

ONE-STOP PORTAL FOR POST GRADUATE STUDENTS

by

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Dissertation submitted in partial fulfilment of
the requirements for the
Bachelor of Technology (Hons)
(Business Information System)

SEPTEMBER 2012

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CERTIFICATION OF APPROVAL

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A project dissertation submitted to the
Information and Communication Technology

Universiti Teknologi PETRONAS

In partial fulfillment of the requirement of the

BACHELOR OF TECHNOLOGY (Hons)

(BUSINESS INFORMATION SYSTEM)

Approved by,

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UNIVERSITI TEKNOLOGI PETRONAS

TRONOH, PERAK

April 20

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 as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

BAGTIYAR KANDYMOV

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ABSTRACT

We are making a web portal that is designed to allow easier interaction between members and faculties of Computer & Information Sciences Department. We implement functionalities that will allow the removal of processes and procedures that are currently done manually. We also provide all means to let our visitors find the information they need in a timely fashion. This project is to facilitate post graduate students including Master and PhD students in interacting with their main supervisor as well as second supervisor if there is any. Plus it is aimed to provide completely new way of posting announcement from administrator and lecturer's side. With this project up running, time spent on running from department head's office to department head's office will be happily eliminated and students will be provided a complete working platform that they can update the GA form easily. With existing technology and tool like Joomla framework and PHP, JavaScript and jQuery the JavaScript framework this project is feasibly possible to be completed in two semesters or at least, the developer surely provided the working prototype will all the basic function and workflow.

ACKNOWLEDGMENT

Apart from the efforts poured, the success of any project depends largely on the encouragement and guidelines of many others. Author takes this opportunity to express his gratitude to the people who have been instrumental in the successful completion of this project.

Special thanks to my direct supervisor Dr. Low Tan Jung and co-supervisor Mr. Muhaiyuddeen B Shaik Allauddin for the undying commitment and assistance at all times and couldn't say thank you enough for the tremendous support and help.

. Also thanks to the family members for strong moral support and advices. The guidance and support received from all the members who contributed and who are contributing to this project, was vital for the success of the project. I am grateful for their constant support and help.

CHAPTER 1

INTRODUCTION

This chapter will entail thoroughly about the overview of this ongoing software development. This chapter will include the following topics:

- Section 1.1 – BACKGROUND OF STUDY
- Section 1.2 – PROBLEM STATEMENT
- Section 1.3 – OBJECTIVES AND SCOPE OF STUDY
- Section 1.4 – FEASIBILITY OF THE PROJECT

1.1 BACKGROUND OF STUDY

What is a web portal? At about the same thing - an Internet site that contains a large number of links. Through the portal, visitors can head to any interest of its direction. It is easy to use interface that helps navigate the network, find the necessary information over the internet. In addition to the navigation of the portal has the original content - news, reviews, financial reports and the service part, which includes a variety of services - forums, information, message boards, etc.

In the various internet portals, these parts are developed in different ways. Some portals present themselves mainly as a search engine, other - information or service. A set of portal services provided depends on the owner of the site, its capabilities, desires and fantasies. All of this serves one purpose - to meet the needs of as many consumers. There are a great number of ways to define definition of portal. The portal is a single user interface for access to a wide variety of electronic resources both within and outside the library (Richard W. B., 2008). However, the portal originated from the business section in the 1990s to facilitate the process of business (Zhou, 2003). The portal has been developed form card catalog to the library portal and the mission of the library and the purpose of the catalog changed along with it (Savarese, 2005) Internet portals are commonly subdivided into horizontal and vertical. Horizontal portals, they are called universal. Focus on the widest possible audience, offering diverse content and have a wide range of diverse services. As a rule, they are built around the search engines. Vertical portals are

narrowly thematic portals. They focus on one particular subject or field of activity and interest to network users in certain areas. Among these, the most common thematic portals used nowadays are research files and document exchange portals for postgraduate students.

1.2 PROBLEM STATEMENT

1.2.1 Problem Identification

Universiti Teknologi PETRONAS CIS department offers 2 Postgraduate Programmers namely Master of Science in IT and Doctor of Philosophy (PhD.) The post graduate (PG) students find a warm and friendly community of more than 70 M Sc students from a well balance of local and international students. Each student assigned to a supervisor and co-supervisor according to their area of expertise and students are expected to update the supervisors on their research progress.

Currently postgraduate students use Yahoo Group for their communication among each other. To perform the necessary registration, consult and deliver work PG students personally go to the supervisor and co-supervisor losing their own time and thus time of supervisor or co-supervisor. By now, Universiti Teknologi PETRONAS consistently depends on the traditional process of educational materials delivery for PG students. Currently used traditional process has following problems:

1. Information Technology and Communication Technologies will play important role in the future of education and research fields. Since IT and ICT is becoming an essential element to reform education and research, performance and innovate at university. Meanwhile traditional ways are already outdated.

2. To perform the necessary registration, consult and deliver work, PG students must personally go to the supervisor and co-supervisor losing time of their own and people who assist them in their studies.

1.3 OBJECTIVES AND SCOPE OF STUDY

1.3.1 Objectives

The main objective of this project is to build web portal which will meet following expectations:

- To study the existing currently design of university web portal and their requirements.
- To design a PG student web portal for Universiti Teknologi PETRONAS
- To develop a prototype of PG Student web portal the Universiti Teknologi PETRONAS

1.3.2 Scope of Study

The scope of this study is to design PG Students web portal for Universiti Teknologi PETRONAS. The study will cover the design and simple prototype of PG students web portal and based on the researched literature review to confirm what features and functions should include in the PG students web portal.

