BORANG PENGESAHAN STATUS TESIS*

JUDUL : **THE ENHANCEMENT OF UTeM INTERNATIONAL STUDENT WEBSITE: HOW CONTENT CAN BE PRESENTED USING MINIMALIST RESPONSIVE DESIGN**

SESI PENGAJIAN : 2012 / 2013

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THE ENHANCEMENT OF UTeM INTERNATIONAL STUDENT WEBSITE: HOW CONTENT CAN BE PRESENTED USING MINIMALIST RESPONSIVE DESIGN

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This report is submitted in partial fulfillment of the requirements for the

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FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2013

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DECLARATION

I hereby declare that this project report entitled

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SUPERVISOR: _____ Date: _____

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DEDICATION

To my beloved parents with much love and affection, that always giving me encouragement and moral support that act as power of my inspiration. To my supervisor, Mr. Mohd Hafiz Zakaria, your guidance, encouragement and support is highly appreciated and I learn a lot from you during this project. To all my friends, your support and encouragement helps me pass through and to solve problems in this project. Thank you so much.

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ABSTRACT

This project is held based on several problems that exist in the University now which are the problem of current International students to get some latest information about the university such as the events, activities, bus schedules and many other information. The other problem came from the UTeM International office where they are unable to spread a complete information about UTeM to the International visitors and unable to communicate well with the International current student by using the current website especially the international page. The new website comes with the solution to solve those problems by conducting a research that came out with a new innovation by adapting a minimalist design for the user Interface of the website and applying a responsive tool to the website to make the web more accessible through multi devices easily and quickly. The methodology used in this project is Scrum from the Agile software development. The developer develop the website using: PHP, HTML5, CSS3 and jQuery for the source code. The project will proceed by using Aptana studio 3 which is the open source web development tool and Adobe photoshop and Illustrator for creating the interface design element. This project report records all the development stages throughout this project which are divided into seven chapters. It will covers the introduction to this project, literature review of the system, project methodology that used in here, analysis stage which the requirements are gathered, design stage which the system architecture design is proposed, implementation details, testing conducted and project conclusion. All these chapters and information are written in this report to clarify and prove the development process of this website and it may help the future development of this project.

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ABSTRAK

Projek ini diadakan berdasarkan beberapa masalah yang wujud di Universiti yang kini adalah masalah pelajar antarabangsa semasa untuk mendapatkan maklumat terkini mengenai universiti seperti peristiwa, aktiviti, jadual bas dan banyak maklumat lain. Masalah lain datang dari pejabat Antarabangsa UTeM di mana mereka tidak dapat untuk menyebarkan maklumat lengkap mengenai UTeM kepada pengunjung Antarabangsa dan tidak dapat berkomunikasi dengan baik dengan pelajar semasa Antarabangsa dengan menggunakan laman web semasa terutama laman antarabangsa. Laman web baru datang dengan penyelesaian untuk menyelesaikan masalah mereka dengan menjalankan penyelidikan yang keluar dengan inovasi baru dengan menyesuaikan reka bentuk minimalis untuk Interface pengguna laman web dan menggunakan alat yang responsif kepada laman web untuk membuat web lebih mudah dicapai melalui pelbagai peranti mudah dan cepat. Kaedah yang digunakan dalam projek ini adalah “Scrum” daripada pembangunan perisian Agile. Pemaju membina laman web menggunakan: PHP, HTML5, CSS3 dan jQuery untuk kod sumber. Projek ini akan diteruskan dengan menggunakan Aptana studio 3 yang merupakan sumber terbuka alat pembangunan web dan Adobe Photoshop dan Illustrator untuk mewujudkan elemen reka bentuk antara muka. Ini laporan projek merekodkan semua peringkat pembangunan sepanjang projek ini yang dibahagikan kepada tujuh bab. Ia akan meliputi pengenalan kepada projek ini, kajian literatur sistem, metodologi projek yang digunakan di sini, peringkat analisis keperluan yang dikumpulkan, peringkat reka bentuk yang reka bentuk seni bina sistem yang dicadangkan, butir-butir pelaksanaan, ujian yang dijalankan dan kesimpulan projek. Semua bab-bab dan maklumat yang ditulis dalam laporan ini ialah untuk menjelaskan dan membuktikan proses pembangunan laman web ini dan ia boleh membantu pembangunan masa depan projek ini.

