

AlmaHub: An Engaging, Supportive Alumni-Students Interaction Platform

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Abstract— Alma Hub project is aimed at developing an engaging, supportive alumni-student interaction platform. The al a cross-platform application and a website that can be accessed worldwide where alumni are present. This system can be used as an application and a website to connect with students and share their experiences with them. This system will reduce the gap between alumni, students, and the institute by providing them with a common platform to interact and stay updated and connected with campus activities. The project is innovative in all aspects since no such application is available to connect students and alumni of the college apart from the college portal where interaction and job posting activities are not present in the college portal. It will provide more customizability, a more effective user interface, and more modularity. Interaction between alumni and students will be on regular basis through the Alma hub.

Keywords— Mobile Application, Alumni Platform, Flutter

I. INTRODUCTION

Alma hub will facilitate an effective communication platform through online chatting, profile viewing and personal messaging, job posting, events, and other features among two stakeholders of the institute via- students and alumni. This system will get used as a platform for the Alumni information Database to manage the college information and students' information. The system is an online platform that can be accessed throughout the organization as well with proper login provided, which will give better service to the customers. The Alma hub can act as an interactive medium between the alumnus and current students. Through the exchange of their experiences, opinions, ideas, advice, motivating inputs, and strategies, alumni and the concerned institution will benefit from the suggested system in forging strong ties. Users and administrators can quickly obtain information about alumni. After leaving the institute, a student continues his or her professional life or job, with higher education being crucial to become established in the field. In regards to the College, it has been our observation that alumni have kept in-person connections with one another rather than communicating through the Alumni Association from the outset. The development of new resources like alumni web pages, list servers, etc. has unquestionably been aided by improvements

in information technology. So that more alumni can interact with one another.

II. LITERATURE REVIEW

The author of paper [1] has created a portal for the alumni association. The current methods for gathering alumni information need a lot of time because the alumni profile must be manually updated. A single repository for all alumni data would be offered via a web-based alumni software. Only after the administrator has properly validated the student will this alteration be updated. This Alumni Association portal application's goal is to facilitate communication between former and current students of an institution or college. This enables students to get to know one another and their present activities, which is essential for forging a lasting connection. This system would offer features including a listing of featured alumni, sophisticated search notifications, alumni notice boards for various announcements relating to alumni, and photo galleries in addition to being a way to rediscover academic recollections.

In article [2], the author uses an Android application to connect alumni with smart people. Since it was created on the Android platform, the system enables efficient communication across several classes of graduates from the same institution. This connect application's goal is to offer a mobile user interface that makes data storage easier, authenticates users, and offers various services. As part of the services, you can connect and communicate with a certain alumnus, have productive interactions with specific users, share expertise, create newsletters, etc.

The author developed a system that can gather and preserve alumni contact information for use in the future. Former students of the university can stay in touch with their closest friends, as well as incoming students and other community members includes in Article [3].

This one system can meet practically all of the alumni's needs. The author suggested creating a web-based application that would enable alumni to update their contact information, students to interact with them, and alumni and admin to filter events that are uploaded on the website (SVM). The alumni members were categorized using the suggested method, the SVM algorithm.

The system mentioned in paper [4] contains the author aimed to create a system that can handle an institution's alumni data and offer convenient access to protected information on both ends. This portal emphasizes the communication element, which will allow the present students to communicate with the college's alumni in order to acquire various updates regarding employment opportunities, such as those involving industry trends and events, etc. The suggested system will be created using an online open-source platform. For ease of understanding, a few of the required web design packages will be developed. Many reporting formats can be produced using filtering algorithms. The admin panel will have full control over the system's overall operation and the ability to add new features as needed in the future. The system will automatically move all alumni data, including their status and date of graduation, from the student module to the alumni module.

The goals of an alumni group made up of graduates and former pupils. Colleges rely on alumni to mentor students, which gives students the chance to contact with alumni and learn about a variety of job options, including industry trends, industrial events, internships, scholarships, and more. The alumni database must be actively used in the creation, administration, and searching in order to acquire new updates as part of this project, which maintains the freshmen and old graduate students with their individual information as a result, the Alumni Portal's dynamic design facilitates communication with all alumni and students. This alumni portal offers details about institutions, unique occasions, careers, and off-campus employment. To secure the data, SMS4-BSK cryptosystem is employed is included in Paper [5].