1.3.3 Significance of Study

The scope of this study is to design PG Students web portal for Universiti Teknologi PETRONAS. The study will cover the design and simple prototype of PG Students web portal and based on the researched literature review to confirm what features and functions should include in the PG students web portal.

1.4 FEASIBILITY OF THE PROJECT

1.4.1 Scope Feasibility

This project is to facilitate post graduate students including Master and PhD students in interacting with their main supervisor as well as second supervisor if there is any. Plus it is aimed to provide completely new way of posting announcement from administrator and lecturer's side. With this project up running, time spent on running from department head's office to department head's office will be happily eliminated and students will be provided a complete working platform that they can update the GA form easily. With existing technology and tool like Joomla framework and PHP,

JavaScript and jQuery the JavaScript framework this project is feasibly possible to be completed in two semesters or at least, the developer surely provided the working prototype will all the basic function and workflow.

1.4.2 Schedule Feasibility

The development of this project has proven itself well-planned and good time management. It has typically all the function required or as defined in objectives in previous section in no later than estimated, two semesters which is approximately seven months. There is no magic involved to make this really happen as planned and proposed, however time management that UTP has provided to its students in courses like Software Engineering and IT project management has excelled them to professional level and capable to handle school project and confidently real project in working life later on after graduation. This small achievement, completion of this project is simple evidence to that.

1.4.3 Technical Feasibility

The development of the software will mostly depend on PHP programming with Joomla framework. JavaScript and jQuery the JavaScript framework are all open source tools and free to use, they are good tools to learn and experience real work programming. These tools, language and framework can be downloading from their website accordingly.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The main objective of this project is to build PG studentsweb portal for Universiti Teknologi PETRONAS.

The Internet has become a part of people's lives is very important. This idea, networking, phone number, e-mail address and shared with friends, share photos sharing, shared by thousands of fun, you can be in touch with each other. Every sector of the Internet, Web-based portals, and Web-based portal system, e-commerce, e-learning and online applications, such as speech, many have developed their own way. Construction of new services or existing services, introduce new features are Web services configuration. Application portal, Web services, development of business organizations, universities, hospitals, and (Rao, 2001) between. Portal of individual files, office files and other important notices for the public to provide a platform for.

2.2 DEFINITION OF PORTALS

Ways, a portal to a number of a number of scholars. Inside and outside of the library portal to a variety of electronic resources (Bernard, 2008) is defined as a user interface to make. But, (Zhou, 2003) that the portal to facilitate business process, the business sector, 1990 will be achieved. The portal, library portal and directory of the card catalog in the form of a change in the mission of the library, and (Savarese, 2005) has been developed. The portal features and functionality of the Portal (Morgan & Reade, 2000) point of view. Access Portals, custom, personalized, single point of co-operation, security, publishing, and so on. (Cox, 2003), as is a list of features and functionality. Portal, your one-stop shopping Function (Thomas, 2000) provides the information needs of the user community the ability to provide. The new millennium (catalog records) million items or documents, but the article itself (McKeena & Ingrid, 2001) can not be obtained immediately from the convenience of users find the directory. Pre-defined view from the portal

However, the concept of the portal is based on a review does not provide a unique traces can be summarized as:

1 Access to Information

2 community-based

3 User-centric

4 Related services

Transfer of information and knowledge sharing portal interface for the transfer of knowledge and exchange of information and the location (Cloete & Snyman, 2003) is. Get a full-text database portals, and clear (Groenewegen, 2003) for instructions on how to provide the name, can develop a more detailed description of the resource that can be considered to provide a platform for the discovery of the resource. Portal to information about the user according to their needs. Relevance filtering, and a portal solution to this problem on the basis of the search results, and (Boss, 2008) ranking, relevance-based ranking can provide more information to users.

It is less than the value of traditional and online media ideas to support learning and teaching described in the portal

You can add a valuable element can be customization and personalization: Portal includes the following features. 00 Horizontal and vertical portals or portal (company or enterprise) portal or portals (Brakel, 2003): Horizontal Portal can be classified as two categories, such as enterprise portals and vertical portals, this portal, said some of the corporate portal is divided into two main groups: . Consumer and community portal to portal described by a set of terms to describe the portal (Richard N, 2002) is determined. The services provided by the portal must provide an active and vibrant with existing web sites are passive services. First in terms of user needs (Ali, 2003), Parsley, to provide certain services dynamically, depending on the service. The main elements of the campus portal is an access point, Internet tools, collaboration tools provide. User-defined communication channels (Fleischman, 2001). Single point of access, personalized, user-defined (Brakel, 2003): at least all of the following three key elements that should be included in the portal. Vertical portals may vary depending on the specific characteristics of each are divided into three categories. Based decision support, this information may be classified or content portal portal business portal (Dias, 2001), defines processing or vertical portal. Paper, the vertical portal portal in co-operation with special attention to the classification process, please segmentation:

1 Co-portal

2 specialized portal

Decision support and co-operation, the vertical portal is based on a custom portals.

1 Knowledge Management Portal

Enterprise information portal 2.

JISC portals of this technology, distributed information resources of various network services, Cross Search and combined for presentation to the user Roy collates to collect content in the form of product use. Powell, for you, the portal users can search the results in terms of one or more resources, and the authors consider the personal and the public. A number of review articles on the portal tract with an emphasis on personalization, author portal, a portal that features some of the more focused and announced some of the others on this point (Awre, 2003) is set to. None of them defines the concept of a portal. And, through a series of ideas for the portal portal to give users a single point of control media must be able to provide intelligence, personalization, customization, and utility, the study provides a wealth of resources.

