Secure Banking System using Blockchain Technology

Capstone Project
Review -3
Team -25

Project Title : **Secure Banking System using Blockchain Technology**

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Proposed Work

We aim to develop a web-based serverless application which works on a decentralized system for handling transactions between users ruling out the utilization of any centralized database.

All the transactions are to be verified by smart contract and stored in the Near Blockchain. The application will be built on the top of a cloud-based infrastructure which will be a community-operated cloud instead of a company-operated cloud.

Appropriate additional level of security measures will be implemented for the user authentication before any transactions occurs.

Software **Requirements**

Frameworks

➜   React
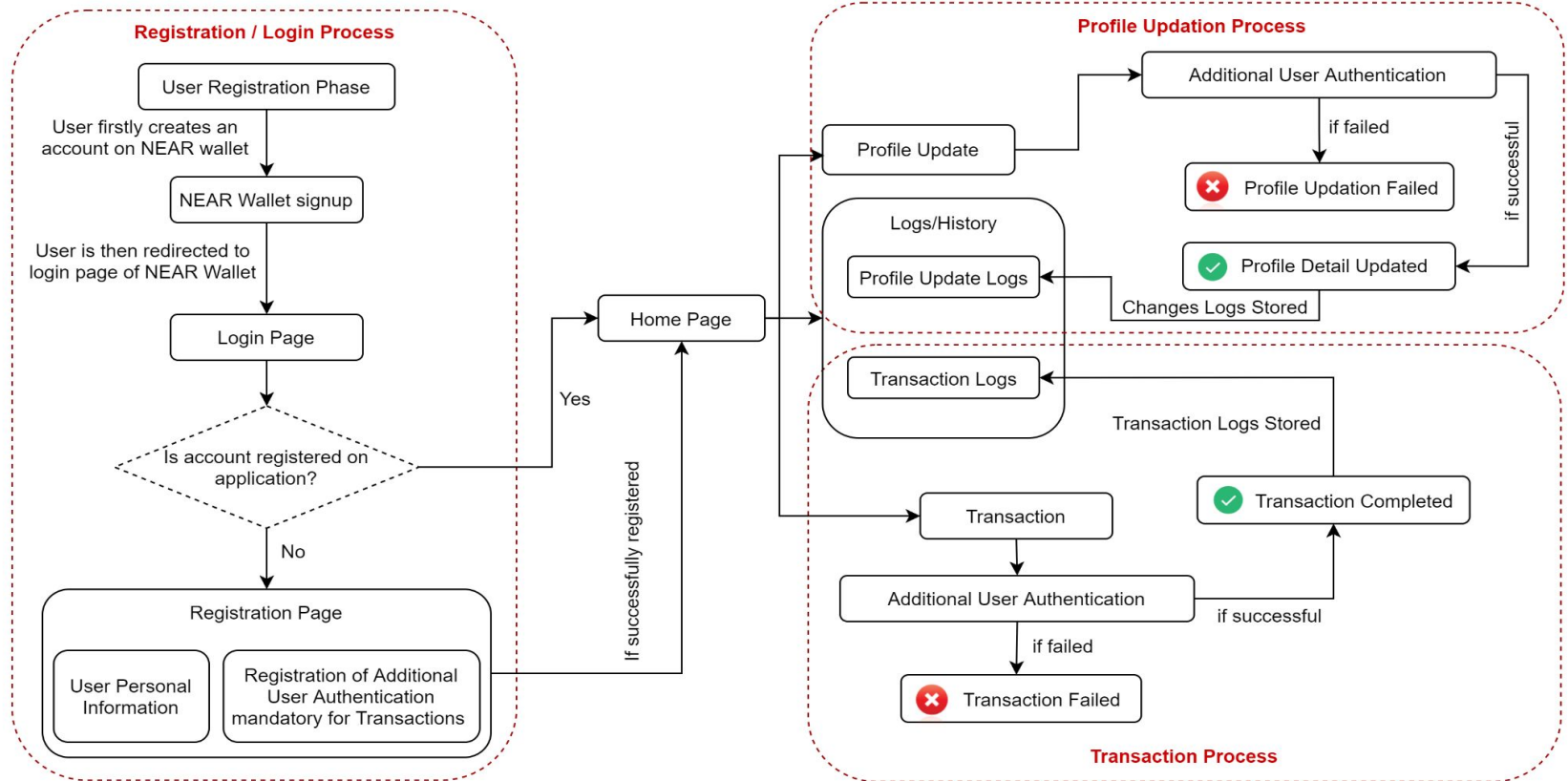
➜   Material UI

➜   NEAR Blockchain

Languages

➜   JavaScript

➜   HTML & CSS

➜   AssemblyScript

IDE

➜   VS Code

Overall System Architecture Diagram

Modules & Explanation

01. **Authentication Module :** User Registration & Login Process will be implemented under this module using NEAR wallet authentication.

02. **Profile Details Module :** Basic user details such as mobile, email, etc will be handled under this module.

03. **Transaction Module :** Money Transaction process between user accounts will be implemented.

04. **Logs & History Module :** Profile modification & transaction history will be managed under this module.

05. **Additional Authentication Module :** Second level authentication, for transaction purpose & profile updation, will be implemented in this module.

Work Completed Till Date

01. Registration of User Account.

    01.1 Application Connection with NEAR Wallet.

    01.2 User Account Creation on the Application.

02. Transaction Between Accounts.

    02.1 Transferring NEAR Token from one Account to another.

        02.1.1 Taking affirmative action from User through Passphrase.

    02.2 Storing the transaction logs at both the User Ends.

03. Implemented Recent User's Transactions History.

(Contd.)

Work Completed Till Date

04. Money Request Feature

    04.1 Requesting Money from another user

    04.2 Notifying User for New Money Requests

    04.3 Approving Requested Money Transfer

05. Money Transfer through QR (Fast Payment)

    05.1 Sending Money through QR Code Scanning

    05.2 Receiving Money through QR Code Generation

06. User's Complete Transactions

Anticipated Work To Be Done

01. User Interface Improvements

02. Finalization & Documentation

THANK YOU