Information System Based On College Campus

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ABSTRACT:

Android mobile apps is used to provide information regarding there college .Android is the fastest growing open source mobile device platform, which in turn is powered by Linux operating system. Android offers a simple yet powerful application development framework (C++/Java and XML) and open access to APIs to build richer mobile applications. Android is a software stack for mobile devices that includes an operating system, middleware and key applications.

Today in colleges student details are entered manually. The student separate records are tedious task. Referring to all these records and updating is needed. There is a chance for more manual errors. As mobile devices have become popular; there appears a new trend to release all kinds of campus information by intelligent mobile terminals. We describe a network for distributing campus information among lecturers and students. The concept of developing campus information system is to ensure that student can access information at any time, at any locations and ad-hoc basic. Information System helps the students and lecturers on campus to find and access information based on ad-hoc basic, which is of interest and relevant to students or lecturers through a smart phone.

Keyword: Android mobile, JSONS, Asp.net, notification.

INTRODUCTION:

India has the fastest growing telecom network in the world with many users moving towards Smart Phones and majority by students. Android is a reliable software development kit issued by Google in order to provide developers with a comprehensive set of tools for building Android applications. If used properly, the SDK(Software Development Kit) and JDK (Java Development Kit) is able to deliver state-of-the-art software for Android devices In other words, the SDK includes only the basic utilities for Android app development.

The information which we get from our mobile in a cost effective way & student can get information easily & quickly .so, it is time saving Through this service one can access the complete information about the college campus such as courses available, admission procedure, placements, college events, achievements

PROBLEM EFINITION:

The problem is to provide the complete information about the college campus. In which the college staff members, students and parents can access the information and will be familiar with college campus. It will provide interactive environment for the staff, students and parents by getting knowledge of student attendance, remarks, exams performances, grades, timetables, notices etc .

A student Should be able to login to the system through the first page of the Application & Administrator can create users as per user requirement

The architecture of the System will consist of three components: an android application as the user frontend, a server application in the middle, a freely scalable number of service nodes for delivering the information to the mobile devices.

IMPLEMENTATION

> *Requirement Gathering .*
> *Development of Graphical User Interface .*
> *Creation of Database .*
> *Server Side Implementation .*

Requirement Gathering .

The requirement is collected by use-cases through which it was decided what objects and functionality should be given to Administrator, such as Login, Add/Update Student, Send Alert/Update, Post Event, Query Posting, and Add Resources. Then we decided the platform to build this application which is Android, what database we will be going to use which is MYSQL DB, which language should be used develop a web based application for administrator which is

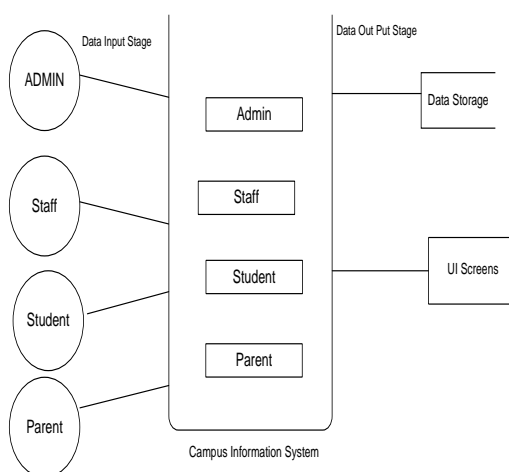Fig. 2: Use Case Diagram for Admin

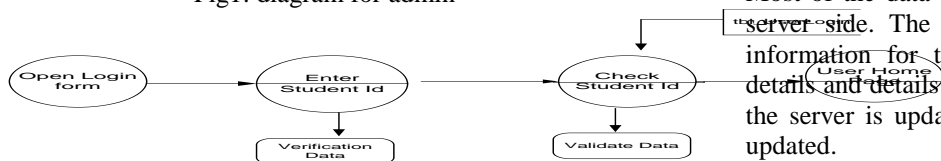Fig. 3: Use Case Diagram for Student

Fig1: diagram for admin

Fig2:DFD

> *Development of Graphical User Interface .*

After the initial collection of data, different user interface for the application have been developed. This included of login, home screens for user. User has to enter username and password for authentication. Upon successful login the user has to choose amongst the provided functionalities of the application. The mobile application is built using Android SDK on Eclipse IDE.

