



Faculty of Computer Science and Information Technology

***TAMADUN ISLAM DAN TAMADUN ASIA TENGGARA (TITAS)  
LEARNING PORTAL FOR FCSIT STUDENTS***

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## Abstract

*This project is designed to for the students in the Faculty of Computer Science and Information Technology (FCSIT) UNIMAS as medium for them to learn TITAS course. The proposed system provides a self-learning pace for the students, where they will be given three choice of options which are whether to practice creating mind map, answering quiz questions and to search for terms meaning in TITAS course. By introducing this new system, learning TITAS can become more fun and the students' interest in TITAS can be increased. This system proposes features that are different from the features offered by UNIMAS MORPHEUS and OpenLearning for TITAS course. Therefore, it can be considered as a complement to these systems for the students to study TITAS course more effectively.*

## Abstrak

Projek ini dibina untuk diguna oleh pelajar Fakulti Sains Komputer dan Teknologi Maklumat (FSKTM) UNIMAS sebagai salah satu medium tambahan untuk mereka belajar subjek TITAS. Sistem ini menyediakan proses pembelajaran sendiri oleh pelajar dan mereka akan diberi tiga pilihan dalam sistem ini, iaitu samada untuk berlatih membuat peta minda untuk perkara berkenaan TITAS, menjawab kuiz soalan TITAS dan mencari makna bagi istilah-istilah yang terdapat dalam subjek TITAS. Dengan adanya sistem ini, proses pembelajaran TITAS akan menjadi lebih seronok dan minat pelajar untuk belajar TITAS akan bertambah. Ciri-ciri yang ditawarkan dalam system ini adalah berbeza dengan ciri-ciri yang ada pada UNIMAS MORPHEUS dan OpenLearning untuk subjek TITAS. Makanya, ia boleh dianggap sebagai satu sistem yang memenuhi ciri-ciri yang tiada dalam UNIMAS MORPHEUS dan OpenLearning untuk subjek TITAS supaya pelajar boleh belajar subjek TITAS dengan lebih berkesan.

## **Chapter 1: Introduction**

### **1.1 Introduction**

Tamadun Islam dan Tamadun Asia (TITAS) is a course that is widely taught in all university in Malaysia. The Ministry of Education Malaysia (KPM) has made it a compulsory course to be taken by the university students to expose them with the civilizations that had existed around Malaysia a long time ago, which are the Islamic, Chinese, India and Malay civilisation. These civilisations had now contributed to the formation of Malaysia today.

According to Rafizi Ramli ("The Malay Mail Online", 2013), "The lack of understanding and appreciation of the basis for cultural differences in a multiracial society like ours (Malaysia) does contribute to stereotyping and polarisation". It means that the lack of comprehension of the different races in Malaysia causes gap among the Malaysian. This shows the importance of TITAS course to the students. There is a need to come up with more attractive means for students to learn TITAS to develop understanding between multiracial communities in them.

The idea of this project comes by considering that it would be good to develop something that have the potential to be used by a big amount of target users. In this case, this project is aimed to design and develop an online learning portal for students to learn about TITAS. At first, the target user of this portal is anyone who is taking TITAS course in their field of study, despite the different university background. However, after some discussion, as a start, this project will be developed to be used by a small amount of target users only, in this case, limited to FCSIT students for easier implementation.

## **1.2 Problem Statement**

In a case study made by Mohammad et al. (2012) regarding the teaching method of TITAS course, 78% of the students that act as the respondents in the study suggested so that the teaching method of this course is improved. An alternative method of learning TITAS should be designed for the students to make it easier for them to understand, remember and familiarize them with the topics taught in the course. Since TITAS course contains mostly facts and applied knowledge in our daily life, normal class sessions only do not guarantee effective delivery of the course.