2.3 THE TYPES OF PORTAL

Review of the literature and (Richard N, 2002), the portal should be divided by a horizontal and vertical portals in the portal. Horizontal Enterprise Portals in the portal, or the so-called mega-called portals. Vertical portals are usually called Vertical Enterprise Portals. A horizontal portal users on the basis of the need for users to try to various resources and services can be regarded as a public Web site.

News, chat, community, shopping, stock prices, weather, and they provide the search engines, and other relevant resource link: Usually contains all the horizontal portals thesis. When you look at the Web page as the first page of the horizontal portals try make them. They like you, you are news sources, weather, stock selection in the desired selection and changed the appearance of the Web page by selecting offered functions Profile page allows you to personalize and much more to ensure that provide functions. Some of the horizontal portal you to build a stock portfolio to see the updated assessment, to allow a wide range of personalization. Usually, it is usually stored in the local computer personal, personalization Web cookies are stored on your local computer.

Therefore, a horizontal portal personalization is included in all other computer if you lose. Horizontal enterprise portals as a many eyeballs usually possible to pay portal that focuses on offering advertising. They need to, first of all I really do not provide any or all of the corporate officers. Their role in the organization of work and the need for academic or specific employees. Different people have different information, depending on the needs of their organization, that is a fact. University staff that includes university holidays and events, calendars, it is necessary to explain the use of the university, for example, the status of their job responsibilities, benefits information, financial statements, organization charts, and more access. However, employees of PG students is quite different.

Horizontal and vertical enterprise portals, enterprise portals are very different. Horizontal enterprise portals is the only source of information, with limited access to private information about the organizations. All you need is internet users and user organizations need to be out a lot of information to benefit their organizations or organizations, except there is no way to get all your information. Therefore, the horizontal and vertical portals, enterprise portals, it is necessary to explain the differences between the two.

Horizontal enterprise portals and their users to be treated as a public web site provides all its services, but they are completely different from vertical business portal. Offers a user-centric way that allows private information of the members of the organization, such as a vertical portal business. Thus, the vertical portal for a university to provide all the information provided to a HEP must have skills. The first seems to be all the same in the horizontal enterprise portal, enterprise portal, but the appearance of a vertical or a horizontal portal is not the same as it seems. An entity distinct from the horizontal to vertical portal portal into a vertical portal authentication is required. When a user logs on to the portal page makes a special vertical portal. Vertical enterprise portals is produced by a vertical portal that users can be members of an organization or community. Vertical portals are an example to explain how the process operates.

Vertical portal, a user of such a group, a department manager or officer, as the semester, the student plays the role of the user, such as a user belonging to the group of employees or the employees know what belongs to the class the user is aware of, and more. They will operate under normal use for a horizontal portal is, despite all the information describing the functions of the Web can not be achieved. Vertical portal image can be different for different users. This vertical portal can be personalized by the user at the beginning of the first page of the portal, that is true.

Vertical portals that are divided into three classifications, each of them in the future (Dias, 2001) can be divided according to their functions:

- Vertical Portal of Portals based decision support, Decision Process Portals Portals are and Information or content.
- partnership is based on processing Vertical Portal Collaboration Portals and Portals Expertise divided.
- Decision support and cooperation in the process of vertical portal portal portals are divided on the basis of information and knowledge portals.

Horizontal portals, customer portals, information web portal or public portal of the organizer (Sieber & Valor, 2002) has been called.

CHAPTER 3

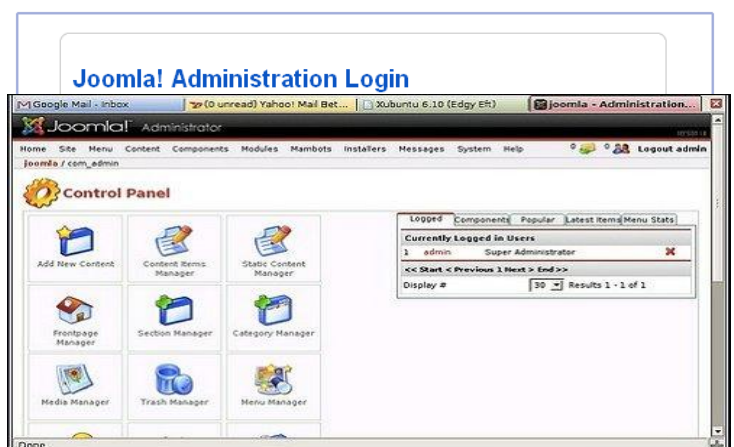
METHODOLOGY OF STUDY

3.1 INTRODUCTION

We can say that almost all things have a complete process from start to end. So, this goes the same with creating PG student portal. So in this research, the method that will be used to build the PG student portal is Joomla (CMS) and AkeebaKickstart.

3.2 WHAT IS IT JOOMLA (CMS) AND AKEEBA KICKSTART

Joomla is an award-winning content management system (CMS), which enables you to build Web sites and powerful online applications. Many aspects, including its ease-of-use and extensibility, have made Joomla the most popular Web site software. A (CMS) content management system is software that keeps



track of every piece of content on your Web site, much like your local public library keeps track of books and stores them.

Kickstart is a PHP executable file (script) use to automate the steps required before and after the restoration of site backed up with Akeeba Backup in a great extent. It can be used as a simple and efficient method of extracting the Akeeba Backup archives directly on the target server, or even used to extract other archive files including CMS and script installation files (e.g. Joomla!™, WordPress, Drupal, phpBB), update packages (Joomla! and WordPress can especially benefit from this use) or even archives containing large amounts of files you need to get on your server, fast.

JavaScript and HTML: Being involved more in web programming, JavaScript and HTML is inevitable. I have learnt much more and have understood them very concisely, especially the DOM element manipulation.

