Android Application for College

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Abstract: **We are making one android application for our college. This application gives the complete details about the college like Admission procedure, various departments' information etc. In that special job hunting section we are going to provide a new job opening in every one hour duration. The best advantage of these application will be messaging system that we are going to provide in the application. Every student will receive an SMS every hour about the job opening. If teacher wants send any kind of message any group of student, they can directly send the SMS notification to all the students with our messaging system. These help the student of college to be updated always and also attract all students to get admission in our college.**

Keywords: **Android, android operating system job hunting, Eclipse, notification, SMS system, SQLite,**

I. INTRODUCTION

As the technology increasing day by day moving with the technology increased with the same time. Now if someone wants to start the organization they have to first create a website for starting the organization. This means on-line presence of organization was important in those days. As all the computation is now shifted to the hand handle devices most of the users visit website through mobile phone itself, but the look and feel of the website varies from mobile to mobile and from resolution to resolution. This generates the need of mobile applications in market. If you have only web application this will not fulfill the current market need, also you will lose many of your clients because of competitions.

If someone gets the job on campus then its fine, but if someone fail to get the job on campus then its becomes too much difficult to get the off campus job. The major problem was not in getting the job, But the actual problem was that students were not aware about the openings available in the respected region. So in our application we added a new feature called as job section. In job section our application automatically search the openings available for the students and update the respected information in the application. This application update one job opening in every one hour. This openings content the full job description including company name, Job profile, Salary structure and many more information about the job.

II. LITREATURE SURVEY

Sunguk Lee et all creating and using database using SQLite for android application[1].Using an SQLite database in android does not required a set up procedure or administration of the database. They define the SQL statement for creating and updating the database. Therefore it is recommended to perform database operation asynchronously.

Suhas Holla et all creating android base mobile application development security that in the advancing world of technology[2].Mobile application are rapidly growing segment of the global mobile market. In these paper android mobile platform for mobile application development layered approach and the details of security information for android is discus.

Kirandeep et all, described implementing security on android application that define a new component based frame work for developing mobile application where each application is comprised of different numbers and type of components[3].Android is platform towards software development for mobile and non-mobile applications.

III. PROPOSE WORK

Fig.1.Android Architecture

SRPCEAPP is an android application which gives the complete details about the college like Admission procedure, maps, mission vision etc. In that special job hunting section we are going to provide a new job opening in every one hour duration. This job opening will be from across the India like Google, IGATE ,Facebook, Acenture and rest all the organizations. We are going to write an algorithm which will find job opening online in every hour and submit that opening to our application. The best advantage of this application is messaging system that we are going to provide in the application.
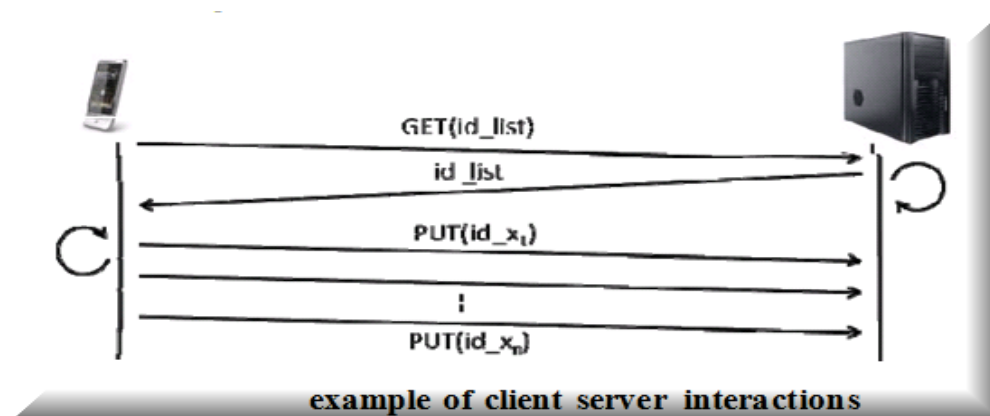

Fig. 2.Technical Architecture

IV. IMPORTANT ANDROID COMPONENTS

An Android application consists the following parts:

1. **Activity**-Represents the presentation layer of an Android application, e.g. a screen which the user sees. An Android application can have several activities and it can be switched between them during runtime of the application.

2. **Views**-The User interface of an Activities is built with widget classes which inherit from android. view. The layout of the views is managed by androidview. Views often have attributes which can be used to change their appearance and behavior.

3. **Services**-Perform background tasks without providing an UI. They can notify the user via the notification framework in Android.

