Project Title	Crowd Funding Application
Technologies	MERN
Domain	Finance
Project Level	Hard
Organization	iNeuron Intelligence Private Limited

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1. Problem Statement:

Design a MERN stack-based Crowd Funding Application

1.1. Overview of MERN Stack and Crowd Funding Application

Full-stack online applications can be deployed more quickly and easily with the MERN Stack, a JavaScript stack. The MERN Stack is made up of the following 4 technologies: MongoDB, Express, React, and Node.js. It is intended to simplify and streamline the development process.

Each of these four potent technologies plays a significant role in the creation of web apps and offers developers an end-to-end environment in which to operate.

A platform for crowdfunding where users may browse through various campaigns and donate to the cause. The payment is made through the payment gateway (like Paytm Gateway), which guarantees complete transparency and anonymity throughout the transaction.

1.1.1 Expected characteristics of the crowdfunding website (For User)

Here is a full list of the features that users should be able to access on your crowdsourcing website-

a. On the landing page, users can view the running campaigns.
b. When a user clicks on a campaign they want to support, they are directed to that campaign's specific page, where they may examine information about the campaign such as its purpose, admin details (which is compulsory), a description, and associated graphics.
c. The user can then support the cause by making a donation using a designated payment method in the amount they desire.
d. The user can use the share tool to spread the word about the campaign to their friends, coworkers, and family members.
e. Once the payment has been made, the user can view the transaction's total on the campaign page's List of Donations. (Anonymity is protected).

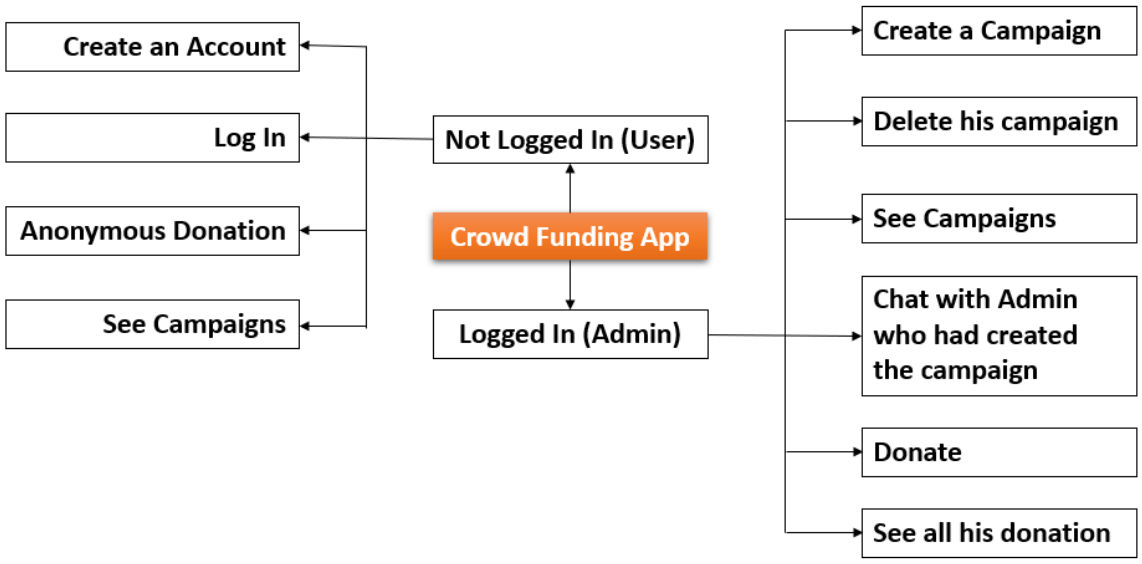
f. The administrator who designed the campaign should be reachable via email or chat so that users may learn more about how the campaign was used and how it was performed.
g. The user should be able to compare the total amount raised to date (current raised amount) with the total amount still needed to be raised by the campaign.

1.1.2 Expected characteristics of the crowdfunding website (For Admin)

Here is a full list of the features that users should be able to access on your crowdsourcing website-

a. The admin also has access to the features mentioned above.
b. In order to make a campaign more comprehensible and credible for the user who is going to donate over it, the administrator can create a new campaign by filling in the project data (such as title, description, photographs, amount, etc.) relevant to the campaign.
c. An ongoing campaign may be deactivated by the admin once the necessity has been met or earlier (due to any possible reason). The user is unable to donate there once the sum has been raised.
d. An administrator may adjust a campaign's specifics (but not the amount raised) in order to increase donor trust and belief.
e. Once the campaign is activated on the website, the admin cannot be altered.

Low Level user flow



1.2. Project Objective

• **Crowd Funding Platform:** This platform for crowd fundraising will address the real-world issue of funding by enabling someone to ask the entire world to support their venture by making a voluntary financial donation to them.

• **User-friendliness:** The user can register on the website and raise money directly from the public without using a middleman.

1.3. Scope of The Project

1. This application will deal with the practical problem of fundraising. Using this, a person can provide money directly to those in need.

2. People can help one another meet their needs through cooperating.

3. This is completely transparent, and users can offer direct assistance to those in need.

1.4. Functional and Non-Functional Requirements: -

1.4.1. Functional Requirements

1. **User Registration:** If someone wants to use the website to raise money, they must first register an account so that other users can view their profile and decide whether or not to give them money. To make it clearer, the user must enter both his demographic and personal information.

2. **Create New Campaign:** The person who is logged in can launch a new fundraising campaign.

3. **Anonymous Donation:** Anonymous donation can be done to a campaign, but the **total anonymous amount** cannot exceed to **5000 Indian Rupees**. After this amount, no one will be allowed to donated anonymously to that particular campaign.

5. **Dashboard:** A user who has signed in should be able to view all of his donations and his profile.

1.4.2. Non-Functional Requirements

1. **Privacy:** Only users who are logged in should have access to all of his donations and profile information. Without being logged in, no one else should be able to access any of the other information.

2. **Robustness:** To provide recoverability in the event that the user's system breaks, a backup of the donation and profile data must be kept on distant database servers.

3. **Performance:** The application needs to be quick to load and light in weight.

1.5. Use Case Table

Authentication System	Register, Login, Logout	User
User Dashboard	Displays all the donation and profile data	Admin
Landing Page	Displays all the running campaigns and their details	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.

Demo link: Project sample link

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.

Demo link: LinkedIn post sample link