

# Managing Department Notification Using Android Application

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**Abstract:** *The proposed project is a smart this project's primary goal is to automate and increase mobility in an institution's student inf. management process. In a real-world setting, like a college campus, information is communicated among the students verbally, through handwritten manuals, and by notice. Today, it is crucial for students to communicate with one another more quickly and easily by using new channels in addition to the traditional ones, including cell phone technology. Universities and colleges generally use notice boards, websites, emails and many different social media sites to circulate information, notices etc. Many time students are not able to keep track of all these sources resulting in them missing out on certain events. In order to overcome these shortcomings and ensure that students do not miss important news, an application is to design a "Department Information App" using android application. The main idea behind the application is to facilitate the discovery of events in and around institutions/organizations in order to keep everyone informed about interesting events such as conferences, workshops, internships etc. using a single application that allows students and faculty to view notifications from anywhere*

**Keywords:** Application, Student, Information

## I. INTRODUCTION

It is more important than ever for academic departments to have transparent administrative procedures, effective communication, and teamwork in the quickly changing field of higher education. Acknowledging this necessity, the Department Information Application appears as a revolutionary solution intended to improve the general efficacy and utility of departmental activities. The creation of mobile applications is expanding daily at a rapid rate. Using mobile phones for a variety of daily tasks in addition to serving as a communication tool. Various tasks that were formerly completed by hand or with a large workforce are now completed with the program. Those who are eager to utilize the service can connect with a large number of people, thanks to the application. Since each user must authenticate themselves, not everyone can log in.

## II. LITERATURE SURVEY

### The creation and layout of the network-environment-based student management system

**Authors:** Zhi-gang YUE, You-wei JIN

The approach to information management in higher education is covered in this study. We create the student management information platform and establish the models of college students' management information by implementing advanced information technology, all based on thorough research and analysis of student management in higher education. Additionally, we examine the features of information management in higher education and describe the approaches taken to address the issues that arise with students managing their higher education. Lastly, the information management platform's primary technology and methodology are introduced.

### An attendance management system based on Android

**Authors:** Siti Aisah Mohd Noor, Norliza Zaini, Mohd Fuad Abdul Latip, Nabilah Hamzah

The technique of using an Android platform application to take attendance is suggested in this paper. After installation, this application can be used to download the list of students from a specified web server. The gadget will then function

as a scanner, scanning each student card individually to validate and verify the student's existence based on the downloaded list of students. The barcode on the students' cards will be scanned by the device's camera, which serves as a sensor. The revised attendance list is then stored as a file for later transfer to a PC or uploaded to an internet database. This system will assist in getting rid of the existing

### **Using B/S Architecture to Design a Student Information Management System**

**Authors: JinMei-shan, QiuChang-li, LiJing**

In order to meet the needs of today's universities for student information management, this paper employs the B/S structure to create the student information management system. It also covers the system design principle, system plan and structure, and function module of the information system. It offers a dynamic student management platform for managing and obtaining information from a large number of students.

### **Studying and Using Web Services in the Volley Android Network Communication Framework**

**Authors: Yang Shulin, Hu Jieping**

Mobile application development will be aided by the mix of Web services and mobile devices covered in this article. Web services are not supported, even though the Google 2013 volleyball framework is quicker to answer network queries and easier to use. Building Web services applications and improving Web services access performance are made possible by Volley's extension to support Web services. Analysis and study into Volley, Ksoap2, and Java Web Services led to the implementation of the Http Stack interface and the expansion of JSON Object Request in order to achieve Web Services capability. The scheme uses the JSON format for data transfer, handling SSL/TLS protocol requests, creating custom parameters, and obtaining or setting the request header. This plan is simple to implement.

### **III. PROBLEM STATEMENT**

To develop an Android application that will offer an online interface to administrators, staff, and students. This application will boost record management efficiency by reducing access times and ensuring data security.

Additionally, the program will cut down on time spent on non-value-added tasks.

The event's organizers are departing. The news about the events via social media sites like Telegram, WhatsApp, and others; nevertheless, some students may not be able to receive those messages because they do not completely understand the content. They are therefore unable to take part in the events, whether or not they are technological. Additionally, social media is prohibited, and the faculty member or event organizer is required to notify each region within a certain department group about the event. As such, it will be laborious and time-consuming. If there is a mobile application that notifies users/students when administrators/staff post events, everyone will receive the information instantly and without any forwarding, ensuring that no one is left out.