### **1.2.1 Effective learning of TITAS course depend on the students' memory**

TITAS course contains a lot of facts. Since facts are things that cannot be changed, it is a course that depends much on how good the memory of its students can understand all the facts and history taught in it. Since the exam questions conducted for TITAS course is in the form of multiple (MCQ) questions, one of the effective ways to learn this course is by practicing the students to answer MCQ questions repeatedly. This portal can be seen as a question bank where students can have access to many objective questions that may come out in the exam and test themselves with the questions again and again. It acts as a trial set for students before attending their real exam.



### **1.2.2 TITAS course contains lots of unfamiliar terms for the students**

On the other perspective, TITAS course contains lots of terms for example, *Konsep Dao/Tao* and *Konsep Yin Yang* that need to be understood. Therefore, rather than the current way of flipping through textbooks and lecture notes for the explanation of the terms, it would be good to have a place that works like a specific domain online dictionary specially for TITAS related terms only, where students can search the meaning of the terms in TITAS and get their explanations in a fast way.

### **1.2.3 Problem with long sentences and extracting important points**

Apart from that, long sentences can be a drawback for the students in studying as they are harder to be understood. The presence of mind map can help them see the overall picture of the things being taught in TITAS. However, at times too, students do not even know which are the important points in a TITAS chapter to come out with a mind map to get the overall picture. In this portal, students can practice creating mind map to enable them to draw out the flow of the topics available in TITAS.

Students need to learn things in a new way not only when in groups of discussion, but hopefully even when they are alone, other than the current way of referring to slides and notes. This portal aims to provide a self-learning type of environment to the students.

### **1.3 Objectives**

The objectives of this project are:

- I. To develop a web-based portal for students to learn TITAS
- II. To provide multiple choice questions (MCQ) repeatedly
- III. To create an online glossary section to help students to find the terms available in TITAS course in an easy and faster way
- IV. To provide a section for students to create mind maps for TITAS course for better understanding

### **1.4 Methodology**

In developing a system, methodology is required so that the workflow of the system is kept under control. The methodology selected for this project is the Rapid Application Development (RAD) Methodology. This methodology is chosen because it drastically raises the quality of the finished system by rapidly involving users in the development process. Involvement of users ensures that the system fit the users' requirements best. The quality of the system can be raised as the system is developed along with the users' feedback throughout the development process. Sometimes, users cannot give requirements at the early stage of planning as they have no clear vision of the real system yet. Therefore, by using RAD methodology, new ideas for improvement can be collected from time to time. There are four phases in RAD methodology, which include requirement planning phase, system design phase, construction phase and cutover phase.

#### **1.4.1 Requirements Planning Phase**

This phase include the combined phases of system planning and system analysis in the Systems Development Life Cycle (SDLC). Planning is done to determine the type of project to be developed, in this case, a portal where students can learn TITAS course. Users are involved in the processes of identifying their needs and preferences that can be used as an initiative for the project and collecting the system requirements. Activities like interviewing the user group is done in this phase. The question that should be answered in this process is; what need to be included in the project? How will they use the system?

#### **1.4.2 System Design Phase**

In this phase, interaction with users will be done to develop the design of the system. In this project, questionnaire can be done to know the design of TITAS learning portal that would be in favour for the students and what other extra requirements are needed to be included in the portal. The system can be adjusted to the user's preference at this stage.

#### **1.4.3 Construction Phase**

In this phase, the implementation of the system is conducted. All the actual coding is produced and it becomes the main focus at this point. Users can continue to participate and can still suggest changes to the portal being developed.

#### **1.4.4 Cutover Phase (Testing and Documentation)**

In this phase, final user testing is done to test the system for the last time with the users. It is also meant to find out the acceptance of the target user on the developed portal. User training will also be done so that users know how to use the portal later on.

#### **1.5 Scope**

The main target users of this project are limited to FCSIT students who are taking TITAS course.

#### **1.6 Significance of Project**

This project will be able to help students to learn TITAS in an alternative way, by practicing to answer multiple (MCQ) questions set before their real exam, finding specific terms in TITAS in a faster way and creating mind map for certain topics in the course.

