

**DEVELOP A TEMPLATE OF MESSENGER SYSTEM FOR AN
ORGANIZATION COMMUNICATION THROUGH INTRANET USING
CLIENT-SERVER TECHNOLOGY**

SOO BOON HOCK

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

BORANG PENGESAHAN STATUS TESIS

JUDUL: DEVELOP A TEMPLATE OF MESSENGER SYSTEM FOR AN ORGANIZATION COMMUNICATION THROUGH INTRANET USING CLIENT-SERVER TECHNOLOGY

SESI PENGAJIAN: 2007 /2008

Saya : SOO BOON HOCK

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(TANDATANGAN PENULIS)



(TANDATANGAN PENYELIA)

Alamat tetap: 136/66, Jalan Sultan Zainal
Abidin, 20000 Kuala Terengganu
Terengganu.

En.Nazrulazhar Haji Bahaman
Nama Penyelia

Tarikh: 17.11.2008

Tarikh: 17 Nov 2008.

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**DEVELOP A TEMPLATE OF MESSENGER SYSTEM FOR AN ORGANIZATION
COMMUNICATION THROUGH INTRANET USING CLIENT-SERVER
TECHNOLOGY**

SOO BOON HOCK


**This report is submitted in partial fulfillment of the requirements for the
Bachelor of Computer Science (Computer Networking)**

**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2008**

DECLARATION

I hereby declare that this project report entitled
**DEVELOP A TEMPLATE OF MESSENGER SYSTEM FOR AN
ORGANIZATION COMMUNICATION THROUGH INTRANET USING
CLIENT-SERVER TECHNOLOGY**

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

STUDENT :  Date: 17.11.2008
(SOO BOON HOCK)

SUPERVISOR:  Date: 17 NOV. 2008
(MR. NAZRULAZHAR HAJI BAHAMAN)

DEDICATION

Specially dedicated to
My beloved family members who have
encouraged, guided and inspired me throughout my journey of education
my friends, and my colleagues.

ACKNOWLEDGEMENT

First and foremost, I would like to praise upon God for letting me complete my PSM II project on time and with success. Next, I would like to express my gratitude to my supervisor for Projek Sarjana Muda (PSM), Mr. Nazrulazhar Haji Bahaman and Mr. Zulkiflee bin Muslim as my academic advisor for helping and guiding me to understand the details for report writing and also the development of my project. I would also like to thank my beloved family for giving me support at all times.

Last but not least, I would like to convey my special thanks to all my friends and everyone involved for helping and giving me advice and cooperation throughout my project.

ABSTRACT

Pro Messenger is an application that allows users to communicate by sending text message in a local network environment. A database will be use to keep the user information and prevent from intruder access. It also requires users to register with the system before can use the application. The system administrator able to monitor which user is online and manages the system efficiently.

ABSTRAK

Pro Messenger adalah sebuah perisian aplikasi yang membolehkan pengguna untuk berkomunikasi dengan menghantat pesanan dalam bentuk teks dalam rangkaian setempat. Ianya memerlukan sebuah pangkalan data yang akan digunakan untuk menyimpan maklumat bagi pengguna sistem dan menghalang daripada kemasukan pengguna tidak berdaftar. Ia juga memerlukan pengguna untuk mendaftar dengan sistem sebelum boleh menggunakannya. Pentadbir sistem juga boleh mengesan pengguna yang sedang atas talian serta mengurus sistem dengan lebih berkesan.

TABLE OF CONTENTS

CHAPTER	SUBJECT	PAGE
Chapter I	INTRODUCTION	
1.1	Project Background	1
1.2	Problem statement(s)	2
1.3	Objective	3
1.4	Scope	5
1.5	Project significance	7
1.6	Expected Output	7
1.7	Conclusion	8
Chapter II	LITERATURE REVIEW AND PROJECT METHODOLOGY	
2.1	Introduction	9
2.2	Literature Review	10
2.2.1	Domain	10
2.2.2	Keyword	10
2.2.3	Previous Research	11
2.3	Proposed Solution	15
2.3.1	Project Methodology	15
2.3.1.1	The Waterfall Model	16
2.3.1.2	Standard Development Life Circle (SDLC)	18
2.3.1.2.1	Why using SDLC	20
2.3.2	Software Development Techniques	21
2.3.2.1	Object-Oriented Programming (OOP)	21

