

Android Based Department App-Using PDA System

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Abstract – There is a tremendous increase in users with an Android-based phone, Smartphone and tablet computers. This application provides a generalized solution to monitor the various works that are carried out by a Department of College for managing it. "Department App provides a simple interface for maintenance of student information. This app will be praxis by students, lecturers, HOD and parents. It can be used by educational institutes or colleges to maintain the records of students. DepartmentApp deals with all kind of student details, academic related reports, department details, curriculum, batch details, placement details and other resource related details too. This proposed project will be implemented in applications such as online study material, notices, results and attendance, timetable, and all department records using Android applications. Many techniques and languages are used for implementation such as Gson, access flags, Android, MySQL. This paper aims to develop a department application for student & staff information System.

Keywords- Android Technology, Administration, Smartphone's, Database, Internet

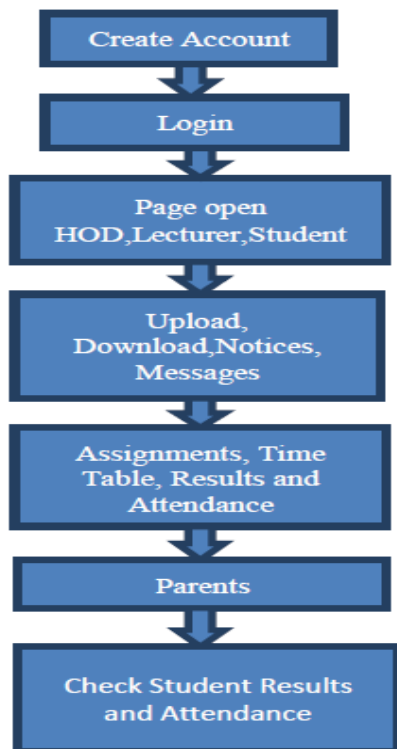
1. INTRODUCTION

The design and implementation of a ambient student information system and user interface is to replace the current paper records. Department Staff are able to directly access all aspects of a student's academic progress through a secure, online interface embedded using. By Department app. Previously, the college relied heavily on paper records for this initiative. While paper records are a traditional way of managed student data and different work, there are several drawbacks to this method. First, to convey information to the students it should be displayed on the notice board and the student will have to visit the notice board to check that information. It takes a very long time to deliver the information to the student. Paper records are

difficult to manage and track. The physical stress required to retrieve, alter, and re-file the paper records are all non-value added activities. This system provides a simple interface to maintain the student information. It can be used by educational institutes or colleges to maintain the records of students easily. Achieving this purpose is difficult using a manual system as the information is scattered, can be redundant and collecting relevant information may be very time consuming. All these problems are solved using Smart Connect. The paper focuses on presenting information in an easy and intelligible manner which provides facilities such as profile creation of student, professor, principal and higher authority thus reducing paperwork and automating the record generation process in an educational institute. All data is stored securely on SQL servers managed by the college administrator and ensures highest potential level of security. Android is a mobile operating system developed by Google based on the Linux kernel. Developing Android applications or games do not require a license. Therefore Android recommends open source tools for developers for the Eclipse IDE. The Android web browser is an open source engine running ToolKit with some properties from the Chrome browser. The programming language in Android is mostly Java and XML.

2. METHODOLOGY:

Following flow explains the methodology of proposed System :

**Methods are uses:**

1) Gson: Sending data to app to server.

Gson file use to connection between the android and server for download.

2) OnClickListener: Click event for Button to jump or next Page.

If user wants to jump one page to another then they can use the OnClickListener Event.

3) Input StreamReader: It is use for read the data.

4) equals (object obj): Compares this method against the specific object.

5) Declaring class: Methods declaring class.

It is used to show the different methods for declaring class.

6) access flags: Using for bits encoding access. To encode the data using various bits encoding techniques.

7) doGet, doPost: doGet and doPost method use to create a server in servlet.

