An Application to Enhance the Admission Process and Communication between Members of an Institute

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Abstract— With the development of internet, the internet information broadcasting and information sharing technologies have made it possible for us to access the information from all around the world at ease. In today's world, the use of internet has eliminated the need of physical presence of people in all aspects. The main objective is to take advantage of fast growing popularity of Android devices by developing an Android application that provides people with a tool to fill in the application form for an Institution and also provide intra-college communication. The project provides the Design and Development of an android application that would allow us to submit admission form of an institution and use web services to allow communication within the institution. The project mainly focuses on using of web services through mobile device. Cloud computing is the use of computing resources that are delivered as a service over a network. Mobile phones are devices that are cheap and widely used all over the globe today. The cloud services and applications can be used by people for communication and various other activities. People can use their mobile phones and other devices like tabs etc. for using these services. These services prove to be of great use in fields like education (e.g. e-mails, educational applications and tools for students and teachers and clients located within the college campus). Considering the present communication system, the proposed system provides a cost effective application for users in their daily life. The Android Application for Online Admission and Intra-College Communication can improve the quality of education system. The Android application is developed using Eclipse in conjunction with Android SDK tools. Users of this application would be able to fill in the admission form and will be able to communicate via the application by receiving notifications right onto their mobile application. The scope of this project is to show the potential use of Android application within organizations in the admission making and in the communication process.

Keywords— *android application, intracollege communication, online admission, multipurpose application.*

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I. INTRODUCTION

Android is a Linux-based operating system primarily designed for mobile devices such as smartphones and tablet computers utilizing ARM processors. Android being free for commercial use, it has strong, wealthiest and innovative backbone of computing behind it. Android application is a collection of tasks; each task is called an activity[1]. NetBeans and Eclipse are the two integrated development environment (IDE's) which are used for Android development using Android Development Tools as a plug-in. An application to enhance the admission process and communication between members of an institute has been developed which is based on android platform.The application makes use of web services. The most important feature of web services is that they are self-describing. This application facilitates filling up of admission form using the android application which then gets stored in the database and is accepted or rejected by the administrator. The teachers login to the application and then create groups or send messages or create events and manage events. The staff using this system can thus individually address each student with task assignments, submissions, etc. The staff has also been given the facility to send email to the desired student for purpose of communication. The students login to the application and can view their messages. Notes can also be added by the students or the staff. The Application will reduce the amount of energy required as compared to traditional approach. It makes the submission of admission form more reliable and communication more effective. A server present in campus premises will also have a cloud installed on it. Cloud computing provides computation, software, data access, and storage services that do not require end-user knowledge of the physical location and configuration of the system that delivers the services[2]. Web services that we are going to provide will be hosted on this cloud. Students and staff will be connected to the cloud via the mobile application. All the data that is submitted will be stored in a MySQL database.

II. PROBLEM DEFINITION

Every year the admission process is a tedious task to perform considering the traditional paper based method for any educational institute. A lot of resources such as manpower, space, time, paper are being consumed in this method. The process of communication between students-teachers or among members of institute is time consuming and inefficient. Traditional system requires a manual work of writing notifications, taking printouts and then displaying it on the notice boards. In this it is must that students have to check the notice board periodically. With advancement in technology and current lifestyle of people where time is an important and precious resource it is necessary to develop a mechanism to save the same and make the efficient use of technology.

III. SYSTEM DESCRIPTION

A. Current System

The current admission system is very inefficient. The student has to travel to the institute to seek admission i.e fill the admission form and submit. Lots of paperwork included are also and also involves manual errors while carrying out the task. As far as communication among different members is concerned a system that allows intra-college communication is developed. The system that is developed uses wifi technology which is the major advantage. Any user can use the services by turning on the wi-fi of its system. Teachers act as an administrator who can post important notifications, messages, notes or any other information regarding academics from their PCs or android app. Students can get this information instantly on their android app. Creation of groups and different users was supported.