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4. **Content Provider** - Provides data to applications, via a content provider your application can share data with other applications. Android contains a SQLite DB which can serve as data provider

5. **Intents**-Asynchronous messages which allow the application other services or activities. An application can call directly a service or activity (explicit intent) or ask the Android system for registered services and applications for an intent (implicit intents). For example the application could ask via an intent for a contact application. Applications register themselves to intent via an Intent Filter. Intents are a powerful concept as they allow the creation of loosely coupled applications.

6. **Broadcast Receiver** -Receives system messages and implicit intents, can be used to react to changed conditions in the system.

Android components are Live Folders and Live Wallpapers. Live Folders display data on the home screen without launching the corresponding application.
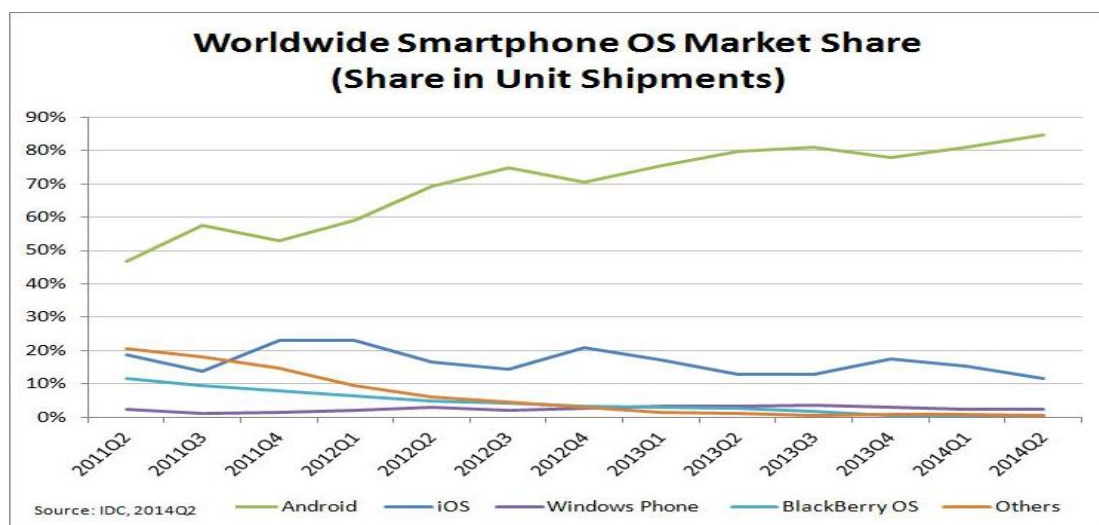

Fig. 3.Worldwide Smartphone OS market share

Table 1. Smartphone OS market share, Q2 2014

Period	Android	iOS	Windows Phone	BlackBerry OS	Others
Q2 2014	84.7%	11.7%	2.5%	0.5%	0.7%
Q2 2013	79.6%	13.0%	3.4%	2.8%	1.2%
Q2 2012	69.3%	16.6%	3.1%	4.9%	6.1%
Q2 2011	36.1%	18.3%	1.2%	13.6%	30.8%

Android continues to dominate the global Smartphone market, with over 255 million units shipped and nearly 85% of the market share in the second quarter of 2014 as shown in fig3. Most of Android's strength this quarter was fueled by gains in the low (US$100<US$200) and ultra low-end (<US$100) of the market, seeing those categories grow 13.0% sequentially since the first quarter as shown in table1. As expected, Samsung was the largest vendor of Android-based devices, followed by Huawei, Lenovo and LG. However, the strength of the top 5 players is weakening, as they collectively accounted for 54.5%,down from the top 5 a year ago with 63.0% share.

Dalvik Virtual Machine:

Android uses a special virtual machine, e.g. the Dalvik Virtual Machine. Dalvik uses special byte code. Therefore you cannot run standard Java byte code on Android. Android provides a tool dx which allows to convert Java Class files into dex (Dalvik Executable) files. Android applications are packed into an .apk (Android Package) file by the program aapt (Android Asset Packaging Tool) To simplify development Google provides the Android Development Tools (ADT) for Eclipse. The ADT performs automatically the conversion from class to dex files and creates the apk during deployment.

Security and permissions:

Android defines certain permissions for certain tasks. For example if the application wants to access the Internet it must define in its configuration file that it would like to use the related permission. During the installation of an Android application the user receives a screen in which he needs to confirm the required permissions of the application.

V.   MODULES

1. Offline android application

2. Parsing job hinting data and push into our application

3. Parsing job hunting and storing in website database. (Sending Job hunting data to device via GCM.)

4. Using GCM Service to send notification to the students.

VI.   METHODOLOGY

Google-provided GCM (Google cloud messaging)connection Servers take messages from a 3rd-party application server and send them to a GCM-enabled Android application ("client app") running on a device. For example, Google provides connection servers for HTTP and CCS (XMPP). A 3rd-party application server that you must implement. This application server sends data to a GCM-enabled Android application via the chosen GCM connection server.

