IT314 - Software Engineering

Guided By: Prof. JayPrakash Lalchandani

All Citizen Bank: Online Banking System

Project Management Document

Group - 57

Name	ID
Dhwanil Shah	201901450
Yash Shah	201901210
Dev Sanghvi	201901231
Darshil Shah	201901232
Jeel Faldu	201901263
Harsh Mehta	201901277

Reporting TA - **Jash Rathi (202011070)**

29/04/2022
Version - 3

1. Activity list (Estimate time for each activity. Mention probable dates.)
   a. Formulation of the problem (15th March - Project Proposal)
      - Reading relevant background information
      - Understanding and documenting the requirements
      - Discussions
   b. Designing a solution, documentation (21st March to 1st April)
   c. Relevant learning (26th March to 15th April)
   d. Coding and unit testing (26th March to 28th April)
   e. Documentation (on a weekly or biweekly basis)
   f. Testing (22nd April to end of the project)
   g. Reviews (28th April onwards)
   h. Re-work and debugging (28th April onwards)

2. Project Plan: For each activity, your estimated start date, end date, and responsible person(s).
   - Background study and research of various online banking systems and applications such as HDFC Bank, ICICI Bank, etc. Using the information gathered from the background study we created a project detail document that specifies the various functionalities our system would provide, the different users of our system and how would they interact with each other, along with the hardware and software requirements.
     Responsible Person (s): Whole Team

   - Software Design Key Items:
     - Use cases and user stories (Harsh Mehta and Dhwanil Shah),
     - UML use-case, and diagrams (Harsh Mehta and Dhwanil Shah)
     - Data flow diagram (Darshil Shah and Dev Sanghvi)
     - System activity diagram (Jeel Faldu)
     - ER diagram/Database schema (Yash Shah and Jeel Faldu)
     - Structural and Behavioral UML diagrams (All group members)

   - Relevant learning of front-end development principles using various sources such as HTML, CSS, Javascript (Dev Sanghvi and Darshil Shah)

   - Back-end development (nodejs + expressjs) and connection to database (PostgreSQL) (15th April - End of project by various team members)

   - Implementation of the front-end design and functionalities (mainly transactions, investment, and loan) discussed in the software design items via relevant tools such as Bootstrap, VS code, etc.

- Documentation of the project in the form of Project Detail Document, Weekly Reports, Design Detail Documents, and create and update a Github repository by pushing various documents and source codes. (Entire Group)

- Testing details are explained in the next section.

- Reviews and debugging: Fixing the issues and bugs faced when the whole system is deployed. (Yash Shah and Harsh Mehta)

3. Testing Strategy: (scheduled every week):
After knowing various testing methods some of the use cases mentioned below should be tested properly so that system can run smoothly and to the fullest extent. They are as follows:

- **Ensure a user can perform basic transactions**. Users will be able to perform some basic transactions such as deposit money, withdraw money, fund transfer, and many such operations which are used widely.
- **A user can change a password**. Modification of login credentials should be done in a secure way. Developers should also update the required changes in the database without affecting other information.
- **A user can send transactions to multiple users**. The user should be allowed to make payment only if the account balance is greater than the transfer amount.
- **The account is blocked after multiple login attempts**. In order to maintain security, users should be given limited login attempts, or else the account can be blocked. Developers should also restore blocked accounts in an efficient way so that no data gets lost.