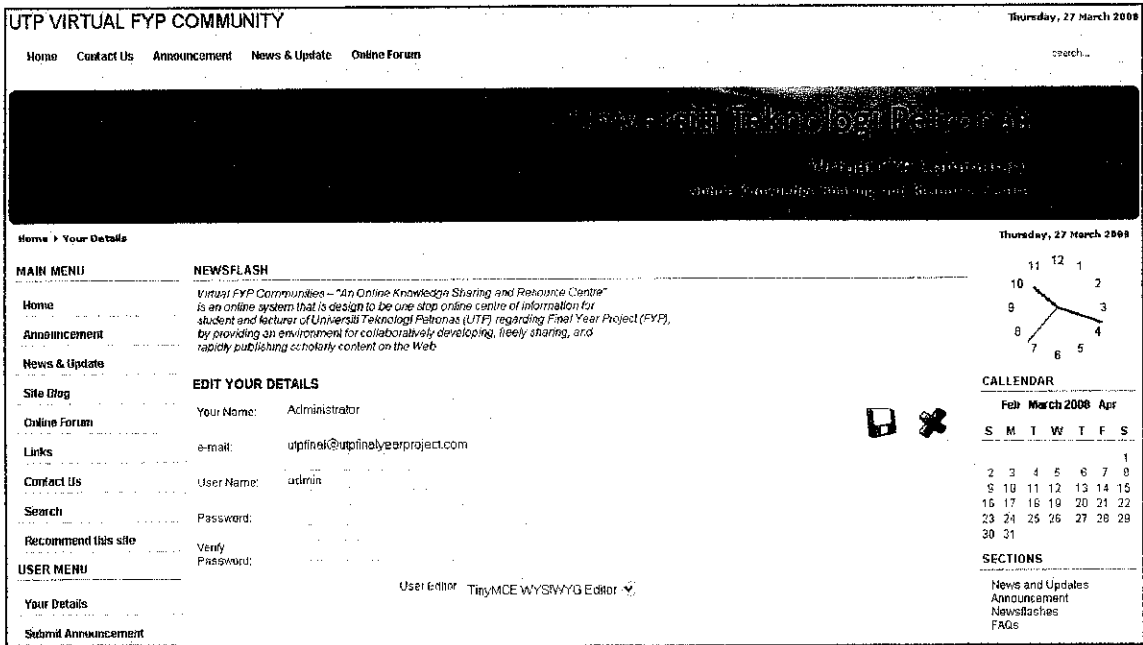


Figure 4.8: Edit user detail

Figure 4.7 is the screenshot of page “Edit your details”. This page basically allow user to edit their details such as name, email, username for the system and also password. These features actually focus an offering user to manage their identity in the forum, especially on security concern.

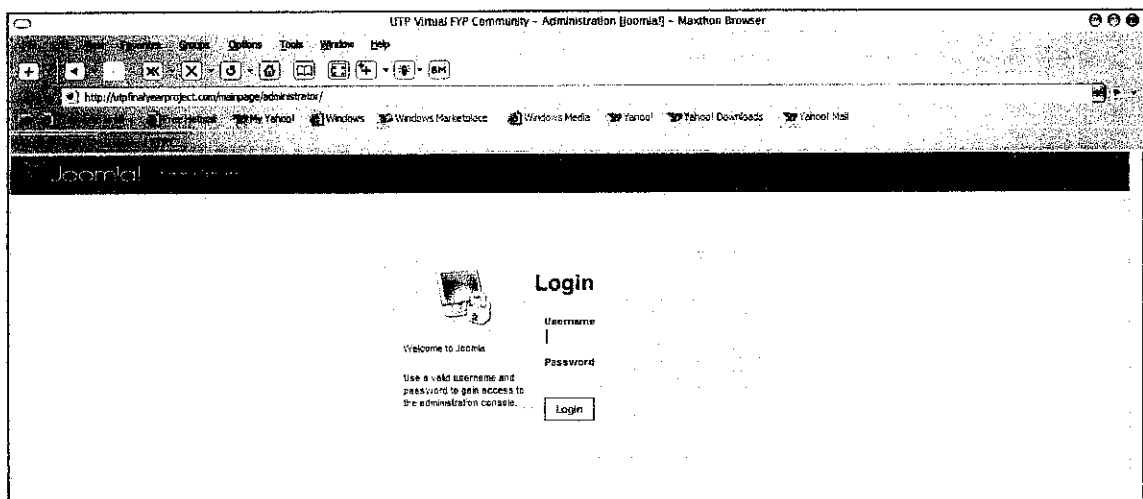


Figure 4.9: Administrator Login

Figure 4.9 show a screenshot of administrator login page. This is the main door for system administrator to access to the control panel of the system. As usual, administrator has to fill both username and password field for authentication purpose. And to prevent from any unauthorized access.



Figure 4.10: Administrator control panel

Joomla permits administrators to set global configuration parameters that affect all articles. Every page conforms to these parameters by default, but a page can have its own setting for each parameter. For example, administrator can elect to show the article author, hide the author, or simply go with the global "show author" parameter. *Figure 4.10* show the screenshot of administrator control panel.

A forum administrator typically has the ability to edit, delete, move or otherwise modify any thread on the forum. Administrators also usually have the ability to close the board, change major software items, change global skins, modify the board, and ban, delete, or create members. Moderators have a subset of these powers, which may include editing, deleting, and moving threads, mass pruning, warning members for offences, and changing minor forum details. It is often possible for moderator privileges to be delegated to other forum members.

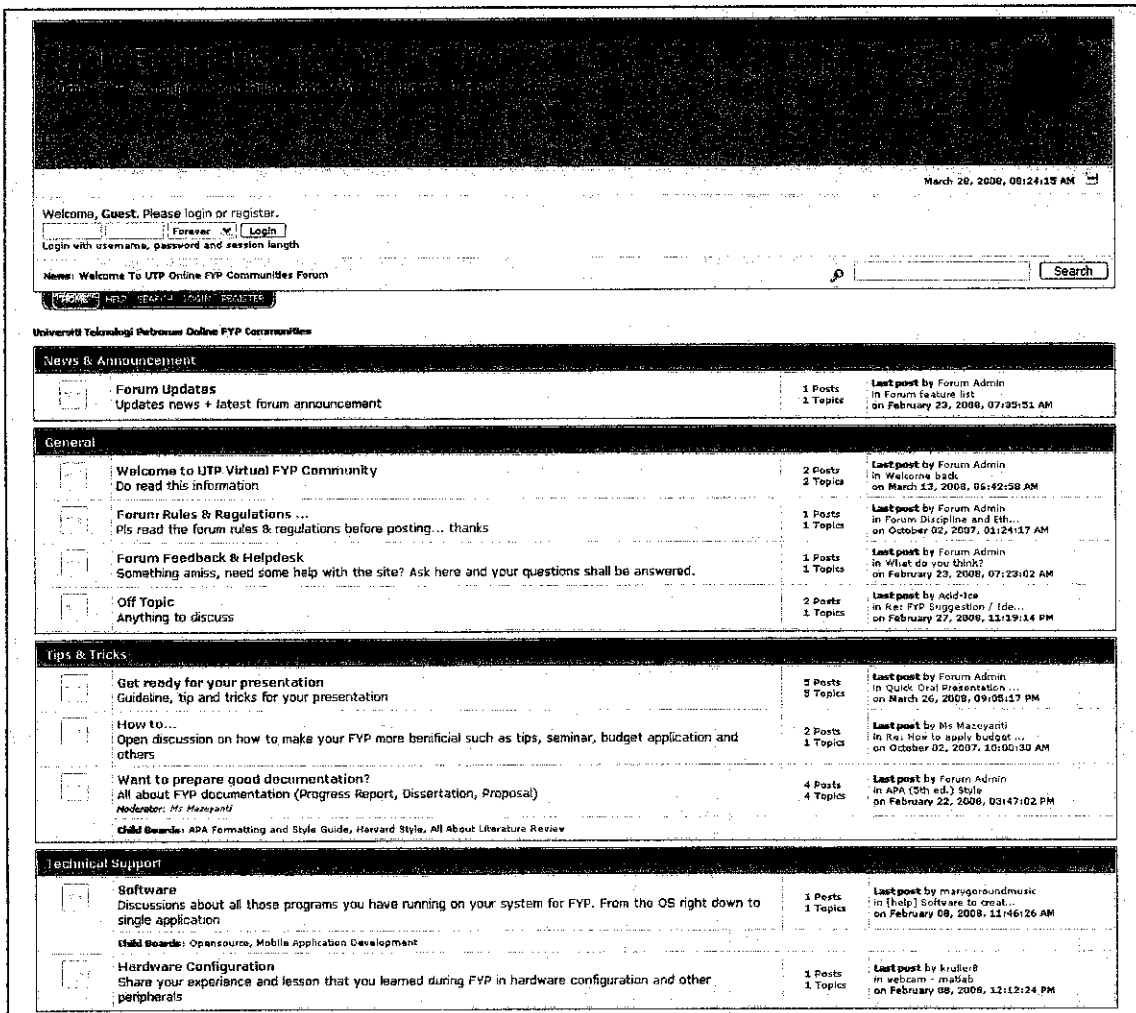


Figure 4.11: Online Forum main page

Figure 4.11 show a screen capture of the main page of online forum for this project. Online forum is the second main part of the overall project. In order to access to this forum, user just have to click on “Forum” at the welcome page refer figure 4.1. As usual an Internet forum is a web application for holding discussions and posting user generated content. Basically at the main page, refer figure 4.11 there are several main board or section that contain a number of child board. For example, there are main boards named “Tips & Tricks” which contain several child boards that related to it. By having category or section, will ensure that all information store in the correct place. This will provide more systematic management of data and resource. In order to view a specific thread, users just have to click the topic of child board that relates to topic that what users actually want. For example user click on “Get ready for your presentation” which is under “Tips & Tricks”, it will bring user to the page that list all the available thread under this category, refer figure 4.12.