2.4	Project Requirements	22
2.4.1	Software requirements	22
2.4.2	Operating system/server	23
2.4.3	Database system	23
2.4.4	Hardware requirements	23
2.4.5	Network requirements	23
2.5	Project Schedule and Milestones	23
2.6	Conclusion	26

Chapter III ANALYSIS

3.1	Introduction	27
3.2	Problem analysis	28
3.2.1	Current System Problem Statement	28
3.3	Requirement analysis	29
3.3.1	Data requirement	29
3.3.2	Functional requirement	30
3.3.2.1	Data Flow Diagram Level 0	30
3.3.2.2	Data Flow Diagram Level 1	31
3.3.2.3	Data Flow Diagram Level 2	32
3.3.3	Non-functional requirement	34
3.3.4	Other requirement	34
3.3.4.1	Software Requirement	34
3.3.4.2	Hardware Requirement	35
3.3.4.3	Network Requirement	36
3.4	Conclusion	37

Chapter IV DESIGN

4.1	Introduction	38
4.2	High Level Design	38
4.2.1	System Architecture	39
4.2.1.1	Client Tier	40
4.2.1.2	Server Tier	41
4.2.2	User Interface Design	41
4.2.2.1	Navigation Design	46
4.2.2.2	Input Design	48
4.2.2.3	Output Design	49
4.2.3	Database Design	50
4.3	Logical Design	50
4.4	Physical Design	51
4.5	Conclusion	52

Chapter V IMPLEMENTATION

5.1	Introduction	53
5.2	Software Development Environment Setup	54
5.2.1	Database Environment Setup	55
5.2.1.1	Connecting Microsoft Access with VB 6.0	56
5.2.1.2	User login	56
5.2.1.3	User registration	56
5.3	Software Configuration Management	57
5.3.1	Configuration Environment Setup	57
5.3.2	Version Control Procedure	58
5.4	Implementation Status	59
5.5	Conclusion	62

Chapter VI TESTING

6.1	Introduction	63
6.2	Test Plan	64
6.2.1	Test Organization	64
6.2.2	Test Environment	66
6.2.3	Test Schedule	66
6.3	Test Strategy	67
6.3.1	Classes of Test	68
6.3.1.1	General Testing Techniques	68
6.3.1.2	Functional Testing Techniques	69
6.4	Test Design	69
6.4.1	Test Description	70
6.4.2	Test Data	76
6.5	Test Result and Analysis	77
6.6	Conclusion	81

Chapter VII PROJECT CONCLUSION

7.1	Observation on Weakness and Strengths	82
7.1.1	Strengths	82
7.1.2	Weakness	83
7.2	Propositions for Improvements	83
7.3	Conclusion	84

REFERENCES	87
------------	----

BIBIOGRAPHY	88
-------------	----

LIST OF FIGURES

DIAGRAM	TITLE	PAGE
2.1	The Waterfall Model	16
3.1	Data Flow Diagram Level 0	30
3.2	Data Flow Diagram Level 1	31
3.3	DFD level 2 for user login	32
3.4	DFD level 2 for message sending	32
3.5	DFD level 2 for file sending	33
3.6	DFD level 2 for send notification	34
4.1	Two-tiered architecture	39
4.2	Login Interface	41
4.3	User List Interface	42
4.4	Private Message Interface	43
4.5	Chatting Interface	44
4.6	Write Mail Interface	44
4.7	Mail Menu Interface	45
4.8	Navigation flow for client	46
4.9	Navigation flow for server	47
4.10	The reg_user table	50
4.11	The mail table	50
4.12	Logical Design	50
4.13	Physical Design	51
5.1	Software Development Environment	55
5.2	Configuration Environment Setup	58
6.1	Test Organization for LAN Messenger	65
6.2	User registration	72
6.3	Forget password	73
6.4	Offline Message	75

