**Chat Application Like WhatsApp (any applications like web, android, desktop)**

Note: This is not the real project it is for demo to enroll you in a full stack project.

**FRONT END**

**Phase 1 – Designing in Figma**

Designing – Figma (Should design all responsible Designs like actable for both mobile and PC)

**Phase 2 – Developing Front end (Can choose any one below)**

Android – React Native **(much appreciated for future real time projects)**

Web – React js (or) next js (or) Angular js

Desktop – Electron js (or) Tauri

**Scenario**

* Should have a login and SignIn interface (Always should login into account and has a session expiring for some periods according to future enhanced Ideas that will be updated soon).
* Home page (Consists of all chats that chatted with)
* Chat Page (that has a Widget container for each chat and their respective contents like photo, video, text, emoji, gif, reply chat etc.…)
* Theme Definitely shouldn’t match with WhatsApp like their exact color and their frames, widget sizes and also their logos etc.… (just try differently).

**Theme should be in Blue and White and needed color that you would prefer**

* Login
  + Should has inputs like mobile, password
  + Either can have dynamic backgrounds or simple static backgrounds with matching theme
* SignIn
  + Should has inputs like name, mobile, password, confirm password.
  + Either can have dynamic backgrounds or simple static backgrounds with matching theme
* Home
  + Should display all Chats that we have conversed. (Except Group Conversation, if it is implemented it is much appreciated).
  + It also should have Differentiate the unread messages and its to be notified the unread message count on each chat.
* Chat Page
  + Should have implemented all type of Scenarios mentioned below
    - Unread messages
    - Date of message
    - Time the message written
    - Either message is read
    - Either message is sent
    - Other scenarios that you prefer (Extra Implementations)
  + Chat page should display the details of person that currently on display like his profile, his name, or mobile number, etc.…

**(In Desktops) Can have both home and chat page in single page if you wish.**

**Constrains**

* Validations
  + Mobile number should be valid
  + Password and confirm password should be same
  + Password should be hard like it should contains atleast 1 Lower Character, atleast 1 Upper Character, greater than 8 Characters, atleast 1 special Character etc.

**BACK END**

**Phase 1 – Designing Schema (designing Databases)**

Designing Schema is like choosing needed things that to be stored in databases in an Organized order

Can choose any database types mentioned below

1. Mysql (Data stored in tables)
2. MongoDB (Data stored in collections).
3. Also, can use any other known databases.

**Phase 2 – Developing Back-end (Can choose any one below)**

1. Node js
2. Nest js
3. Spring boot
4. Etc…

**Scenario**

* SignIn: Each user provides their details like name, mobile, password, confirm password, with validation should provide a session with 10 days of expiry date.
* Login: Each user provides mobile, password with validation should provide a session with 10 days of expiry date.
* Conversation APIs:
  + Adding msg
  + Retrieve msg

**Constrains**

* Normal login sign in validation
* Produce Exceptions over unexpected scenario and inputs.
* Provide Authentication using encrypted passwords (Use b-crypt)
* Provide Authorizations and Sessions using JWT

**Integration of Front-end and Backend**

* Use Specific frameworks from front end to fetch request over an
* Generate Exceptions over unexpected scenario and inputs
* Handle the same and produced by backends also
* Displaying exceptions as a notification not alert (toast notification).