Following steps for implement 3rd-party app server:

1. Decide which GCM connection server(s) you want to use. Note that if you want to use upstream messaging from your client applications, you must use CCS.

3. If you decide to use the HTTP connection server, you can use the GCM server helper library and demo app to help in implementing your app server.

4. If you decide to use the XMPP connection server, you can use the provided Python or Java Smack demo apps as a starting point.

5. Note that Google AppEngine does not support connections to CCS.

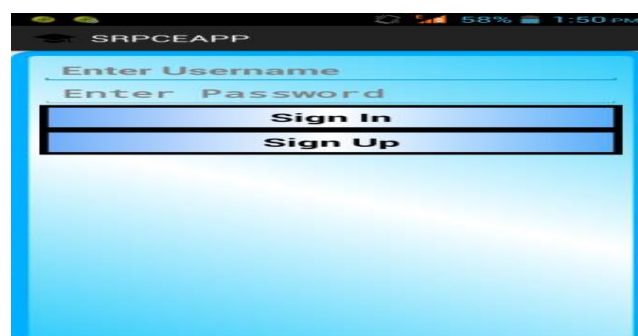6. A full GCM implementation requires both a client implementation and a server implementation.

VII.   SNAPSHOTS

Fig. 4

When you go to the application first login form appear as shown in fig.4.The user have to enter their username and password then sign in to the application.
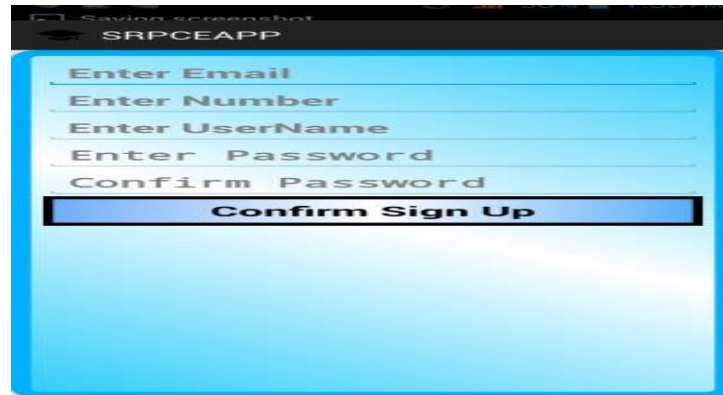

Fig. 5

When user sign in the application then next page open as shown in fig.5 in that user have to fill their email address, mobile number, username, password and confirm password.

Fig. 6

Then college logo and name appear as shown in fig.6 and various images related to college.

Fig. 7

Our application contain all information about college in that various option are present as shown in fig.7.For example user click on department option then all department information display for user. When user click on job menu then all job information display.

When user click on job menu then all job opening information display as shown in fig.8.User can select the job according to their qualification and apply for that job.

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Fig. 8

VIII.   APPLICATIONS

Android will work core applications including an email client, SMS program, calendar, maps, browser, contacts, and others. All applications are written using the Java programming language by providing an open development platform android offers developers the ability to build extremely rich and innovative applications. Developers are free to take advantage of the device hardware, access location information, run background services, set alarms, add notifications to the status bar.

Developers have full access to the same framework .API is used by the core applications. The application architecture is designed to simplify the reuse of components any application can publish its capabilities and any other application may then make use of those capabilities (subject to security constraints enforced by the framework). This same mechanism allows components to be replaced by the user. Underlying all applications is a set of services and systems.

1. A rich and extensible set of views that can be used to build an application, including lists, grids, text boxes, buttons, and even an embeddable web browser.

2. Content providers that enable applications to access data from other applications (such as Contacts), or to share their own data.

3. A resource manager, providing access to non-code resources such as localized strings, graphics, and layout files.

4. A notification manager that enables all applications to display custom alerts in the status bar.

5. An activity manager that manages the lifecycle of applications and provides a common navigation back stack.

IX.   CONCLUSION

This android application will contain all the information regarding our college which is beneficial to the college students. In the designing part we are inserting various images of our college; this application contains all the information about our college principal, directors, management etc.

Now if the students install this application they will be able to get the updated information regarding various jobs in their mobile phones but it requires internet. This makes the job hunting process easier. By making this application the students are able to get the current information regarding college such as updated time table, notices, results etc. this application is more beneficial to the college.

REFERENCES

[1] Suhas Holla etal "Creating and using database for android application" Ijoart international journal of computer trends and technology, Volume no. IV, 2012.

[2] Sunguk Lee "Android based mobile application development and it's security "International journal of database theory and application, Volume no.III, June 2012.

[3] Kirandee etal "Implementing security on android application" The international journal of engineering and science(ijes),Volume no.I ,2013.