CAPSTONE PROJECT: ICIN BANK

DESCRIPTION

Dynamic and responsive Java online banking web application to deposit, withdraw, and transfer the money between the accounts.

Background of the problem statement:

ICIN is one of the top banking firms that accepts deposits from the public for the purpose of lending loans to the public. It also invests an amount in securities.
Recently, the business analysts noticed a drop in the number of customers of the bank. They found out that online banking systems of banks like AXIS and American Express are gaining more profits by eliminating middlemen from the equation. As a result, the team decided to hire a Full Stack developer who can develop an online banking web application with a rich and user-friendly interface.
You are hired as one of the Full Stack Java developers and have been asked to develop the web application. The management team has provided you the requirements and their business model so that you can easily arrange different components of the application.

Features of the application:

1. Registration
2. Login
3. Account transactions
4. Transfers
5. Savings details
6. Profile settings
7. Requesting cheque books

Recommended technologies:

1. Database management: MySQL
2. Back-end logic: Java programming, SpringBoot framework
3. Front-end development: Angular 2, HTML/CSS,
4. Automation and testing technologies: Selenium and JUnit
5. DevOps and production technologies: Git, GitHub, Jenkins, Docker, and AWS

Admin Portal:
It deals with all the back-end data generation and product information. The admin user should be able to:

- Authorize the roles and guidelines for the user
- Grant access to the user regarding money transfer, deposits, and withdrawal
- Block the user account in case of any threat
- Authorize the cheque book requests

User Portal:
It deals with the user activities. The user should be able to:

- Register or log in to the application to maintain a record of activities
- Deposit and withdraw money from the account
- View transactions and balance in the primary and savings account
- Transfer funds between different accounts and add recipients
- Request cheque books for different accounts

