

Andi E-Resource Application for Students Based on Android

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Abstract: *With the advance in time and technology there is a need for faster dissemination of information. Connected, personalized, intelligent information appliances are becoming increasingly important in our private lives. In this approach Teachers can easily upload their lecture notes and previous year question papers on their Android based smart phones, store them in database, and synchronize with an external server. The college authority, branch authority and class teachers will pop-up the notification related to college, branch and semester respectively. Notifications are sent to their respective class, branch. College notifications are viewed by all students who have their accounts and if connected to internet and logged in. Students can download the uploaded resources through their smart phone if application is installed. They can also view the notifications related to college, branch and their semester.*

Keywords: *Android, Dissemination of Information and Cloud.*

I. Introduction

Nowadays, mobile devices have become a way of life for students especially in higher education. Computers are now replaced by compact smart phones that can be fit into pocket and can be carried anywhere. The rapid progress in android technology has created a new area which is known as mobile learning. Mobile learning is the next generation of e-learning that leads attractive way of knowledge delivery specially used in teaching and learning process. With development of this android application the student preferred to use mobile devices as technology supported educational tool [1].

This system is designed because notes dictation in the class is difficult considering the semester duration, student might miss the exam and important notice displayed due to unawareness. With this system teacher can upload notes, assignment on server and broadcast it to the registered mobile so that it is easily accessible to student by their own

smart phone. This system enables students to learn anywhere, anytime and at their own convenience. This system makes students to be active responsive while learning their academic. In real world scenario such as college campus, information is provided in the form of notices, hand written manuals, oral communication is spread among the students. So to provide all this information at ease, we are developing this application where in students can access this information using their Android enabled mobiles. So now students need not queue up near the notice board or log on to college website for any of the above mentioned details[2].

Andi E-Resource application is an online Portal between students and Staff. This innovative system allows college staff to share important data as well as notifications with their students. It consists of a staff login and student login through their android mobile. Staff may upload documents like subject syllabus, time table, e-notes, assignments etc. through their provided login id. The documents are uploaded by staff to different corresponding departments. Here students can only see and download data of their particular department, rest of the data is hidden. The college authority or the admin will be able to send the notice, through his login, to particular departments or to all students.

1. EXISTING SYSTEM

At some colleges certain data is passed onto the students using SMS facility. It doesn't take into consideration what information is needed by which student and at what time [3]. The college website which partially displays the information is heavy and requires flash and more time for loading. Presently we use some hard copy of notes and notices added to notice boards to share with students which lead to lot of time consuming process and also manual work. After implementation of a web application to share the notes, previous year question paper, assignments through Wi-Fi in

our college, which was only accessible through web and connected to college proxy, and was not possible out campus.

2.1 Disadvantages:

- It is time consuming process.
- Not user friendly.
- Access only college campus.
- It is non –portable and unavailability.

2. PROPOSED SYSTEM

In this proposed system, we implement a very simple android application, which will be beneficial to the students and reduce the manual work and to share notes between lecturers and students also to implement system to send the notice directly to students instead posting it to notice board. With the help of this application, not only students can access the information from the remote place but also can avoid the inconvenience of travelling all the way to the institute. This system will benefit the students and help them utilize time effectively. This concept provides

- General notices

These consist of college notices such as information about any events, campus interview dates etc. these notices are sent to students through server and students can view these notifications through their Android Phone.

- Documents

The documents such as lecture notes, previous year question paper, assignments or any other files related to academics that are uploaded by the staff through their Android phone with a proper login. And these uploaded files can be downloaded and notifications are view by the students through their Android phone.

Today it is imperative to not only use the traditional forms of communication, but also newer forms such as mobile technology for quicker and easier communication among the students. Using Andi E-Resource application will provide updates to the students of their respective department, notices regarding company etc. Instead of manual Notice Board College can use the electronic flow of data, at the time of manual notice may occurs the errors but in the electronic flow system low errors are occurs. Now a day’s everybody is using high quality and Android supported mobiles, so in this paper we are using Android for communication between college and students.

3.1 Advantages:

- The system is user friendly.
- It is time efficient.
- Ease of use.
- It provides “better and efficient” service to the user.
- Reduce the work of load of user.

- All details will be available on single click.

3. ARCHITECTURE

Architectural diagram of a system in which the principal parts or functions are represented. It may also show how the system operates, what are its inputs and outputs at various stages, and how the information, and/or materials flow through it. The architectural diagram is as shown in Figure 1.

In this architecture diagram the users are Admin, Staff and Students. If the user is Staff they can login by their username and password. After successful login the staff can browse and upload the file with respective branch. In this Staff can upload the notes, question paper and students can download the uploaded documents and view the notification sent by the Admin, that all the information will be kept in an optimized database on the central server. This information can be accessed by the users through the android application installed on their Smartphone’s. Each category of user will have a different view of the system on basis of the authorizations.

