Advanced Multimedia Messaging Services for Improving Examination Result System

Mr. Rahul. P. Mirajkar[#1], Mr. Ranjeet Kumbhar[#2], Mr. Ajinkya Sarnobat[#3], Mr. Pramod Pawar[#4]
Mr. Sagar Yadav[#5], Mr. Nitin Patil[#6]
Department of Computer Science & Engineering,
Bharati Vidyapeeth's College of Engineering, Kolhapur, India

[1]rahulmirajkar982@gmail.com
[2]ranjeetkumbbhar005@gmail.com
[3]ajinkyasarnobat@gmail.com
[4]pramodpwr38@gmail.com
[5]yadav.sagar313@gmail.com
[6]nitin.patil.4264@gmail.com

Abstract-- **Now A days Mobile devices are important in day to day life for not only making phone calls, but also for information gathering, personal management and entertainment and now days for using different applications The objective of this paper is to improve of m-examination results systems that send results via SMS. This technique is basically useful for university students from time consuming perspective. The system was developed in 3-tier architecture in which it accepts request from student via SMS, then it searches the appropriate information related to request, converts information into PDF document and sends the document to student via MMS. There is another option other than mobile for getting result which is through E-mail. For future works, it is proposed that student can call for photocopy through mobile and both MMS-based and SMS-based functionalities are integrated in a single system to offer more benefits to users.**

Keywords-- **MMS, SMS, MMS-Based Result, SMS-Based Result**

I. INTRODUCTION

Mobile phones are now becoming important part of human lives and have evolved different applications such as organizers, instant messaging devices and address books and many more [1]. According to a business statistical report, there are 102 countries generated more than twenty millions mobile advertisement requests in March 2011. This huge demand for mobile phone services lead to its implementation in various field from personal management use to banking [2], business [3] and gaming [4], [6]. Now a days, mobile phones are often used for banking applications like E-banking. These transactions usually require users to send mobile pin and keyword via SMS to the particular system. Then the system performs the appropriate transaction and replies or sends the result to the customers with the required information via SMS. Another important use of mobile phone system is used for Airline reservation Based on the study, it is shown that the main reasons for people to choose m-ticketing in future is due to its benefits in terms of ease of reservation, quicker process and many others. Mobile technology is very useful in today's world for getting various information and knowledge through various mediums such as internet, message [7]. This paper focuses on utilizing mobile phone technology in examination results delivery for academic institutions. It is learned that there were numerous works done in developing mobile system to allow students to receive their examination results via Short Messaging Service (SMS).Student may have to seen result for sms also, for to send request via sms. With the help of this system user can see the result via sms or mms depending on user's mobile application. But the condition is that whenever user wants to see the result in mms then the request must be send in mms only or user can get the result through sms if user send the message to sms.

In following architecture, there is a server which acts as web server and database. In this system, user send the request through the portal then forwards the request to the server, after getting the request server retrieves the information from the database and send the result back to the user via SMS or MMS.

The SMS-based examination result system has contributed to reduce time taken for students to retrieve the result. It can implement easily by sending a single message which is time consuming as compared to web browsing and manual procedure. The main advantage of mobile system is that this system does not require internet connection hence student can get the result at any time anywhere.

There are many limitations also exist, the first is that the SMS or MMS based result cannot be used for official use, because it normally requires formal printed slip. The second limitation is GSM system can provide limited character for SMS which has maximum length of 1607 bit can be exchange. Due to this limitation examination result consist of student name, seat number id number, college name and other information this all information is split into different parts so that examination result is difficult or not user friendly to student.

Therefore a MMS based result system overcame the two limitations; MMS consist of images, pdf files, audio, video, text etc.

II. METHODS

For system development, nokia mobile phones were used as GSM to enable sending and receiving of messages. For system development, java language was used and for database oracle was used; also netbeans tools have been used for the appropriate project. SDK software:-he Nokia SDKs for Java integrates directly into NetBeans or Eclipse, enabling you to quickly extend your Java language development onto mobile phones. For the Series 40 platform and Symbian and Belle an SDK provides the Java APIs supported by each platform release. Once you have built your application, the emulator provided in each SDK enables you to test your application on a Microsoft Windows PC.

The SDK delivers the following subsystems:

- ✓ Hidden application framework subsystem.
- ✓ Multimedia subsystem.
- ✓ Connectivity subsystem.
- ✓ Real time communications subsystem.
- ✓ System software subsystem.
- ✓ Core subsystem.
- ✓ Application interfaces.

