Employment Exchange Application for Android Platform

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Abstract:-- The prime objective of "Employment Exchange Application" is to create a full-fledged Android Application which would allow the user to register their qualifications and experience with the valid proof and provide employment assistance on the basis of that. Job seekers could search suitable jobs based on their qualification. After registration, a unique user ID will be generated as a reference. So that next time the user could login with the user ID and could make any updates if available. Job seekers could also check their status by the option Status. By choosing SMS option, whenever government vacancies are announced, the registered member with the suitable education profile will be intimated through an SMS/Mail.

This project was done using Eclipse. It also uses Android Software Development kit (SDK) which includes a comprehensive set of development tools that help us to develop mobile Applications on the Android platform.

Keywords- Android SDK, Eclipse-IDE, java, SQLite

I. INTRODUCTION

Employment Exchange Application is a new Technology for job seekers to register their qualifications through this application rather than online. One of the main disadvantages in the present online system is that, it provides potential candidates with a facility to save their work as they do, but Internet service drop-offs and system timeouts can result in the loss of application content at any point throughout the process, forcing potential candidates to go back to the beginning and enter their details.

In other case, One need to visit nearest employment exchange office in the area of residence and wait for long an hour in Employment office to register. And also they occupy an enormous amount of space and create a noise pollution over there it would be very simple and easy if it is carried over using this application. To provide an integrated solution for the above said problems is the motto of our project.

II. OBJECTIVES

- ❖ Job seekers can easily search for suitable jobs based on their qualification.
- ❖ To store the data about the users in a secure way.
- ❖ To make Employment Exchange System more easy and user friendly.
- ❖ To reduce the manual work during registration and updating details.
- ❖ Usage of ICT infrastructures in minimum amount.
- ❖ To reduce the electricity and power backup facility.

III. LITERATURE REVIEW

This article [1] gives detailed information about how to start an android application and to overcome the hurdles while developing an application. It provides the basic steps for application development and in which it has four phases as setup, Development, Debugging and Testing, Publishing. It also provides detailed information about the installation of software.

This article [2] gives detailed information about the job search systems. It uses an Algorithm in which it provides secure login. Unauthorized users cannot login until they are provided with unique identification number. It provides Un-registered users to view jobs available but the user should be logged-in to apply for job. It causes fuzzy preference rules to make proper decisions. It uses ANDROID 2.2, JADE-LEAP and the Google API to provide a robust and user friendly solution.

The authors in [2] have developed three kinds of application on Java and Android SDK- Weibo client, video player, Audio player. Test hardware environment is Lenovo Y460 laptop and millet MI phone; software

environment is windows 7 and phone system environment is Android 4.0.3. Network environment is 10M broadband, WIFI LAN and chine Mobile GPRS network. The audio player uses Content Resolver and curor to obtain music files and play the music. The video player uses Media player class provided by Android SDK. Sina weibo client can complete OAuth 2.0 authentication method for user to complete the login process.

The authors in [3] discuss about the challenges and issues faced during Android application development. Android is an open source operating system with its powerful function enables the user friendly atmosphere. This paper gives a detailed reference of a new app PikDish developed for restaurants. It consists of main components like Users which allows a people to rate individual food items, Entities like food items, Dimensions which describes about the categories that are formed to rate the food items, Belief system which is personal to each user. It says that experience of developing this app is quite challenging, motivating as well as satisfying.

IV.   METHODOLOGY

A. Users

After installing the application the user can login using the unique ID and password. If he/she is a new user, options are available to register. Once the user logs in, details must be given. Thus the details are uploaded in the database. The registration will be successful. The user can login whenever he/she needs any information and also can update status periodically.

B. Administrator

Once the user submits his details the administrator verifies whether they are valid. On confirmation, intimation is provided to the user. After this the administrator keeps the user updated about the job opportunities. This facility can be provided through automated SMS and E-mail. Therefore this will be helpful for the user to access.

C. Implementation

Initially, applications are designed to satisfy multiple user needs. On registration, a unique id(mail ID) will be generated for the user. No two registrations are possible for a single user. The user logs in using his / her unique id to access the details. To view the details, the user id and password is just enough.

