COLLEGEGRAM-COLLEGE NOTIFICATION APP

[1]Kashish Tandon, [2]Chinmay Takkar, [3]Ruhi Raj Singh, [4]Gaurav Kumar Singh, [5]Shikha Bhalla

[1]Student, [2]Student, [3]Student, [4]Student, [5]Assistant Professor
Computer Science and Engineering,
Bhagwan Parshuram Institute of Technology, Delhi, India

Abstract: Universities and colleges generally use notice boards, websites, emails and many different social media sites to circulate information, notices etc. Many times 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 COLLEGEGRAM is proposed. 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.

Index Terms **- Notice Boards, COLLEGEGRAM, application, notifications, events**

I. INTRODUCTION

In our modern age, practically everyone owns a smartphone and uses some form of smartphone application. Technology has made many tasks easier and is still constantly evolving to improve our lives. Wisdom is often up to us to put to use in a way that benefits us. Following this idea, a mobile application is proposed that uses message pop-ups to continuously alert students about current happenings and upcoming opportunities/events at the university. Currently, the students get updated through the university's website, notice board, emails, various social media sites etc. This is an inefficient way of delivering important or time-sensitive messages as there is no way to ensure that the message reaches all students in time as many students might not have visited the website or opened the mail. Instead of maintaining multiple methods to share information about all college-related news, this application is used to manage them all in one place. With this application, notices, and news can be accessed anytime, anywhere with just one click from a smartphone. Simply log into College-Gram, and users will be able to view all communications from the college, and university in an easy and efficient manner.

II. SURVEY ANALYSIS

A. LITERATURE REVIEW:

1) In [1] paper whose title is "E-Notifier: An Android Application for Event Notification", The Authors- Poonam Kumari, Priya T.R, Poornima P, and Sahana S, inform about a developed Android application that changes the traditional bulletin boards method and notifies users immediately when new notifications and events are added on their device itself.
made an android application that replaces the traditional notice boards and provides instant notification to users whenever a new notice or event is added.

2) In a paper [2] titled "Web-based Notification Management System with Android Application", the authors Lalit Jadhav, Sanket S. Jagushte, Tejas R. Mhade, and M. Gosavi propose the idea of developing Electronic notice boards. Postcards, SMS or email are common methods for communicating with parents about their child's progress, but these techniques are time-consuming and laborious.

3) The paper [3] that is titled "Notification System to Students Using an Android Application", documented by H. Riadh states the design of a notification system that uses an Android application to connect to a university's educational website. An app that regularly provides information about all important notifications and events at your institution is not only in demand today, it is also necessary. It provides a wide range of information on everything related to education, courses, and college students, and helps instructors choose whom to send notifications to.

4) The paper [4] by authors S.R.Bharamagoudar, Geeta R.B, S.G.Totad having the title "Web-Based Student Information Management System", proposes a project that provides an interface for managing student information that is easy to use. This software is designed to help educational institutions and universities manage student files. This type of system handles all kinds of details about students, academic reports, personal achievements and other relevant details. Much easier than manually updating an Excel spreadsheet in Semester Wise.

5) This Paper [5] is titled "Developing a mobile Notification System for Al Buraimi University College Students", by Maryam ALSinami with their co-author- Ghalia ALFarsi aims at developing better communication networks between students and teachers and has developed an SMS-based mobile notification tool.

6) In this paper [6] titled "College Notification System", Karanam Srisha1, Matasugur Nivedita, Sandhya. K, Swathi. D.V. has mentioned about the development of an application for Android that supplants the traditional pen-and-paper pinboard with an electronic noticeboard.

B. STATISTICAL ANALYSIS:

- *Introduction:*

A survey was conducted to gather feedback and suggestions from college students, HOD and faculty about the idea of COLLEGEGRAM - college notification application. The survey aimed to understand the current notification habits of students, their needs and preferences for a college notification app, as well as their suggestions for features and needs.

- *Method:*

A sample of prime users was surveyed using an online questionnaire. The survey included multiple-choice and open-ended questions. The statistics turned into accrued over a duration of weeks.