LIST OF TABLES

TABLE	TITLE	PAGE
2.1	Different features between existing system and new system	14
2.2	Project Schedule and Milestones	23
	Data model of login table	29
3.2	Data model of notification table	30
3.3	Hardware Requirement	36
3.4	Network Requirement	36
4.1	Two-tiered architecture	40
4.2	Component for Login interface	42
4.3	Component for User List interface	42
4.4	Component for Private Message interface	43
4.5	Component for Chatting interface	44
4.6	Component for Write Mail interface	45
4.7	Component for Mail Menu interface	45
4.8	Input for Login form	48
4.9	Input for Chatting form	48
4.10	Input for Private Message form	48
4.11	Input for Write Mail form	48
4.12	Output for Chatting form	49
4.13	Output for Mail Menu form	49
4.14	Output for Private Message form	49
5.1	Implementation Status Specification	60
6.1	Test schedule	67
6.2	User Login Test Case	70
6.3	User registration test case	71

6.4	Forget password Test Case	73
6.5	Offline Message Test Case	74
6.6	Entering record for User Registration	76
6.7	Entering record for offline message	76
6.8	Test Case result for user login Module	77
6.9	Test Case result for Register a new user account module	78
6.10	Test Case result for Forget password Module	78
6.11	Test Case result for Send offline message Module	79
6.12	Test Case result for Conversation group Module	80
6.13	Test Case result for Instant messaging Module	81

CHAPTER I

INTRODUCTION

1.1 Project Background

Nowadays, some of the companies are using a messenger program to communicate with other client or staff. Both of this program they can chatting with typing text message and send file to each other. We can classify into two categories that operate in Internet or Intranet network environment

This application is a messenger program that allow user to communicate with each other whose computer are joining in Local Area Network (LAN) with using client-server technology. This allow user to communicate with typing and sending text message. It also allows user to connect and chatting together in the same time.

Beside, it also allow decrease the risk of document file steal or hack by other people when sending file using messenger through intranet to send file.

The main features of this system are combining the client server technology with the database access that will increase the potentials of this system. Besides that, with authentication, it's also making the system secure from the outsider access.

1.2 Problem statement(s)

This segment will discuss about the problem faced between public messenger and LAN messenger:

Today, there are a lot messenger like MSN Messenger and Yahoo Messenger for public communication tools. These messengers allow user to communicate with each other when user are connect to the Internet.

These program have the same weak point, which they will only work when user are connect to the local network, if the computer fail to connect to the network, user cannot communicate with each other using these messenger again. Without this messenger user cannot sending message or file to each other.

Messenger sending file function has facilitated user to send file to each others. With using messenger in LAN, receiver can get the file easily without browsing the share folder in sender computer or using diskette to copy file manually. But this type of messenger is sending file through Intranet although the staffs want to send file in the LAN. The transfer rate of the Instant Messenger (IM) is not stable when user tries to send bigger size files.

IM is also a huge potential time wasted for staff communicating with friends and family to detriment of getting their work done. It had affected the staff productivity in the organization.

From the selected of existing LAN Messenger like WinMessenger 2.0.1 by vypress, Winpopup Lan Messenger by Fomine Software, Softros Lan Messenger by Softros System and QuickMessenger by Jocelyn Picard, the problem statement can be defined as:

i. Unsecured application

The existing system didn't use authentication for login. That means anyone is allowed to access the system. By using the database it will validate each user that attempts to access the system. The database will be placed on the server.

ii. No server are used

Most of the applications found are not using server. The data or information is stored on the client computer only. But this system is using a client-server technology. Which means each data or information is stored on the server.

iii. The application usage is not logged

There is no logging function found from the existing system. The administrator is not being able to control or manage the users that are using the system.

iv. Manually set up LAN computers

It's difficult to set up for each computer in the LAN network especially when it involves many users.

1.3 Objective

The objective of this project is to develop a LAN Messenger which allows users to type and send text messages to each other although there is no Internet connection on the network. By using this application, users can communicate with each other whose computers are joining the LAN.