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LIST OF ABBREVIATIONS

UTeM	-	Universiti Teknikal Malaysia Melaka
ISC	-	International Student Center
UI / UX	-	User Interface / User Experience
HTML	-	HyperText Markup Language
CSS	-	Cascading Style Sheets
4ICU	-	4 International Colleges and Universities
SDLC	-	Software Development Life Cycle
PC	-	Personal Computer

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CHAPTER 1

INTRODUCTION

Nowadays, The Internet has become a vast resource of information for students as well as government institution and business people as they discover the advantages of getting online: the ease of use and the most cost-effective means of advertising. With over 2.2 billion people online, the internet has revolutionized how we find and share information. The online world is moving at a rapid pace and doesn't show any signs of slowing. Especially with the increasing number of mobile devices that can be owned by many people, internet becomes more important.

Internet and Website can't be separated now. To browse the website, need to have an internet connection. Website nowadays also becomes a popular media of spreading the information quickly. Every company, government institutions, education institutions, peoples and many others have used a website to spread their information easily and quickly. And also mobile technology has growing rapidly today, proven by creation of a variety of mobile devices that make it easier for users. So website can be accessed from anywhere and anytime by using a mobile technology. This chapter will explain the information required for the development purpose.

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1.1 Project Background

By increasing use of the internet in this world, everyone can find any information simply by accessing a website that relates to information he was looking for from several miles away. In this case, we should realize the importance of a website for each people. Delivering good information, can gives a sense of satisfaction to the users even more delivery information in the form of a website that is easily accessible and a good navigation for the website in order to help visitors to get information quickly and easily.

The international page of UTEM is a source of information for international students who want to know more about how the process to studied in UTEM or other information relating to the university. So everyone can get at least 70% of the information before they come to the university. According to the (O'Reilly, 2002) in information architecture for the world wide web. 2 edition, With these kinds of problem, the developer can try to solve it by creating information architecture which is refers to the structure or organization of the website that involve in many steps:

a. Defining key stakeholder's goals
b. Identifying the user's goals and expectation which is "conducting interviews with the users such as student or staff and creating datasheets"
c. Defining content areas: doing content area brainstorming
d. Organizing the content areas: grouping the content
e. Creating the sitemap
f. Outlining navigational structure
g. Labeling the content areas
h. Creating wireframes of the site and start building the interface
i. Applying responsive design to the website

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1.2 Problem Statement

1.2.1 Incomplete information as an international student pages

As an international student website, the content of information should be related to the international student's information needs, such as registration, guidance or any latest information which is important for the international students. There is need to do some improvement in delivering the information content as an international student page and need to structure the page to become a complete international student pages information.

1.2.2 Unstructured information design

There is something odd of delivering the information to the user in UTeM international pages. The information in every website should be presented well in the page and in UTeM international page has been found unbalance interface design in the page that can't deliver information smoothly to the user.

1.2.3 Problem while accessing the website via multi devices

When we load UTeM international page using mobie devices, the page can't be detected as mobile page size and it's showing the view normal PC interface size, which make the user need to zoom in to the page.

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1.3 Objectives

i. To investigate the content requirements for international students.

UTeM international student page should present the information that student needs especially for international students. By comprising the UTeM international pages with other big universities websites in multi region, will help to get the result of content that really needs in improving the information content regarding to international student needs. This investigation will help them to collect the complete information and simplify them getting the complete info without visiting or calling the office.

ii. To implement minimalist and responsive design in the website development

These days, people won't just be using a website on their desktop computer only. A global smartphone sales has been surpassed PC sales in 2011 as well as tablet use also rising steadily. We try to implement the minimalist design by approaching the principles of minimalist which is removing the unnecessary items, purpose of white space do the good alignment by using a grid and etc. that can follows the phrase "LESS IS MORE".

iii. To evaluate the new website

Evaluate and develop the new website by following the 2 objective that have been mentioned above and finish it at the right time.

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1.4 Research Question

i. What kind of information that need to be put on the UTeM International Student website?

Website is a place of communication and gaining information through internet. Most of universities institutions nowadays have their own websites for spreading their information what the people want to public. But not all of universities putting the appropriate content in their website which student and other visitor need. By putting the appropriate content, will help the student and other visitor gaining information easily.

ii. How to design a favorable website that can help the visitor get the information easily regarding to what they needs?

The problem nowadays, universities website are not that favorable and unstructured. Those problems can let the visitor and the students hard to get the information and communicate with the university. By changing the unstructured website interface into a minimalist design, will solve the problem of unfavorable website and help the visitor and student to get the information easily and quickly.

iii. Which tools that can covers the problem of optimal viewing experience of website in wide range screen size?