3. SYSTEM DESIGNING:

Department app using Android is an integrated System developed to assist department management groups by enabling Students, H.o.d and Lecturers to immediately

send and receive any data or information. This will minimize the number of minutes as compare to using any website application.

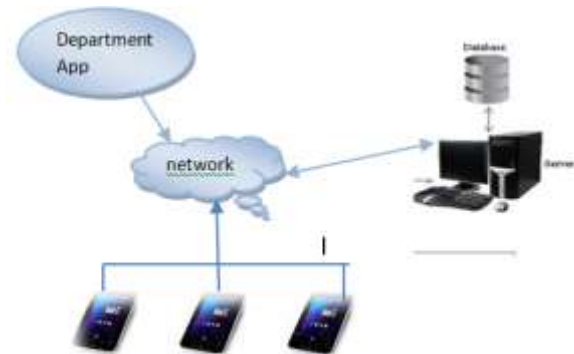


Fig: System Architecture

4. IMPLEMENTATION AND RESULTS:

For implementation of the App, the Platform used is Android 4.2 and language used is Java and XML. MySQL is used at the backend. For setting environment of Android, there is a minimum requirement of JDK i.e. java must be installed on the system. JDK 8 software engineering development kit 7 is used for this purpose. Code is written by using a editor i.e Eclipse which is a open source editor available After Eclipse (Juno, the default version) is installed, there is a need to connect Android SDK with Eclipse, this is done by using ADT Plugin. By using ADT Plugin link, plugin developer tools can be downloaded and installed. MySQL is automatically embedded into the Android device.

A. User login module: In this module, user has to first register. User will be move to Register activity after clicking register button on Login screen. User has to fill details like Username, Email-id, Mobile number, Password and Confirm Password Etc.

B. Admin module: Admin panel upload time tables, any notice related to College, Result and Attendance. Admin has provided also authority for control on the System.

C. Lecturer Module: If the lecturer wants to upload assignments, Show Time Table to students the can easily send this information using department app.

D. Student Module: If the user wants to download assignments, having see any notification, they can check easily after login successfully

E. Parent Module : Parents will see also their students exam time table and attendance.

RESULTS:



Fig(a) :This is Department app portal.
User can filled the details for
Registration.



Fig(b):User can apply the login Registration

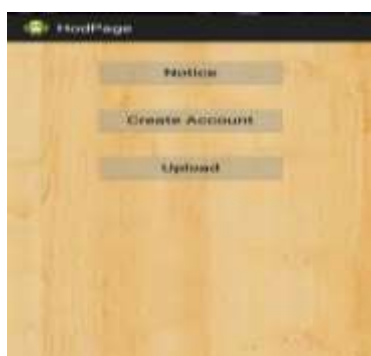


Fig (c):HOD can Create the account &
They can uploads the time table and send the Notice.



Fig(d):Teacher can first create the accounts of students and parents and
own .They can upload ,download assignments & any department

information details.Show Time Table ,Results &Attendance on the notice
Board.



Fig(e):Second year student first create the login.



Fig(f):Third year students also after login registration completed.They
can Download assignments,send message,check any department details
notice.



Fig(g):Final Year Students also check any notification about department
details,and download any information.

5. APPLICATIONS:

This Application mostly useful Schools, Colleges,
Univerities and TrainingInstitutions.

6.ACKNOWLEDGMENT:

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valuable information and records statistics.

7.CONCLUSION:

"Android Based Department App Using Smartphone" is an Department system with Students feedback. This system is convenient, effective and easy thereby improving the performance of Department staff's. It will also provide quality of service and students satisfaction. Overall conclusion is that, this is a Department app system for the department sector, made by combining the Android and Wireless technology.

In this, we compare the 3 major automaton tools in Department sector namely, the PDA based System, and Android based system. The user interface of Android based system is more attractive and informative than the PDA and Multi-touch systems. The processing speed of Android system and Multi-touch system is almost the same whereas the PDA based systems are slower than the other two systems.. This system is convenient, effective and easy thereby improving the performance of Department staff. It will also provide quality of service and customer satisfaction.

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