

CASE STUDY: ONLINE BANKING PLATFORM WITH REACT.JS

Project Overview

- **Goal:** Create an intuitive and secure online banking platform.
- **Solution:**
 - **Front-End Framework:** React.js for its component-based architecture and responsiveness.
 - **Back-End Technologies:** Json or API

Module Details

1.Authentication Module: Handles user login, registration.

Components

Login Form	<ol style="list-style-type: none"> 1. Description: A form that allows users to log in securely using their credentials. It generates a JWT token upon successful authentication. 2. Key Features: <ul style="list-style-type: none"> ○ Input fields for username/email and password. ○ Authentication request to the server/json/api.
Registration Form	<ol style="list-style-type: none"> 1. Description: A form where users can input their registration details (such as username, email, and password). It includes validation checks to ensure data integrity. 2. Key Features: <ul style="list-style-type: none"> ○ Input fields for username, email, and password. ○ Client-side validation (e.g., password strength, valid email format).

1. **Dashboard Module:** Provides an overview of account balances, recent transactions and alerts.

Components

AccountOverview	<ol style="list-style-type: none"> 1. Description: Displays a summary of account balances, including savings, checking, and other accounts. 2. Key Features: <ul style="list-style-type: none"> ○ Real-time retrieval of account balances from the backend/api.
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	<ul style="list-style-type: none"> ○ Presentation of balances in a user-friendly format (e.g., currency symbols, decimal precision). ○ Links to detailed transaction history.
AlertManager	<ul style="list-style-type: none"> ● Description: Allows users to set personalized alerts based on specific conditions. ● Key Features: ● Alert triggers- low balance.

2. Transfer Module:

- **Purpose:** Enables fund transfers between accounts.

TransferForm	<ol style="list-style-type: none"> 1. Description: The Transfer Module facilitates transferring funds between accounts, both within the same bank (internal transfers). 2. Features: <ul style="list-style-type: none"> ○ Internal Transfers: Users can transfer money between their own accounts within the same bank. ○ Validation: Ensures that the user has sufficient funds and validates recipient details.
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4. Admin Module: Admin dashboard for managing users.

Admin Dashboard	<ol style="list-style-type: none"> 3. Description: The Admin Module is a dashboard specifically for administrators to oversee users 4. Features: <p>User Management:</p> <ul style="list-style-type: none"> ● Add Users: Admins can create new user accounts.
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	<ul style="list-style-type: none">• Edit Users: Allows modification of user details.• Deactivate Users: Admins can disable or suspend user accounts.• Display : All users
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Concepts:

- Use useState and useEffect for API call
- useReducer for CRUD functions.
- useContext – To return value to other components instead of props
- Bootstrap or External styling to apply style
- Routing for Navigation
- Use JSON Server for Front-end Development : <https://www.freecodecamp.org/news/json-server-for-frontend-development/>