4.6 Bandwidth, traffic and usage analysis

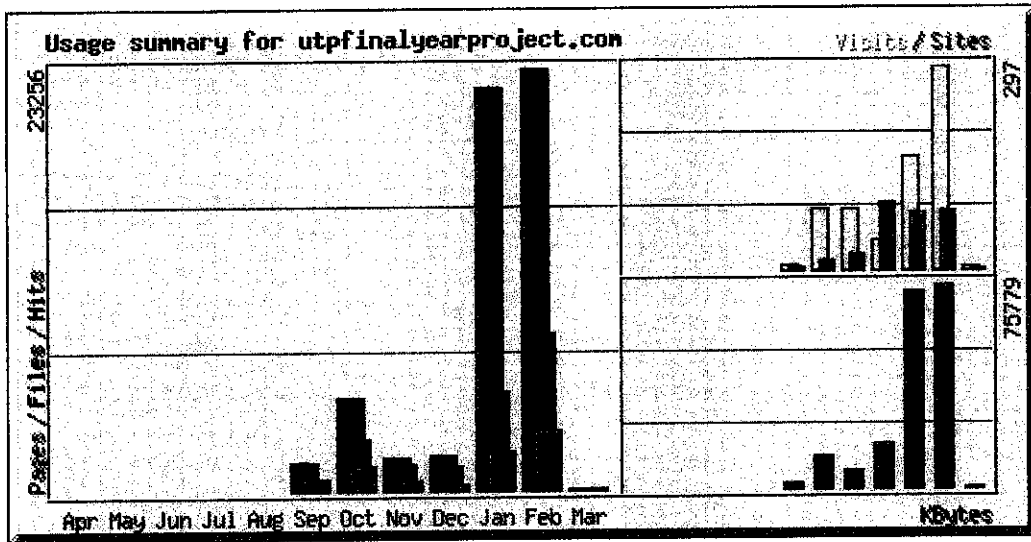


Figure 4.6: Summary period (Last 12 month)

In this section, author focusing on bandwidth, traffic and usage analysis for www.utpfinalyearproject.com which is important in order to find out what is the pattern of the traffic of the system. From the analysis, author can provide with further plan to improve the flow. *Figure 4.6;* show the summary period for last 12 month. This statistic is being taken on March 2, 2008.

Month	Daily Average			Monthly Totals						
	Pages	Files	Hits	Visits	Sites	KB	Visits	Sites	KB	Visits
Mar 2008	98	71	29	5	2	394	5	29	71	98
Feb 2008	801	296	113	10	85	75779	297	3278	8602	23256
Jan 2008	716	175	68	5	84	73009	164	2128	5436	22208
Dec 2007	61	42	10	1	98	16565	43	327	1310	1900
Nov 2007	65	53	16	3	22	6240	89	475	1487	1831
Oct 2007	170	94	43	2	14	11805	89	1299	2827	5105
Sep 2007	790	341	310	4	4	1736	9	621	683	1580
Totals						185528	696	8157	20416	55978

Table 4.2: Usage summary (Last 12 Month)

Basically the flow started on September 29, 2007, which is the registration date for the domain. From the bar chart author can summarized that the first four month the traffic is quite low, this is because of the system is still under development process. Then, on

January and February 2008, the system is being uploaded to the domain in order to run continuous online testing. We can see that the “Hits” on January and February is more than 20000. Started on January 2008 onwards the development and testing process is done at the same time. Which is every development or modification done to the system will be uploading and tested online. These is because the system is already up and running and operate, the author try to make it available for user 24/7.

Besides that, once the system is up and running on the web. Author start to fill the forum and the system with new data and content such as lesson learnt, announcement and news. And also continuing promotes and focuses on publicity of the site. These also affect the flow of the traffic. The usage become higher due to people start takes a look on new site especially UTP student and lecturer. *Refer Table 4.2;* for more detail on daily and monthly statistics for the last 12 month.

With the increase of the traffic from month to month, here author can summarize that the community accept the concept of knowledge management. Where people are willing to share knowledge and their experience because of they realize the important of the knowledge itself. Thus “Knowledge Culture” has been successfully implemented in Universiti Teknologi PETRONAS.

From the analysis, author can also conclude that, the project really meet the entire objective that creates in the beginning of the project development, which is to develop a one stop online centre of information, to develop and design a application which capable of keep, sharing and reuse knowledge within community, to design a medium to manage and organize crucial and important information and knowledge (lesson learnt, best practices, experiences) by applying the idea of knowledge management concept.