Information and communication technology (ICT) has grown greatly in recent years, according to article [6]. As a result, in order to build the Students and Alumni Web Portal, it is important to analyses the internal and external environments of the three universities (SAWP). The SWOT analysis has been used to pinpoint the strategic plan's significant impact on environmental factors, as well as the benefits, drawbacks, opportunities, and threats that the proposed system's design faces. In order to construct a dependable portal system that targets two subsystems, the student portal system and the alumni portal system, SAWP was developed employing techniques such as MySQL, HTML, CSS, Java Script, jQuery, PHP, and AJAX. The SAWP was put to the test twice, the first time to ascertain the students' preferences and opinions. The best result of the System Usability Scale (SUS) testing was a rate of overall satisfaction that was high, close to 80%, when evaluating the usability of utilizing the SUS approach, to which 22 potential system users subscribed. The implementation's results showed that the system requirements and the supplied data were, for the most part, highly compatible and reasonable.

The paper [7] it has been heavily incorporated into a number of different businesses, which also motivates the alumni management work's innovation. The simplicity of management system operation and the fragmentation of alumni information and time are just a few of the issues that exist in the process of managing alumni. In light of these shortcomings, this study analyses and develops a framework for an intelligent integrated alumni information management system that combines online and offline components. "Data Mining and Decision-Making Support," "Intelligent Data

Acquisition and Storage," and "Alumni Social Network" are the three modules that make up this system. By leveraging intelligent technology to collect and store enormous volumes of alumni data and data mining technologies to improve talent training decision-making, the system aims to develop a social platform to encourage alumni networks.

The Paper[8] informs about the phrase "industrial revolution 4.0" has become popular in both the corporate and academic worlds, and the fact that almost everyone owns a smartphone running the Android operating system demonstrates the speed at which technology is currently advancing. The study's planned results include a graduate search and analysis Android app. The paper suggests that the gathered data on alumni. Using a survey approach, analyze the profile of the graduates and the applicability of the Industrial Engineering Study Program curriculum. The waiting period for graduates, the proportion of graduates who have worked, and the initial income made are all part of the variable profile of graduates.

According to the paper's [9] contents, alumni systems should have certain data mining and social networking features to enhance mentoring relationships between alumni and students. The two key contributions of this research project are the framework for smart alumni systems (SAS) and a proof-of-concept prototype implementation of an SAS subset. In addition to alumni, the SAS framework also includes current students, teachers, staff, and visitors under the category of stakeholders. The framework facilitates communication between various stakeholder types in a social networking setting for initiatives like curriculum development, fund-raising, and mentorship, among others. The prototype incorporates social networking capabilities including messaging, groups, and friends, as well as stakeholder responsibilities for alumni, academics, and students. The creation of a prioritized list of proposals for stakeholder ties for friends or groups uses straightforward data mining techniques.

In recent years, social network systems have risen to the top of the list of Internet applications. Internet access is now more convenient than ever thanks to portable devices like smartphones and tablets. They have also opened up new possibilities for university social media sites and their alumni. The mobile platform that this article suggests combines graduates from institutions with the widely used social networking site Facebook (FB). Before the users of this website may get in touch with the alumni, they need to know their most recent Facebook status. Users can access alumni's personal information from universities' databases with their permission. The mobile platform also makes use of the Google Sync feature, which offers system users ubiquitous information retrieval from any place and device is mentioned in Paper[10].

III. PROPOSED SYSTEM ARCHITECTURE

The Alma Hub is a system which works with cross platform Mobile Application as well as web app. It has many features. Here modules are listed step by step.

Login Module: Students can log in with the help of email id and password. Alumni Students have an additional registration page where they can update their current status of work.

Register: Register module is designed to establish an alumni student interface that will allow the system to save the fundamental registration information for students.

Before entering personal data, the user can create an account using the module. It includes email, name, bio, password and year of passing. The process for creating an account is incredibly easy to use and understand.

Smart Connect: It creates a bulletin board or online forum similar to those seen on the internet. IT has two ways connection on one click. It gets added to both This will make it easier for the viewer to engage in message-posting exchanges. In contrast to chat rooms, messages are typically longer than one line of text and are retained at least temporarily. This module allows for the creation of a user-created forum, and any messages placed there are reviewed by a moderator before they are made public.

Profile: To understand knowledge and previous background Profile Page is necessary. Here you can add various details about your past technical experiences and Education. Also one user can view others profile with his/her details.