III. SYSTEM ARCHITECTURE

Fig. 1 shows the system architecture of developed system. Student initiates the examination results request process by sending SMS to the specific number provided by the system. The required information to be written in the request SMS is PRN NO. It uses the predetermined format. This information is used as requirements for request SMS in order to suit with the regulations of the institution that have been chosen for this study. It may differ in that have been chosen for this study. It may differ in sender's mobile phone number is then sent to the GSM modem via GSM network. The GSM modem forwards the information to the server to be used by Now SMS software. This software firstly converts the messages from PDU (Packet Data Units) into text mode and then saves it in its database named as, in the inbox table. Next, the system application named as Examination Result System will initiate an interaction with Now with any new requests received by the SMS software.

It converts the messages from PDU into text mode and then saves it in its database named as, in the inbox table. Next, the system application named as Examination Result System will initiate an interaction with Now SMS. This application program must be kept updated with any new requests received by the SMS software.

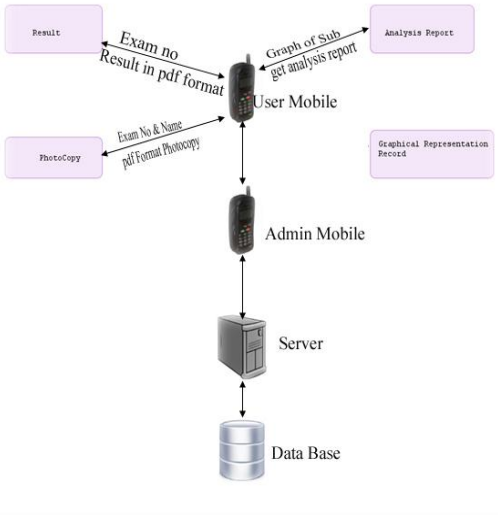

Fig. 1 System Architecture

The received information is compared with student's data in another database on the server, namely examination result database. All students' examination results are stored in this database. If the validation process fails, the program executes the script to send failure SMS notification to student. Otherwise, the program continues to the next process. At this stage, the application will retrieve the matching result from the examination result database and performs conversion upon the text data into PDF format document.

IV. DATAFLOW DIAGRAM

The DFD (also known as bubble chart) is a simple graphical formalism that can be used to represent a system in terms of the input data into the system, various processes carried on these data, and the output data generated by the system. The main reason why the DFD technique is so popular is because the fact that the DFD is a very simple formalism – it is simple to understand. A DFD model uses a very limited number of primitive symbols represent the functions performed by a system and the data flow among the functions.DFD model hierarchy represents various sub-functions.