4.7 Usage Statistics for utpfinalyearproject.com (February 2008)

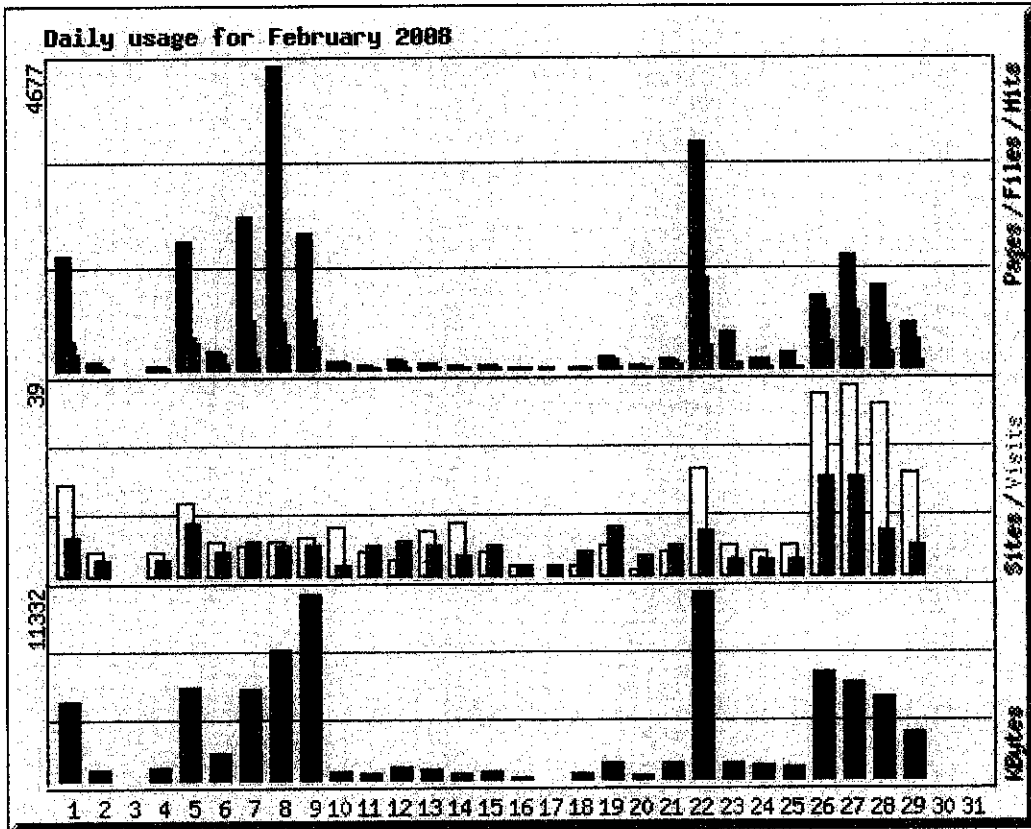


Figure 4.7.1: Daily usage for February 2008

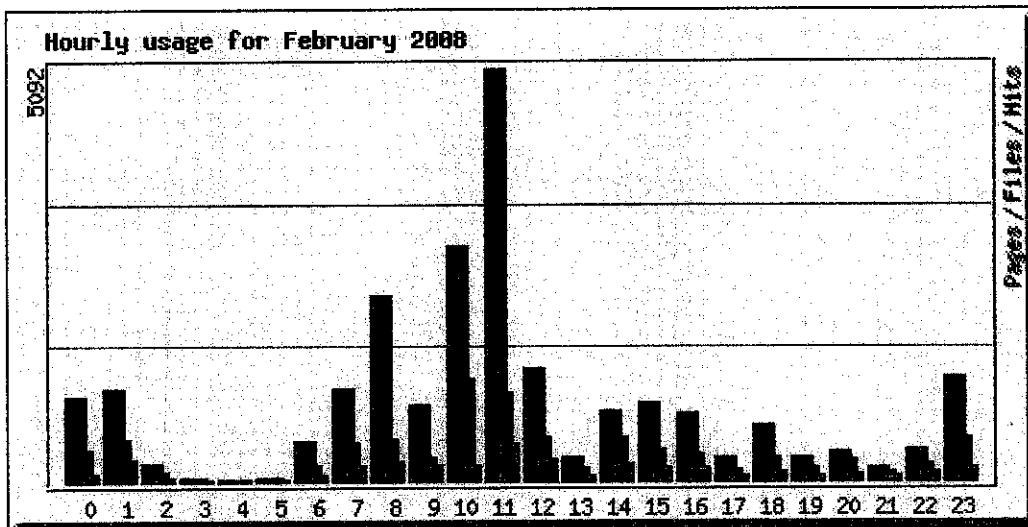


Figure 4.7.2: Hourly usage for February 2008

4.8 User acceptance test survey

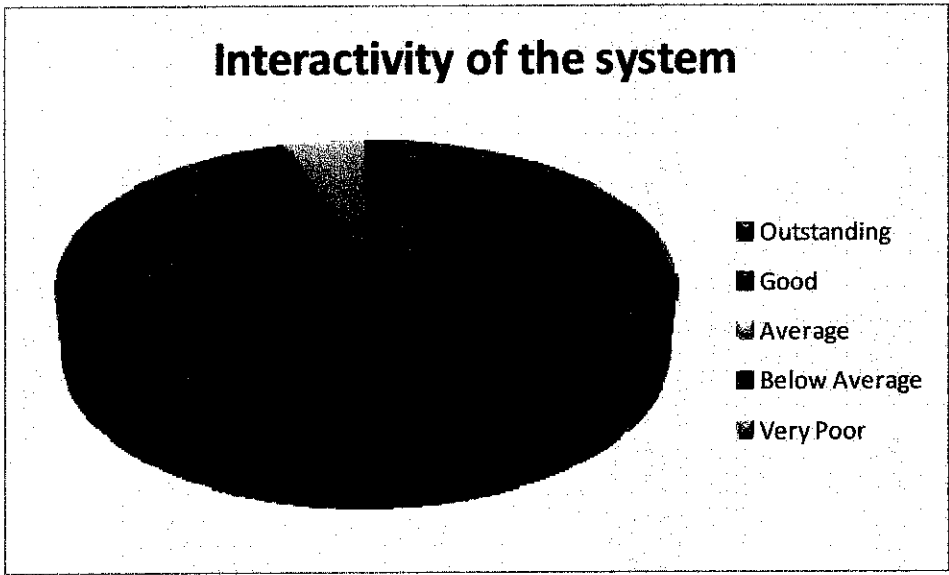
The survey on user acceptance test was being conducted on twenty samples. The target samples are from different knowledge level. Some of them are student that haven't go for internship, final year student and also FYP committee member which is among lecturer in Computer and Information Science Department. The survey was being taken on seven points which are the interactivity, system interface, system flow, and functionality, visibility of the system, aesthetic value and also contribution to the community.

The interactivity of the system includes how interactive the system is and how far the system can maintain user's interest in using the system. The system interfaces include the graphic design, the layout of each element of the system and the pleasure that the system provide to the user. System flow more focus on the integration between pages to another pages. It shows how far the flow of the system eases the user in navigating and interacting with the system. Functionality is focusing on the importance of the function included in the system as well as the usefulness of the data. Visibility of the system status is the evaluation on informing user on the page that user currently visiting and what the action the user taken. Aesthetic value and minimalist design is the evaluation on the system content, whether it contains enough relevant data within the page to be useful for the user. Scale from 1 to 5 is being use for the measurement of each point.

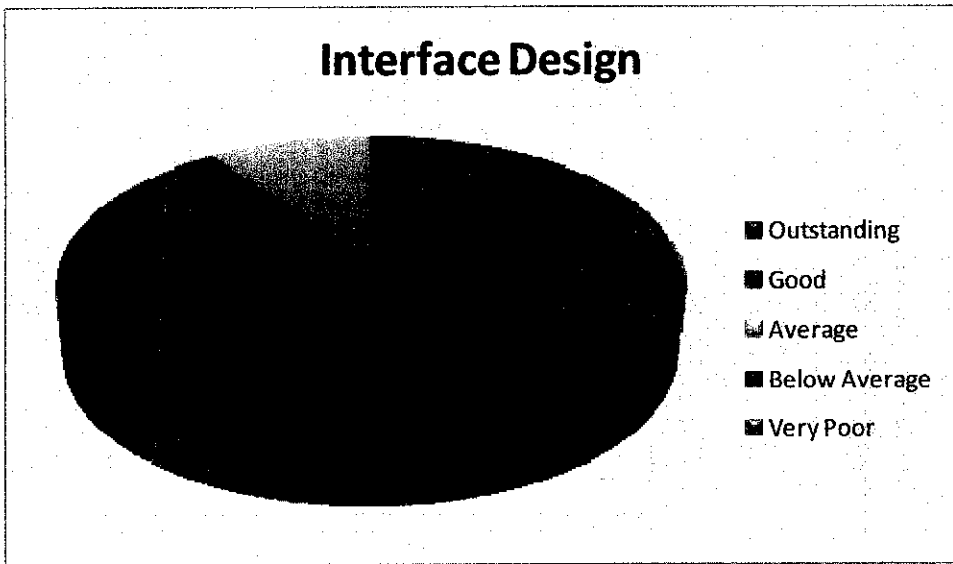
The sample of survey questionnaire – is represented in **APPENDIX B**

	Outstanding	Good	Average	Below Average	Very Poor	Total
Interactivity	6	13	1	0	0	20
Interface	7	11	2	0	0	20
System Flow	8	11	0	1	0	20
Functionality	7	7	5	1	0	20
Visibility	9	8	3	0	0	20
Aesthetic Value	5	10	5	0	0	20
Contribution	6	12	1	1	0	20

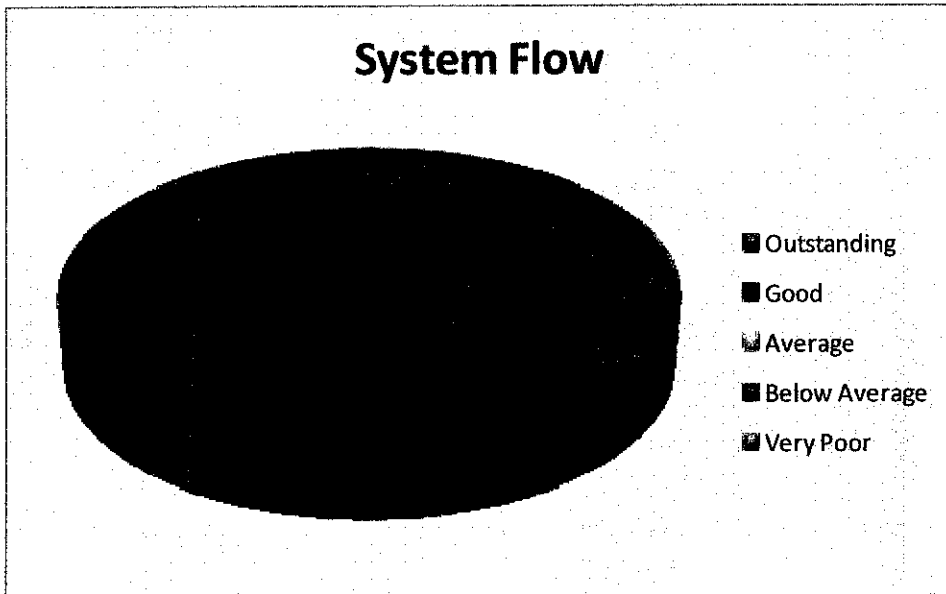
Table 4.3: Survey Result



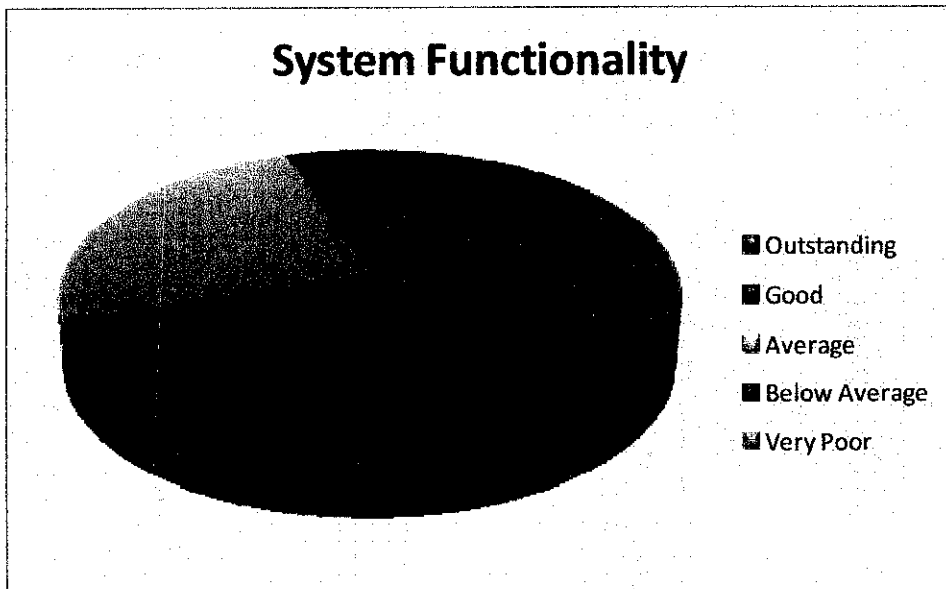
4.8.1: Survey result for interactivity of the system



