Social Media Application Development

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Abstract—**Mobile applications serve as a conduit for the transmission of human knowledge. Learning is an ongoing activity, and the emphasis has now switched entirely to e-Learning. The use of mobile devices in the teaching and learning process has ushered in a new age in education. It improves the interaction and effectiveness of the teaching-learning process. It has the potential to assist offer high-quality education to people from all walks of life while also fostering connections. There has been a slew of new features released that not only help with a variety of day-to-day tasks, but also improve our level of living in a variety of ways. It's understandable that students would look into a variety of applications that cater to various needs in everyday life. As a result, it indicates how individuals are influenced by rapidly evolving technology, proving to be the most effective region for triggering the development factor in them. This demonstrates how technological growth is yielding positive effects and helping to general development in a variety of economic and noneconomic domains. The use of mobile apps and technologies in general can provide numerous benefits to the university learning environment.**

Index Terms—**Android Studio, Java, Networking, E-learning, Social Media Application Development.**

I. INTRODUCTION

New learning approaches have emerged as a result of the introduction of applications in the education sector. Because of the flexibility and convenience of finding information that mobile applications provide, they have become an integral part of people's life.The earliest social media site dates from the 1970s, when the University of Illinois created the PLATO System, which had online forums, bulletin boards, instant messaging, and other capabilities.

With the passage of time, various businesses around the world developed new ideas and discoveries, resulting in impeccably created applications for practically any service or facility imaginable.

A Social media app is used to connect and interact with other people online. Generally, social networking apps can be used for personal needs or for professional communication. These platforms are great places for asking questions and receiving answers, sharing news, ideas, insights, and experience.

Our project is to develop an Android Application for a social media interface within the College Campus for its students, staff and non-teaching staff.

Social media is affecting the way people communicate, develop relationships and build trust in home and work settings.

What began as a set of tools for friends to stay connected has evolved into a means for businesses to communicate internally and externally.

Hence, our group got an idea of this project topic so as to learn and gain knowledge about programing and app development.By creating this app, it allows students to extend classroom learning to online social network platform.This will also help in introducing direct alternative for peer students to communicate and discuss online.

II. METHODOLOGY

Fig.2.1: Features of App

1. Registration:
Users can create a new account, either through email id or using existing social media accounts in platforms like Google or Facebook.
2. Profile creation:
Users can create a personal profile, including information about themselves and can manage and edit their profile as per their wish.

3. Post Creation and Interaction:

Users can publish posts with different content, such as text, photos or video. They can also interact with others' posts through likes and comments.

4. Feed:

Users should be able to stay tuned with all the information regarding their friends and communities through a central space called Feed.

5. Notifications:

Users can get notifications about new events such as likes, comments, messages, follows, etc.

6. Search:

Enable users to find people, groups, or topics by implementing search for different criteria such as username, tag, location.

7. Admin Access:

To manage the site, carry out administrative functions, and to manage reported users, this feature is essential.
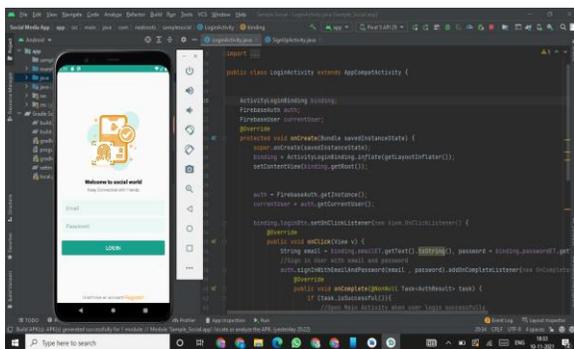
III. WORK DONE

Fig. 2.2: Implementation

We have created the sign up and log in page for our system where user can enter their log in credentials and successfully create an account and access it.
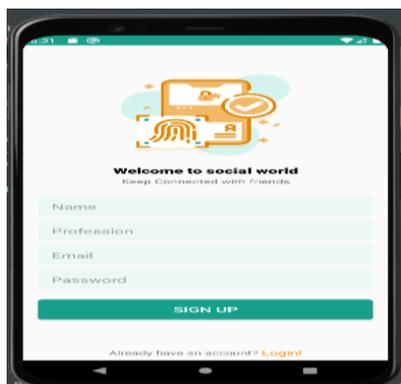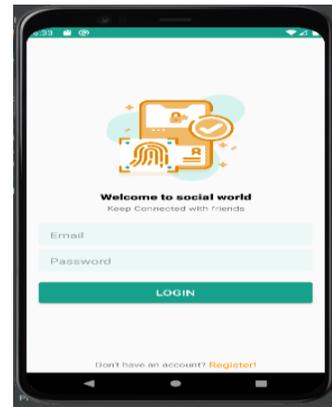
SIGN UP PAGE:

Fig.2.3: Sign Up Page

LOGIN PAGE:

Fig. 2.4: Login Page

A. Working principle
- For a user to use this Social Media App, that user needs his/her own Profile.
- For that the user needs to create an account by filling in the Login credentials such as Name, Profession, E-mail, Password, etc.
- After successfully signing up, the User can now access the application.
- Using his/her profile, the user can now check his/her daily News Feed and access the app.