- *Jquery Framework:* Framework is ready-built classes which provide programmer a tool kit to build big software in faster way and less code. Because JavaScript is needed everywhere in web programming, Jquery Framework become very famous and popular among most of web programmer. Jquery is light, easy and simple to use, yet it's powerful. I have learnt this Jquery thoroughly to make the application I have developed more user-friendly and interactive.

3.3 WATERFALL MODEL

The waterfall model is a sequential software development process. It is a steady flowing progress from one stage to another stage downward. There will be 6 stages for this model, they are:

- Project Planning
- Requirements Design
- Design
- Development
- Integration and Testing
- Installation and Acceptance

The image below show the 6 stages that fall under the waterfall method.

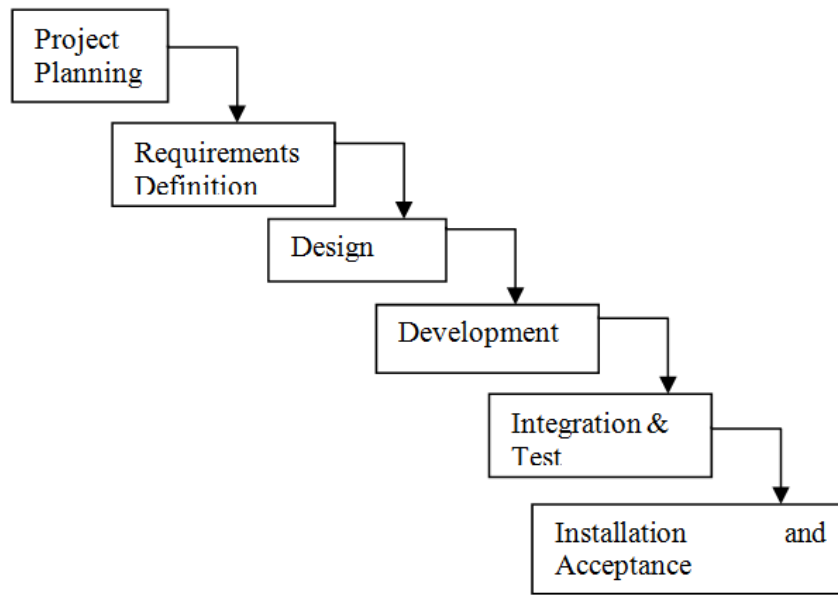


Figure 1: Waterfall Model

Key milestones are divided into two terms – 2 study semesters, starting from January 2012 until September 2012.

3.4 KEY MILESTONES

Key milestones are divided into two terms – two study semesters, starting from January 2012 until September 2012.

Milestone	Week
Project Proposal	Week 3
Extended proposal (10%)	Week 6
Proposal Defense (40%)	Week 9
Interim Report (50%)	Week 11

Table 1: Key Milestones for Semester 1

Milestone	Week
Progress Report (10%)	Week 7
Pre-SEDEX (10%)	Week 10
Dissertation (40%)	Week 12
VIVA (30%)	Week 13
Technical Report (10%)	Week 14