- *Results:*

a) *Information sources:* The majority of students (90.9%) reported checking for notifications on their smartphones several times a day using messaging apps such as WhatsApp, around 71.9% & 62.2% claimed to be dependent on their peers and manual announcements respectively for information, about 26.1% & 10.2% reported checking Gmail and college website for notices and updates. The distribution among the sources is illustrated in Fig.1.
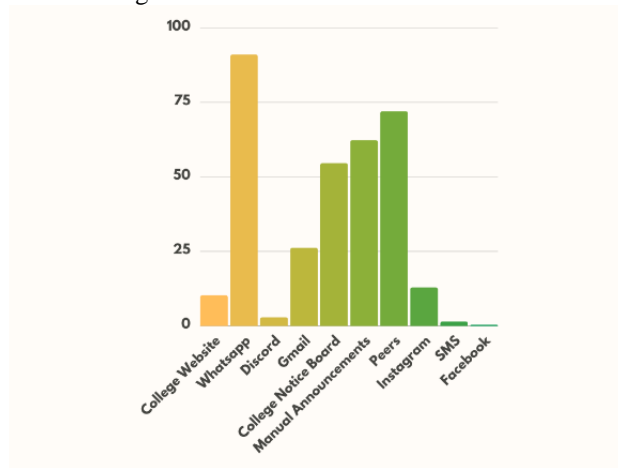

Fig. 1 This is a figure showing the Distribution between sources

b) *Missing Critical updates/events:* When asked if they ever missed an important college event or update because they were not notified in time, about 84.9% of users said Yes and 10.5% said Maybe as shown in Fig. 2.
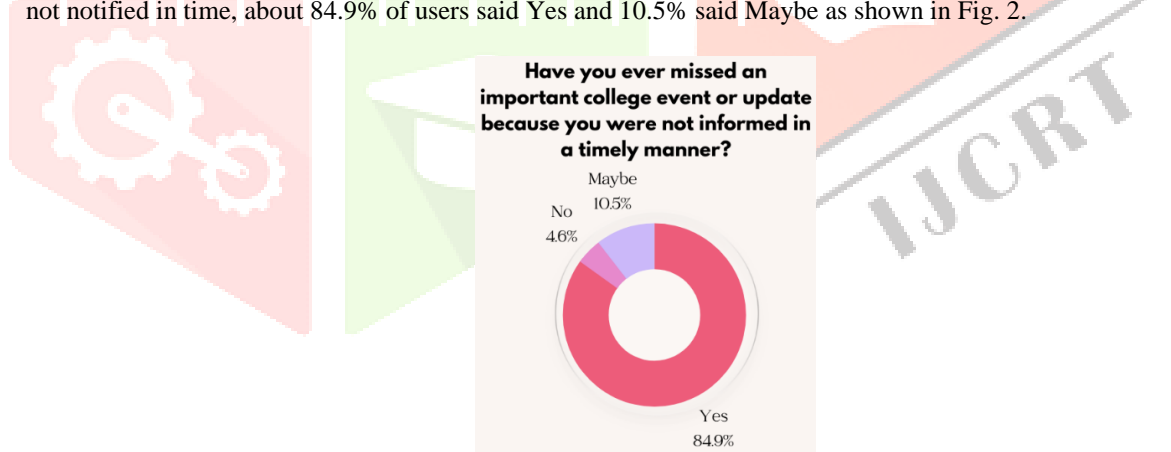

Fig. 2 Missing updates due to Ineffective Communication

c) *Effectiveness of Traditional methods*: The responses ranged from Not at All Effective to Moderately Effective as illustrated in the bar chart in Fig.3
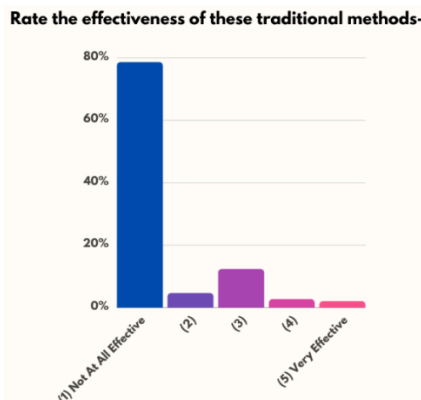

Fig. 3 This is figure represents the Effectiveness rating of Usual ways

d) *User satisfaction:* Overall, 92% of students expressed that they would be likely to use the college notification app if it were available. Given below in Fig.4 is the Pie chart obtained by Analyzing the responses and determining the demand of the Application.
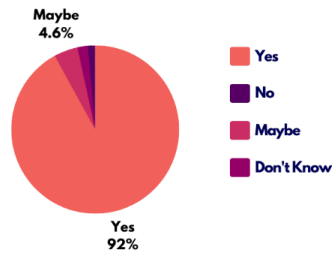

