

Notification System Using Flutter

Akmal Khan¹, Muskan Momin², Zeba Shaikh³, Raza Sayed⁴, Mohammed Ahmed⁵

Students, Department of Computer Engineering^{1,2,3,4}

Professor, Department of Computer Engineering⁵

M. H. Saboo Siddik College of Engineering, Mumbai, Maharashtra, India

Abstract: *The mobile phone has become an integral part of modern life, with its capabilities now include data transfer and internet browsing in addition to voice communication. The purpose of this project is to create a notification system and connect it to the university's website. By connecting, it achieves a high level of efficiency in organizing interactions between the university and the students as well as teachers. by connecting the system to the educational database of the university using the latest technologies can save the efforts and time of the students. It will offer a variety of information on education, courses, and college students in general that will aid the machine in deciding to whom to send notifications. Additionally, it entails sending notifications, examination timetables, hall tickets and reviewing information such as university enrollment number and results.*

Keywords: University notification system, mobile app, flutter, dart

I. INTRODUCTION

Mobile phones play a major role in our lives today. Its function has been extended from voice communication only devices to internet surfing and data transfer. Mumbai University currently is one of the most reputed and large educational institutions in India. It holds and organizes numerous events throughout the academic year. Some of these events or functions are held in various campus locations of the university or even different colleges also. Therefore, it is the responsibility of the administration department of the university to notify the students and faculties about the notices about such functions in order to name the staff members that will attend or by notifying them about the function they are expected to participate in. MU also has lakhs of students studying in the affiliated colleges. To keep a record of the exam timetables, results or any important information can be very difficult. There are chances that students may miss a very crucial and urgent notice. This can happen due to loads of notices from all departments and colleges on the website, some of which may not even be useful for a particular student.

To inform the colleges about the exams, activities, or functions that are planned, the university currently uses email as its primary communication method. The notification will include information like the start date and time of the exam, as well as the nature of the function or event, its date, and location[1]. The aim of this project is to design and develop a notification system in order to be used by the University to send the notifications directly to the students. They can sign in to their ID provided to get these messages, which helps to ensure that the notification is sent to everyone.

II. MOTIVATION

Running an administrative institute may be challenging. It is exceedingly difficult to run daily operations alone when there are thousands of instructors, pupils, and administrators. Yet, Institute management systems are a fantastic choice for all educational institutions. Teachers, students, parents, and administrators can use a complete online portal to assist them in completing their tasks when technology offers us a variety of real-world solutions to our needs. At today's Institutes and colleges, a notification system for an institute has always been essential. Its major objective is to make it simpler for Institute administration, teachers, and staff to handle contacts between the Institute, students and university. With the advent of e-learning, a new type of learning in which instruction is delivered online and through digital platforms, the educational system has undergone a significant transformation.

Online learning has been demonstrated to boost retention and take less time to complete, suggesting that the impacts of the coronavirus may be long-lasting. Every Institute needs a strong administration system to run smoothly. It carries out a number of crucial tasks to keep Institute administration functioning smoothly. On a single platform, staff, instructors, and outside parties may work together. What could formerly be simply documented on paper has become a goal as

education has moved rapidly. Our exploration of paperless and easier methods to do tasks has been forced by technology, and education is no exception. In order to maintain normal operations, Institutes nowadays must overcome several obstacles. The declaration of results, data management, fee collecting, schedule administration, staff and student attendance management, and other associated responsibilities are all manual processes. The time, energy, and resources needed for manual work are significant. These activities are now simple thanks to a Notification management system. To increase efficiency and reduce time and effort, every Institute should have such a management system since the challenges that educational institutions face while managing the daily operations of their institutions are significant.

