

Web-based Chat Application

Our web-based chatting application will provide its user with an easy, effective, and fast way of communicating with other people. The application will provide a clean interface for the user to quickly share their thoughts with each other using text, images, videos, or any other kind of file.

This will be a web-based chat application using Firebase real-time database and storage to store and send messages. The user starts by either Login into the app or registering for it using either email/username and password, phone number, Sign-in with Google, Sign-in With Apple, or Sign-in with Facebook. If it's the user's first time, he/she needs to fill in some additional information.

After that, the user is greeted with a chat window, where all his personal and group chats are placed inside different "folders" made by him to separate all the conversations according to his preference hence providing a cleaner look.

From there, the user can see his existing chats, add new friends, send messages to his friends, strangers[if allowed by the user], or groups. The user also can change his/her preferences, profile photos, and various other details like secondary login credentials.

Finally, the user can choose to close the app and stay logged in when he comes back or log out of the application.

The chat application must be able to provide the following services to the user:

1. A user can Sign up or Login using Email/Username and password, sign in with Google ID, sign in with Apple ID, using phone number[verified through OTP] or Facebook. If the user is not already registered, he/she has to provide further details like setting the username.
2. A user can Add or Remove a friend by searching for them using a Username or Display Name, and the user can start a personal chat with a person. If the recipient has enabled don't receive a message from a stranger, then the user must be friends with that user to start a personal chat; else, it will show an error.
3. A user can create a group chat. A User can view their existing chats as well as send messages, images, videos, documents, or any other supported file within the data limit to a personal or group chat.
4. A user can set his/her details like Name, Profile picture, and add additional login details but can't modify the primary one which he/she used to while creating an account in the settings tab.

5. A user can create folders [Grouping Chats] and assign chats to that particular folder such that those chats appear in that folder. A user can mute any chat, and that chat will be moved to a mute folder that is already created.
6. The chat application will send notifications for new messages received in unmuted chats. A user can switch between dark and light mode themes, search for a specific message in a personal or group chat.
7. The admins of a group can Add/Modify Group description, Group Chat Photo and add or remove non-admin users from the chat.
8. A User can pin a chat, so it stays at the top.
9. A User can logout off his/her account.

OTP will be required to signup on to the chat application, and if the user fails to enter the correct OTP within a limited timeframe, then he will have to request another OTP. Incase while logging in, if the user has forgotten the password, then he will have the option to request a new password and later change the password in the user's preference tab.

A user can start chatting with people by searching their username, but if a recipient has enabled "don't receive a message from a stranger", then the user has to wait until his/her friend request has been accepted before starting a personal chat. If the request is denied or the user has been removed as a friend, then the user can't chat with the recipient any more.

If a user muted a chat, then those chats will be then shown in a muted folder, which will be created by default. And no notifications will be shown for them.

The user can't send a file greater than the data limits set within the application to prevent load on the server. If a user does try to do so, then an error message will be shown.

In a group chat, there can be multiple admins. And no admin can remove another admin. If all the admins leave, then the user who joined the first will be made the admin.

Team 23

Subject: Software Engineering [IT632]

By Student IDs:

202012017	Jay Kothari [Team Leader]
202012031	Vishwam Pandya
202012057	Brijesh B Bhalala
202012090	Patel Dhruvkumar Bhaktibhai
202012116	Dhruvil Vijaybhai shah
