

**RETRIEVING EXAMINATION RESULTS THROUGH
WIRELESS APPLICATION PROTOCOL**

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RETRIEVING EXAMINATION RESULTS THROUGH WIRELESS APPLICATION PROTOCOL

A thesis submitted to the Faculty of Information Technology in partial
fulfillment of the requirements for the degree Master of Science (Information
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By

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ABSTRAK

Setiap pelajar yang mengambil peperiksaan pasti ingin mengetahui keputusan peperiksaan mereka secepat ia boleh diperolehi. Penggunaan telefon bimbit yang meluas dikalangan mahasiswa di institusi pengajian tinggi membolehkan telefon bimbit dieksploitasikan sebagai medium untuk mendapatkan keputusan peperiksaan. Kajian ini menerangkan keseluruhan proses bagi membolehkan mahasiswa-mahasiswa mendapatkan keputusan peperiksaan mereka dengan menggunakan telefon bimbit melalui *Wireless Application Protocol (WAP)*. Proses-proses tersebut adalah membangunkan *requirement model*, pembangunan prototaip dan *usability testing*. Objektif kajian ini adalah untuk membangunkan model keperluan bagi aplikasi web *mobile* dalam mendapatkan keputusan peperiksaan menggunakan teknologi WAP; dan untuk menilai prototaip yang telah dibangunkan menggunakan teknik *usability testing*. Aplikasi yang dibangunkan adalah dicadang untuk kegunaan mahasiswa-mahasiswa Malaysian Institute of Information Technology, Universiti Kuala Lumpur (MIIT UniKL). Metodologi yang digunakan dalam kajian ini ialah Rational Unified Process (RUP) dan teknik yang digunakan semasa *usability testing* ialah *think aloud protocol* dan temuduga. Berdasarkan *usability testing* yang telah dijalankan di dalam kajian ini, aplikasi WAP bagi mendapatkan keputusan peperiksaan ini adalah efektif dan mudah digunakan dan patut di implementasikan di MIIT UniKL.

ABSTRACT

Students who are taking examinations in any learning institution would like to know their results as soon as it is available. The widely used of mobile phone among students in higher learning institution could be exploited as a medium for retrieving the examination results. They may retrieve the results anytime and anywhere through their mobile device by activating General Packet Radio Service (GPRS) or using Wireless Fidelity (WiFi) technology. This paper presents the whole process for the development of a Mobile Web Application to retrieve examination results using mobile devices through Wireless Application Protocol (WAP). The process includes developing requirement model, prototype construction and usability testing. The objectives of the study are to develop the requirement models of a mobile web application in retrieval of examination results using WAP technology; and to evaluate the prototype using usability testing. The application is proposed for the usage of the students in Malaysian Institute of Information Technology, Universiti Kuala Lumpur (MIIT UniKL). The methodology that has been used is Rational Unified Process (RUP) and the techniques used for usability testing are think aloud protocol and semi-structured interviews. The usability testing that has been conducted in this research revealed that the WAP application in retrieval of examination results is effective, easy to use, well-accepted by students and should be implemented for MIIT UniKL.

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LIST OF ABBREVIATIONS

BIT	Bachelor of Information Technology
CGPA	Cumulative Grade Point Average
GPA	Grade Point Average
GPRS	General Packet Radio Service
IC	Identity Card
ICT	Information Communication Technology
MARA	Majlis Amanah Rakyat
MCMC	Malaysian Communications and Multimedia Commission
MIIT	Malaysian Institute of Information Technology
PDA	Personal Digital Assistant
RUP	Rational Unified Process
UML	Unified Modeling Language
UniKL	Universiti Kuala Lumpur
URL	Uniform Resource Locator
WAP	Wireless Application Protocol
WiFi	Wireless Fidelity
WML	Wireless Markup Language
WMLS	Wireless Markup Language Script

CHAPTER ONE

INTRODUCTION

This chapter presents the main idea of the study which is the process of retrieving examination results using mobile devices through Wireless Application Protocol. It provides an overview of how important examination results to the students, how mobile device can be used to retrieve examination results and the technology involved, and where this research study has been conducted. In addition, this chapter also discusses problem statement, objectives, scope, and the significance of the study.

The contents of
the thesis is for
internal user
only

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