

## THE REAL-TIME INFORMATION BEARING APP

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### ABSTRACT

This paper describes a mobile application which can distribute important notices online. This "Real Time Information bearing app" can be defined as a program that will run on java enabled mobile devices and give notifications to end user in any organization saving workload, paperwork and time. Especially in educational institutes it's very helpful for the students. In case of any new notice regarding important matter this application displays the it with a alert. Notices in different format like .doc, .xlsx, .pdf, .jpg, .bmp etc can be displayed in this app. This app can be downloaded by users from mobile software distribution platforms, or delivered as web applications using server-side or client-side processing to provide an "application-like" experience within a Web browser. This app will require a dedicated server in the administrator site and a java enabled mobile with internet connection on client site. The application will work on real time information publishing in handheld devices.

**Keywords:** Information, notice, mobile, handheld, application (app), java-enabled, Real-time.

### INTRODUCTION

Every day organizations are full of notifications. All people in it should get information in time. For that a real-time mobile app is really very handy & helpful. The Real time information bearing app is defined as a program. Java enabled mobile device will notify each and every personnel in an organization. It is very essential and helpful for any educational institute. Users enable to download using client side processing. Dedicated server is maintained

in the administrative site. This application will work for real time information system.

#### Mobility Program

In Java mobile programs or apps can be written using Java 2 Micro Edition (J2ME). J2ME It is a software specification for developing small computing devices. It provides flexible environment for application running on mobile and other embedded devices. Application based on

J2ME is portable across many devices. After the successful completion of the CLDC and MIDP standardization efforts, a number of additional J2ME standardization efforts have been launched to complement the functionality provided by the core standards [1].

In the case of mobile phones, it is common for the manufacturers to implement some device-specific extensions in addition to the profile itself, such as the ability to control the loudspeaker and vibrator on the phone. It should be noted that creating MIDlets that take advantage of these extra features no longer adhere to the original specifications, and thus cannot be used on devices which do not support them [2].

J2ME uses configurations and profiles. The configurations determine which Java Virtual Machine (JVM) is used and the profiles determine the application by adding domain-specific classes ([JoGo01]) [2]. There are currently two configurations defined for J2ME, Connected Limited Device Configuration (CLDC) and Connected Device Configuration (CDC). CLDC is used for smaller, 16 or 32 bit devices with limited amounts of memory (e.g. PDAs and mobile phones), while CDC is used for 32 bit devices with over 2 MB of memory (e.g. Set-top boxes). This paper will concentrate on CLDC.MIDP is geared towards devices like mobile phones and two-way pagers, and will be profile focused on in this paper.

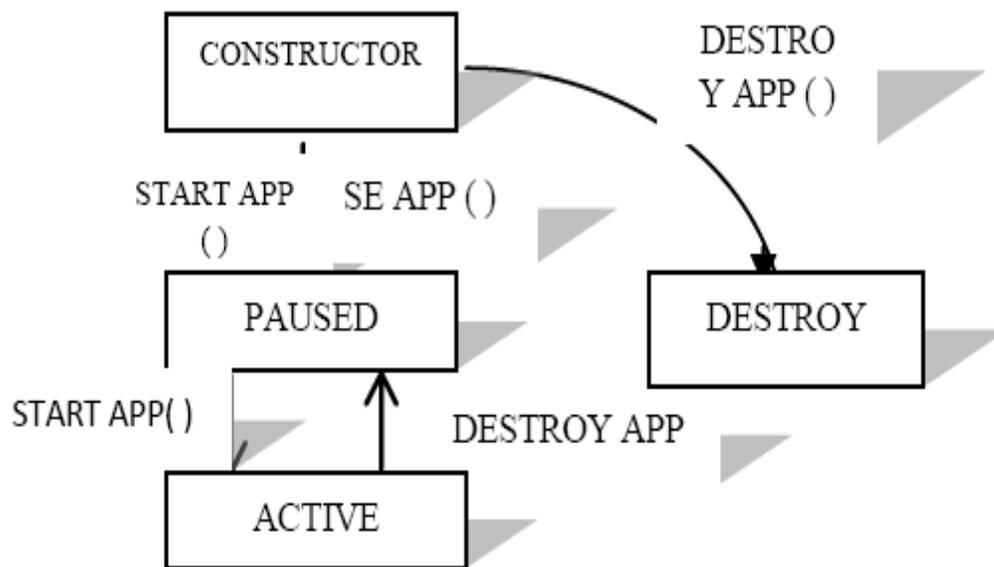


Fig-1: MIDlet (MIDP) Application Life cycle

## **Mobile App**

A mobile app is a computer program designed to run on mobile devices such as smart phones and tablet computers. Most such devices are sold with several apps included as pre-installed software, such as a web browser, email client, calendar, mapping program, and an app for buying music or other media or more apps.