The GUI for the administrator is developed using PHP which serves as the web application. The login panel is been made which allow admin to login in through the user name and password mean while it was decided to build a database on MYSQL Database.
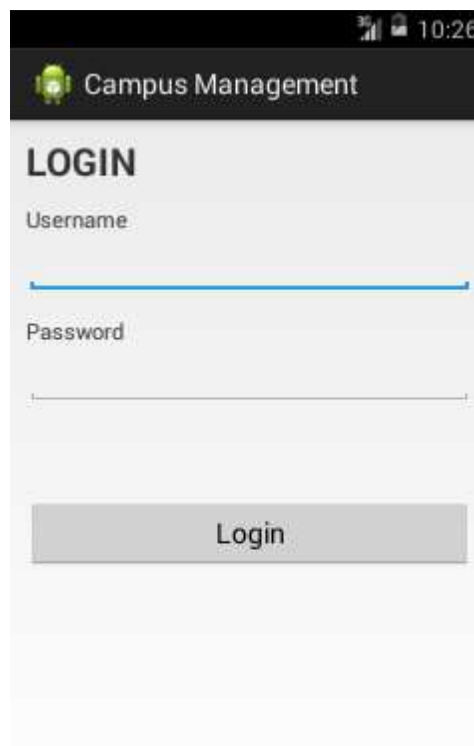

Fig. 3: Login Page & Home Page for Student

> *Creation of Database .*

Most of the data of the application has been stored on the server side. The data in the database includes professor information for the directory, student information, book details and details of the events. The database maintained at the server is updated in a timely manner to keep the user updated.

> *Server Side Implementation .*

Web Services: To communicate with clients the server makes use of PHP web service. These interfaces can be used by the client to either send or retrieve data. JSON is used for the data interchange between server and client.

JavaScript Object Notation: As an exchange format to communicate between server and client JSON is used. It is a structured way to store data in a text based format. The media type of JSON is application/json and is the only return type the server server produces. To transform Java objects into a JSON format and vice versa the JSON library developed by Google is used. The POST and GET

parameter can be passed to a Java method. Based on these parameters and the resource path the server gathers the requested information from one or more data sources and returns the result in JSON back to the client.
                                    The details about the directory, events and notices have been maintained at the server side database. Using PHP code the connectivity with the android functionality and database has been established. This information can be updated dynamically with admin access to the database which is secured properly and cannot be accessed without proper credentials.

Fig :4login page

Fig:Databasecommuication

APPLICATION:

- . Android, backed by Google is the fastest growing open source mobile device platform, which in turn is powered by Linux operating system.
- Student tracking: Any company or any organization that want to check the summary about the student of the college, so that they will be able to choose the particular students for their campus

placement And for that purpose they will be given a particular link through which they can access the information required.

- Online assignments: This service provides the facility to faculty to upload   assignment and notes to students to submit these assignments online.
- Exam Notification: This facility notifies students and parents about examination schedule.

EXISTING SYSTEM:

The development of the new system contains the following activities, which try to automate the entire process keeping in view of the database integration approach.

- There is no risk of data mismanagement at any level while the project development is under process.
- User friendliness is provided in the application with various controls.
- It provides high level of security using different protocols like https etc.

PROPOSED WORK:

- *Notification:* - Alerts are to be send to all the students in the college.
- *File Sharing:* - In this admin can also share the file suppose assignment so the   file will be uploaded on in respective format.
- *Activities Information:* - Students can view details of schedules for various events. This will help students keep better track of extracurricular activities and events.
- *Post Request:* - If the student wants to post a query to the professor then they can send the MSG to professor and professor can reply to that msg by posting a comment to that particular student.
- *Library Information:* - The students could get all the information of which all books and latest magazines are available in college library.
- *Check Results:* - Students can check and view their academic results

CONCLUSIONS :

Thus our project focuses on the development of a mobile application in campus environment that supports information services in campus environment. It is clear that there is a need for development for mobile services and terminals in campus environment and students are able to retrieve information at anytime and at any location.

The system can be further enhanced to become a more powerful and sophisticated system. There are still many aspects for improvement and enhancements of the system can be made in the future to meet changing needs of the students. Therefore, enhancement in the future will extend the usability of this system. We can include student attendance feature, event registration, and campus placement application and registration in future in our system and thus expand its scope.

As of for now, the project will enable the college student to download the
 study material such as question bank, assignment questions, tutorials etc. But in the near future, if the lecturer or the professor is not able to take lectures for a long duration, then the lecturer can make a video of the lecture from his workplace and give it to the administrator to upload it on the server, and the corresponding link will be send to the students. Thus the process of e-learning can be incorporated with the our project in the future to provide a robust learning system with the Campus Notification and Information System being a communication system or bridging the gap for a better learning experience. Being a relatively new idea in India, we can even go commercial with the idea and provide numerous campuses with the application.

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