B. Technique developed

Software Used:
- Android Studio
- Firebase
- Java

Android Studio is a single development environment that allows you to create apps for Android phones, tablets, Android Wear, Android TV, and Android Auto. Structured code modules allow you to break down your project into functional parts that you can create, test, and debug independently.

For security purpose we will use Firebase.

Firebase is a development platform n Backend-as-a-Service (Baas). It offers a number of tools and services to assist developers create high-quality apps, expand their user base, and make money.

The following are the top Firebase features:
- Users' data such as chat messages, user details, and other metadata are stored in the Firebase Database.

- User-generated content, such as the profile image and multimedia messages, are stored in Firebase Cloud Storage.

Most back-end development projects, including those requiring large data and Android development, employ Java as the server-side language. Java is also widely used in desktop and mobile computing, games, and numerical computation.
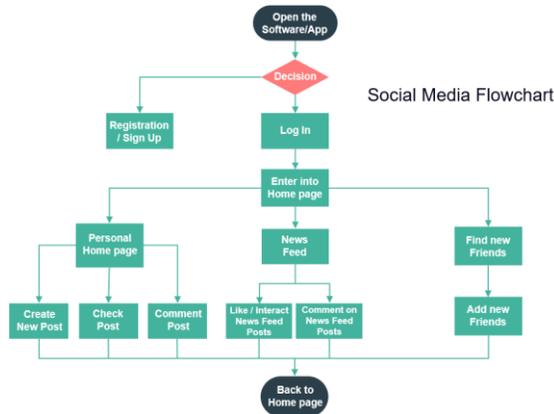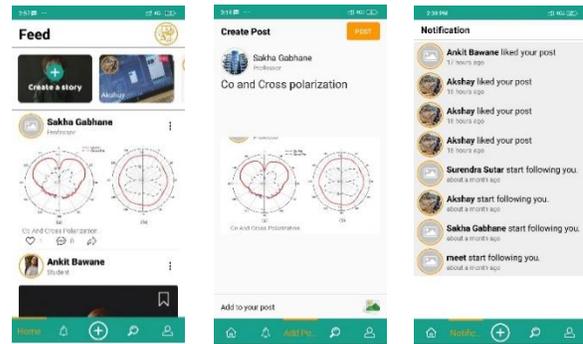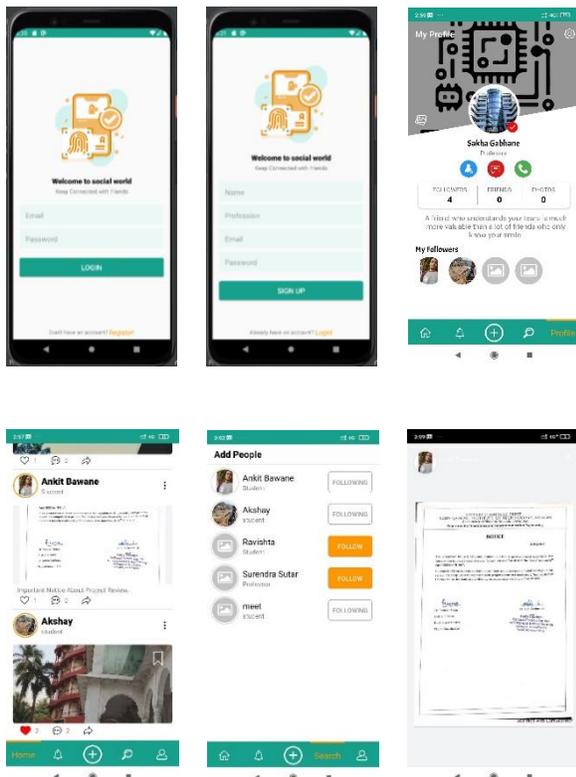
C. Design/Flowchart

Fig. 2.6: Flowchart

IV. RESULTS

V. CONCLUSION & FUTURE SCOPE

This application is specially designed for professors, students, and organizations to help everyone easily connect with each other in one platform. This will help bridge the communication gap within the campus.

The app provides a platform where the student can share their knowledge and gain credibility in their chosen field. Within an online community, they can also communicate and acquire information from others who have completed similar research and have their questions answered, make friends and network.

The future of social media is continuously evolving where you can find that all the major mediums which are live like television, radio, videos, live events, etc. will make a paradigm shift to social media.

This project embodies most of the features required for efficient functioning of an application. However, a few possibilities can be explored in the near future.

The application can be further modified wherein the geographical restriction of a campus can be removed and it can be expanded far and wide.

We can incorporate features wherein the user will be able to utilize the app offline as well where the user can view their download like notes or any documents similar to the feature of YouTube Downloads.

As the future of social media evolves with the help of new tools, the quality and accessibility of the technologies can boost the application.

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