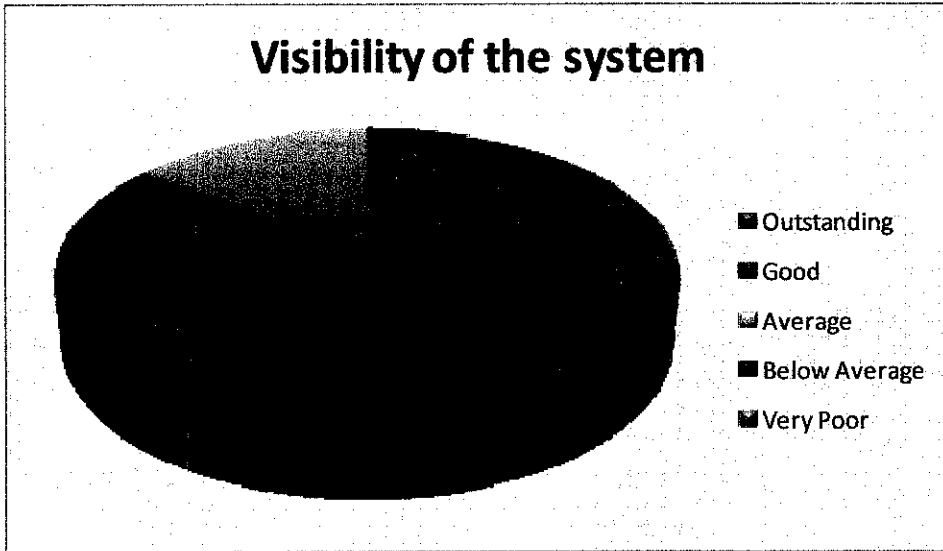
4.8.2: Survey result for interface design



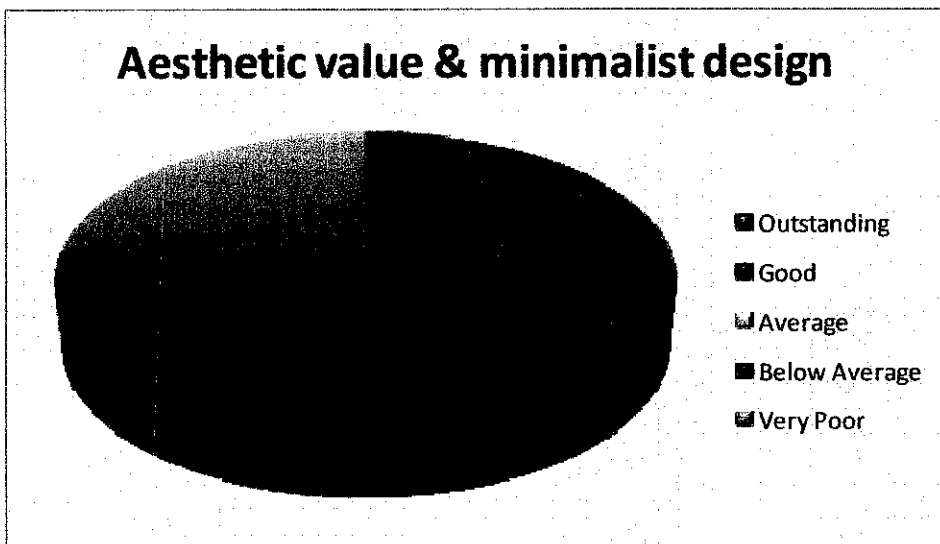
4.8.3: Survey result for System Flow



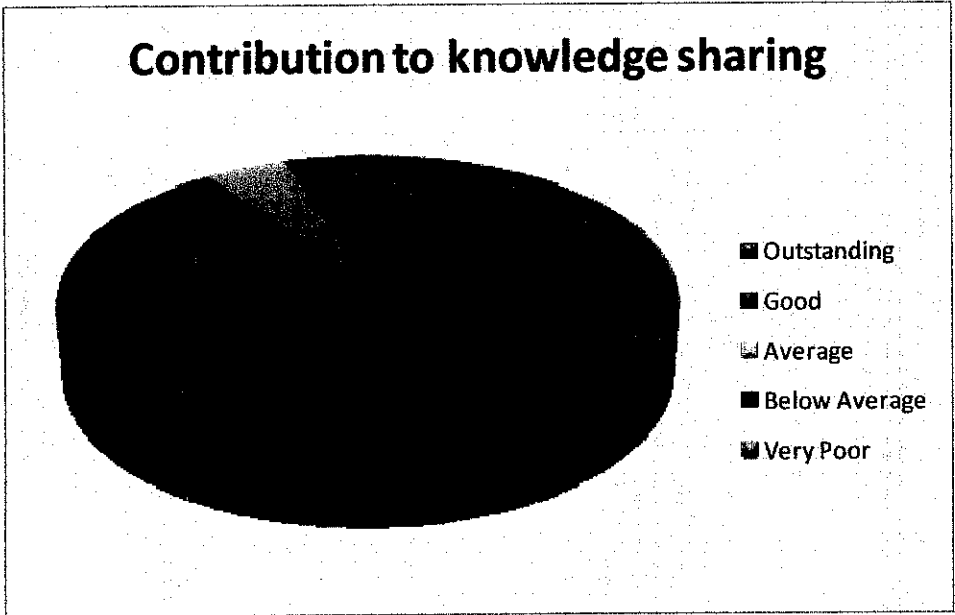
4.8.4: Survey result for system functionality



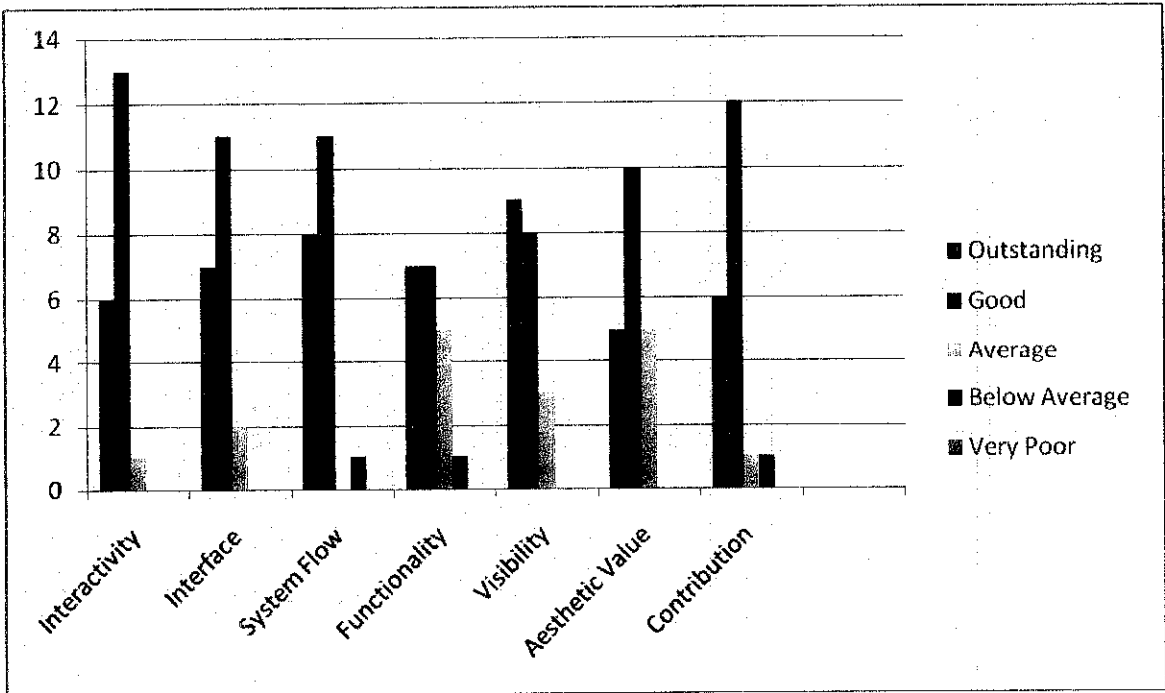
4.8.5: Survey result for visibility of the system



4.8.6: Survey result for esthetic value and minimalist design



4.8.7: Survey result for esthetic value and minimalist design



4.8.8: Survey result (Bar Graph)

CHAPTER 5

RECOMMENDATION AND CONCLUSION

Be successfully created a web based knowledge management, it believed that the author had achieved the initial aims and objectives that are specified earlier. This project could be a stepping for the organization to incorporate knowledge management concept to manage their knowledge capital which evidently crucial for every competitive organization. UTP Virtual FYP community is a subset of knowledge management and hence the author tried to instill as many elements of knowledge management as possible into the system.

By creating a virtual workplace where user can share their knowledge, expertise, experience and lesson learned, the objective of this project has been met. Users are able to use the system to share latest and new information with others that create knowledge among its users.

Categorization of attributes enables user to join into identifiable groups that interest them for instance. Search tool which enable user to search a particular topic in an advance level were also built into the system which enhances the functionality of the system beside assisting the process of discovering knowledge

5.1 Suggested future work for expansion and continuation

There are several suggestion and recommendation that can be done to improve the functionality of this project, so that the next version of the system will have increased in functionality, flexibility and scalability.