II. LITERATURE SURVEY

1. In this paper titled "Web based Notification Management System with Android Application", Lalit S. Jadhav, Tejas R. Mhade focuses on the implementation of E-notice boards. Nowadays many people are having android phones. So technology comes forward to us and it is our duty to use it for our important purpose. Following these thoughts we developed this system. The management of accurate and up-to-date information regarding a student's academic career is a difficult and time consuming task for the Institutes. Nowadays the information to parents regarding their ward is provided through postcards, SMS or Email, but these techniques are very hectic, time inefficient and lengthy. Hence this application provides a solution through a simple interface for maintenance of student information. This application provides a generalized solution to monitor the various works that are carried out by an Institute for managing it. It helps parents to get detailed information regarding their ward such as attendance, fees due, result, progress report, important notices, Institute's event details, information about teachers etc. using the android application [8].
2. In this paper titled "Notification System to Students using an Android Application", H. Riadh designed a notification system using an Android application to connect it to the educational web site of the university. It provides a wide range of information about education, courses, and all about college students that help the instructor to select to whom he/she will send notifications. It also includes sending notifications, attendance, viewing academic details like exam results [5].
3. In this paper titled "Student Notification System (SNS)", TandraNarasimhaRao, B.Kishore Kumar developed an application that helps all students in the college. Student Notification System is an android application which is helpful for students as well as the college management to maintain all the college information. In the existing system all the activities are done manually. It is very time consuming. In our proposed system, students can view results using their smartphones (Android). All the data will be stored in the college server. In this system, students have easy access for viewing the marks, provided their username is correct and they are not permitted to update any content on the server. Students can view all Notifications from the application directly [1].
4. In this paper titled "Web Based Student Information Management System", S.R.Bharamagoudar, Geeta R.B, S.G.Totad designed a project that provides a simple interface for maintenance of student information. It can be used by educational institutes or colleges to maintain the records of students easily. The creation and management of accurate, up-to-date information regarding a students' academic career is critically important in the university as well as colleges. Student information system deals with all kinds of student details, academic related reports, college details, course details, curriculum, batch details, placement details and other resource related details too [4].
5. In this paper titled "Android Based College Notification System", Jadhav Komal, Sayyad Sana, Shinde Swapnali and Bhaldar Jasmin designed a project that aims to build a wireless communication between instructor and a student. Nowadays there is a huge need for innovation in the field of displaying the important announcements through the wireless based notification system. Since the use of the internet is increasing, therefore everyone is interested in wireless communication because everyone spends most of the time on mobile phones. The typical traditional method of displaying notices on the boards does not help everyone as each user is not notified individually. Therefore our approach is to reduce the manual efforts by updating the user by sending push or popup notifications individually by wireless communication which will help the user not present physically still he will be able to know the important notices [6].

III. PROBLEM STATEMENT

The current procedure that the university follows is by sending emails to the colleges to notify them about the examinations, events or the functions that are arranged. The notification will include details like examination commencement date, timings, what the function or event is about and the date and the place of that function or event. This system of sending email notification to announce is suffering from two main drawbacks which are: First, sometimes the college administration may delay the forwarding of the notice to the students. This can cause a loss for students. Secondly, some students may not check his/her email periodically, so they may miss reading the notification. There is also a possibility that the Internet service is not available or they are at some place where they can not get access to the internet which will also lead to them being unaware about the notification. This project aims to design and develop a notification system in order to be used by the University to send the notifications directly to the students. They can receive these messages by logging in to their ID provided and thus helps in making sure that the notification is delivered to all.

IV. PROPOSED SYSTEM

The aim of the proposed system is to cut through the chaos and workload, by innovating the current system. The proposed system notifies each and every student and faculty with the application on his android phone, about any notices related to college events, including the other notices. It eliminates the existing issue where the student has to approach the notice board everyday and it also eliminates the pen and paper work of the instructor. In the proposed system, students get their related notifications wherever they are without visiting the notice board. The problem of outdated notices is solved in the proposed system where students get their notices instantly. Outdated notifications can also be viewed anytime along with the current notifications. This approach can thereby reduce the effort of the students and save their time, which could possibly be used in a productive manner.

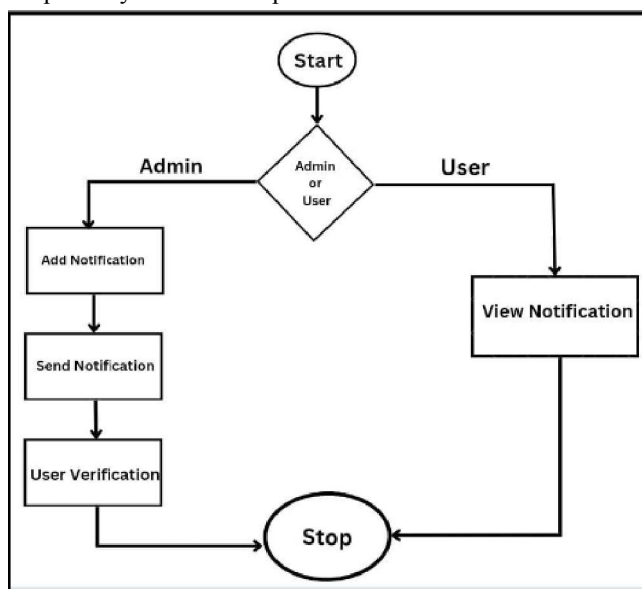


Fig 1: Flowchart of the application

4.1 Advantages of the Proposed System

- Time saving
- Reduces pen and paper work
- Students and faculty get their notifications on time
- Outdated notifications can also be viewed anytime
- Students need not queue up at the notice board