- 1) **Experiences:** In experience section the students can add their Internships details whereas alumni can add the company or Organization where they are working. They can also add their position or work. The starting date and ending date can also be added by Alumni and Students.
- 2) **Education:** In education section the students can add their education of School details, Secondary and higher secondary college details, graduation details including particular area. If student has done post-graduation or PHD they it can also be acceptable.
- 3) **Certifications:** It includes details about the skills which students have gathered via technical knowledge, courses, and qualified exams and by technical events or hackathons. Here date of issue and issuer organization can also get added in a details.
- 4) **Skills:** The Skill section includes technical as well as non-technical skills. User can add and delete it. It gets showed in list format.

This section can only editable by authorized user.

Job Portal: Alumni students who are entrepreneurs can post jobs on the Job portal. Also, alumni who are working in Top companies students can get referrals from them. This section includes name of company, job or position offered, description of company and role, location of company and apply link. By clicking on apply link the student can go to specific site and can apply to the job. Alumni who has added a specific job it can only be deleted by him/her.

Communication through Text: The user can start live conversations and ask friends and seniors for advice using the chat option in the menu. The chat tab displays all members that are currently online along with their ratings. The name of a Student can be clicked to start a new chat conversation. Live communication with friends is represented by the small bar at the bottom. This section can also include groups created by alumni or students. This groups can be joined by anyone who want to join and it and

also the participants can leave the group. The admin have authority to see the group members and remove the group members.

Posts: Using the post section student and alumni will be able to upload various posts related to their achievements, activities and events done by them. The connection of a user can view the posts of their connection and they can like it and comment it. The user who have posted the post only have authority to delete the post.

A. System Architecture

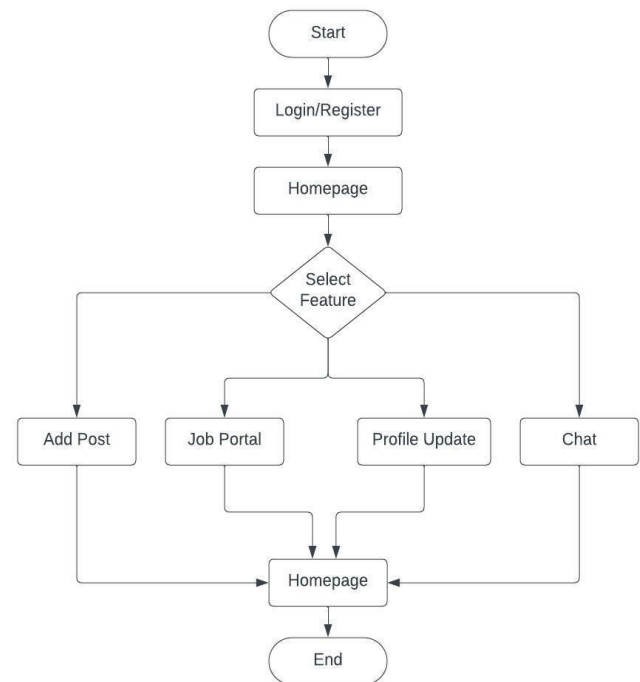


Fig. 1. Flowchart

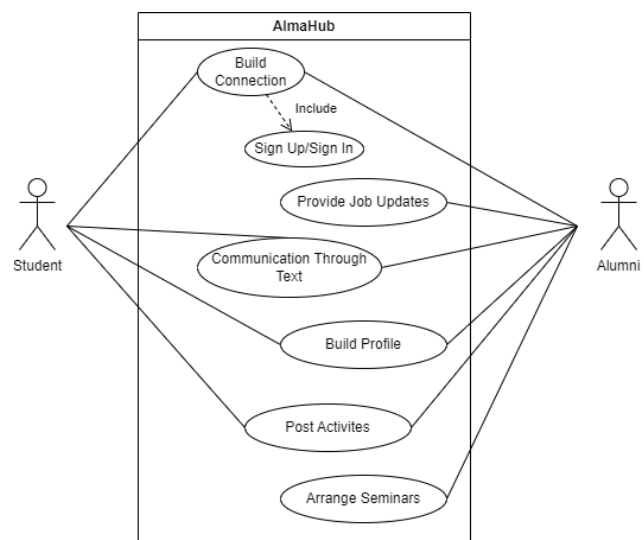


Fig. 2. Use Case Diagram

Overall, an alumni platform can be a valuable resource for both alumni and the institution they graduated from, helping to foster connections, provide professional development opportunities, and build a sense of community.

