

BORANG PENGESAHAN STATUS TESIS^

JUDUL: Develop, Monitor and Analysis Chatting System for FTMK, KUTKM

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^ Tesis dimaksudkan sebagai Laporan Projek Sarjana Muda (PSM)

**DEVELOP, MONITOR AND ANALYSIS CHATTING SYSTEM
FOR FTMK, KUTKM**

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Develop, monitor and analysis chatting system for FTMK,
KUTKM / Yeo Ching Ching.

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**This report is submitted in partial fulfillment of the requirement for the
Bachelor of Information and Communication Technology (Networking)**

**FACULTY OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
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2006**

ADMISSION

I hereby declare that this project report entitled
DEVELOP, MONITOR AND ANALYSIS CHATTING SYSTEM
FOR FTMK, KUTKM

is written by me and is my own effort and that no part has been plagiarized
without citations.

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DEDICATION

*Specially dedicated to
My beloved parents and brothers who have
encouraged, guided and inspired me throughout my journey of education*

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PSM is compulsory for a KUTKM student before being awarded the degree. This PSM project was being accomplished with the generous help of a great many people, who contributed time, energy, ideas, suggestions, reviews and a great deal of encouragements. I would like to recognize a few of people who contributed to this thesis and project.

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ABSTRACT

The project that will develop for the PSM is a chatting system for FTMK, KUTKM. The chatting system is for internal used only, only staff of FTMK, KUTKM that already registered for the system can accesses the chatting system. The chatting system was more secure to use and can avoid hacker from outsider because the system will ignore the user registration if the user ID is invalid. The functions provided by the chatting system included chatting and transfer file (via text, image, audio and video). The chatting system can supported both Windows and Linux platform. The chatting system will be uploaded to the server. The server will act as the monitoring central to monitor and control the chatting system. The network traffic data of the chatting system will be collected in the graphical form and used to analysis the chatting system performance. The study of the chatting system performance will be generated and it can use as the reference for those concerned in chatting system performance research. The monitoring method of the chatting system will be proposed. This can help the administrator to manage the chatting system easier and make sure the chatting system is always under control.

ABSTRAK

Projek yang dibangunkan untuk PSM ialah *chatting system* untuk FTMK, KUTKM. *Chatting system* yang dibangunkan adalah untuk penggunaan FTMK, KUTKM sahaja, hanya staf FTMK, KUTKM yang telah mendaftar boleh menggunakan sistem ini. *Chatting system* ini adalah lebih selamat dipakai dan boleh mengelakkan serangan luaran berbanding dengan *chatting system* yang lain kerana sistem tersebut akan mengabaikan pendaftaran pengguna sekiranya ID yang digunakan untuk pendaftaran tidak sepadan dengan sistem maklumat ID yang disetkan dalam sistem. Fungsi yang disediakan oleh *chatting system* termasuk *chatting* dan penghantar file (dalam bentuk teks, gambar, audio dan video). *Chatting system* tersebut boleh menyokong Windows XP dan Linux. *Chatting system* tersebut akan dipaparkan dalam pelayan. Pelayan akan bertindak sebagai pusat pengawal untuk mengawal *chatting system* tersebut. Data rangkaian untuk *chatting system* tersebut akan dikumpulkan dalam bentuk graf dan digunakan untuk analisis persembahan *chatting system*. Kajian tentang persembahan *chatting system* tersebut akan dihasilkan dan boleh digunakan sebagai rujukan untuk mereka yang berminat dalam kajian persembahan *chatting system*. Cara untuk mengawal *chatting system* tersebut akan diisukan. Ini untuk membantu pentadbir mengenalkan *chatting system* tersebut lebih mudah dan memastikan *chatting system* tersebut sentiasa dalam kawalan.

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LIST OF ABBREVIATIONS

BMP	Bit – Mapped Graphics
FTMK	Falkulti Teknologi Maklumat Komunikasi
GIF	Graphics Interchange Format
GUI	Graphical User Interface
HTML	Hypertext Markup Language
IP	Internet Protocol
JPEG	Joint Photographic Experts Group
KUTKM	Kolej Universiti Teknikal Kebangsaan Malaysia
MP3	MPEG Audio Layer 3
MPEG	Motion Pictures Experts Group
MRTG	Multi Router Traffic Grapher
NMS	Network Management System
OS	Operating System
PRTG	Paessler Router Traffic Grapher
PSM	Projek Sarjana Muda
RAD	Rapid Application Development
SNMP	Simple Network Management Protocol
TCP/IP	Transmission Control Protocol/Internet Protocol
UML	Unified Modeling Language
USDP	Unified Software Development Process
VB	Visual Basic
WMA	Windows Media Audio
WMV	Windows Media Video

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CHAPTER I

INTRODUCTION

This section will explain project background, problem statements, objectives, scopes, project significant and conclusion of the *Projek Sarjana Muda*.

1.1 Project Background

The title for the *Projek Sarjana Muda* is develop, analysis and monitoring a chatting system.