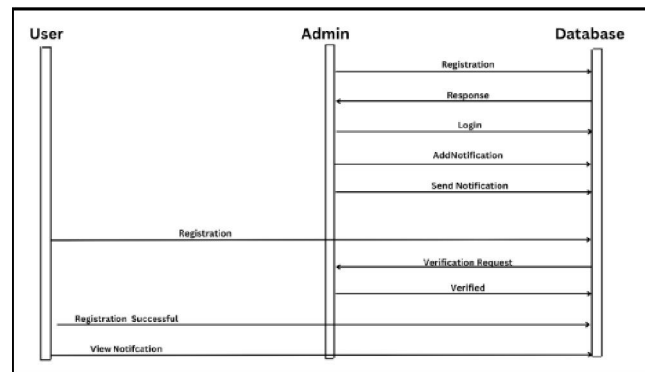


Fig 2: Data flow diagram of the application

V. FUTURE DEVELOPMENT CONSIDERATIONS

During the development of this system, a number of issues concerning design and developments were revealed. Future design and development of related projects could be done based on these considerations:

- Integrating this system database with other similar related databases and building a data warehouse for them to be used by any system concerned in these events and functions or staff information both existing or new one and this would solve many problems mentioned earlier in this chapter.
- Making this notification mechanism more automatic so that university management does not need to become involved or manually send the information. This can be done by incorporating artificial intelligence techniques so that the system can choose automatically which staff members should be informed about any specific event or function, and that way, the system task will be completed automatically once a new event or function is stored in the database.

VI. CONCLUSION

We have created the prototype of the project along with hardware and software analysis reports to build a notification system which will notify the user, here students, about any notice posted by the University. The notices can be received by joining on the particular link provided. And then the enrolled users will receive alerts as soon as something is posted. This will save the efforts and time of the students from standing in queues to view the notice board. The students will be able to get aware about things from their phone itself. They will not miss any important information. Implementation and testing of our project will be done in the next semester along with detailed analysis of the testing results.

REFERENCES

- [1]. Amita Dhale, Madhav Mistry, Tushar Zore, "A Survey on "Smart Connect" an Android and Web Based Application for College Management System", Department of C.E., B.D.C.E., Sewagram, Wardha, 11 November 2014.
- [2]. Bennett, S., McRobb, S. & Farmer R. (2002). Object-oriented Systems Analysis and Design using UML. United Kingdom: McGraw-Hill.
- [3]. Business Bliss Consultants FZE. (November 2018). Development of College Announcement Notification System.
- [4]. "College Parent Interaction using Android Application", by Pallavi Mohadikar, Narsin Mulani, Afnan Shaikh, Rachna Sable, International Journal of Computer Science and Network (IJCSN), ISSN (Online) : 2277-5420 Volume 4, Issue 1 (February 2015), www.IJCSN.org
- [5]. "Enhancing Online University Class Management System with Instance Email Feedback Alert", by Bongani T. Mabunda Johnson O. Dehinbo, Proceedings of the World Congress on Engineering and Computer Science 2012 Volume I, ISBN: 978- 988-19251-6-9 ISSN: 2078-0966 (Online), October 24-26, 2012, San Francisco, USA.
- [6]. International Journal of Science, Engineering and Technology Research (IJSETR), Volume 3, Issue 6, June 2014.

- [7]. M. H., “Notification system to students using an Android application,” International Journal of Computer Applications, vol. 140, no. 1, pp. 22–27, 2016.
- [8]. S. R. Bharamagoudar, Geeta, S. G. Totad, “Web Based Student Information Management System” Assistant Professor, Dept. of Electronics & Communication Enng. Basaveshwar Enng. College Bagalkot Karnataka Associate professor Department of IT,GMR Institute of Technology, RAJAM, Andhra Pradesh Professor, June 2013.