Project Title	Social Media Application
Technologies	MERN
Domain	Social Media
Project Level	Hard
Organization	iNeuron Intelligence Private Limited

Table

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1. Problem Statement:

Design a Social Media Application.

1.1. Overview of Social Media Application and MERN Stack?

Mongo DB, Express, React, and Node JS are all referred to as MERN. These four are currently among the most widely utilized technologies in the web development industry.

A social media is an application in which the users can share their views through text, audio, video etc. A user can like, comment over each other's post. User can also chat with each other and can share text, audio, video with each other.

Some of the most popular social media platforms where you can find inspiration are Instagram, Facebook, and Twitter.

1.1.1 Expected features of the Social Media Application

Here is a detailed list of the expected features which should be available in your Social Media Application-

a. The user should be led to the **login page** upon visiting the website, where they can log in or register for the social networking app.
b. Users should have a login and signup option, which means you need to have a **proper authentication-based login system** for users, so that new users may establish accounts and existing users can login using that.
c. A user cannot access anything without logging into the system.

d. A user should be able to add other users as friends to chat after creating an account and can also make a post.
e. Users can share text, audio, and video during a chat.
f. A user can publish text, an image, or a video that his friends can see and like or comment on.
g. A user can edit, alter, or delete any of his posts from his user dashboard.
h. Additionally, a user may log out of his account.
i. A user must issue a friend request to another user before they can become friends, view each other's posts, and communicate with one another in chat.

1.1.2 List of required features

a. Landing Page

b. Feed Post

c. Explore All Post

d. Sort by Date, Recent, Trending

e. Add, Update and Delete Post

f. Add and Delete Comment

g. User Profile Update

h. Follow and Unfollow

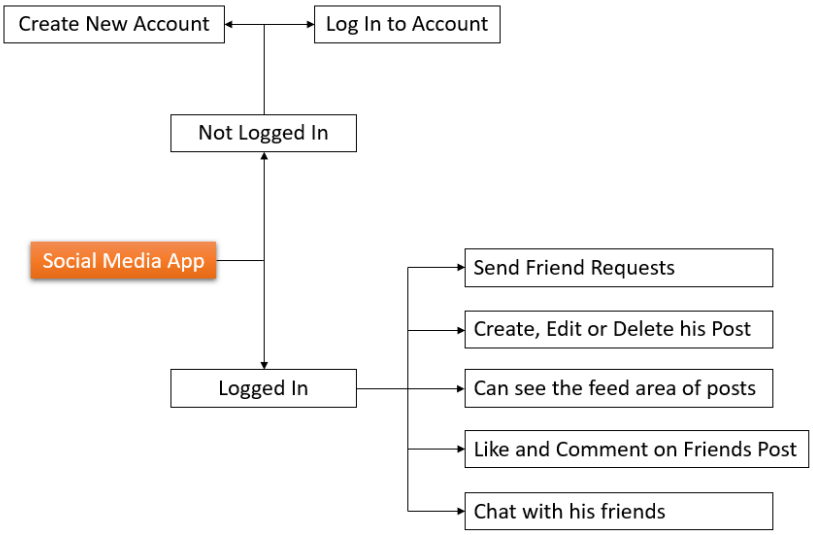
i. Like and Comment on Post

j. Add and Remove from Bookmark

k. Authentication

- User Signup
- User Login
- User Logout

l. Fully Responsive



Low Level user flow

1.2. Project Objective

• **Social Media Application Platform:** Simple, user-friendly social media platform where users may sign up and engage in a variety of activities.

• **User-friendliness:** Even a layperson should be able to utilize the project because it should be very simple to use.

1.3. Scope of The Project

1. People these days are obsessed with social media apps. The social networking apps are where most people spend a lot of their time. People will benefit from having a fresh app to test out various features and an interface that is distinctive in its own right.

2. The user can quickly connect with others and communicate with them to exchange ideas.

3. Through posts to his or her fellow friends that may include text, an image, a video, or other objects, one can express their opinions.

1.4. Functional and Non-Functional Requirements: -

1.4.1. Functional Requirements

1. **User Registration:** The program must allow users to sign up using their email, username, and password. Users must be able to self-register or, if they already have an account, log in immediately after opening the program.

2. **Creating New Post:** The website should give users the option to create new posts, update current posts, or delete existing posts.

3. **Like and Comment on Post:** A user who is logged in can like or comment on another user's post.

5. **Dashboard:** The user's dashboard, where he can edit, update, or remove his post or account, should display both his personal information and his posts.

1.4.2. Non-Functional Requirements

1. **Privacy:** Only users who are logged in can view other users' posts, comment on posts, and issue friend requests to other users.

2. **Robustness:** To enable recovery in the event that the user's system crashes, a backup of the user's posts, personal data, and friends' conversation and list must be kept on distant database servers.

3. **Performance:** The program needs to be quick to load, both for posts and chats.

1.5. Use Case Table

Authentication System	Register, Login, Logout	User
Search Form	Search other user account	User
User Dashboard	Display User's details and posts	User

Table 1. Use Case

2. Project Evaluation Metrics:

2.1. Code:

- You are supposed to write code in a modular fashion
- Safe: It can be used without causing harm.
- Testable: It can be tested at the code level.
- Maintainable: It can be maintained, even as your codebase grows.
- Portable: It works the same in every environment (operating system).
- You have to maintain your code on GitHub.
- You have to keep your GitHub repo public so that anyone can check your code.
- Proper readme file you have to maintain for any project development.
- You should include the basic workflow and execution of the entire project in the readme file on GitHub.
- Follow the coding standards.

2.2. Database:

MongoDB is a source-available cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with optional schemas.

2.3. API Details or User Interface:

You have to expose your complete solution as an API or try to create a user interface for your model testing. Anything will be fine for us.

2.4. Deployment:

Implementation of reverse proxy, load balancing, and security group is mandatory for deployed applications.

2.5. Solutions Design:

You have to submit complete solution design strategies in High-level Document (HLD), Low-level Document (LLD), and Wireframe documents**.**

2.6. System Architecture:

You have to submit a system architecture design in your wireframe document and architecture document.

2.7. Optimization of solutions:

Try to optimize your solution on code level, architecture level, and mention all of these things in your final submission.

Mention your test cases for your project.

3. Submission requirements:

3.1. High-level Document:

You have to create a high-level document design for your project. You can reference the HLD form below the link.

Sample link: HLD Document Link

3.2. Low-level document:

You have to create a Low-level document design for your project; you can refer to the LLD from the link below.

Sample link: LLD Document Link

3.3. Architecture:

You have to create an Architecture document design for your project; you can refer to the Architecture from the link below.

Sample link: Architecture sample link

3.4. Wireframe:

You have to create a Wireframe document design for your project; refer to the Wireframe from the link below.

Demo link: Wireframe Document Link

3.5. Project code:

You have to submit your code to the GitHub repo in your dashboard when the final submission of your project.

Demo link: Project code sample link

3.6. Detail project report:

You have to create a detailed project report and submit that document as per the given sample.

Demo link: DPR sample link

3.7. Project demo video:

You have to record a project demo video for at least 5 Minutes and submit that link as per the given demo.

3.8. The project LinkedIn a post:

You have to post your project details on LinkedIn and submit that post link in your dashboard in your respective field.