Table 2: Key Milestones for Semester 2

3.5 GANTT CHART

Tasks to be carried out during 26 weeks

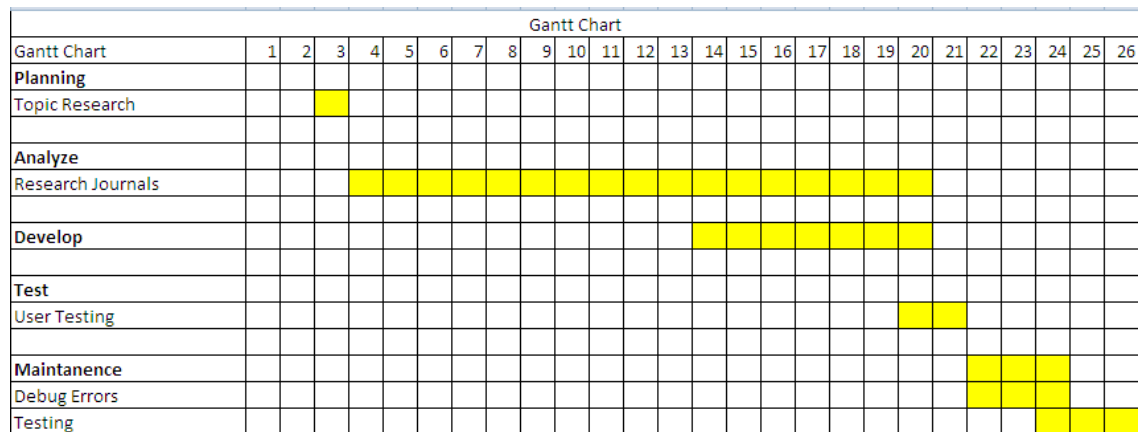


Table 3: Gantt Chart

CHAPTER 4

RESULT AND DISCUSSION

4.1 PROJECT HOMEPAGE

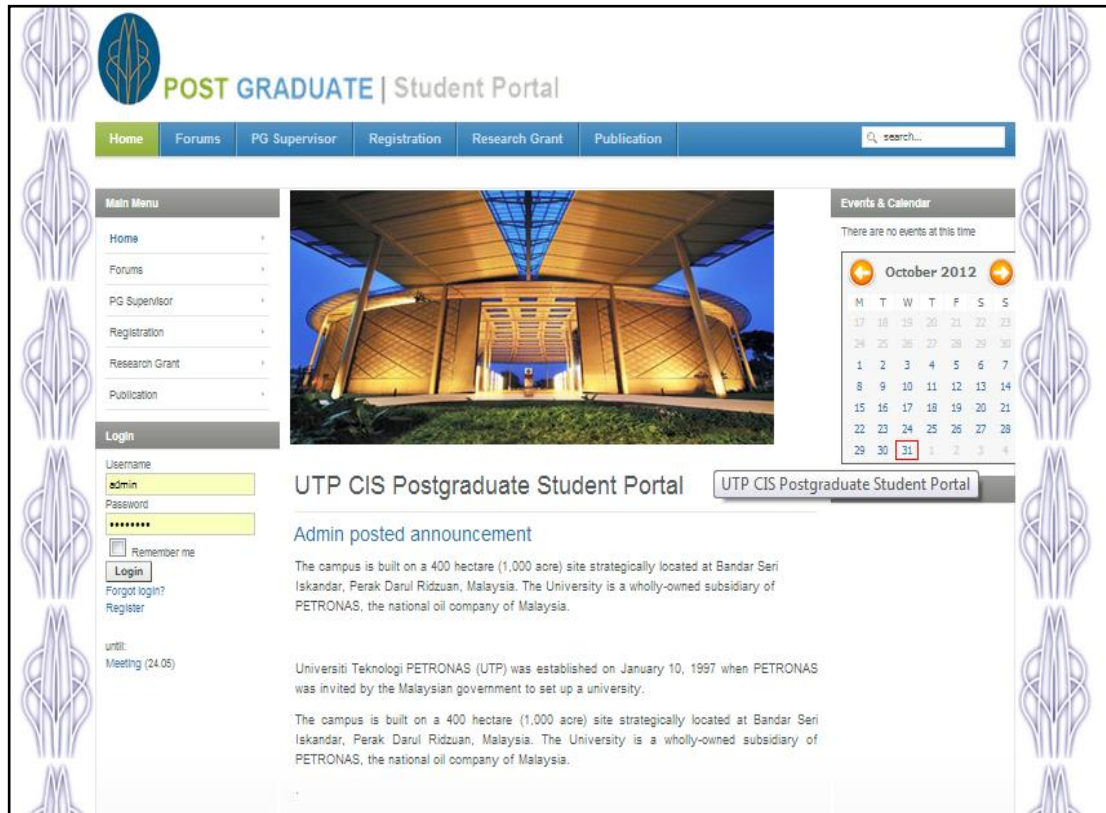


Figure 2: Homepage

In this chapter, we are going to elaborate what we have completed at this stage of this project. For instance, in Figure 2 we have provided our project homepage. The homepage interface was given a slick yet simple design in order to please the visitors' eye. We also maintained the UTP corporate identity by adapting the blend integration of the UTP logo. We also adapted the combination of green and blue color as these colors are not known for striking their viewers. At last we make sure that the font that is displayed in the homepage is readable.

4.2 FORUM MODULE

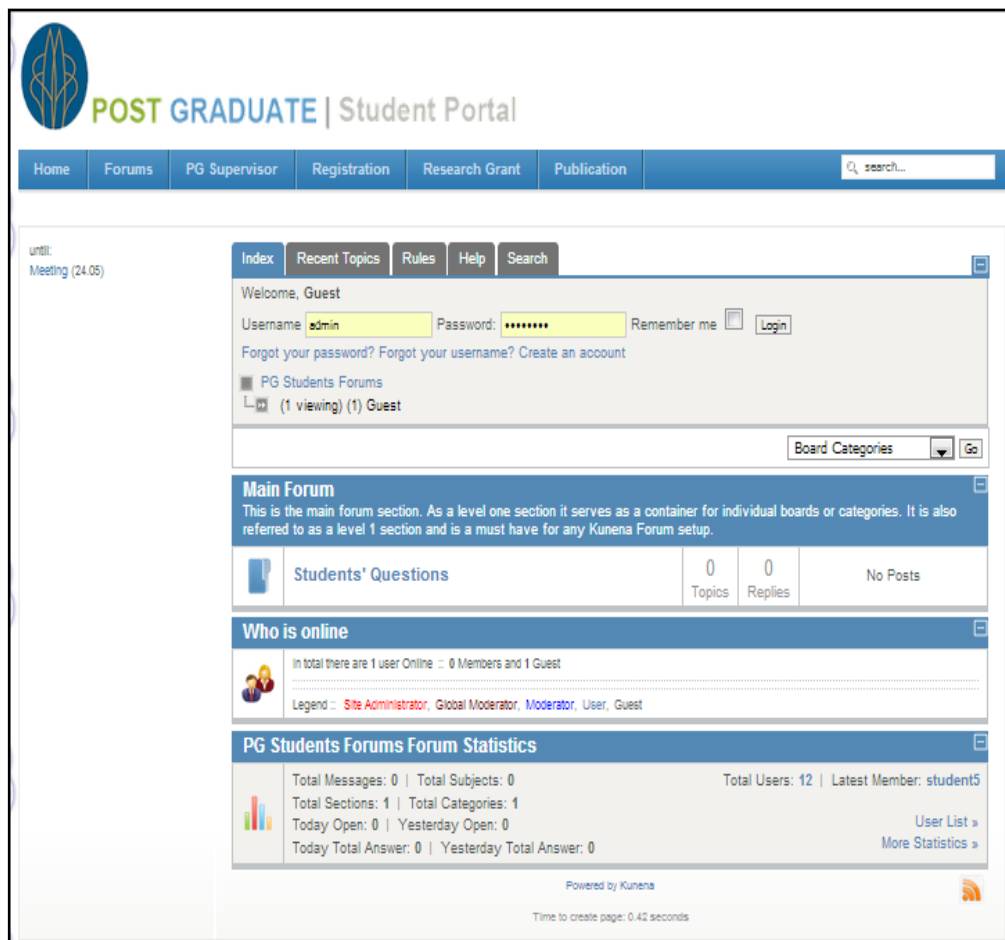


Figure 3: Forum Module

As seen at the homepage, users are free to navigate to any functionality provided by the portal by clicking at the menu buttons. In particular, we are going to elaborate the Forum functionality in this section.

