



## Mobile Messenger Application

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### ABSTRACT

Messaging applications allow users to communicate with each other in real-time by sending and receiving messages. This type of application has become increasingly popular in recent years, with many people using it as their primary means of communication with friends, family, and colleagues. Messaging applications typically have a user-friendly interface that makes it easy to compose and read messages, and they often include a wide range of features and capabilities. For example, many messaging applications allow users to send and receive text, audio, and video messages, as well as share files and other media. Additionally, many messaging applications support group chats and offer the ability to customize the appearance of the application with different themes and stickers. Another important feature of messaging applications is the ability to see when other users are online and available to chat. This allows users to quickly and easily determine who is available to communicate with, and helps to facilitate real-time conversations. Overall, messaging applications provide a convenient and efficient way for people to communicate with each other, and have become an essential part of modern communication

**Keywords:** Messenger application, java, firebase.

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### I. INTRODUCTION

Smartphone devices such as iPhone, Blackberry, and those that support the Android operating system are ubiquitous. In addition to serving as a phone device, smartphones are also capable of video/picture/text exchanges, accessing the Internet and executing sophisticated embedded software applications. A large percentage of these users are young adults that include college students. Hence, the interest in engaging in the development of the next generation of software applications for embedded and mobile devices is arising among students. We believe Android provides a rich platform with a variety of concepts, techniques, and resources which can be combined to produce useful and marketable applications. In addition to its openness and user-friendliness, all the tools in Android development are free and no special hardware is required. These factors motivated us to practice an instant message application on the Android platform to explore Android's main components and various building blocks, and to acquire a working knowledge of its developing environment

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### II. LITERATURE SURVEY

One of the most common problems faced by people using messenger applications is related to privacy and security. Users are concerned about the privacy of their messages and the possibility of their data being shared with third-party companies without their consent. This has been a major concern in recent years, with several high-profile data breaches and hacks of messenger applications. Additionally, excessive use of messenger applications has been associated with a higher risk of depression and anxiety, disrupted sleep, and social relationships. Technical issues such as poor connectivity, slow loading times, and app crashes can also be frustrating for users. Another issue faced by users is the abundance of notifications, which can be overwhelming and distracting. Moreover, the increasing prevalence of fake news and misinformation being circulated through messenger applications is another concern, as it can lead to confusion, mistrust, and potentially harmful decisions. Lastly, the potential for cyberbullying and harassment through messenger applications can also be a problem for some users. Overall, messenger applications have revolutionized the way we communicate, but it is important to be aware of these challenges and take steps to address them.

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### III. PROPOSED DETAILED METHODOLOGY