The chatting system is developing for FTMK, KUTKM. Nowadays there had many different type of chatting system. But mostly those chatting system was blocked by KUTKM due to the security policy. This made the staff of FTMK, KUTKM hard to make discussion and exchange idea. Thus, the new chatting system will be developed for the staff of FTMK, KUTKM. They can use this system for chatting and transfer file (via text, image, audio and video) to make discussion and exchange idea.

For the security purpose and to avoid hacker from the outsider, the chatting system will ignore the user registration if the user ID is invalid.

The file transfer rate and the network traffic data of the chatting system will be collected. These data will be used to analysis the performance of the chatting system. The monitoring method of the chatting system will be proposed to make sure the chatting system is under control.

1.2 Problem Statements

These are the problems that bring forwards the project:

- Most of the chatting system was blocked by KUTKM due to the security policy. This made the staff of FTMK, KUTKM hard to make discussion and exchange idea.
- Current chatting system were open the registration for all the users. The probability of the chatting system hacked by hacker was high. This make the chatting system were not secure to use.
- There was lack of research of the chatting system performance.

1.3 Objective

Objectives that want to achieve for the project are:

- Develop a chatting system for FTMK, KUTKM
Staff of FTMK, KUTKM can use this chatting system to chat and transfer file (via text, image, audio and video).
- The chatting system is for internal use only
The chatting system is developing for the staff of FTMK, KUTKM only. The chatting system will ignore the user registration if the User ID is invalid.

- Analysis the chatting system performance
The file transfer rate and the network traffic data of the chatting system will be collected and used to analysis the performance of the chatting system.
- Monitor the chatting system
The way to monitor the chatting system will be proposed to make sure the performance of the chatting system is under control

1.4 Scopes

The following are the scopes of the project:

- The chatting system is used for the staff of FTMK, KUTKM only.
- The staff can used this chatting system for chatting and transfer file (via text, image, audio and video)
- The chatting system can support Windows XP and Linux.
- The file transfer rate and the network traffic data of the chatting system will be collected and used to analysis. The result of the analysis will be generated.
- The way to monitor the chatting system will be proposed to make sure it is under control.

1.5 Project Significance

These are the significance of the project:

- Staff of FTMK, KUTKM can use this chatting system to chat and transfer file to make discussion or exchange idea
- Only staff of FTMK, KUTKM can access this chatting system. This can avoid the chatting system hack by outsider.

- The file transfer rate and the network traffic data of the chatting system will be collected and use to analysis the performance of the chatting system. The result of analysis will be generated.
- The way to monitor the chatting system will be proposed to make sure the performance of the chatting system is under control.

1.6 Expected Output

These are the expected output for the project:

- The chatting system can use for chatting and transfer file via text, image, audio and video.
- The chatting system can support Windows and Linux.
- The chatting system will ignore the user registration if the User ID is invalid
- The file transfer rate will be recorded.
- The network traffic data of the chatting system will be collected in the type of graphical.
- The result of the chatting system performance will be generated.
- The suitable way to monitor the chatting system will be purposed.

1.7 Conclusion

The chatting system is developing for the staff of FTMK, KUTKM to help them in make discussion and exchange idea. The chatting system function included chatting and transfer file (via text, image, audio and video). At the same time, the file transfer rate and the network traffic data will be collected and used to analysis the chatting system performance. The chatting system is for internal used only, so although other chatting system blocked by KUTKM, the staff still had the system to make discussion and exchange idea.

The next activity to be developed is to provide the literature review and project methodology, which will be discussed in Chapter II.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

This section will explain the literature review and project methodology of the project in the forms of introduction, fact and finding (based on topic), project requirement, project schedule and milestones, and conclusion.

2.1 Introduction

Before begin the project, there are some reviews have to be done towards the existing system. It can be done through searching, collecting, studying and analyzing sources from books, web pages and CD-ROMs. After collecting, studying and analyzing the sources, the next activity will be to define the project methodology as a guidance to complete the system meets the objectives and scopes that have been mentioned.

The system development methodology is a formal system development process to define a set of methods, activities and automated tools to develop and maintain system. There have many methodologies have been created to reduce the risk associated with mistakes. The suitable methodology is an important aspect to ensure the project meets the goals and developed a successful system. Methodology can ensure the project requirements are completely meet and also help to control the

development of project execution. This section will explain the suitable type of methodology to apply to the project.

After defining the project methodology, the next section will explain the project requirement in term of software requirement, hardware requirement and other requirement if it applicable.

From the project requirement, it needs to draw out the project schedule and milestones to ensure the project can be completed on time. The schedule and milestones are delivered in the form of Gantt chart.

2.2 Fact and Finding

This section will explain the existing chatting system, the programming language comparison and the network monitoring tools used to collect the network data.

2.2.1 Existing Chatting System

According to Murray Turoff (1971), we considered the 'chat' function as the minor accomplishment compared to what else we were doing. Today, in terms of usage it is probably the most popular group communication mode on the net.

There are many different type of chatting system. The chatting system that will be used as comparison included MSN Messenger, Yahoo Messenger and ICQ.