IV. RESULT AND DISCUSSION

The proposed platform meets all the specifications and provides the required functionality to connect alumni students with current students of the college. The platform forms a connection and provides interaction between students and alumni. Alumni can give guidance, job opportunities, and current industry trends. Posts, Profile management is also provided.

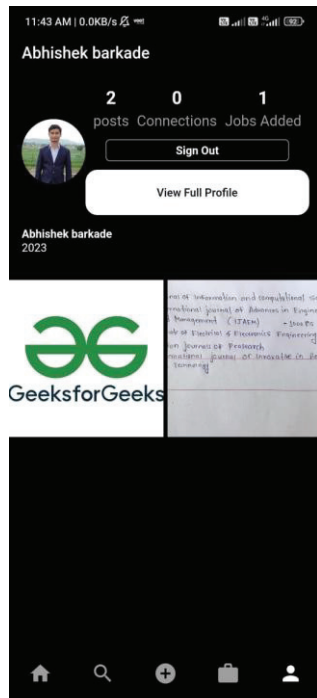


Fig. 3. Profile

Profile Section includes Experiences related details, Education related details, Certification details and skills of a student or user. So Alumni can show there career progress and inspire juniors by which juniors can get motivation.

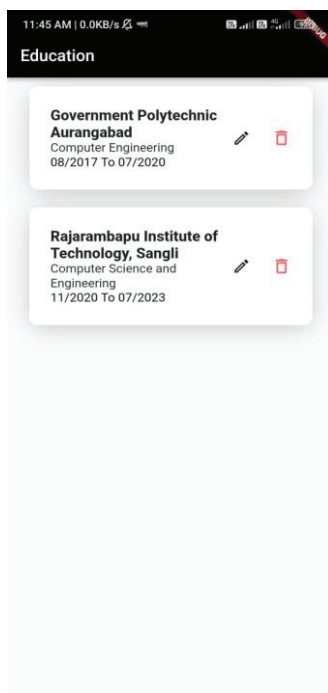


Fig. 4. Educational Details

As per educational details there is Experience section, certificate section and Skills. Here skills can't get edited but Educational details, Experience details and certification details can gets edited.

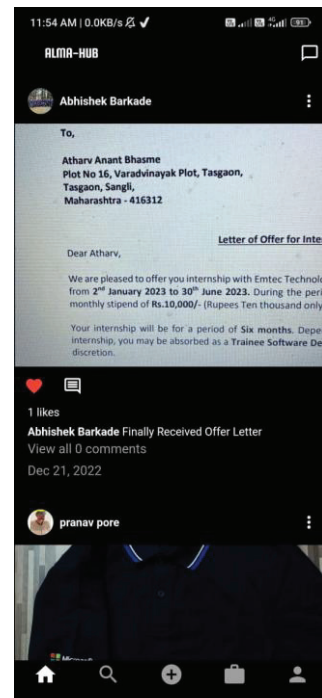


Fig. 5. Home Screen

In Home screen it includes six icons which are search, add post, job postings, profile section and messaging section. As you can see in fig. this is home screen where posts are visible and users can like and comment on it.

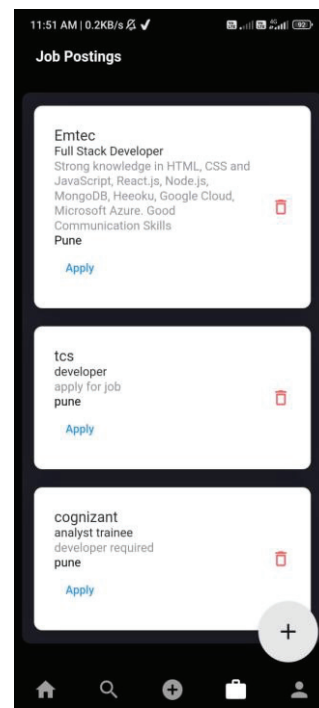


Fig. 6. Job Postings

In Job Posting section all can view jobs added by alumni and it includes details about Name of company, Position or role, Job Description, Location and apply link. When user

clicks on apply link it will go to job site. So user can apply on it. Alumni Student can delete the job posted by him.