Any information in this database is notified to the user using mobile communication. Administrator gathers information from various government offices and updates the database for each user. User can render the information in the database by accessing the application.

V.   ARCHITECTURE

1. Android Architecture

Android System is a Linux-based system. Android architecture (fig. 1) consists of four layers such as Linux kernel, Libraries and Android Runtime, Application Framework, Application and Widgets.

A. Application and Widgets

Android application gives a set of applications including browser, contacts, maps, calendar which is been developed in Java.

B. Application Framework

The developer can access all the API framework of the programs. It simplifies the reuse of its components. It has to follow the security of the framework when all other apps can access and be able to use this component.
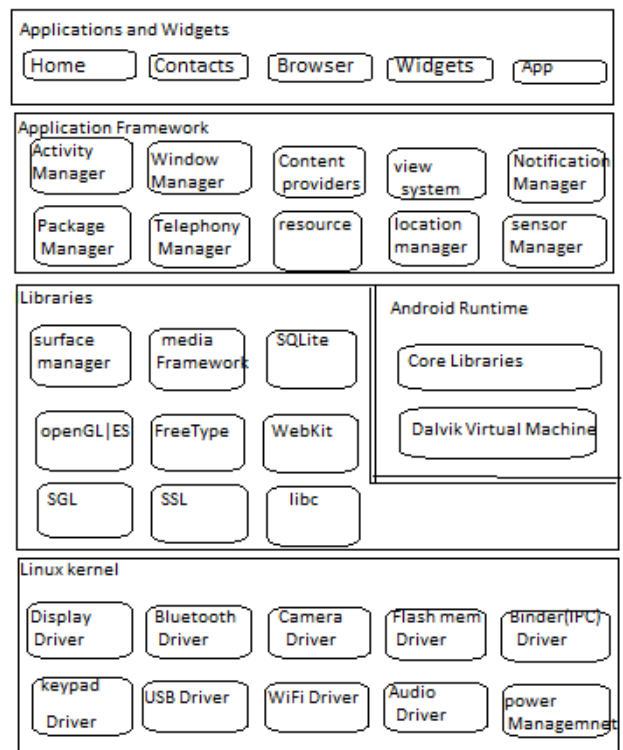

Fig. 1- Android Architecture

C. Libraries and Android Runtime

The library is dividing into two components; They are Android Runtime and Android Library. Android Runtime consists of Core libraries and Dalvik Virtual Machine. Core Library provides Java Core Library with some functions. Dalvik Virtual Machine is a register based and runs classes compiled by the Java language compiler that has been transformed intodex format. Android system

library that connects between application framework and Linux Kernel. It is developed in C or C++ language. They provide service for the developers through the application framework.

D. Linux Kernel

Linux gives the Android developers a pre-built, already maintained operating system kernel to start. The kernel system service provided by Android inner nuclear layer is based on Linux 2.6 kernel. Operations like internal storage, process management and other core service are all based on Linux Kernel.

2. SYSTEM ARCHITECTURE

The application being developed is located in the workspace which contains the necessary packages, manifest file, .xml and .java files. Each page in the application is called an activity which has to be recorded in the manifest file. The event handling is done in .java file. When the application is developed and compiled, it is run on an android emulator during which a .apk file is created which is transferred to the mobile and the application is installed.
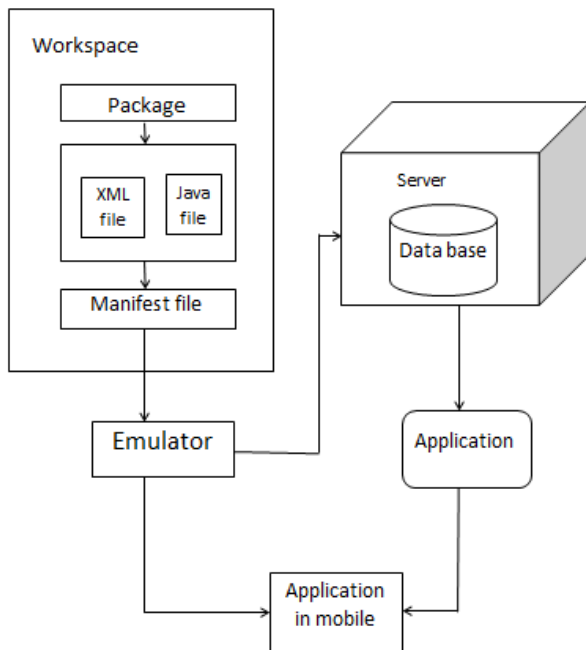