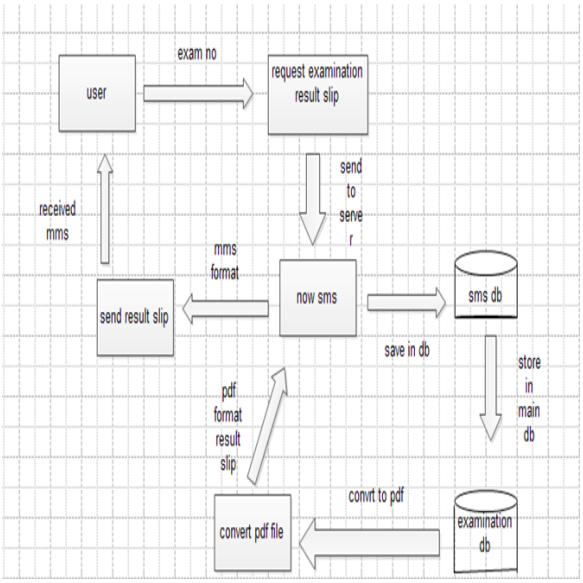

Fig. 2 Dataflow diagram

Fig. 2 shows the data flow diagram of the system

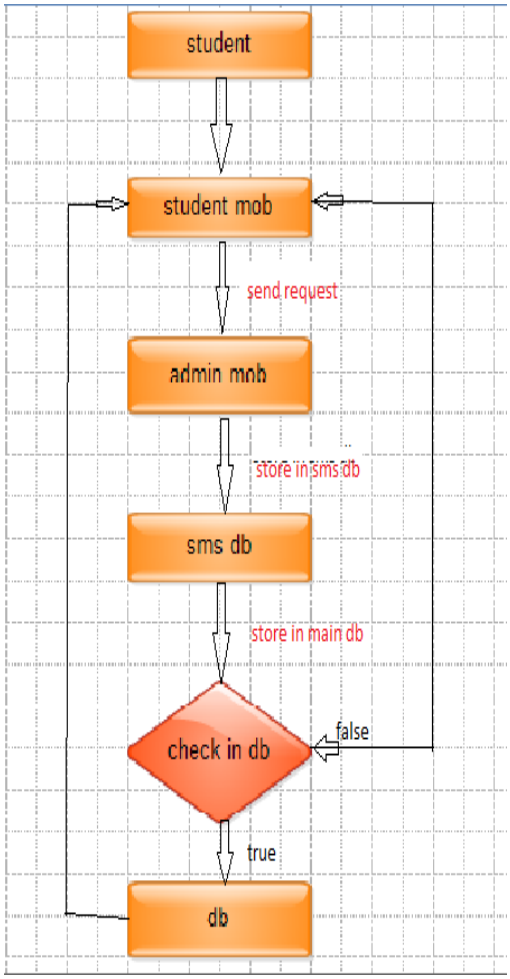

Fig. 3 Flowchart diagram

Fig. 3 shows the flowchart of the system. It is common practice to draw the context-level data flow diagram first, which shows the interaction between the system and external agents which act as data sources and data sinks. On the context diagram the system's interactions with the outside world are modeled purely in terms of data flows across the system boundary. The context diagram shows the entire system as a single process, and gives no clues as to its internal organization. A DFD shows what kinds of data will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of processes, or information about whether processes will operate in sequence or in parallel (which is shown on a flowchart).

V. SCREENSHOTS

Screenshot 1 Sending College Report

Screenshot 2 Sending result

VI. CONCLUSION

The developed system allows students to submit their request via SMS and receive their examination results in PDF document via MMS or SMS. By having this, it is believed that this system could complement the SMS-based examination results

system especially in overcoming two issues; limited number of characters in SMS and unofficial format of the SMS-based examination slip.

In future, we will try to implement and/or modify the proposed work so that, this should be mostly usable module of this system. Mostly for the photocopy, its really time wasting process, in routine process after submitting photocopy form it receive after the one month and it is time wasting process. So we will implement the newly photocopy module. In that student will send sms for photocopy with its exam no, name and for authentication purpose we provide some security purpose. After sending sms user will receive his photocopy in a pdf format through an mms within a weak and he / she will get the print that photocopy and submit in the university.

REFERENCES

[1] Balan, R.K., N. Ramasubbu, K. Prakobphol, N. Christin and J. Hong, 2009. MFerio: The Design and Evaluation of a Peer-to-Peer Mobile Payment System. In the Proceedings of Mobile Systems, Applications and Services Conference, 22- 25 June 2009, Krakow, Poland, and pp: 291-304.

[2] Lee, K.C. and N. Chung, 2009. Understanding Factors Affecting Trust in and Satisfaction with Mobile Banking in Korea: A modified DeLone and McLean's Model Perspective. Interacting with Computers, 21(5-6): 385-392.

[3] Priporas, C.V. and I. Mylona, 2008. Mobile Services: Potentiality of Short Message Service as New Business Communication Tool in Attracting Consumers. Intl. J. Mobile Communications, 6(4): 456-466.

[4] Crabtree, A., S. Benford, M. Capra, M. Flintham, A. Drozd, N. Tandavanitj, M. Adams and J.R. Farr, 2007. The Cooperative Work of Gaming: Orchestrating a Mobile SMS Game. Computer Supported Cooperative Work, 16(1-2): 167-198.

[5] Yang, C.C. and C.M. Lin, 2006. Web Services of MMS Applications on Mobile Devices. J. Marine Sci. Technol., 14(3): 165-169.

[6] Swadesh, K.S., J. Woods and M. Ghanbari, 2010. A Business Model for Mobile Commerce Applications using Multimedia Messaging Service. Intl. J. Business Information Sys., 5(4): 418-439.

[7] Mohd Hilmi Hasan, Nazleeni Samiha Haron, Nur Syafiqah Syazwani Md YazidComputer and Information Sciences Department, Universiti Teknologi PETRONAS,Bandar Seri Iskandar, 31750 Tronoh,Perak,Malaysia