5.1.1 KM enabler

Add more KM enablers such as content management systems, corporate 'Yellow pages' directories, email lists, wikis, blogs, and other technologies to facilitate knowledge management practice in organization. Each enabling technology can expand the level of inquiry available to an employee, while providing a platform to achieve specific goals or actions

5.1.2 Enhance user interface

User interface should also be enhancing in order to really accommodate individual user preference. Up to this point of time, the creation of user interface is just based on several groups of people preferences (the developer, the focal person of the project and also project supervisor) focus on minimalistic which is simple and nice. Survey may need to be conducted in order to know what kind of user interface is more preferable and up to date with current style and design. Deeper study may need to be performed base on findings.

5.1.3 Online forum

For online forum, there should be a moderator and admin that monitor all the content in every second to avoid any explicit content. It may be a bit hard to achieve since it required a human resource. This responsibility may take a full of commitment, because it required both person to control the flow of the forum. A forum administrator typically has the ability to edit, delete, move or otherwise modify any thread on the forum. Moderators have a subset of these powers, which may include editing, deleting, and moving threads, mass pruning, warning members for offences, and changing minor forum details. It is often possible for moderator privileges to be delegated to other forum members.

5.1.4 Incorporating data mining and intelligent agent

By incorporating artificial intelligent and data mining into the system, a pattern on user preferences and behaviors interacting with the system can be capture. By studying the

pattern, the element of the effectiveness of knowledge management can be measured. The behaviors concept describe characteristic of user interact with the system. This information is capture can be later used to classified stereotypes group such as readers, writer or editor. As a result, user could learn at which level they are and the management could see the pattern of improvement user of the system. Artificial intelligent can also be used to enhance the searching tool to enable better navigation and more accurate search result that meet user need.

5.2 Conclusion

The purpose of this project is to study and implement important of knowledge management that enables organization to manage their knowledge capital. People in organization often overlooked the important assets lies within the community itself. Organization is build of people with knowledge and expertise in distinct field and these people carried knowledge with them that cannot be simply search or obtained from other sources. Research show how important is knowledge capital is for a business and education. Hence, the system develops aimed to solve a problem of losing the asset and provide a way to manage capital asset by cooperating knowledge management concept into it. Though the develop system can serve as a beneficial tool for organization to manage their knowledge capital. It still requires a full management support and clear mission of the company in order to create the culture of learning and gained knowledge within organization.

These reports contain the finalized work and result of the projects and serves as key milestone to overall project. With the given timeframe and adequate resource, the objective of this project has been achieved and development of the system has proven to be very successful.

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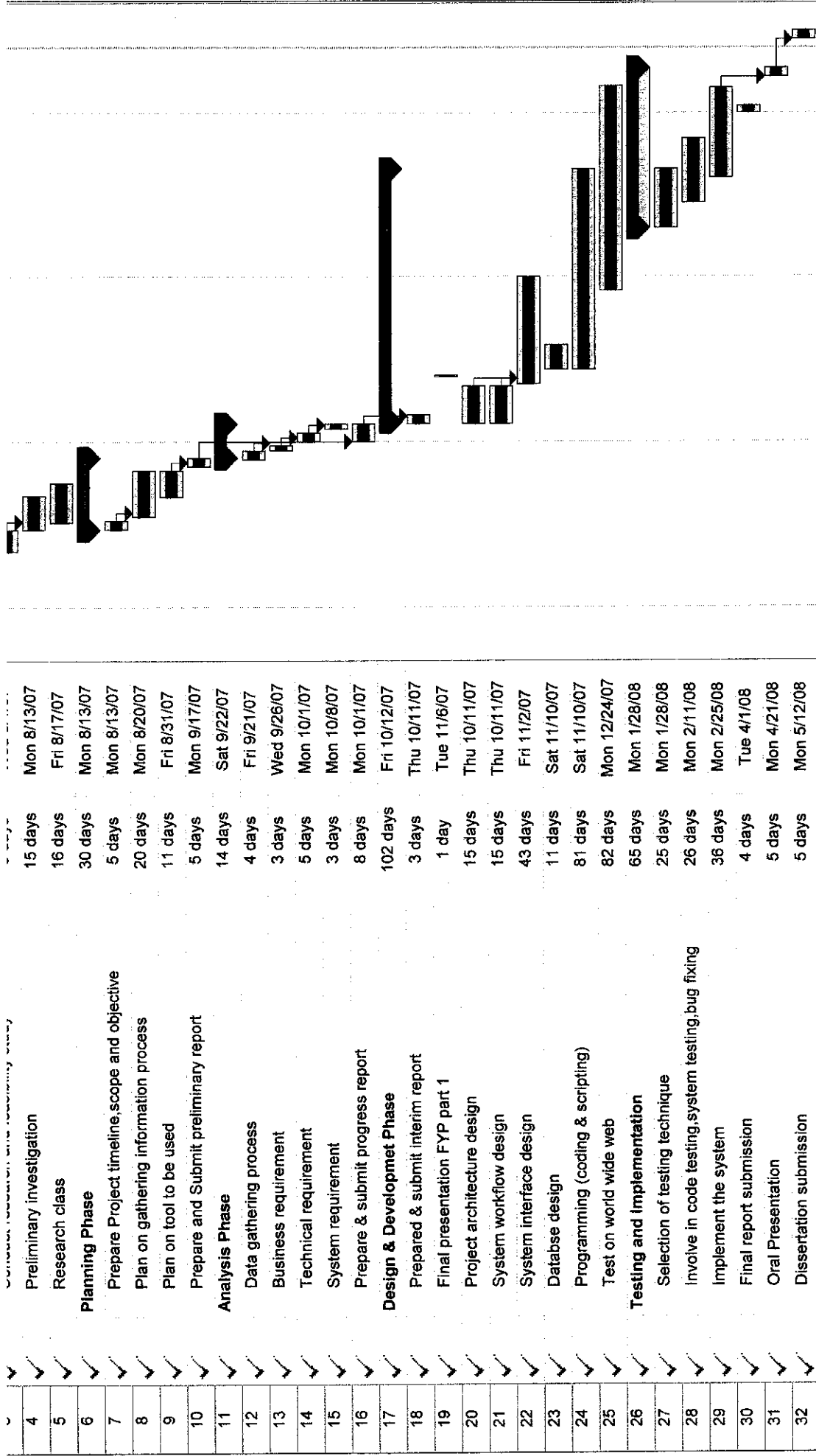
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APPENDIX A

Project Gantt chart



Project: Gant chart
Date: Wed 5/7/08

█ Task
 ◆ Milestone
 █ External Tasks
⋯ Split
 ▬ Summary
 ◆ External Milestone
█ Progress
 ▬ Project Summary
 ↗ Deadline

APPENDIX B

Questionnaire

Questionnaire

This questionnaire will act as an evaluation form on the project that will be tested as part of the fulfillment on UTP Final Year Project. Your cooperation is highly appreciated)

Kindly, please logon to www.utpfinalyearproject.com to view the project

Tick [] where appropriate

1. **How do you find the interactivity of the system?**

(Ease of use, instructiveness, attractiveness)

1 [] Very Poor 2 [] Below average 3 [] Average 4 [] Good 5 [] Outstanding

Comments / Suggestions: _____

2. **How do you find the system interface design?**

(User friendly interface, graphic design, easy to understand, interface layout)

1 [] Very Poor 2 [] Below average 3 [] Average 4 [] Good 5 [] Outstanding

Comments / Suggestions: _____

3. **How do you find the system flow?**

(Navigation, link, easy to understand)

1 [] Very Poor 2 [] Below average 3 [] Average 4 [] Good 5 [] Outstanding

Comments / Suggestions: _____

6. How do you find the system functionality?

(System function and features)

Very Poor 2 Below average 3 Average 4 Good 5 Outstanding

Comments / Suggestions: _____

6. How do you find the visibility of system status?

(User acknowledgement of viewing page, what it is for and action that can be taken)

Very Poor 2 Below average 3 Average 4 Good 5 Outstanding

Comments / Suggestions: _____

6. How do you find the system aesthetics value and minimalist design?

(System content, relevant and useful data for user)

Very Poor 2 Below average 3 Average 4 Good 5 Outstanding

Comments / Suggestions: _____

7. How do you find the system can contribute to knowledge sharing?

(System usefulness, attractive features, online collaboration, content management)

Very Poor 2 Below average 3 Average 4 Good 5 Outstanding

Comments / Suggestions: _____

Thank You

APPENDIX C

Full screenshot of the FYP Central main page



Home

Thursday, 27 March 2008

MAIN MENU

- [Home](#)
- [Announcement](#)
- [News & Update](#)
- [Site Blog](#)
- [Online Forum](#)
- [Links](#)
- [Contact Us](#)
- [Search](#)
- [Recommend this site](#)
- [Administrator](#)
- LOGIN FORM**
- [Username](#)
- [Password](#)
- Remember me
- [Login](#)
- [Lost Password?](#)
- [No account yet? Register](#)
- SYNDICATE**

NEWSFLASH

Final Year Project I & II provides students with opportunities to enhance skills that may not be easy to accomplish in the traditional classroom setting such as interacting with users, developing formal problem specifications, reviewing research journal, building prototypes, scientific writing and making oral presentations.