#### **1.7 Project Schedule**

Please refer Appendix A for Gantt chart of project schedule.

#### **1.8 Expected Outcome**

At the end of this project, an online portal where students can learn about TITAS is expected to be developed. It is called a portal because users have to register themselves before entering

the site. In the portal, after logging in, users can choose between the available activity options provided in the portal. The options provided would be for the users to have access to multiple (MCQ) question banks, perform search functions for certain terms in TITAS course and draw mind maps for certain topics in the system.

## **1.9 Report Outline**

The outline of Final Year Project Report consists of 5 chapters.

Chapter 1 provides a brief introduction about the system to be developed, the problem statement, the objectives of the project, a brief description about the project development methodologies that will be used in the project, the scope of the project, the timeline scheduled for developing the project, and the expected outcome of the project to be developed.

Chapter 2 provides a literature review of other system, portal or applications that can be related to the project. The system to be reviewed can be the same with the system to be developed, or have the criteria to be compared and contrast with the system to be developed.

Chapter 3 gives full explanation of the methodologies used to develop the project. The use case, activity diagram and sequence diagram is designed to show the flow of the system.

Chapter 4 is about the implementation of the project. The project will be developed and the coding will be completed.

Chapter 5 is the conclusion of the project. A justification will be made to justify whether the project that is conducted occupy the specifications and objectives at the beginning of the project. The limitation of the project will be discussed to for future work.

## **Chapter 2: Literature Review**

### **2.1 Introduction**

TITAS was first introduced in 1998. TITAS was taught in the universities to get rid of the negativity and the prejudice among Malaysian towards Islam as the official religion of the country (Zulhilmi et. al, 2003). The importance of TITAS course is to develop a nation that has a strong feel of unity and sense of belonging to the country itself. Therefore, the delivery of TITAS course has to be enhanced so that students get a clear perspective of the course and conflicts between ethnics can be avoided. The study of civilisation in universities increase the understanding and develop respects for the different races in Malaysia (Azhar, 2004). This course will create chances to develop a global, rational and critical thinking about the surroundings among the students.

Unfortunately, according to Ahmad (2003), the public assume that university students are only taking TITAS because it is made compulsory by the Ministry of Education. The purpose why the course was taken was just to get good grades in their exam without the real intention to learn and apply it in their daily life. Therefore, it is seen as an important thing to create a new way to study TITAS to attract students' attention towards this course. The current way of delivering TITAS course to students can be improved or alternated with a new method so that students feel the enthusiasm to learn it. In a case study made by Mohammad et al. (2012) regarding the teaching method of TITAS course, 78% of the students that act as the respondents in the study suggested so that the teaching method of this course is improved. This proves that a new alternative method of learning TITAS should be designed for the students to make it easier for them to understand, remember and familiarize themselves with the topics taught in the course.

The focus of this chapter is to provide a background study for the similar existing systems that are in use for online learning. Students from FCSIT have already have two systems as a means for learning TITAS course, which are the MORPHEUS, the official learning site for *Universiti Malaysia Sarawak* (UNIMAS) and OpenLearning.com, a site that offers massive online learning course (MOOC) that is used by all universities in Malaysia. Apart from that, other systems which are also used for the purpose of online learning for courses other TITAS have also been reviewed.

In this literature review, these online learning systems are compared and contrasted to come out with a system that has totally different features. This is because the proposed system aims to complement the use of the existing systems, not to overlap with them. A few other systems that have the features to be embedded in the proposed systems are compared too to extract the best features to be applied into the proposed system for a better performance.

There are two sections, which are the review of existing online learning systems and the review of systems with similar features to be applied to the proposed system and the conclusion of the literature review.

## **2.2 Review of Existing Online Learning Systems**

There are two systems which are already in use to learn TITAS course online which are MORPHEUS UNIMAS and openlearning.com for TITAS. The other two online learning systems that have also been reviewed are the MIT Open Courseware and tutorialspoint. In this section, introduction to the three online learning systems will be discussed about. The