### **Why is Mobile App better than browsing the Mobile Web ?**

It's much faster. It takes a second to launch a Mobile App. It can take up to several minutes for a Mobile Web to load in an area with bad reception.

Mobile Web Sites are important but they do not replace the need for Mobile Apps for the following reasons:

Mobile Apps: Function offline  
Mobile Web Sites: Don't

Mobile App: Enable Push Notifications for Direct Contact with Customers

Mobile Web Sites: Don't

Mobile App: Always visible on your phone's home screen

Mobile Web Sites: Not always visible  
Mobile App: Appear in the App Stores  
Mobile Web Sites: Don't

## **Design and Implementation**

The application is developed in Netbeans by using mobility program (J2ME) of Java. J2ME gives MIDlets as units. Mobile Information Device profile (MIDP) is MIDlets. MIDP device contains Application Management Software (AMS) which downloads the MID let suite from the server, opens the MIDlet suite, then launches the user specified MIDlet on the MIDP device. The android users must download the .apk version available & install it in their device. For displaying the notices HTML+CSS is used. In the server notices will be saved in different file formats like pdf, doc, jpg, bmp, txt etc . Then they will be delivered to users through the mobile app entitled as "The Real-time Information Bearing App". For prototype development the architecture, given below is used.

### **Required Tools**

The following tools have been used to make the prototype of the application.

Emulator – MidpX Emulator. Software-NetBeans IDE, WTK 2.5 Local server-Tomcat

Android mobile (To test the app )

### **Result**

The proposed architecture has been followed & the following output has come. The app is also tested (offline) in mobile device directly