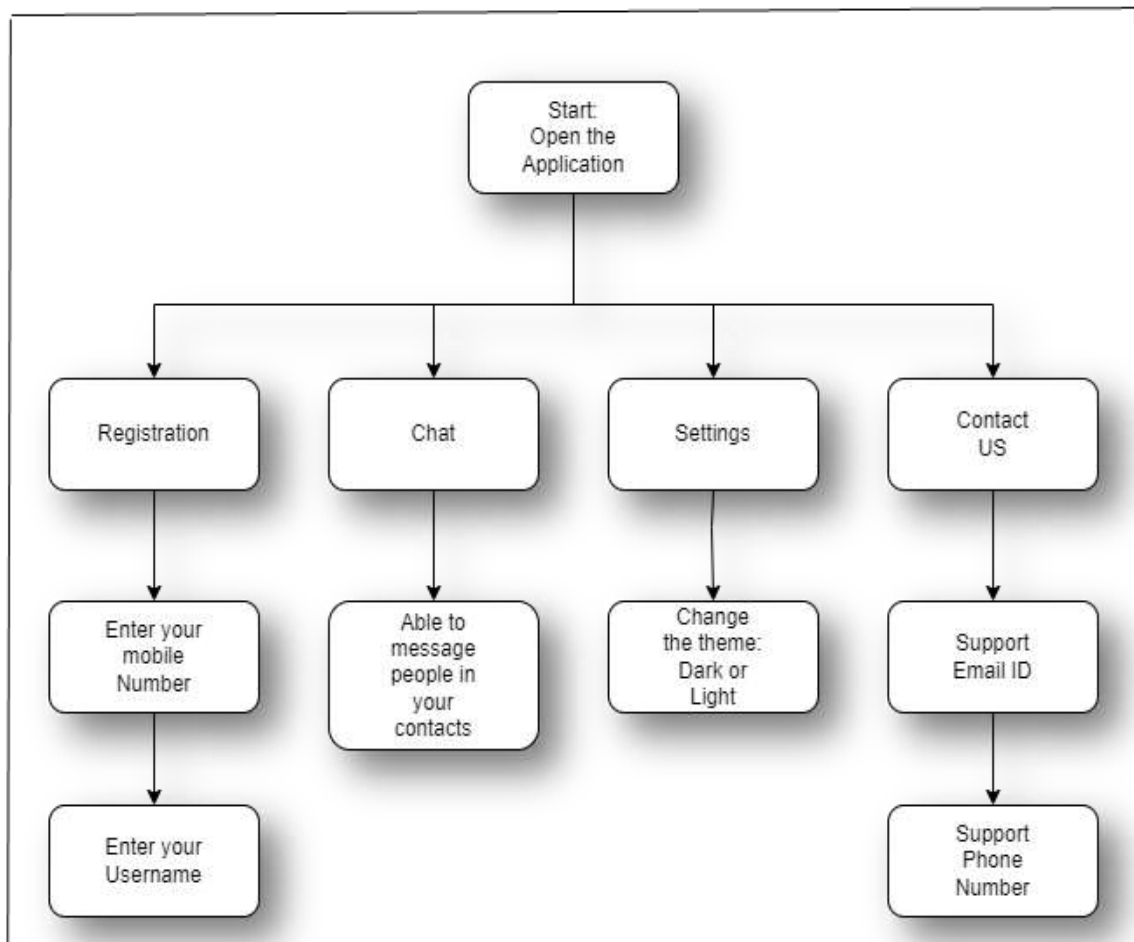
Developing this project for better communication and experience becomes very important considering the scope of this project. To develop this project efficiently, we communicated with our mentors and android application developer who are known to us. By discussing with them, we intended to understand how mobile application is developed in actual corporate world and what procedure we should follow to have a nice and smooth development of the android application. After understanding everything about android development, we had a proper internal discussion within the team member. In discussion, we finalized the features and appearance of the application to be implemented. Once we had a clear vision of things to be implemented, we decided to design the UI (User Interface) of the application. UI which stands for User Interface are to design how the user will see the application, what