B. Developed System

A new approach of developing an Android Application is being used to facilitate the submission of application form for an educational institute and promote intracollege communication. Paper work is reduced due to communication though the application. With Android application, easy and fast communication is now possible. All the data related to students is stored on the MySQL database which is at the admin side .The users of this system are teachers and students. Teachers can post important notifications, messages, notes or any other information regarding academics from their account. Students get this information instantly on their android app. So, with the help of this system students can get vital information regarding their academics as well as updates about it on time. The admin has the authority to add staff and provide them with a platform to carry out further tasks. The admin also validates the forms submitted by the student and also updates the form if the students requests for the same .The staff manages groups, broadcasts messages, send mail add and manage event. The user i.e. the staff or the student has been given the facility to add notes .He can view the notes as and when required. The staff is given user-id by the admin and the password is sent to the staff via the email. The staff can then login using that id and password. The staff has the provision to add students and then send messages by creating groups. The staff using this system can thus individually address each student with task assignments, submissions, etc. This will save a lot of time usually required to meet and address individual students. It makes the submission of admission form more reliable and communication process among the staff and the students more efficient and effective.

IV. USER CLASSES AND CHARACTERISTICS

The users of the application are students, teachers and the administrators who manage the different operations. The users are assumed to have basic knowledge of the Android device and Internet browsing. The administrator of the application has more knowledge of the internals of the app and is able to rectify the small problems that may arise.

Users involved in the system :-

A. Administrator
B. Teaching Staff
C. Android App

A. Administrator :-

Administrator is important user of this system. Administrator will be responsible for validating the forms submitted by the students. He/She will be managing the operations like adding new staff member and updating details of existing staff members.

B. Teaching Staff

When the teacher runs the application for the first time, a login screen will be displayed through which teacher will be entering the username and password required for authentication. The teacher will be provided with a unique login ID. After entering the correct login ID and password, the teacher will get authenticated and directed to the next screen. The next screen contains various options such as manage notifications, add notifications, add student, SMS broadcast, email broadcast etc. Teacher will need to select any option such as add notification. After selecting the particular operation, web service will get called by clicking a button provided on the screen. The web service thus invoked would send the notifications to the students in the group belonging to a particular semester and branch as per the input provided.

C. Android App

Students will be the users of this app. They will have to install this application on their android phone. Each student will have a unique username and password, which will be provided to them by admin. Only teachers will be able to add new student or remove existing student, student do not have such privileges. Students can the view notifications, create and manage personal problems, send SMS messages to other users.

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Fig 1 Architecture

V. System Implementation

Fig 2 Admin Side Application

Fig 3 Staff Side Application

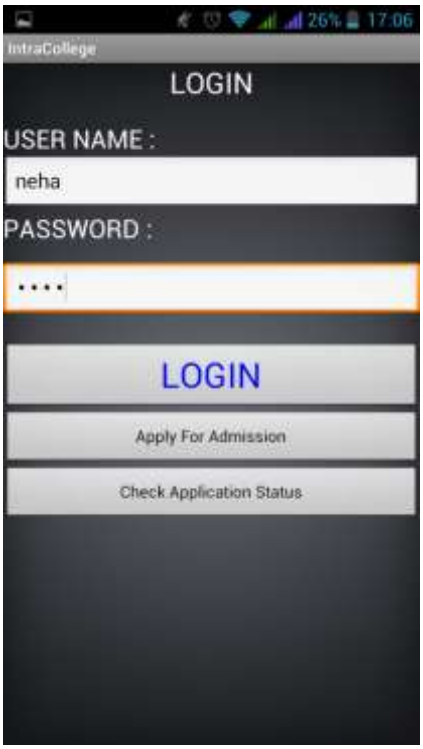

Fig 4 Student Side Application

Fig 5 Checking status of submitted application

VI. CONCLUSION

The project that is implemented will be beneficial to reduce the manual and laborious work done by the Institute. With the help of technology the tasks can be carried out in an efficient way. Android being widely used platform will be helpful in giving popularity to the product. The data being stored on a central database eliminates the possibility of data loss due to physical mishaps. Application proves to be a medium to provide speedy real time communication between teachers and students. Since the entire process is carried online the need for physical presence everytime is eliminated.

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