LATEST NEWS

- [Presentation Tip and tricks](#)
- [Final Draft / Interim report submission](#)
- [Exhibition/PreEdx](#)
- [2nd Progress Report](#)
- [How to evaluate information from internet](#)

POPULAR

- [Pre EDX Guideline](#)
- [FYP II Briefing](#)
- [Welcome to UTP Virtual FYP Communities](#)
- [NEW: APA Formatting and Style Guide](#)
- [FYP I Briefing](#)

PRESENTATION TIP AND TRICKS

Written by Administrator

Hi guys... your FYP presentation just around the corner, either Pre-EDX, EDX, final presentation. Are you ready to deliver a good and effective presentation...?

Here are some tips and trick about oral presentation that you can use as guideline
Take a look and get prepare

Quick Oral Presentation Checklist

Top 7 PowerPoint presentation tips and hints that grab your audience

Guidelines for Oral Presentations 2

Guidelines for Oral Presentations 1

FINAL DRAFT / INTERIM REPORT SUBMISSION

Written by Administrator

FYP Part 2 students...

Submission of final draft / interim report...

4th April 2008, Week 10

(To be graded as dissertation) – **No extension!**

Towards the submission, students should be able to explain in writing about the contents of the project and its significance, like the problem statement, objectives, scope, literature review, methodology used, results, conclusions and recommendations.

[Read more...](#)

More...
[2nd Progress Report](#)

EXHIBITION/PREEDX

Written by Administrator

FYP Part 2 students...

Exhibition/PreEdx (One day event) is schedule tentatively on Wednesday 2nd April 2008..

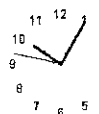
Any changes on date will be updated later...

Thanks

[Read more...](#)

2 3 4 Next > End >>

Results 1 - 4 of 13



CALENDAR

Feb March 2008 Apr

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SECTIONS

- [News and Updates](#)
- [Announcement](#)
- [Newsflashes](#)
- [FAQs](#)

WHO'S ONLINE

We have 3 guests online

APPENDIX D

Full screenshot of the sample of search result



Home > Search

Thursday, 27 March 2008

MAIN MENU

Home

Announcement

News & Update

Site Blog

Online Forum

Links

Contact Us

Search

Recommend this site

Administrator

NEWSFLASH

Virtual FYP Communities - "An Online Knowledge Sharing and Resource Centre" is an online system that is design to be one stop online centre of information for student and lecturer of Universiti Teknologi Petronas (UTP) regarding Final Year Project (FYP), by providing an environment for collaboratively developing, freely sharing, and rapidly publishing scholarly content on the Web.

SEARCH

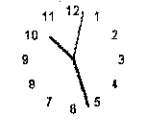
Search Keyword: FYP Search

Any words All words Exact phrase

Ordering: Newest first

Search Keyword FYP
Total 13 results found. Search for [FYP] with Co. gic

Results 1 - 13 of 13 30



CALENDAR

Feb March 2008 Apr

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SECTIONS

News and Updates
Announcement
Newsfashes
FAQs

1. Presentation Tip and tricks
(News and Updates/General)
Hi guys... your FYP presentation just around the corner, either Pre-EDX, EDX, final presentation. Are you ready to deliver a good and effective presentation...? Here are some tips and trick
Wednesday, 26 March 2008
2. Final Draft / Intern report submission
(Announcement/Final year Project Part 2 (FYP 2))
FYP Part 2 students... Submission of final draft / Intern report... 4th April 2008, Week 10 (To be graded as dissertation) - No extension
Towards the
Monday, 24 March 2008
3. Exhibition/PreEdx
(Announcement/Final year Project Part 2 (FYP 2))
FYP Part 2 students... Exhibition/PreEdx (One day event) is schedule tentatively on Wednesday 2nd April 2008. Any changes on date will be updated later... Thanks nbsp;nbsp;
Monday, 24 March 2008
4. 2nd Progress Report
(Announcement/Final year Project Part 2 (FYP 2))
Dear students FYP part 2 The second Progress Report is due on Wednesday, 19th March 2008
Saturday, 08 March 2008
5. How to evaluate information from Internet
(News and Updates/General)
...L Finding Information on the Internet UTP FYP Online forum Tip & Tricks nbsp;nbsp;
Wednesday, 27 February 2008
6. Pre EDX Guideline
(Announcement/Final year Project Part 2 (FYP 2))
PRE-ENGINEERING DESIGN EXHIBITION (EDX) Final Year Research Project Click here
Friday, 08 February 2008
7. FYP guidelines
(News and Updates/General)
Final Year Research Project Guidelines for Supervisors and Students Click here to view
Friday, 08 February 2008
8. NEW: APA Formatting and Style Guide
(News and Updates/General)
APA Formatting and Style Guide Want to start writing a good report? APA guideline will help you in formatting your report... Click to view
Footnotes and Endnotes In-Text Citations: Author's
Thursday, 07 February 2008
9. FYP I Briefing
(Announcement/Final Year Project Part 1 (FYP 1))
Dear students, FYP briefing is scheduled as follows; Day: Tuesday Date: 22nd January 2008 Time: 5 - 6 pm Venue: D3 Attendance is compulsory; Forum Admin on behalf of FYP Committee
Monday, 21 January 2008
10. FYP II Briefing
(Announcement/ICT and BIS)
Dear students, The FYP II briefing is as follows; Date: 22nd January 2008 Day: Tuesday Time: 6.00 - 7.00 pm Venue: D3 Attendance is compulsory; Forum admin on behalf of FYP Committee
Monday, 21 January 2008
11. Come and Join our forum
(News and Updates/General)
Care to share your FYP stories with FYP newbies? Feel free to jot down your comments/experiences wisely and ethically at
http://www.utpfinalyearproject.com/fypforum (an online sharing pl
Monday, 21 January 2008
12. Welcome to UTP Virtual FYP Communities
(Newsfashes/Newsflash)
Virtual FYP Communities - "An Online Knowledge Sharing and Resource Centre" is an online system that is design to be one stop online centre of information for student and lecturer of
Thursday, 17 January 2008
13. UTP Virtual FYP Community Administrator
(Contact / Contacts)
UTP Virtual FYP Community Administrator, Administrator,

[Back]

APPENDIX E

Full screenshot of the Main Page of the online forum

March 28, 2008, 08:24:15 AM

Welcome, Guest. Please login or register.

Forever Login
Login with username, password and session length

News: Welcome To UTP Online FYP Communities Forum

Search

HELP SEARCH LOGIN REGISTER

Universiti Teknologi Petronas Online FYP Communities

News & Announcement

	Forum Updates Updates news + latest forum announcement	1 Posts 1 Topics	Last post by Forum Admin in Forum feature list on February 23, 2008, 07:35:51 AM
--	--	---------------------	---

General

	Welcome to UTP Virtual FYP Community Do read this information	2 Posts 2 Topics	Last post by Forum Admin in Welcome back on March 13, 2008, 06:42:58 AM
	Forum Rules & Regulations ... Pls read the forum rules & regulations before posting... thanks	1 Posts 1 Topics	Last post by Forum Admin in Forum Discipline and Ethic... on October 02, 2007, 01:24:17 AM
	Forum Feedback & Helpdesk Something amiss, need some help with the site? Ask here and your questions shall be answered.	1 Posts 1 Topics	Last post by Forum Admin in What do you think? on February 23, 2008, 07:23:02 AM
	Off Topic: Anything to discuss	2 Posts 1 Topics	Last post by Acid-Ice in Re: FYP Suggestion / Idea... on February 27, 2008, 11:19:14 PM

Tips & Tricks

	Get ready for your presentation Guideline, tip and tricks for your presentation	5 Posts 5 Topics	Last post by Forum Admin in Quick Oral Presentation ... on March 26, 2008, 09:05:17 PM
	How to... Open discussion on how to make your FYP more beneficial such as tips, seminar, budget application and others	2 Posts 1 Topics	Last post by Ms Maseyanti in Re: How to apply budget ... on October 02, 2007, 10:00:30 AM
	Want to prepare good documentation? All about FYP documentation (Progress Report, Dissertation, Proposal) <i>Moderator: Ms Maseyanti</i>	4 Posts 4 Topics	Last post by Forum Admin in APA (6th ed.) Style on February 22, 2008, 03:47:02 PM

Child Boards: APA Formatting and Style Guide, Harvard Style, All About Literature Review

Technical Support

	Software Discussions about all those programs you have running on your system for FYP. From the OS right down to single application	1 Posts 1 Topics	Last post by manygroundmusic in [help] Software to creat... on February 08, 2008, 11:46:26 AM
	Hardware Configuration Share your experience and lesson that you learned during FYP in hardware configuration and other peripherals	1 Posts 1 Topics	Last post by kruller8 in welcome - mallab on February 08, 2008, 12:12:24 PM

Computer & Information Science Department (Research Cluster)

	From Coordinator Desk Announcements and supporting documents (Briefing Slide) Child Boards: TAB3012 Final Year Project Part I, TAB4014 Final Year Project Part II, General	0 Posts 0 Topics	Last post by Forum Admin in FYP Part 2 Briefing Sld... on March 02, 2008, 07:35:10 PM
	Intelligent Systems Child Boards: Artificial Intelligence, Knowledge Management, Advanced Database	0 Posts 0 Topics	
	Software Engineering & E-Commerce Child Boards: Software Engineering, E-Commerce	0 Posts 0 Topics	
	Multimedia & Communication Systems Child Boards: Multimedia System, Communication Systems	0 Posts 0 Topics	

Universiti Teknologi Petronas Online FYP Communities - Info Center

Forum Stats

36 Posts in 34 Topics by 22 Members. Latest Member: Nateelhsa
Latest Post: "Quick Oral Presentation ..." (March 26, 2008, 09:05:17 PM)
View the most recent posts on the forum.
[More Stats]

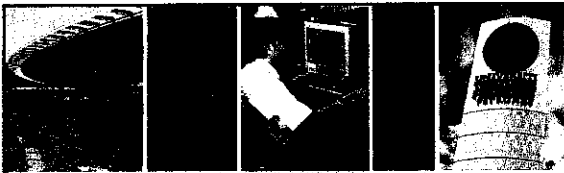
Users Online

1 Guest, 0 Users

Most Online Today: 1. Most Online Ever: 6 (February 27, 2008, 11:06:59 PM)

Login (Forgot your password?)