Flow Chart Of The Application

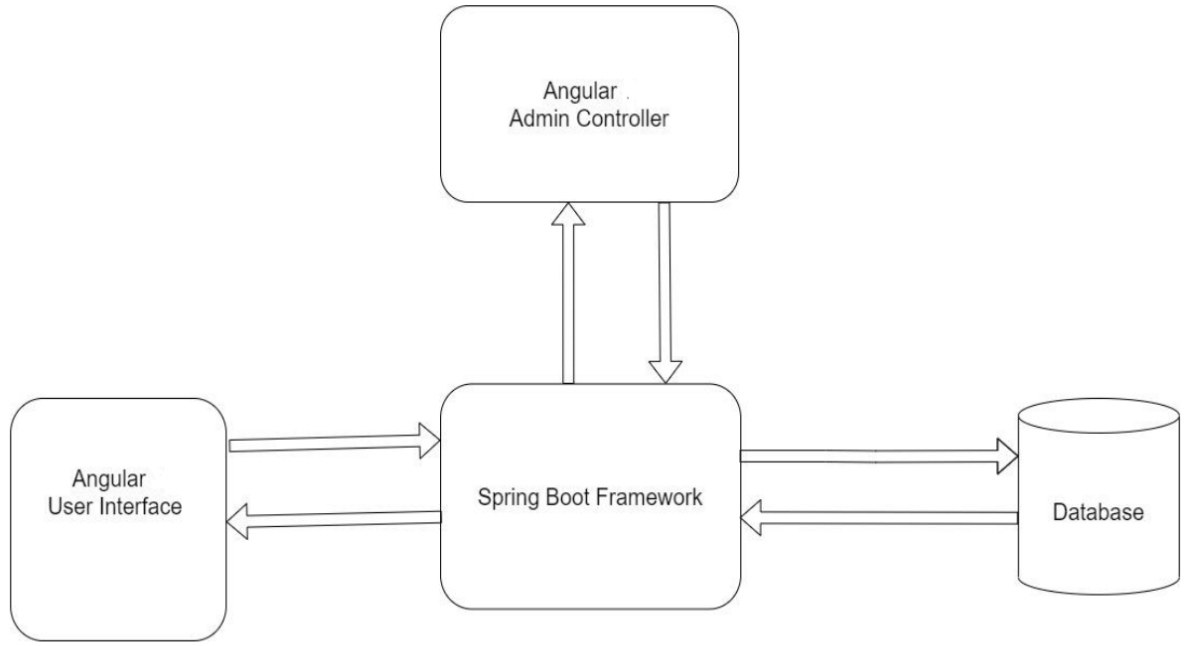

FIGURE1 : Flow Chart Of The Project

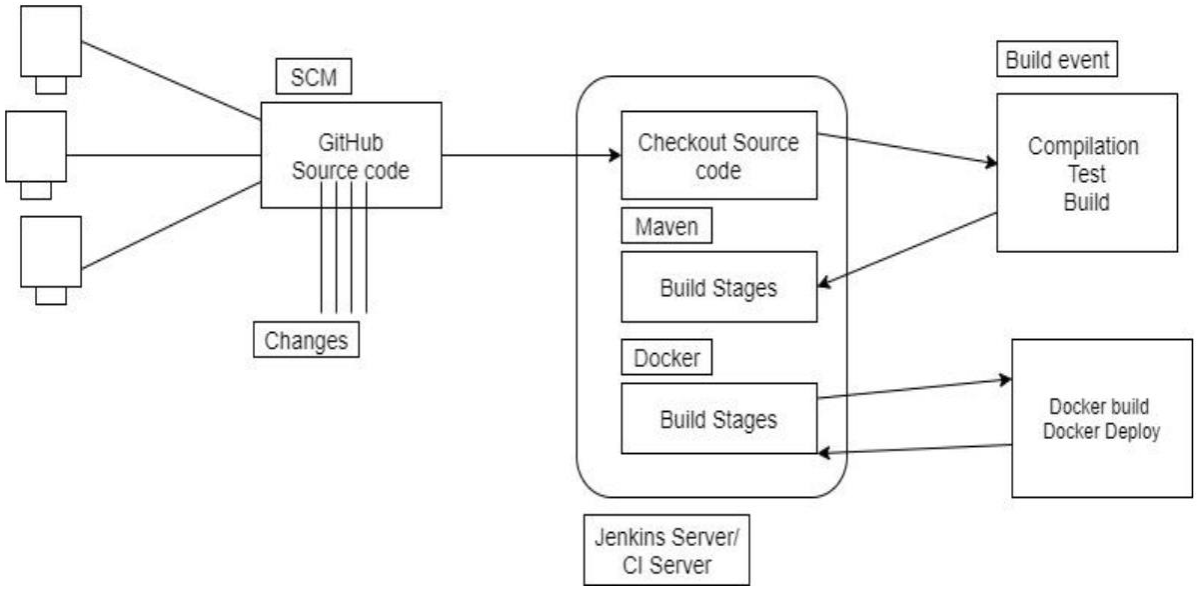

Figure2: Flow Chart of the Deployment

SPRINTS

Sprint 1

- Understanding the problem statement of the project .
- Creating the flow chart of the application.
- Creating Spring Boot Project.
- Adding necessary dependencies.
- Creating Controller, Model, DAO, Exception, Service, and ServiceImpl packages needed.
- Writing Hibernate to connect with the database MySQL.
- Testing at each step for different user inputs.

Sprint 2

- Downloading Angular2 for making the front end of the application.
- Adding various folders to achieve the front-end for making the application user-friendly
- In these folders adding .html, .css, .ts , as well as .spec.ts.
- Connecting to the backend.
- Running the application on a port.

Sprint 3

- Adding Testing using Junit.
- Adding necessary dependencies.
- Creating TestWebApp to code the Required Tests.
- Running to see if all test cases run on Junit.

Sprint 4

- Creating AWS EC2 instance.
- Downloading MobaXterm.
- Downloading Jenkins and Docker in MobaXterm.
- Deploying the application on Jenkins and docker server.
- Creating the Specification document for deploying the project.
- Testing at each step for different user inputs.
- Pushing the code to the GitHub