Fig. 2-System Architecture

3. PROPOSED SYSTEM

Android is an open source operating system used for smart phones and tablet computers from a host of manufacturers offering user access to Google's own services like search, YouTube, Maps and more. Dramatic breakthrough in processing power along with the number

of extra features included in these devices has opened the doors to a wide range of commercial possibilities. One Application that falls into this category is our 'Employment Exchange Application' developed for Google Android Phones.
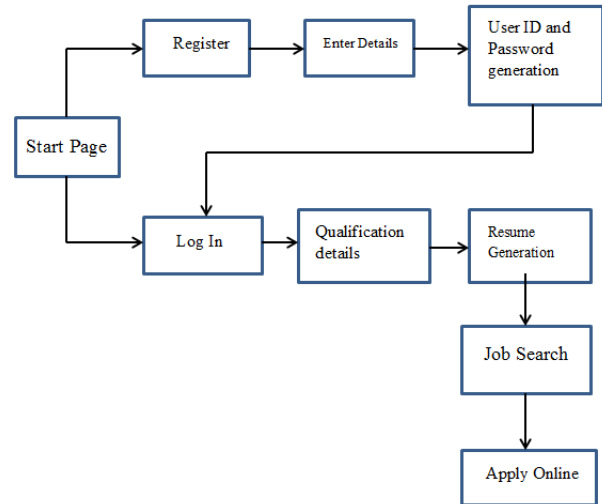

Fig. 3-Process Flow

A. Tools Required
- ❖ Android SDK Tools.
- ❖ SDK platform Android 4.4(API 19). API level shout be set to higher. So that it can run in all environments.
- ❖ Eclipse IDE In this paper we are using Eclipse 4.2(Juno).
- ❖ ADT plug-in Android Development Toolkit is a plug-in for the Eclipse IDE that is designed to give powerful, integrated environment to build Android Applications.
- ❖ AVD Manager We create Android Virtual Device and connect hardware devices, on which we can run our applications.

B. Process Flow
1. New User

When we get into this application as shown in Fig.2, we would start up with login page where there could be two options like login and register. If it is a new user he/she should click on to the register button. Therefore user can enter their own personal and contact details. After completing the process user will be provided with a unique ID and password.

2. Registered User

In the case of registered user, he/she can login with his/her own unique ID. Also user can view the details else they can update their details if needed. In case the user forgets the password an OTP will be sent to the mobile with which it can be recovered.

3. Resume Generation

The application has an additional feature to auto generate a resume for the user. In this process the user must provide all the qualification details and skills with which a resume is formatted and forwarded to their mail in a .pdf format.

4. VIA Mail/SMS

This application also has the possibility of viewing their jobs not only by viewing this app every time, but also the information can be passed via Mail and through SMS (Short Message Service) regarding the Job fairs and interviews for jobs that match their qualification.

5. Additional Features

The application also contributes to provide continuous notifications regarding the government aided social events like, medical camps, awareness campaigns, and other public related service camps. Using the information users can also volunteer for blood donation, fund raising and other social events.

6. Server Connectivity

An important process involved during the development of the application is the server connectivity to the mobile user. The android app consists of SQLite database driver which can be used to store and fetch data.

VI.   CONCLUSION

Our objective behind this paper is to provide Employment Exchange System more user friendly. The Job search system provides the users with the ease of registering for jobs without having to wait in long queues in government employment office. And the application also invokes people to try for government jobs and not alone prefer private jobs.

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