**Web-based Chat Application**

**Team 23**

**Subject: Software Engineering [IT632]**

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.

At last the user can chose to close the app and stay logged in when he comes back or logout of the application.

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

1. 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. User can Add or Remove a friend by searching for them using Username or Display Name and user can start a personal chat with a person, If the recipient has enabled don’t receive message from stranger then the user must be friends with that user to start a personal chat else it will show an error.
3. User can create a group chat. 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. 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 create an account in the settings tab.
5. User can create folders [Grouping Chats] and assign chats to that particular folder such that those chats appear in that folder. User can mute any chat and that chat will be moved to mute folder which is already created.
6. Chat application will send notifications for new messages received in unmuted chats. User can switch theme between dark and light mode, search a particular message in a personal chat or group chat and Search a particular message in whole application.
7. Admin of a group can Add/Modify Group description, Group Chat Photo and also add or remove non-admin users from the chat.
8. User can pin a chat so it stays at top.
9. User can logout off his/her account.

OTP will be required to signup on to the chat application, will the user fails to enter the correct OTP within 120secs, 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 change the password.

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 the request is been accepted before starting a personal chat. If the request is denied or the user is been removed as a friend then the user can’t chat with the recipient anymore.

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 by the application. If a user does try to do so, then an error message will be shown before the file starts uploading.

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.

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