

## Backend Setup (Node.js and Hasura)

### 1. Node.js Setup:

- Install Node.js if you haven't already. You can download it from the official website.
- Create a new directory for your project.
- Initialize a Node.js project using npm init.

### 2. Hasura Setup:

- Install Hasura GraphQL Engine using Docker or directly from the Hasura website.
- Set up your database (PostgreSQL) and configure Hasura to connect to it.
- Define your data model (tables, relationships, etc.) using Hasura's console.

### 3. Business Logic:

- Create custom Hasura Actions using Node.js. These actions will handle business logic like deposits and withdrawals.
- Define the logic for deposit and withdrawal operations in your Node.js server.
- Use Hasura Actions to call your Node.js functions.

## Frontend (HTML/CSS/JavaScript)

### 1. HTML/CSS Setup:

- Create an HTML file for your frontend.
- Design a simple user interface with forms for deposit and withdrawal.
- Style your UI using CSS.

### 2. JavaScript (Frontend Logic):

- Use JavaScript to handle form submissions.
- Send requests to your Hasura GraphQL API for deposit and withdrawal operations.
- Display relevant messages to the user based on the API responses.

## Security Measures

### 1. Authentication and Authorization:

- Implement user authentication (e.g., JWT tokens) to secure your endpoints.
- Define user roles (admin, regular user) in Hasura and restrict access to certain actions based on roles.

### 2. Validation and Sanitization:

- Validate user input (e.g., amount for deposit/withdrawal) to prevent malicious data.
- Sanitize inputs to avoid SQL injection.

## Deliverables

**1. Source Code:**

- Share the complete source code for both the backend (Node.js) and frontend (HTML/CSS/JavaScript).

**2. Setup Instructions:**

- Document how to set up the project locally (including Node.js, Hasura, and database setup).
- Explain how to run the backend and frontend together.

**3. API Documentation:**

- Provide detailed documentation for your Hasura GraphQL API endpoints.
- Include sample requests and responses.

**4. Design Decisions and Assumptions:**

- Explain any design choices you made during development.
- Document any assumptions you've made about the project requirements.