Fig. 4 User Satisfaction & Application demand

And More than 85.2% of surveyors believed that it is very likely for the application to be highly valuable & serve a useful purpose. Hence, It was concluded that the proposed application is the need of the moment & an absolute necessity as illustrated in Fig. 5.
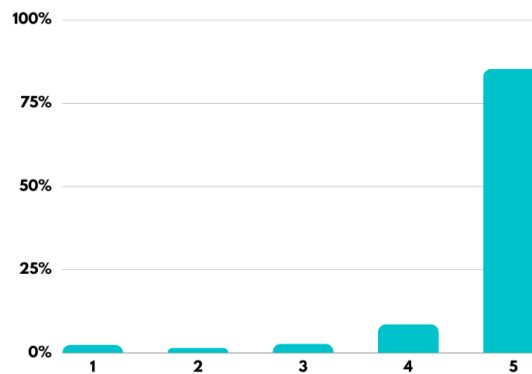

Fig. 5 College notification application is need of the hour

Most users claimed that they will consider using this app as the primary tool for receiving all important notices. The data is illustrated in the form of a Pie chart presented below in Fig.6
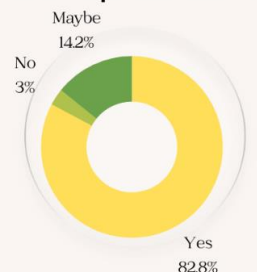

Fig. 6 Effective Usage

III. PROBLEM STATEMENT

Notices are passed on to different WhatsApp groups or pasted on notice boards to circulate the information of an event in the college. Many students miss these notices due to various reasons like not being a part of the group in which the notice is shared, being unable to visit the notice board etc. Furthermore, many times the important notices and messages in WhatsApp get overlooked because of many other irrelevant and frequent messages in groups. All this makes it extremely difficult to make the information or notice reachable to every single student in the college. Since social media has a limited number of users, it is not convenient to transmit information in a limited amount of time. So, it would be extremely easier to just post the notification on a single app which would conveniently pass it on to every student in the college. In this way, students will be informed on time with the help of a single app on their phone and also they will know about every event happening in the college.

IV. TECHNOLOGY USED

A. FRONT-END:

1) FIGMA:

Figma is a web-based application for designing interfaces. It will be used to create the application designs keeping in mind the user preferences and demands based on market research. It is preferable as it works on any device with a web browser & has a built-in prototyping feature that allows the creation of interactive prototypes of the design. Its special feature is called "Design Specs" which makes it easy for developers to extract design information such as colours, fonts, and spacing from your designs. This can help streamline the design handoff process.

2) FLUTTER:

Flutter is an open-source framework developed by Google that has been created to make building mobile applications easier. The coding for Front end development of the application system will be done using Flutter which uses Dart programming language. It will be used as it

allows one to build native apps for Android and iOS using a single codebase & can be compiled to native code, which means they can run at native speeds on both Android and iOS. This will make the app feel faster and more responsive to users.

B. BACK-END:

1) FIREBASE:

Google's Firebase is a well-known framework preferred by professional developers and enterprises to create top-notch applications. It provides software development and testing services, including database management, cloud storage and archiving, as well as security and compliance audits. The application is proposed to be hosted using a Firebase server which will simultaneously provide back-end functionalities and push notifications functionality.

V. SCOPE

The proposed system can be used to access notifications on user devices. Students do not need to visit the bulletin board every time and they receive notifications about any information related to the university. We can add a lot of updates to our project in the future according to our needs. Nowadays, each employer is based on diverse virtual packages that ensure steady communication. For now, the proposed app will be released as an alpha version which will be developed for only one college. The idea may be later prolonged to a much broader scope. We will create the database for different colleges in the university or we can create one interface for the whole university hence expanding the application to the university level.

