Android Application For College Management System

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Abstract—Android is the fastest growing open source mobile device platform,which in turn is powered by Linux operating system. Android College Management system is an android application which is helpful for students as well as the colleges In the existing system all the work of college activities are done manually which is time consuming as well as costly. The main purpose of this research project to implement the Android based application which can be used by student, faculty member and administrator. Administrator is a master user. Admin can add or delete the user from the system. This application provides the online complaint, Notice board, and notes display system for the student. For teachers it provides the attendance management system which is efficient way to take attendance via android device.
Keywords—Android, Attendance management system,administrator,online complaint.

I. INTRODUCTION

Introduction-College management application is an integrated android application that handles various academic and non-academic activities of a College/Academic Institute. The application can access by every students/faculties of the institution through mobile devices with the aid of his user name and password.In addition to a staff user interface, the system plans for student user interface, allowing users to access information and submit requests online, thus reducing
processing time. All data is stored securely on SQL servers managed by the college administrator. After successful login student can view new events, notification, notes with addition to complaint registration system where student can take their complaint to higher authorities without any hassle. In the teachers module teachers can upload their notes, notification and take attendance which will be saved in servers.

Thus, this application will automate the manual student information maintenance process in colleges. It will also reduce the amount of paperwork done and time invested in manual process by the teachers.

II. EXISTING SYSTEM

In the existing system, all the information does have to maintain in a hard file, or in website. While searching any information it is too difficult to access and takes lot of time.

A lot of searching is required.It is the conventional method of taking attendance by calling names or signing on paper but it is inefficient due to more chances of malfunctioning and more paper work as well.

All the above systems are time consuming and unsafe. In
the proposed project Android based attendance system is designed which is less time consuming, safe and easy to
Implement.

III. IMPLEMENTATION

In this project we mainly deal with three modules namely Admin module, Faculty and Student Module. Main page contain several buttons which provide the information about the college campus and other miscellaneous. After that by clicking on login button user can enter in the secured section where he can use the services provided by the application.

1.Admin module

2.Student module

3.Faculty module

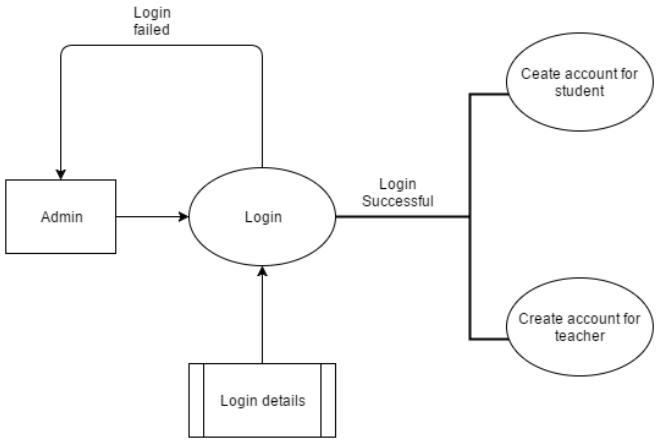

Figure 1. Dataflow diagram of admin login

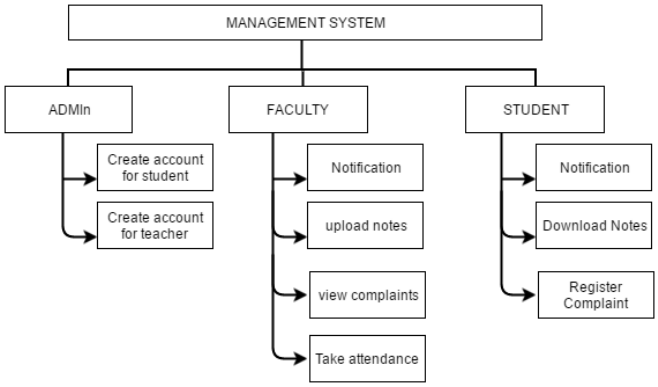

Figure 2.Architectural diagram of application

- 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.

A.Functional Requirement

a)User Authentication
Introduction: It includes authenticating users.
Input: Input includes username and password.
Processing: Username and password check against database to ensure the valid user.
Output: Valid user are allowed to access main portal

b)Admin authentication
Introduction: It includes authenticating the administrator.
Inputs: Inputs include username and password.
Processing: Username and password check against database to ensure the valid administrator.
Output: Valid user are allowed to access main portal.

c) Attendance
Introduction: It allow teacher to take attendance on android device.
Inputs: Inputs include date, subject, class, semester, name, and roll no of student.
Processing: The statistics of that particular lecture will be saved in database.
Output: It can then be view by user.
d) Notification
Introduction: It allow student to view latest notices of college.
Inputs: Admin will be able to post the notifications
Processing: the notication along with image if any will be stored in notification table
Output: It can then be view by student and teachers.
e) Complaint

Introduction: It allow student to register complaint about any problems regarding to campus or academics.
Inputs: Student has to post the image of concern issue (if any)
along with title and description.
Processing: The data will be stored in the database.
Output: It can then be view by admin.
f) Notes
Introduction: It allow student to download the notes uploaded by the teachers.
Inputs: Teachers have to post document (in pdf)
along with title and description.
Processing:The data will be stored in the database.
Output: It can then be view by student and teachers.

B. Non-Functional Requirements

1) Performance

Short response time for given piece of work. The software shall support use of multiple users at a time.

2) Reliability

The system recovery should be speed. The application should be highly reliable and it should generate all the updates information in correct order. Data validation and verification needs to be done at every stage of activity.

C. Behavioral Attributes

a) *Security*: The system should be secured.
b) *Availability*: The system should be available 24X7.
c) *Maintainability*: The system should meet new requirements.
d) *Portability*: This application should be portable on any system and can be opened in any browserTechnologies used

Android XML

For user interface, Eclipse (version MARS) android application development software will be used. XML will be used for designing the Graphical User Interface (GUI).

JAVA

Java will be used for connecting various components of user interface to database system.

MYSQL and PHP

MYSQL is used as a database at the web server and PHP is used to fetch data from the database. Application will communicate with the PHP page with necessary parameters and PHP will contact MYSQL database and will fetch the result and return the results to application requesting it.

IV. CONCLUSION

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 any time and at any location.

V. REFERENCES

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