### **IV. PROPOSED METHODOLOGY**

The "Department Information Application," a better, more user-friendly, and energy-efficient system, is part of the proposed work. Parents, kids, and teachers can all benefit from this app. The smooth communication between the college and students is ensured by this app. In order to keep track of their child's progress and learn about events in college, parents are also added to the app as special members.

The proposed system shows how information is transmitted and received between various users and the database.

Login and Dashboard: - All users, including students and teachers, can learn about upcoming events at the college by visiting the Events tab of the application. Comprehensive information about every event mentioned on our platform is accessible to any user. The only people who can add events to the application or modify ones that have already been listed are organizers. Coordinators are the only users who cannot access event information.

Notification:-After publishing the event, educators can use the notification system to provide an important message. To send the notice, just enter its head and body and click the "Send Notification" button. The notification will then be sent to the students who have installed the application.

**Main Interface:** - The main interface of the application has a side navigation bar that gives users access to its main functions. You can view events that the faculties have posted by clicking on the respective tabs. Users can filter these messages by selecting the relevant filter by clicking on it.

**Security and privacy:** - To protect user data, the proposed solution makes use of Firebase authorization and authentication. Various Firebase security policies determine which users are allowed access. It provides a way to control the access granted to each user.

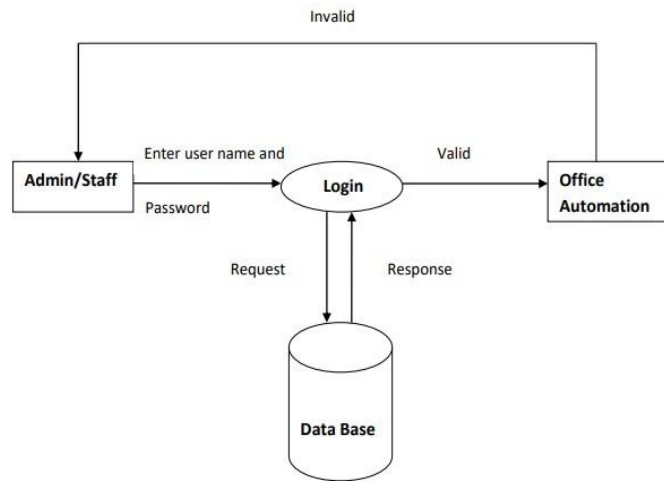


Fig 1: Flowchart for Department Information Application

**Objective:** - The department information application having following objectives are:-

- Notifying students
- Connecting to the college's database
- Notifying about events
- Providing information
- It is user friendly
- Reliable (bug-free) system
- Easily maintainable system

## V. FUTURE WORK

There are many ways in which the department information app could be expanded in the future. Some possibilities include:

**Integrating With Others System:** - The app might be connected to other college systems, such as the campus leisure centre or the library catalog. Users would be able to access more resources and data from within the app as a result.

**Personalizing User Experience:** - The application's design might be improved to better cater to each user's unique demands and preferences. Users might be able to personalize their news and update feeds, for instance, or suggest events and activities based on their interests and past activity.

**Expanding To Other Colleges:** - It is possible to create an app that would be compatible with other colleges and universities, giving their students access to comparable materials and data.

**AI-Programmed Chatbot:** - It is possible to create an app that would be compatible with other colleges and universities, giving their students access to comparable materials and data.

**Adding More Feature:-** More features and functionality, such a campus map, a staff and faculty directory, or a mechanism for making advisor or tutor appointment scheduling, could be added to the app.

The department information app could be enhanced and expanded in a variety of ways in the future; developers and stakeholders will have to choose which path they want to take it down.

#### **VI. CONCLUSION**

Since everything is now done online, a student department information system at a college or university is quite useful. The system that is recommended has no documentation. This project minimizes the use of human Labor. Since a notification is issued each time an administrator or staff member adds a new event, in order to give every student the chance to participate in the events. As In order to safeguard information, the college will oversee this application to prevent leaks and guarantee the safety of data. Given that it is a mobile application, anyone may use it anywhere at any time, and getting instant event information is incredibly easy.

#### **VII. ACKNOWLEDGMENT**

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