The main objective of the creation of this module is to allow users of this portal to interact with each other in a convenient manner. Due to the limitation and space, some information is hard to be broadcasted quickly. However by using an online forum, people can exchange ideas and messages faster.

By the implementation of this module, lecturers, students, and staffs can minimize their effort to communicate with each other. The topics of their conversation will also be automatically organized and recorded by this portal. Therefore, we believe that this module has an important impact on the whole project.

4.3 REGISTRATION MODULE

until:
Meeting (24.05)

Registration

Required field | Field visible on your profile | Field not visible on profile | Information: Point mouse to icon

Profile image:

Name:

Email:

Username:

Password:

Verify Password:

Program of Study:

Mode of Study:

Academic Year:

Intake:

Area of Specialization:

Proposed Research Title:

Proposed:

Figure 4: Registration Module

In this module, we are going to provide a functionality to allow people who aren't registered to the system to be the member of this portal. Unlike normal registration procedure that is focusing in obtaining basic information for its users, our portal will be more specific.

Fields like "Are of Specialization" and "Proposed Research Title" are commonly found in the PG students registration form. We are trying to incorporate this kind of information into our portal to be able to completely remove the manual process.

In the future, we intend to add more functionality in this particular module by enabling the registration procedure to be more specific for lecturers, students, researchers, etc.

4.4 OTHER MODULES

until:
Meeting (24.05)

PG Supervisor

Post Graduate Students' supervisors

Title Filter Display #


#	Article Title	Hits
1	Assoc. Prof. Dr. Dr Mohd Fadzil Hassan	9
2	Assoc. Prof. Dr. Baharum B Baharudin	5
3	Assoc. Prof. Dr. Ahmad Kamil B Mahmood	4
4	Abdullah Sani Bin Abd Rahman	18
5	Md Akhir B Mohd Sharif	10

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Figure 5: PG Supervisor Module

until:
Meeting (24.05)

Assoc. Prof. Dr. Dr Mohd Fadzil Hassan



Name:	Assoc. Prof. Dr. Dr Mohd Fadzil Hassan
Research area:	Mobile Agent in a Knowledge-Based System, Security in Knowledge Sharing System
Mentor Students:	Students Name 1
	Students Name 2
	Students Name 3
	Students Name 4

Figure 6: Supervisor's Profile

Besides the functionality that we have explained above, we still have other modules that we believe will be useful to our users. These modules are basically means for visitors to obtain information regarding staffs, research, and grant that is being around the CIS department. These functionalities are designed to allow users to find information they contained in a timely manner. The design is also set to allow grouping of related information in order.

Besides being a timely fashion, we also allow search functionality to help users to track the information they need directly. This functionality is another attempt by us to provide all means for our portal visitors to obtain information they need.