The growth of smartphone become rapidly nowadays. It comes with a different model, specification, screen size and many others. Responsive is the website element that can cover the problem of optimizing the view of website in multi-screen size.

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1.5 Project Scope

i. Target audience

The target user of the enhancement of UTeM International Student Center website is the international student from all over the world who are current students that still studying in the university and future student that want to study in UTeM. Users will access the website and gain much information regarding to the university as they want and staying update for information inside the university.

ii. Website

This project will be developed by one developer. Because of limited times and skill workers, this project will be developed only for 4 pages which represent the about UTeM page, student experiences, facilities and main menu.

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1.6 Project Framework

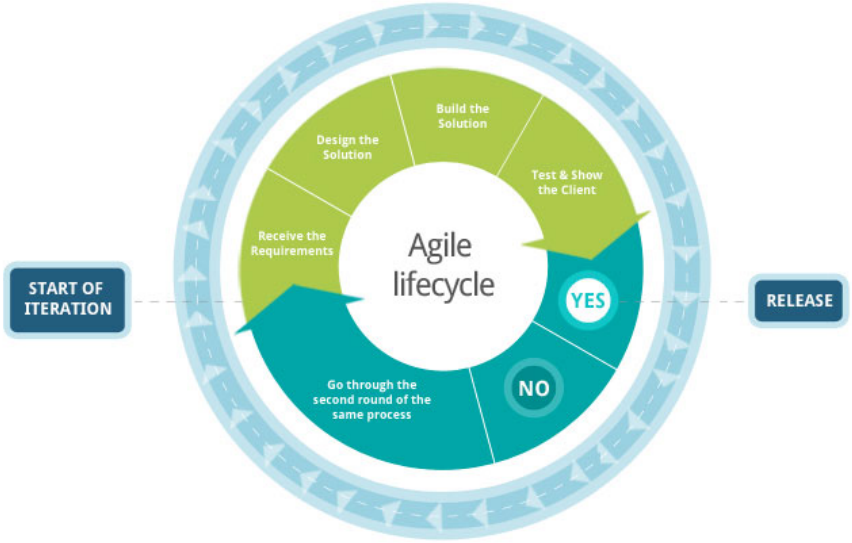

Fig 1.1: Project Framework

This project is using Agile methodology. This methodology is actually a continuous process which can be repeated for numerous of times. Agile methodology has four distinct phases, which are receive the requirements, Design the solution, Build the solution. This will be further explained in Chapter 3 later.

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1.7 Project Significance

This Enhancement will give benefits to the user who wants to access the information regarding to the information of studying and registering in UTeM, especially for the international student who live far away from Melaka and Malaysia without calling and visiting the international office directly for only collecting those information. The enhancement of UTeM international student page will approach the right content requirement with the minimalist design and supporting the responsive design which is has some important benefits in it:

- **Layout and Navigation**

  The page will be focus of keeping everything as clean as possible, with simplifying the website designs that can be great solution to navigation usability problems which can make the user browse comfortably.

- **Quicker to load**

  With applying the responsive design and minimalist design can help the website load quicker. Simple design generally applying the smaller files and keep the code simple and streamlined which can load faster. Faster loading and faster responding websites will improve user experience.

iv. Able to open in multi devices

The website will be able to open in multi different screen size which represent of each devices such as smartphone, tablet and PC. Every user has a different relationship with the content on each device. By responding to various devices strengths &

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weaknesses, a single website can address the different relationships users have with the content

v. **Complete the information content according to requirements for international student**

This new website will cover complete information content requirement for international student that have been done a research by comparing with other selected international university site in each region which can help the student access the information completely.

Summary

The enhancement of this page will have a good benefit for international Students. It will help the international student while collecting the information by accessing the page and also will improve the average of visitor because can be accessed in multi-platform devices such as smartphone and tablet. Hopefully this page can help and gather a good feedback by the visitor.

Nowadays minimalist design is one of the most principle used to improve the websites and also the responsive design help the visitor accessed everywhere in multiplatform more comfortable, this is a good chance to promote the university to International student by using this project. In the next chapter, we will discuss about the literature review of the system, the current system existed, and the project methodology used for the system.

The next chapter will be reviewing and discussing the research or studies of developing the UTeM ISC website by using minimalist and responsive design.

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