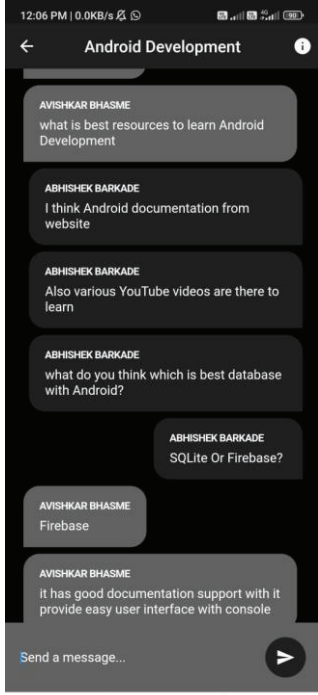


Fig. 7. Communication through text

After clicking on message icon in home page you can search for a group, select group, join a group and communicate with group members. Group members are both alumni and students.

Database: Students data is taken from the college-provided data which includes various fields. Alumnus data related to current positions, skills, Organization name, description of job role, previous organization, etc. stored in the database. Firebase is a NoSQL database. In the project firebase realtime database, firebase firestore and firebase storage is used. For server, browser, and mobile apps, Cloud Firestore is a scalable, adaptive database from Firebase and Google Cloud. It features offline support for mobile and web, similar to Firebase Real-time Database, allowing you to build responsive apps that work regardless of network latency or Internet access.

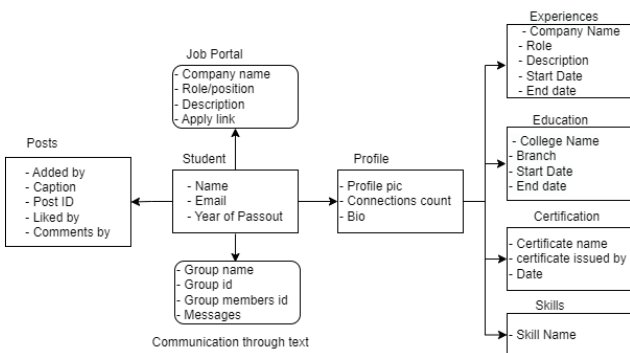


Fig. 8. Database

V. ADVANTAGES

The Alma hub platform can provide a number of benefits to both alumni and the institution they graduated from. Some of the advantages of an alumni platform include:

- **Networking:** Alma Hub is a great way for alumni and students to get connected with each other and form professional networks. This can be especially useful for those who are looking to advance their careers or start their own businesses.
- **Professional development:** The platform offers professional development resources, such as job search tools, career advice, and professional training. These resources can be helpful for students to stay up-to-date about industry trends and improve their skills.
- **Community:** Alma Hub can provide a sense of community for all college students, allowing them to stay connected with their peers and the institution they graduated from. This can be a great way for alumni to stay engaged and involved with their alma mater.
- **Giving back:** Alumni platforms can also be a way for alumni to give back to their alma mater and support current students. This can be in the form of mentorship, or other forms of support.

TABLE I. ALMA HUB ADVANTAGES OVER OTHER SYSTEMS

Features	Traditional System	Alma Hub
Alumni Information	Yes	Yes
Android	No	Yes
iOS	No	Yes
Web	Yes	Yes
Communication between students and alumni's	No	Yes
College student involvement	No	Yes
Job Portal	No	Yes
Profile Management	No	Yes
Tracking Alumni's Progress	No	Yes

Alma Hub advantages are included over the other traditional alumni portals. It explained that how the Alma hub is better in all section with the help of various parameters and features.

VI. CONCLUSION

The platform in this paper i.e. Alma Hub builds Connection in seniors and juniors. It helps students to get guidance from Alumni. Using this platform students can get internship updates, placement updates and current industry trends from alumni. Alumni can share their experiences from the corporate life, IT industry and the new technologies in which they are working. According to that, the students can get knowledge about new technologies and industry trend by which students can get help for future progress and career growth. Using this platform Institute can also track alumni's progress. Alumni's profile can guide the student as per their interest so they can connect with them. The proposed platform is successfully designed and implemented by Students.

VII. FUTURE WORK

Alumni Student engaging platform will modified and developed in the future. The system has a wide scope. In further it can be integrated with video conferencing to arrange lectures and training programs by the alumni. It may

include features to arrange Seminars and events. This system can be extended and developed using machine learning algorithms to give proper suggestions to the students and alumni as per their profiles, activities and interest. Enhancing the usability and user experience of the platform: This could involve adding new features and functionality to make the platform more user-friendly and engaging for users. Adding financial help option by which alumni can help to institute, student and give back to society.

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