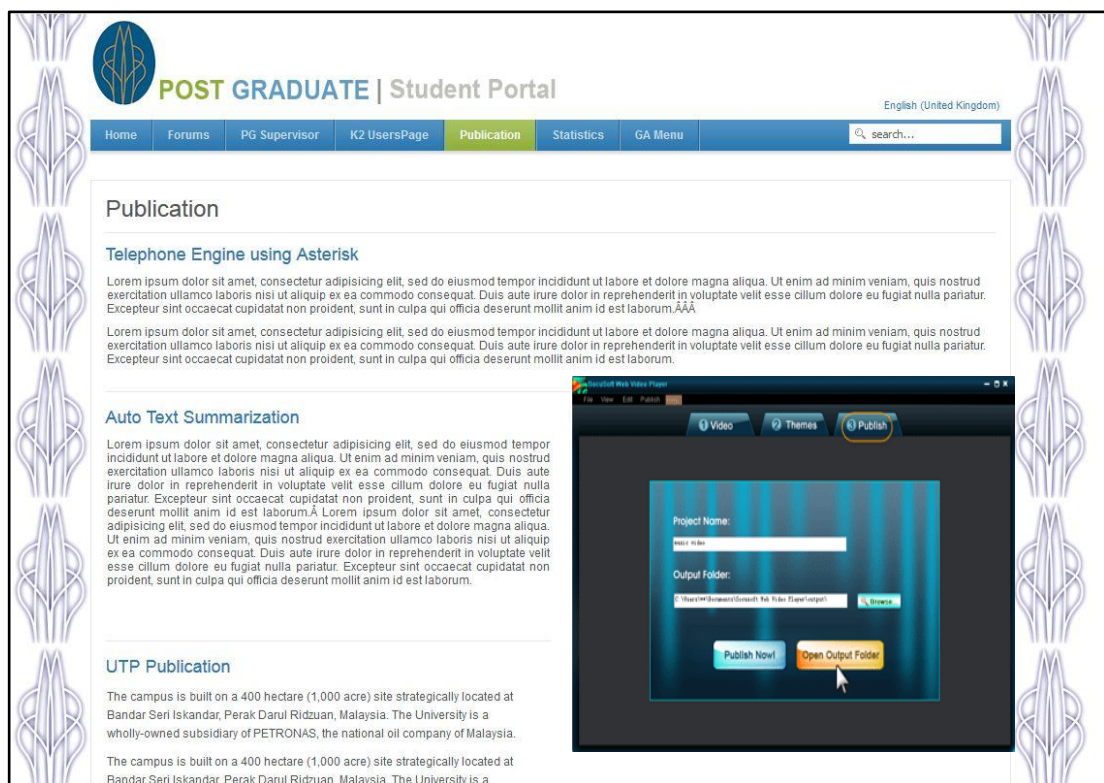


Figure 7: Publication Page and Video

The screenshot displays the 'POST GRADUATE | Student Portal' interface. At the top, there is a navigation menu with links: Home, Forums, PG Supervisor, Add Announcement, K2 UsersPage, Publication, Statistics, and GA Menu. A search bar is located on the right. Below the navigation, a message states 'Your settings have been saved.' The main content area is titled 'Profile Page' and features a profile picture of a young boy. To the right of the picture, there are several status indicators: Hits: 0, Online Status: ONLINE (with a green dot), Member Since: 6 days ago, Last Online: 3 minutes ago, and Last Updated: Now. Below these indicators is a 'Contact Info' section with the following details: Username: admin, Department: CIS, Mode of Study: master, Area of Specialization: Image Processing, Proposed Research Title: Digital Image Processing, and Main Supervisor: Dr. Ahmad Kamil B Mahmood. On the right side of the page, there is a sidebar with a 'Toolbar' containing links for Lecturer Page, Students List, and Add Announcement. Below the toolbar is a 'Profile & Detail' section with an 'Edit Detail' link. At the bottom of the sidebar is an 'Announcement' section listing items like GA Table, Telephone Engine using Asterisk, Auto Text Summarization, UTP Publication, and second article.

Figure 8: Student Profile Detail

Student Profile Detail page provides briefly information about students after registration on the portal. In that, it displays:

- Online status: to tell whether student is currently using portal or not.
- Last Online: to tell the last time student has accessed to the portal
- Department
- Mode of Study
- Area of Specialization
- Proposed Research Title
- Main Supervisor
- Date Registration
- Gender
- Country originated.

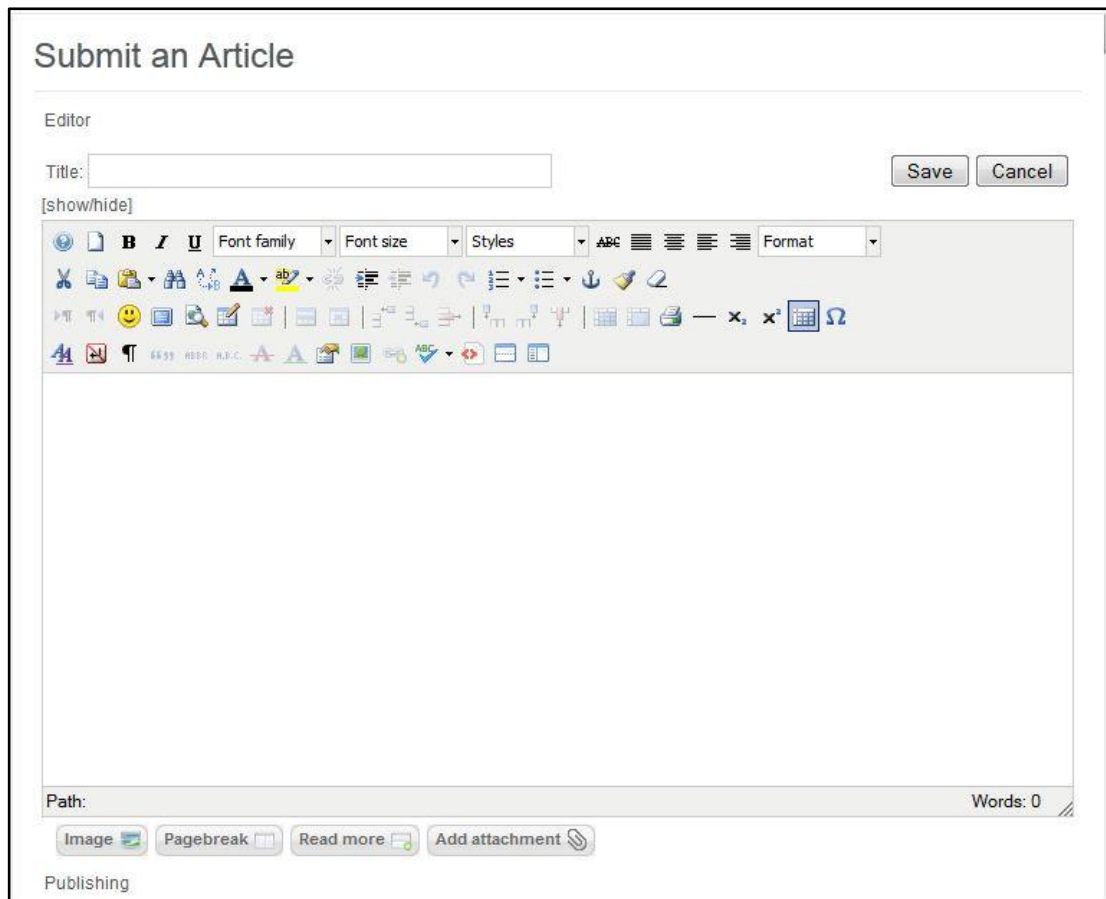


Figure 9: Publishing Announcement/ Article

This is front-end module for publishing announcement or article to website. The special feature is not available to everyone who come and use the website, because it is limited to certain group of user which granted by admin user.

There are four (4) Front-end groups available:

Registered - This group allows the user to login to the Frontend interface. Registered users can't contribute content, but this may allow them access to other areas, like a forum or download section if your site has one.

Author - This group allows a user to post content, usually via a link in the User Menu. They can submit new content, select options to show the item on the front page and select dates for publishing but they cannot directly publish any content. When content is submitted by an Author level user, they receive the message, "Thanks for your submission. Your submission will now be reviewed before being posted to the site." They can edit only their own articles but only when that article has been published and is visible.