Username: Password: Minutes to stay logged in: Always stay logged in:



Final Year Project

Virtual FYP Community - An online knowledge sharing and resource centre

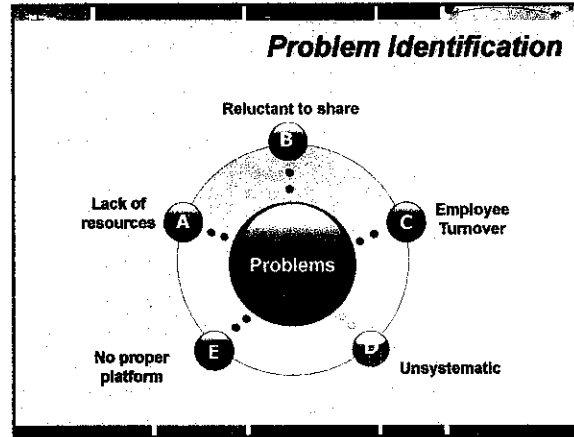
Name: Mohd Zulhafiz Bin Temizi
Student ID: 8329
Programme: Information & Comm. Technology
Supervisor: Mrs. Mazeyanti Mohd Ariffin
Date: 25th April 2008

Content

- 1 Project Background
- 2 Problem Identification
- 3 Relevancy & Significant
- 4 Objective & Scope of study
- 5 Project Feasibility
- 6 Literature Review
- 7 Project Methodology
- 8 Result & Discussion
- 9 Suggestion & Recommendation
- 10 Conclusion

Project Background

- Virtual FYP Communities - "An Online Knowledge Sharing and Resource Centre".
- Development of an online web based system as a KM Application.
- One stop online centre of information, knowledge sharing and lesson learned.
- Provide flexible environment for knowledge culture.
- Opportunities for better accessibility to the resources anytime and anywhere.
- Channel / Medium to distribute information and knowledge.

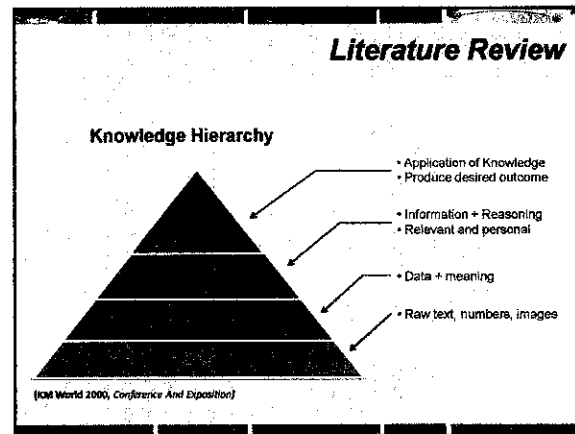
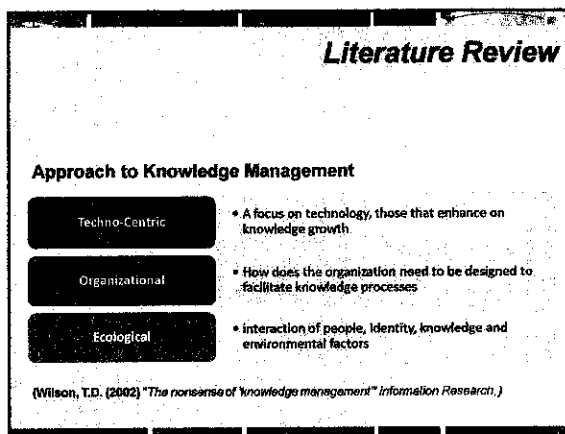
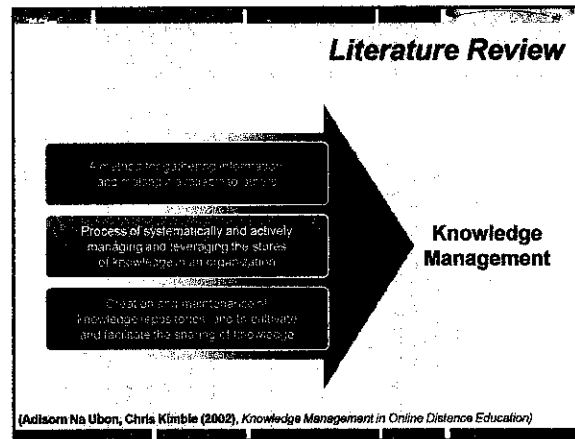
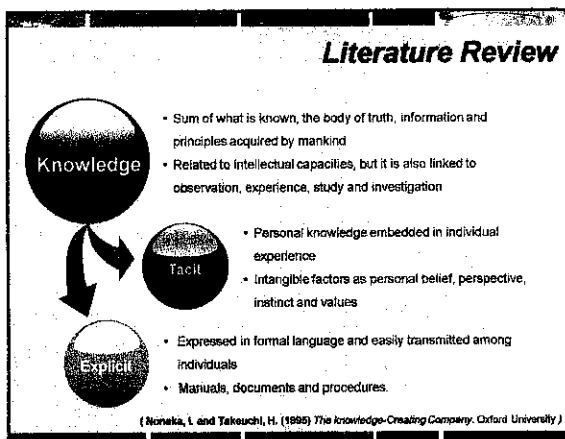
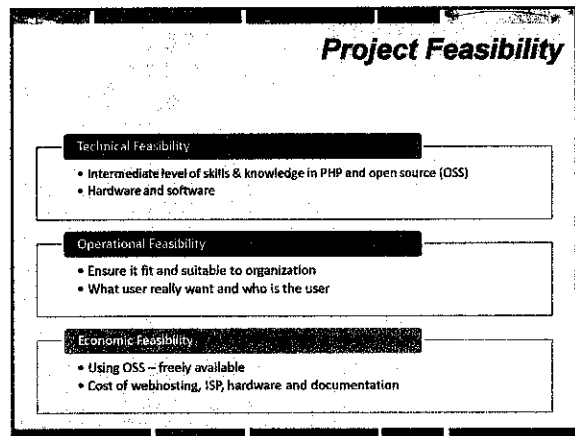
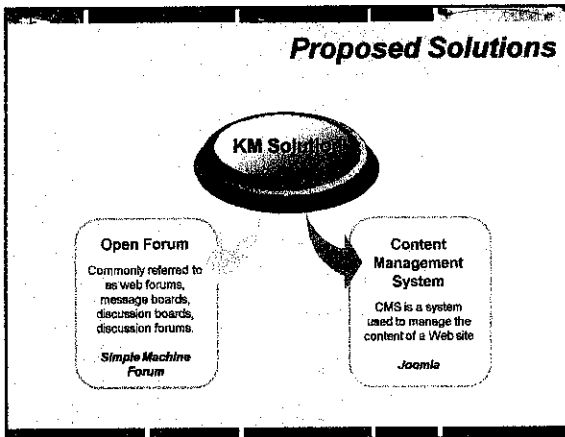