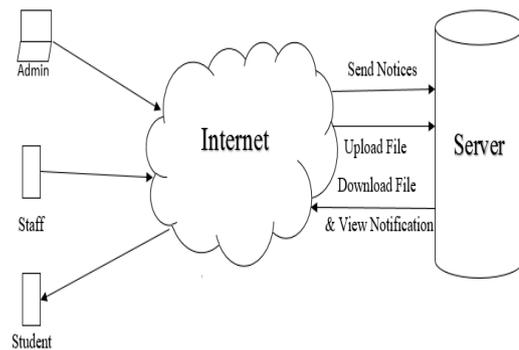


Figure1. Architecture diagram.

4. MODULE DESCRIPTION

The whole implementation is done in three modules.

1. Admin module
2. Staff module
3. Student module

5.1. Admin Module

At the server side the Admin can login by their user name and password and these user name and password are matched to the database, if it matches then Admin has to logged in and send the notifications like college events, assignment dates etc, as a branch wise. These notifications are stored in the cloud, and they can maintain the database.

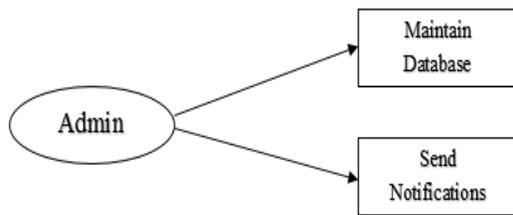


Figure2. Module Description of Admin.

Once the User logs in through the Smartphone data collected by the data collection module is stored on the server. For the backup and analysis the admin is allowed to monitor the data and can view all the details of user and device. The data is periodically updated on the server.

5.2. Staff Module

Staff can login by their user name and password through their Android phone. After login the Staff can upload the file like notes, previous year question paper, assignments etc. first he open send space cloud that is free service and next browse the file and upload. After uploading the link will be generated, and enter the generated link, file name and department and save it. It will be stored at database.



Figure3. Module Description of Staff.

5.3. Student Module

Student registration is for enrolling organization students with details such as Name of the student, USN, Department, Password, and Mobile no. After registration these information will be stored on the database and Student can access their personal account whose access will be restricted to others. To register one should login with USN and Password, if the USN and Password are matched to the database, then the student will be logged in. After logged in the student can view the notifications and download the files which are uploaded by

the staff as a department wise. The Android platform was selected for its customization capabilities through normal API or rooted customized interfaces with respect to hardware-level inter-actions. We keep the data records in a local SQLite database on the phone and upload them to MySQL database on the servers periodically with security for backup and analysis.

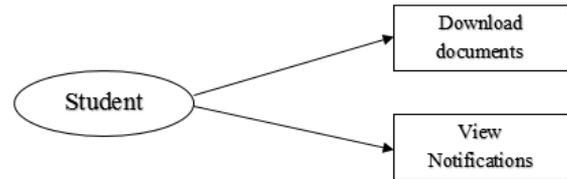


Figure4. Module Description of Student

5. RESULTS

6.1 Existing System

The college Website is having Some Drawbacks.

1. NON-PORTABLE-Here authorized person can make services only in specified place because he cannot carry the system everywhere.
2. UNAVAILABILITY- Due to the non-portability of this system, authorized person can make the services in specified college time, so this may cause restricted service.
3. MAINTAINABILITY- This system is complex to use and control the services.
4. NOT USER FRIENDLY- The existing system is not user friendly because the retrieval of data is very slow and data is not maintained efficiently.

6.2 Proposed System

1. PORTABILITY- In this system authorized person can carry android application anywhere so that he can control the system.

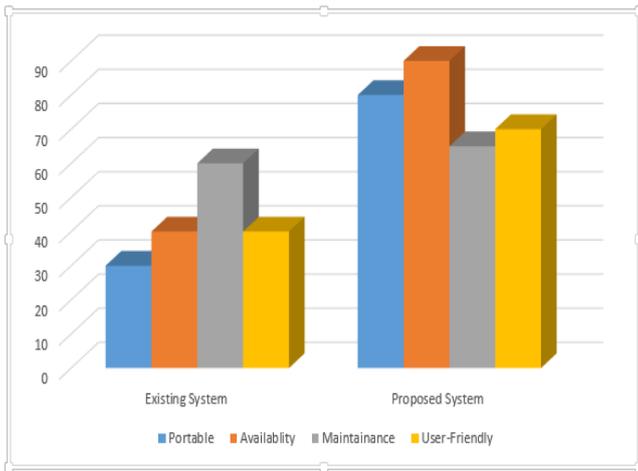


Figure5. Comparison between existing system and proposed system.

2. AVAILABILITY- Due to the portability of this system authorized person can provide service anytime 24*7.
3. MAINTAINABILITY- This system should be optimized for supportability or ease of maintenance as far possible.
4. USER FRIENDLY- The proposed system is user friendly because the retrieval of data is fast and data is maintained efficiently.

7. CONCLUSION

In the existing system i.e. the one we are using in our college campus, maximum work goes manually and also leads to error. In this proposed work we have presented the design and implementation of a mobile application named as an **“Andi E-Resource Application Based on Android”** for sharing the college/campus activities. By this application student can get detailed information and provides interface for students to get resources and notifications when connected to Internet. By this application students can learn anywhere anytime as per their own convenience. In the future, we can include the chatting system and Attendance management system.

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