Editor - This group allows a user to post and edit any (not just their own) content item from the Frontend. They can also edit content that has not been published. If your site uses the default installation's menu option "News", which is a Table List – Content Section type, Editors will see unpublished articles in the list that they can select for editing, where as an Author or Public (unregistered) user will not even see the unpublished items in the list. Still, Editor users cannot, publish or change the publishing status of any articles, even their own.

Publisher - This group allows a user to post, edit and publish any (not just their own) content item from the Front-end. Publishers can review all articles, edit and change publishing options but they can also determine when an article is ready for publication, making it visible to Registered, Author and the Unregistered Public (depending on what visibility was chosen in the article, of course!)

There are three (3) Administration section groups that allow access to Joomla:

Manager - This group allows access to content creation and other system information from the Backend. Think of Manager users as Publishers, with Backend access. They can log in through the Administrator interface, but their rights and access are generally restricted to content management. They can create or edit any content, access to some Backend only features like adding, deleting and editing Sections and Categories, editing the Front Page and Menus, but they don't have any access to the "Mechanics" of Joomla, like user management or the ability to install components or modules. Note that if a Manager logs in through the Frontend interface, they're treated just like a Publisher, with the same rights and access.

Administrator - This group allows access to most administration functions. An Administrator user has all the privileges on the back end of a Manager, but they also have access to set options on, and install/delete components, modules and bots, User Manager Access and can view the site statistics. What they cannot do however change, edit or install Site Templates is or make any changes to the sites Global configuration options. On login through the Frontend, they are treated as Publishers, just like the Manager users. Interesting to note; when an Administrator accesses the User Manager list, they will see all users at their access level or below; in other words they can modify any user EXCEPT a Super Administrator – in fact, they will

not even see Super Administrator accounts in the list! Also, they cannot create additional Super Administrator level accounts, only a Super Admin can do that.

Super Administrator - This group allows access to all administration functions. Only another Super Administrator can create or edit a Super Administrator user account. Full access to ALL AREAS is given to Super Administrators, and once created they cannot be as easily deleted. It might not be obvious, but you have to change the user's group to something other than Super Administrator first. Then you can delete them.

Because of this, give a bit of thought to who you need to grant this highest level of access to. Super Admins can block the user from logging in or change the password on another SA account. Like the other Backend user accounts, SA's are treated as Publishers when they login through the Frontend interface.[9]

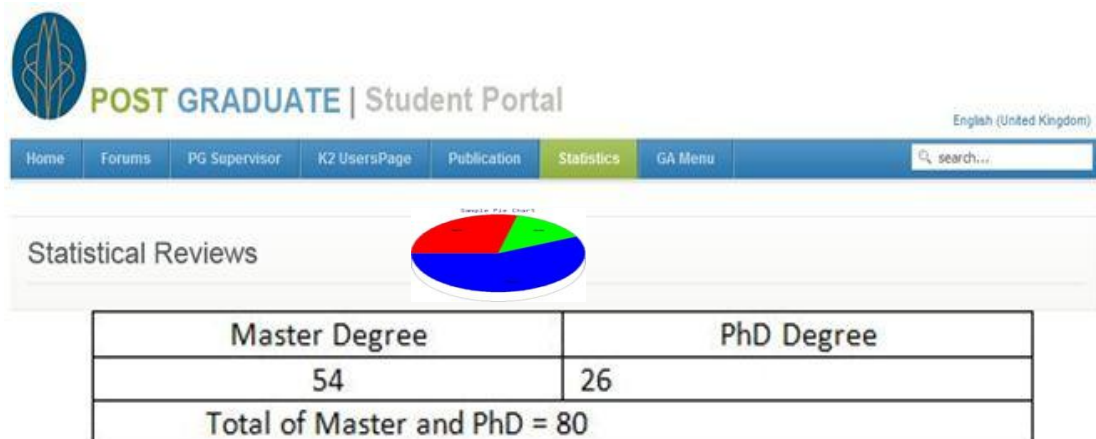


Figure 10: Statistical Reviews

This feature is to display number of registration and how many students are in each degree. This is simply query from database and filtered after that count total number of record in database.

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 CONCLUSION

The university web portal analyze from specific aspects such as interface design to general framework. All of that start from getting the limitation and the problem of the Universiti Teknologi PETRONAS. After establishing the problem, the research of this project is beginning, by reviewing literatures have done the comprehensive foundation of designing web portal and acquire general ideas about horizontal portals, vertical portal and education portals. The methodology is introduced in this project and established the process of developing web portal.

5.2 RECOMMENDATION

At this stage, we believe that we accomplished most of this project. However, additional features shall be implemented in the future in order to enhance the project better. Those features are interactivity between administrator and students; enhance readability and more user-friendly interface to present a better statistics. Developer strongly recommends using pie-chart.

With trends nowadays, Microsoft has presented new trends in designing user interface, call it Metro Design. According to Wikipedia, Metro is an internal code name of a typography-based design language created by Microsoft, originally for use in Windows Phone. A key design principle of Metro is better focus on the content of applications, relying more on typography and less on graphics ("Content before Chrome"). Early uses of the Metro principles began as early as Microsoft Encarta 95 and MSN 2.0 and later evolved into Windows Media Center and Zune. Later the principles of Metro were included in Windows Phone, Microsoft's website, the Xbox 360 dashboard update, and Windows 8.

Developer also believes this could be another cool feature and design to apply to this Post Graduate Portal, with hope that more students will find this portal easy to use and more and more students register and start doing researching in UTP.

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