

**THE DEVELOPMENT OF JAVA-BASED SMS EXAM RESULT
SYSTEM IN MOBILE COMPUTING ENVIRONMENT**

ZAINORA BINTI SOLAMAN

**BACHELOR OF SCIENCES (Hons.) IN
DATA COMMUNICATION AND NETWORKING**

**FACULTY OF INFORMATION TECHNOLOGY AND
QUANTITATIVE SCIENCES**

**UNIVERSITI TEKNOLOGI MARA
SHAH ALAM**

APRIL 2006

Title: **THE DEVELOPMENT OF JAVA-BASED SMS EXAM RESULT
SYSTEM IN MOBILE COMPUTING ENVIRONMENT**

By:

ZAINORA BINTI SOLAMAN
(2003285187)

A project paper submitted to

FACULTY OF INFORMATION TECHNOLOGY AND QUANTITATIVE
SCIENCES
UNIVERSITI TEKNOLOGI MARA

In partial fulfillment of required for the

BACHELOR OF SCIENCES (Hons.) IN DATA COMMUNICATION AND
NETWORKING

Major area: Data communication

Approved by Examining Committee:

.....
Tuan Haji Mohd. Izani Mohamed Rawi

Supervisor

.....
En.Mohd Faisal Ibrahim

External Supervisor

.....
Pn. Nor Azimah Khalid

Examiner

DECLARATION OF ORIGINALITY

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any other degree of qualification.

Candidate's Name: ZAINORA BINTI SOLAMAN

Candidate Signature

Date

TABLE OF CONTENT

ACKNOWLEDGEMENT	i
ABSTRACT	ii
LIST OF TABLES	iii
LIST OF FIGURES	iv
LIST OF ABBREVIATIONS	vi
CHAPTER 1: INTRODUCTION	
1.1 Background of The Project	1
1.2 Problem Statement	3
1.3 Project Scope	4
1.4 Project Objectives	4
1.5 Project Significant	5
1.6 Outline of The Project	6
1.7 Conclusion	7
CHAPTER 2: LITERATURE REVIEW	
2.1 Introduction	8
2.2 Java-based	8
2.3 Short Message Services (SMS)	9
2.3.1 Global System for Mobile communications (GSM)	10
2.3.2 SMS Applications	10
2.3.3 Benefits of SMS	11
2.4 Mobile Computing Environment	11
2.4.1 Benefits of Mobile Computing	12

ABSTRACT

The implementation of mobile technologies makes it possible for us to have mobile information application. With this information can be delivered and accessed via various types of portable devices immediately. Mobile information provides mobile users with versatile communication to other people and expedient notification of important events, yet with much flexibility, portability and mobility. It also permits mobile users to have access to information regardless of their physical locations. Looking to the flexibility, portability and mobility offered by mobile technologies, here in this paper we will come out with one of mobile information application called Java-based SMS exam result delivery system. This system will enables students to have access to their exam result via mobile phones. From reviewing the previous researches, we found that there is a problem when using Infrared as the connection mechanism between the mobile phone and the pc. So in this project we solved the problem by replacing the Infrared connection with Bluetooth technology. A successful system is a system that can fulfill user satisfaction and can be accepted by the users. Usability is one of the important factors in determining user acceptance toward a new system. In order to find out the usability of the system we conducted a usability testing and distributing questionnaire. The questionnaire is based on the four usability factors such as effectiveness, learnability, flexibility and attitude to determine students' view on the SMS exam result system. The result of this study showed that the overall level of the usability for four construct (effectiveness, learnability, flexibility and attitude) in student's point of view are in the acceptable level (mean=3.36). From the research we also found that gender, age and experience (in using SMS exam result system) is not an issue in determining the usability level of SMS exam result system.