A. ADVANTAGES OF THE PROPOSED SYSTEM:

1) TIME-SAVING

2) REDUCES PEN AND PAPERWORK

3) STUDENTS AND FACULTY GET THEIR NOTIFICATIONS ON TIME

4) USERS DON'T MISS OUT ON ANY IMPORTANT EVENT

5) GET NOTIFIED APPROXIMATELY UPCOMING EVENTS

6) CAN MAINTAIN THEIR SCHEDULE ACCORDINGLY

7) STUDENTS WILL NOW NO LONGER QUEUE UP AT THE ATTENTION BOARD

VI. OVERVIEW OF EXISTING SYSTEM

As of now, notice boards, websites, emails, and social media sites are various ways used to circulate information, notices, etc in colleges. Many times students are not able to keep track of all these sources resulting in them missing out on certain events. Usually, notices are passed on to different WhatsApp groups or pasted on notice boards to circulate information about an event in the college. Many students miss these notices due to various reasons like not being a member of the group in which the notice is shared, being unable to visit the notice board, etc. Furthermore, many times the important notices and messages in WhatsApp get overlooked because of many other irrelevant and frequent messages in groups.

VII. OVERVIEW OF PROPOSED SYSTEM

The Aim is to design and develop an application through which students can get notifications regarding any information, activities, and various events related to the college anywhere, anytime. Users will be notified instantly when authorized users add new events or write informative posts. After receiving the notification, users can view event details and read posts. Another critical function is that one-of-a-kind users are given one-of-a-kind privileges. Authorized persons such as university principals, HOD and faculty, and technical and cultural organizations are allowed to add new events and create informative posts. Students can only view events, announcements, and posts. The students can view all the future events in a single place making it easier to keep track of all the events going on in the college. Existing frameworks use websites to post notifications or through news platforms. This is a very long dialogue. The application improves on this cycle by giving notifications to the students or concerned staff and will act as a centralized platform for pushing notifications for all events in a college. It saves time and effort by connecting applications to the educational database of the college by using the latest technologies to notify users about the important notices being posted there. As a result, the planned application is simpler, faster, more secure, and more user-friendly.

VIII. PROPOSED METHODOLOGY

The project has the following modules in the application:-

A. LOGIN:

On the page where the registered user can log into the system, there are two types of login:

1) *USER LOGIN*:-

It is where the students log in to the system and can see the announcement posted and are allowed to give like and comment on the post.

2) ADMIN LOGIN:

It is where the admin login to the system with the special privilege of accessing the system. In this case, the admin can post the new announcement and schedule an event. An error message will be given if wrong data is entered during login, if the entered data matches with the username and password in the database, the user will be successfully logged in.

B. HOME:

This page will show all the posts added by the admin. All the societies' and departments' accounts and their posts will be shown here.

C. CREATE NEW POST:

This part is where the admin can make new posts; the content can be any recent update by the department. After finishing filling in the details, the admin will press the submit button to store all details in the database.

D. VIEW POST:

This tab will show the complete post created by the authorized user.

E. NOTIFICATIONS:

This tab will show all the notifications received and viewed by the user.

F. SCHEDULE AN EVENT:

This part is where the admin can schedule new events for the recipients.

G. EVENTS:

Events created will be marked down in the given calendar hence keeping the users informed about all the scheduled events for the month.

H. NOTICE BOARD SECTION:

This tab will be made fully operational. Our application will extract data from the college website and will notify the user about a new notice being put up, giving the user an option to either download it or view it. If the user chooses to view the notice, they will be redirected to the college website which will also help improve website traffic and increase the no. of visitors.

I. USER PROFILE:

This tab will contain all the basic information about the user, like name, batch marks, and all the details.

J. UPDATE PROFILE:

This tab will give users the ability to change and update the details in the profile section.
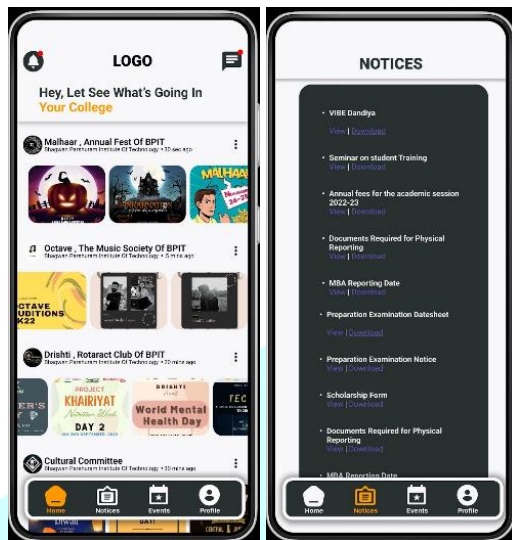
IX. USER INTERFACES