This messenger will increase productivity of the organization because it does not allow users to talk to people outside of Local Area Network. This will decrease the amount of time people spend talking to outsiders on non-work related issues using public Instant Messaging systems.

The other objectives that are to be achieved from these application systems are:

- i. To provide a client-server messenger system
The application will use a client server technology. Server used to control the users activities such as login, registration and chatting.
- ii. To allow only authorize user access to the application
Before the user can use the application, they need to login with their registered user id and password. Then the server will validate the user id and password entered by the user
- iii. The messenger should operate in intranet
This system should be operating in intranet environment only
- iv. To provide an efficiency application with logging
The administrator would be able to notice which user are online
- v. To provide an efficiency
This system will provide an efficiency messenger through the function and interface
- vi. To allow user registration
User that are using this system need to register
- vii. Improvement from existing application
This system will be improvement from the existing system

1.4 Scope

This application is a LAN Messenger that offer file transfer and text conference capabilities. It is build to solve the weakness of the existing Instant Messenger program, that's the existing messenger program are not working when there is no Internet connection. This application will design for the user whose computers are joining the LAN and it not requires connecting to the Internet. It's base on client server technology.

As a security for the system it will do authentication for the user whose are using the application. Database will validate the username and their password. Only a valid user will allow using this application.

This application will not inherits all the functions of the existing messenger, it only allow user to send basic message of the IM that's typing and sent message on the board. It also allows multiple users chatting in a conversation room.

The target user for this application is the organizations that are required a communication tools for their staff to communicate in their network without interference from the outsider.

This application will be running on intranet network and using Microsoft Windows.

This program will be packaging into a setup file that convenient user to install this program to the computer. It no needs to install extra network protocol such as printer and file sharing.

The modules of the system are:

- i. **Staff login**
The function is only authenticate staff can use this system which a validate username and password.
- ii. **User registration**
The function is a registration for new user
- iii. **User login**
The function is login for user that will use this application. Only registered user are allowed to access the system
- iv. **Send offline message**
The function allow user to send offline message to other user
- v. **Receiving administrator message**
The function is allow user to receive message from administrator
- vi. **Message delivered to selected user**
The function is allow user to send private message to selected user
- vii. **Small group conversation**
User can join the small group conversation

1.5 Project significance

The significance of the project is to develop a messenger system by using client-server technology that does allow the staff of an organization to communicate in a local network environment.

By using validation also make the system secure, where each user that attempt to access to the system required validation from the database.

1.6 Expected Output

By the end of the project, this system is concern to delivery a new improve of communication tool in LAN environment. The expected outputs of the project are:

A messenger application that is using client-server technology. Basic multi user text conference. User can start a conference, which allow multi user to chat together with typing and display the message on the board. Ability to send message to individual user.

No Internet connection require and it's a LAN client server application, so it does not require, unlike public IM system the application only require a LAN to function

An easy setup application will package in a setup file which convenient user to install the application into the system. The users only need to install the program and run it.

1.7 Conclusion

For summary, this project focus on developing a messenger application by using client-server technology system that is user friendly based on users requirements. This system can be used by anyone that had registered only. The user can send and retrieve the message in a secure environment. With the proposed system, the network administrator is able to monitor the usage of the system and it will also able to manage the user account.

In this chapter, developer had determined the problem statement of current system, the objective to be achieved, and the scope of the project. From this chapter, developer was clearly defined and understands the project which wishes to build. It had provided the developer a complete guideline for the development of system.

Henceforward, literature review and project methodology will be discussed in the next chapter. This chapter will review the previous system and make a comparison with the proposed system. It will also discuss the technique used, project methodology and project requirements for this project.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

The intention of this chapter is to present a selected literature review, which is very important for the research. In this chapter, every project development includes discussion of the methodology used. In this study the methods is consist of the compatibility development process.

For all needs and requirement to accomplish this project, there are a number of steps need to be followed and completed through the sources such as seeking information through internet and reference books. The information assembled will be an orientation in developing this project.

Project methodology is important to make sure the validity and accuracy of the results that are obtain through this project. The methodology should result in a good quality that meets user expectations, within time, works effectively and as planned in preliminary phase.