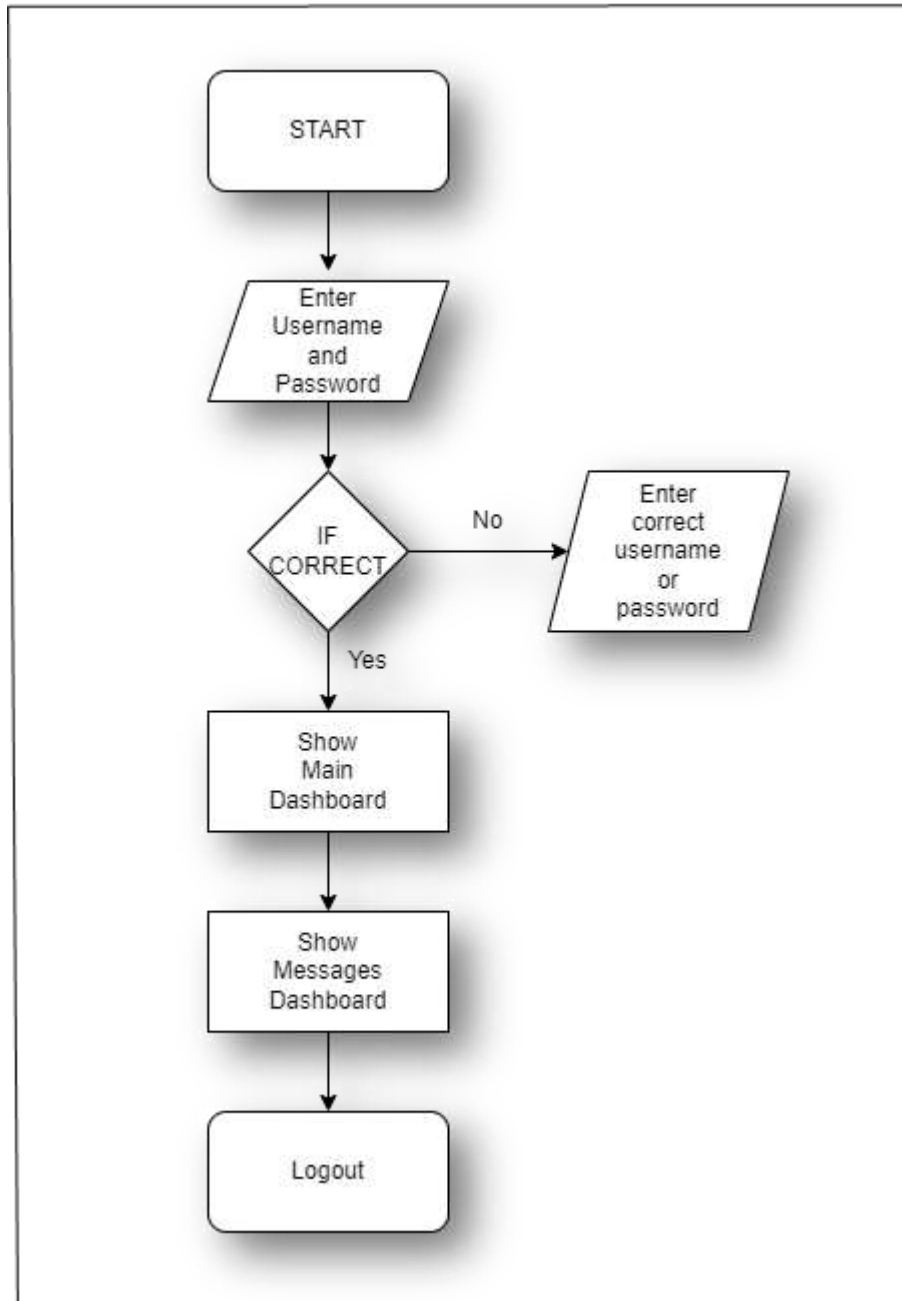
type of color combinations and buttons our application will be having, and how every module of application will look like. This includes thinking on where the button shall be placed, a click on button should do a work assigned to it, to summarize in short, and it aims to make sure the user has convenient and efficient user experience so that they wish to re-visit application. Once we have our design ready and approved from project guide, we would be starting with development of actual project. For which, we shall be using development languages like Java, Android Studio and Firebase. We will use Android Studio for front-end development, Java for back-end development and Firebase for storing the data. The major thing in our development phase is to make the application have a good design and bug free. Once we have our application developed and ready, we shall proceed with one of the important things of software development life cycle – Testing. Testing is done for finding the bugs or errors in the application for making it more stable and usable. Testing helps us to ensure that the application is bug free, there are no vulnerabilities in the project, and it will not fail and attracts more user attention as much as possible. For testing as well, we shall be classifying the process into multiple steps to ensure it is tested as much as possible. Once the testing is done, we intend to make this project go live. We will publish the application on a store, so that people should be able to access the application. So far, we have planned to inculcate this methodology of our project, but there might be certain changes in case of any unavoidable interference.

#### IV. MODELING AND ANALYSIS

The main focus of the modeling and analysis is to provide a detailed report on the modeling of the report. In this section we present the graphs and charts to show the analysis and the glimpse of our research work. This contains very useful information regarding the modeling of the research. In this we have made a app named AI Mouse

Flowchart:





The first diagram is the overview of the application

The second diagram is the login module of the application

## V. CONCLUSION

In conclusion, messenger applications have become an essential part of people's lives, providing a convenient and cost-effective way to communicate with friends, family, and colleagues. The popularity of messenger applications continues to grow, with billions of active users worldwide. However, there are several challenges associated with these applications, including privacy and security concerns, excessive use, technical issues, fake news and misinformation, and the potential for cyberbullying and harassment. To address these challenges, it is crucial for users, developers, and policymakers to work together to implement effective strategies that promote responsible and safe use of messenger applications. Overall, messenger applications have the potential to improve social interactions, enhance healthcare delivery, and facilitate communication, but it is essential to be aware of their challenges and take steps to mitigate their negative impacts.

Features of Messenger Application:

- Faster Texting

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- Group Texting
  - Able to change Profile
  - Able to change chat background

#### VI. REFERENCES

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