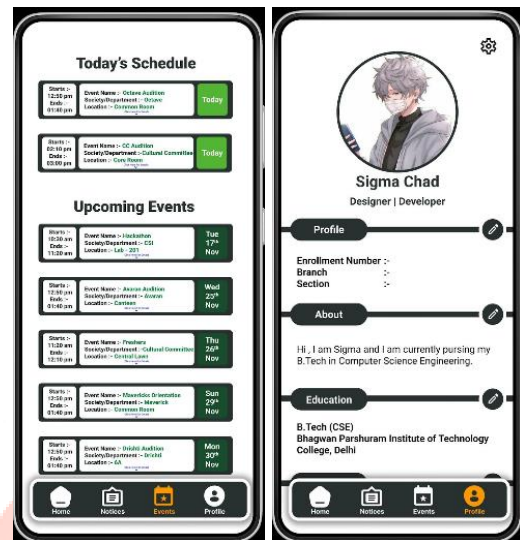Fig 7. User Interface Layout & Design prototypes - Home & Notice Tab

Fig 8. User Interface Layout & Design prototypes - Event & User Profile Tab

X. CONCLUSION

As the number of activities in a college is increasing, the need to keep all the students updated about those activities increases proportionally. This application provides an efficient way to keep everyone updated about events in college and also makes it easier for faculty and different societies of college to pass on notices to students about different activities.

In conclusion, the proposed app is a useful tool for keeping users informed and connected with the institute. With this app, users will be able to stay up to date on all the latest news, and notices and keep track of all the events in a single place. It can help students stay organized and be up to date on everything that's happening on campus and can be a valuable resource for helping you succeed in your studies.

XI. FUTURE WORK

There are many ways in which the college notification app could be expanded in the future. some possibilities include:

A. INTEGRATING WITH OTHER SYSTEMS:

The app could be integrated with other systems used by the college, such as the library catalogue or the campus recreation centre. This would allow users to access a wider range of resources and information from within the app.

B. PERSONALIZING USER EXPERIENCE:

The app could be designed to be more personalized to the needs and interests of individual users. For example, it could allow users to customize their feeds of news and updates or provide recommendations for events and activities based on their past activities and interests.

C. EXPANDING TO OTHER COLLEGES:

The app could be developed for use at other colleges and universities, allowing students at those institutions to access similar resources and information.

D. AI-PROGRAMMED CHATBOT:

It will be designed for solving user queries & answering general FAQS. This will reduce a lot of pressure on students as well as management. Also providing quick responses and suggestions will make things more productive. To make this process fast the FAQs can be answered using the latest AI technologies where answers can be automatically generated according to the questions.

E. ADDING MORE FEATURES:

The app could be expanded to include more features and functionality, such as a campus map, a directory of faculty and staff, or a system for scheduling appointments with advisors or tutors.

Overall, there are many ways in which the college notification app could be expanded and improved in the future, and it will be up to the developers and stakeholders to decide which direction they would like to take it.

XII. ACKNOWLEDGMENT

REFERENCES

[1] Poonam Kumari , Priya T. R , Poornima P , Sahana S, 2015, E-Notifier: An Android Application for Event Notification, INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY (IJERT) NCRTS – 2015 (Volume 3 – Issue 27)

[2] Jadhav, L., Jagushte, S.S., Mhade, T.R., & Gosavi, M.K. (2016). Web Based Notification Management System with Android Application. International Journal For Science Technology And Engineering, 2, 1218-1220.

[3] Riadh, M.H. (2016). Notification System to Students using an Android Application. International Journal of Computer Applications, 140, 22-27.

[4] Bharamagoudar, S.R., Geeta, R.B., & Totad, S.G. (2013). Web Based Student Information Management System.

[5] ALFarsi, G.M., & Alsinani, M.J. (2017). Developing a Mobile Notification System for Al Buraimi University College Students.

[6] Karanam Srisha1 , Matasugur Nivedita , Sandhya. K , Swathi. D. V, College Notification System, International Journal of Engineering Science and Computing (IJESC), - 2019 (Volume 9 Issue No. 5)