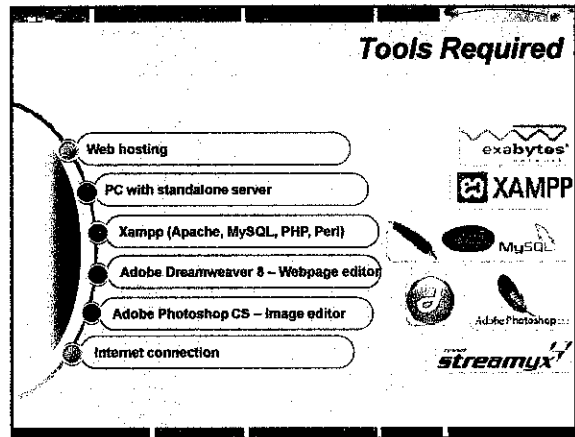
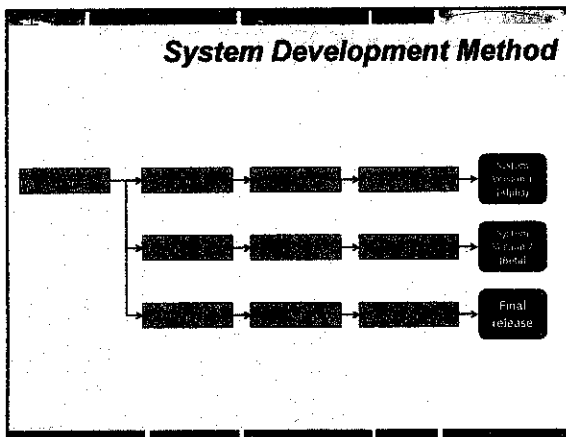
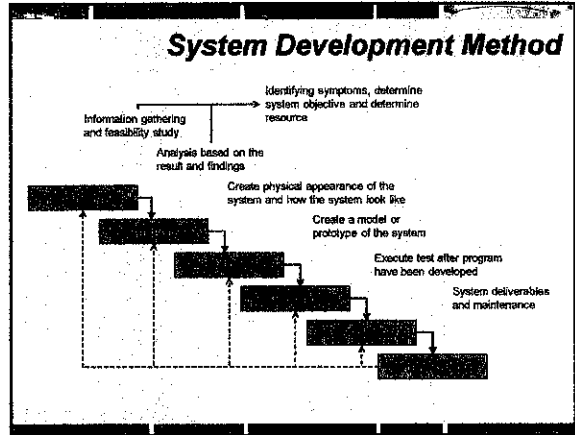
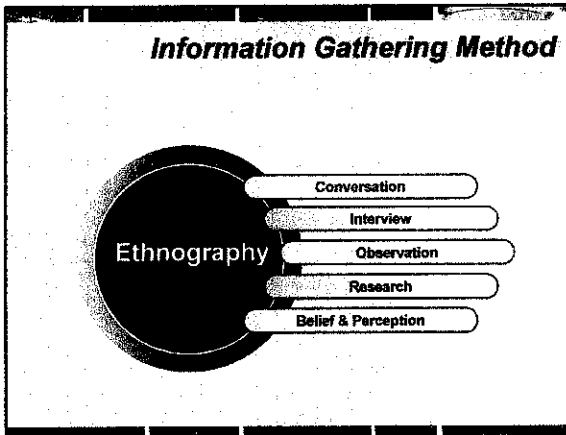
Relevancy & Significant

- Preserve the knowledge by capturing and share best practices.
- The idea of the learning institution - part of the e-learning method
- Provide a proper channel for easy to collect and store knowledge.
- Make used of various enabling technologies such as knowledge bases and corporate intranets and extranets, Content Management, wikis, content management, etc.

Objective & Scope of study

- To develop a one stop online centre of information.
- To develop and design an application which capable of keep, sharing and reuse knowledge within community.
- To design a medium to manage and organize crucial and important information and knowledge for an organization.
- To provide better accessibility to information and knowledge and also act as a medium of communication (Announcement, news and updates)
- Benefiting from the advent of internet and networks - make the system borderless and encourage relationship and involvement within communities.

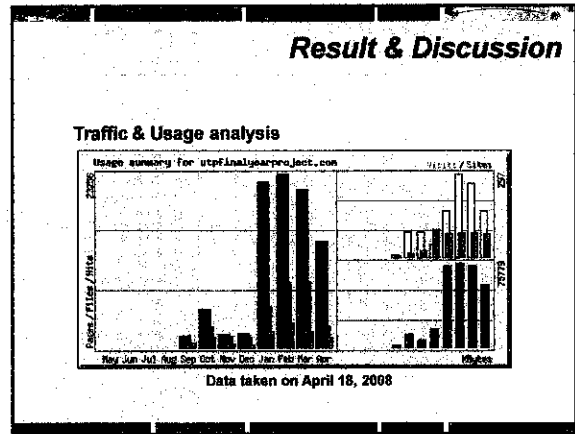


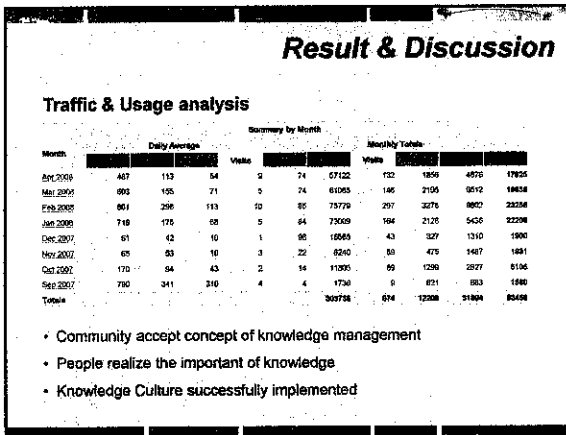


Result & Discussion

Web Hosting

Domain Name :	www.utpfinalyearproject.com	Disk space: 10GB
Registration Date :	September 28, 2007	Monthly data transfer: 50GB
Hosting Provider :	Exabytes Network Sdn Bhd	MYSQL Database: 50
Package :	Exabyte EBiz Linux 1	Unlimited Email support
		24x7x365 support worldwide
		Max CPU Consumption: 100Mhz
		Max Memory Allocation: 64MB
Domain Charge :	RM65.00 Per Year	
Hosting Charge :	RM 199.00 Per Year	
Total :	RM264.00 Per Year	

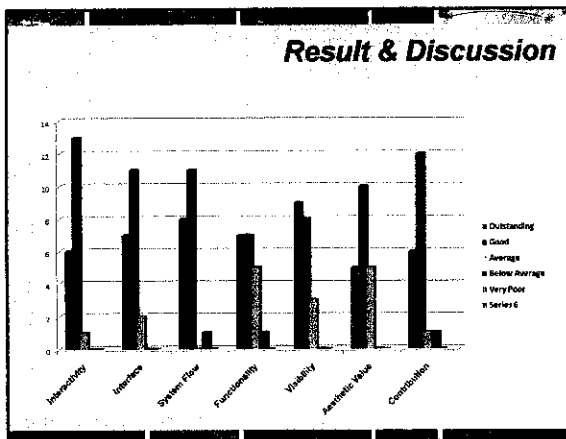




Result & Discussion

User acceptance test survey result

	Outstanding	Good	Average	Below Average	Very Poor	Total
Interactivity	6	13	1	0	0	20
Interface	7	11	2	0	0	20
System Flow	5	11	0	1	0	20
Functionality	7	7	5	1	0	20
Visibility	9	8	3	0	0	20
Aesthetic Value	5	10	5	0	0	20
Contribution	6	12	1	1	0	20



Result & Discussion

System Interface: Welcome Page

Universiti Teknologi Petronas
Virtual FYP Community - An Online Knowledge Sharing and Resource Centre

FYP Central
For announcements, news and latest updates

Forum
Online Forum, Discussion and Sharing

www.utpfinalyearproject.com

Result & Discussion

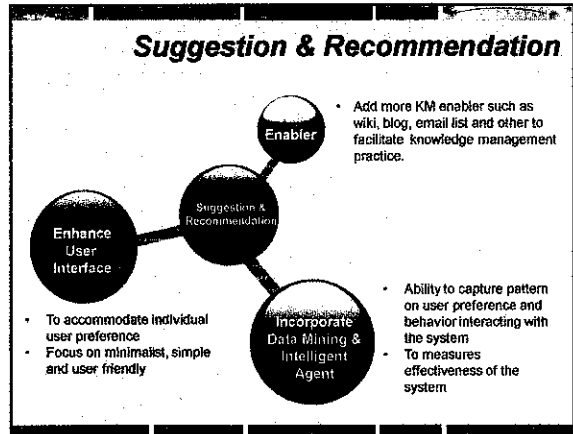
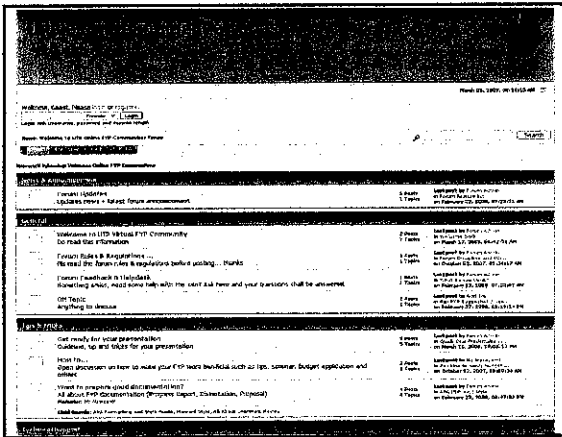
System Interface: Welcome Page

Universiti Teknologi Petronas
Virtual FYP Community - An Online Knowledge Sharing and Resource Centre

FYP Central
For announcements, news and latest updates

Forum
Online Forum, Discussion and Sharing

www.utpfinalyearproject.com



Conclusion

- People in organization often overlooked the important assets lies within the community itself.
- This project development can serve as a beneficial tool for organization to manage their knowledge capital.
- One stop online centre of information, knowledge sharing and lesson learned which users can freely shares, update content, manage content.
- Provide a proper channel for easy to collect and store knowledge.

Question & Answer

Final Year Project
Virtual FYP Community – An online knowledge sharing and resource centre

Thank You

Final Year Project
Virtual FYP Community – An online knowledge sharing and resource centre