

Project Proposal of Online Banking System

Software Engineering Lab (ICT 4354)

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Project Title: Online Banking System.

Project Overview

The objective of this project is to develop a comprehensive online banking system inspired by PayTM, incorporating features for user management, account balance checks, and money transfers. This system will include a backend service implemented with Node.js and MongoDB, and a frontend application built with React.

Goals and Objectives

- *User Management:*

Sign Up: Allow users to create accounts.

Sign In: Authenticate users and provide access tokens.

- *Account Management:*

Check Balance: Enable users to view their account balance.

Transfer Money: Facilitate secure transfers between accounts using transactions.

- *Frontend Interface:*

User Interface: Build a responsive and user-friendly interface with React.

Routing: Implement navigation between key pages using react-router-dom.

Components: Create reusable UI components to ensure consistency and maintainability.

- *Testing and Validation:*

Ensure all functionalities are thoroughly tested and validated using Postman.

Verify data consistency and transaction integrity through MongoDB's transactional capabilities.

Conclusion

This project combines a Node.js and Express backend with a React frontend to create a complete online banking solution. It includes user registration, authentication, balance checking, and money transfers, all supported by MongoDB transactions for reliability. The React-based interface interacts with the backend via REST APIs, and Postman testing confirms the core functionalities work as intended.