

Mobile-Based Notification System for University's Events

QUSAY MOHAMMAD IBRAHIM AL-ZOUBI

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Mobile-Based Notification System for University's Events

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Universiti Utara Malaysia

By

Qusay Mohammad Ibrahim Al-Zoubi (801087)

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Abstract

Mobile phone plays a very important role in people life today; its functionality has been extended from voice communication only devices to internet surfing and data transfer. UUM as a higher education institute, hold and organize numerous events throughout the academic year and it relies on email communications for notifying its staff. Using the email notification to announce the staff for the function is suffering from two main problems which are: First, some of the staff do not check his/her email periodically, so they may miss read the notification email about the function and therefore they will not attend the function. Second, sometimes internet service is not available or staffs are at some place where they can not access internet which will lead also to make them unaware about the function or the notification about that function. This study has successfully designed and developed a notification system in order to be used by UUM to send the notifications direct to the staff mobile phones via SMS and thus helps in make sure that the notification is delivered to all interested staff. Successfully implementing this notification system in UUM will provide the university a reliable and convenient inter communication channel.

Dedication

I dedicate this humble work to my father and mother; the spring of loyalty, affection, and dedication. They raised me on the principles of virtue, to my dear brothers and sisters; who spared no effort helping me during my school years.

I dedicate this work also for my uncle Ahmad, my grandfather and my grandmother souls.

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List of Abbreviations

ADO	ActiveX Data Objects
BD_ADDR	Bluetooth device address
CAS	College of Arts and Sciences
CLR	Common Language Runtime
EMTEL	Emergency Management Telecommunication
ENS	Event Notification System
GPRS	General Packet Radio Service
GSM	Global System for Mobile communications
HTTP	Hyper Text Transfer Protocol
JSP	Java Server Pages
LAN	Local Area Network
MCMC	Malaysian Communications and Multimedia Commission
MDA	Model-Driven Architecture
MSISDN	Mobile Subscriber Integrated Service Digital Network
ODBC	Open Database Connectivity
OLE DB	Object Linking and Embedding for Databases
PC	Personal Computer
PDA	Personal Digital Assistant
PG	Postgraduate Group
PPG	Push Proxy Gateway
RAM	Random Access Memory
SD	Secure Digital

SI	Service Indication
SMPP	Short Message Peer to Peer
SMS	Short Message Service
SMSC	Short Messaging Service Center
SMTP	Simple Mail Transfer Protocol
SOAP	Simple Object Access Protocol
SSL	Secure Sockets Layer
TCP/IP	Transmission Control Protocol/Internet Protocol
TV	Television
UA	University Administration
UMTS	Universal Mobile Telephony Service
UML	Unified Modeling Language
UUM	University Utara Malaysia
VML	Voice Markup Language
W3C	World Wide Web Consortium
WAP	Wireless Application Protocol
WAN	Wide Area Networks
WLAN	Wireless Local Area Network
WS	Web Services
XML	Extensible Markup Language

CHAPTER 1

INTRODUCTION

1.1. Background

The mobile devices and the emergence of wireless technologies have become today an important element of society. Firms adopted mobile devices and wireless technologies to support and improve their business' performances. Today even small mobile devices can access the internet. Therewith, mobility issues have become an important technical and economic research interests.

Mobile phone has reformed our life, from the means we communicate to the means we conduct business, the mobility of mobile phone make it easier for user to make a call from almost anywhere and anytime. The Malaysian Communications and Multimedia Commission reported that in 2005, there are 16.551 millions mobile phone subscribers in Malaysia from its 26.13 millions populations compared to only 2.150 million mobile phone subscribers in 1998 with 22.18 millions populations, that is on average 63.3 mobile phone subscribers for every 100 inhabitants for the year 2005 (Mcmc.gov, 2008).

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