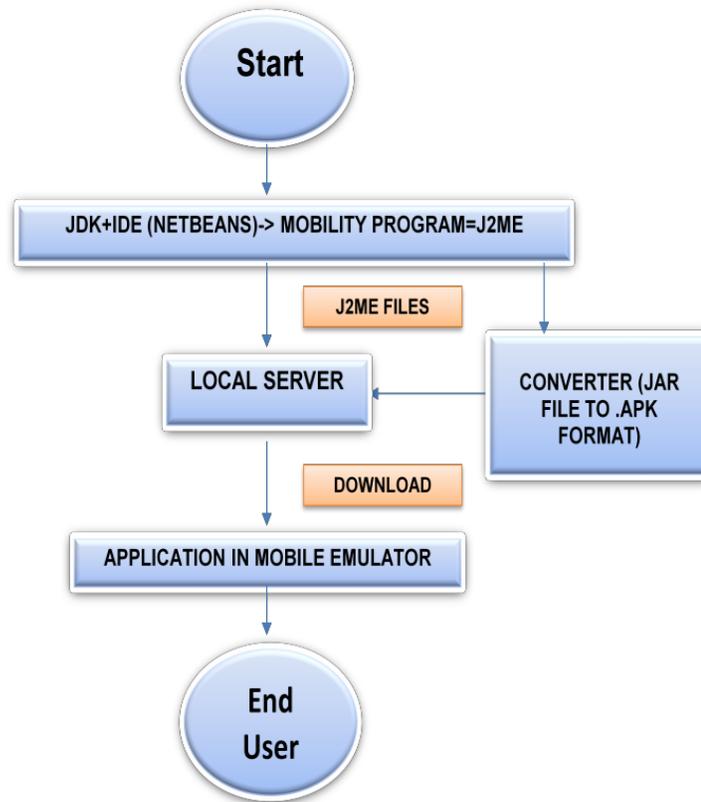


Fig-2: Proposed Architecture for the prototype

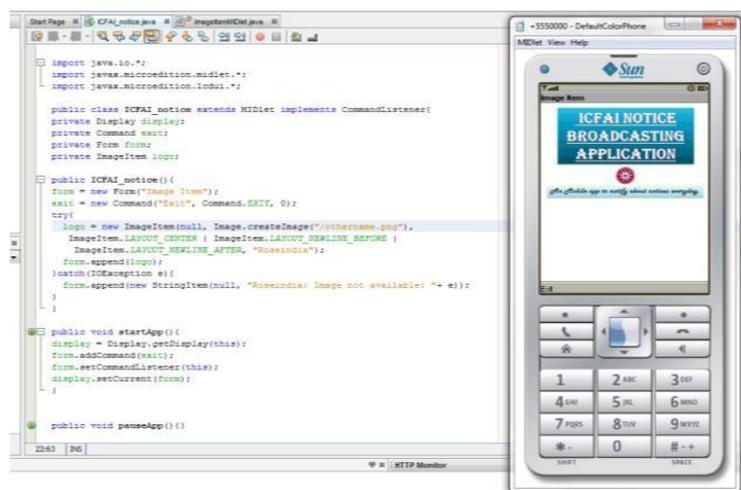


Fig-3 : Snapshot of Home page

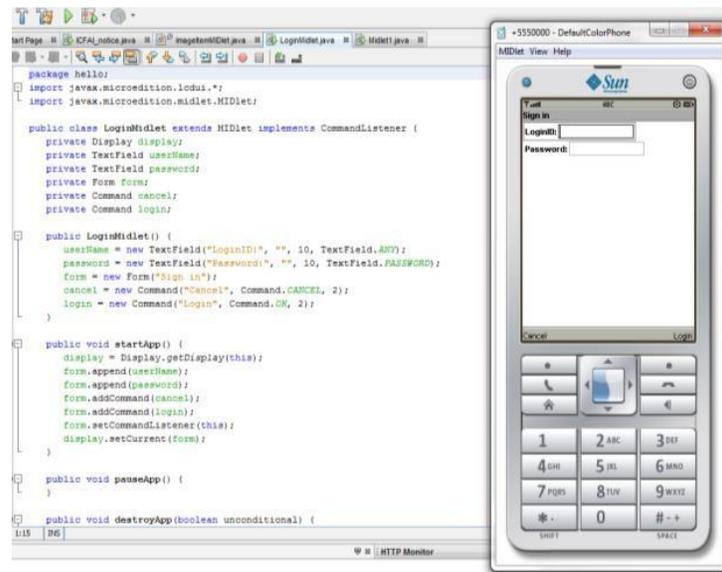


Fig-4 : Snapshot of Login page

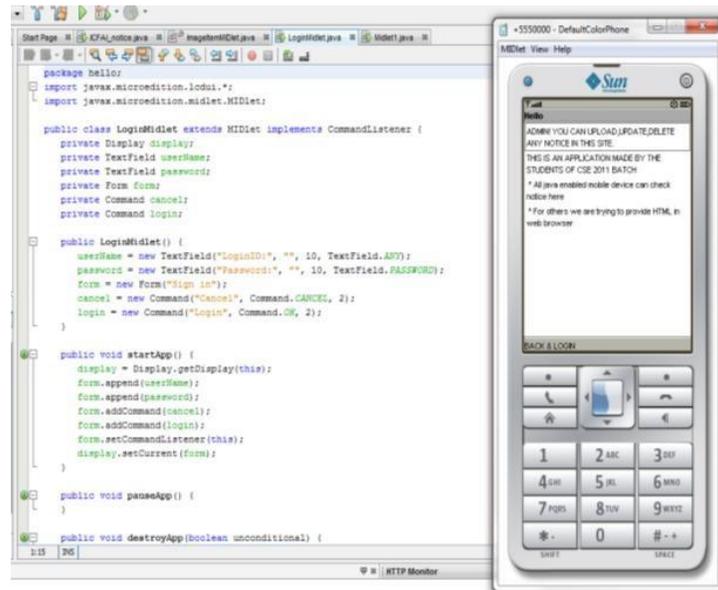


Fig-5: Snapshot of Preface page

## CONCLUSION

This app gives an efficient way of broadcasting notices. This is cost effective, time saving & easily manageable user friendly application. This app will be password protected and so data security will be maintained. The notices can be saved only by administrator in the dedicated server. The notification will be available to each and every student using this application. The only disadvantage off this app will be that it will work on only java enabled devices (eg. Android) but we will make future efforts so that it runs on every platform.

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