



WIPRO NGA Program – Java FSD Angular

Capstone Project Presentation – 23rd Sept 2024

Project Title – Smart Bank (Online Banking)

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CAPSTONE PROJECT

SMART BANK ONLINE BANKING SYSTEM

Guided By- RAJASHEKAR G.S.

**Developed By-
THODETI NITHIN**

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INTRODUCTION

- **The Project aims to design an Online Banking System application which enables the customers to perform a variety of banking activities, including Account management , Fund Transfers, Transaction Monitoring, all from the comfort of their devices.**
- **Smart Bank is a web-Application which provides a user friendly interface and an easy efficient way to banking.**
- **Feature of this system will be similar to an Online Banking System. As a user you can-**
 - **Open Account**
 - **Register for Internet Banking**
 - **Check Account Details, Account Statement, Account Summary , Transaction Details**
 - **Add Payee, Get Payee Details**
 - **Fund Transfer**

AIM OF THE PROJECT

- **User can open new Account & Register for Internet Banking**
- **Admin can also Credit and Debit Amount in users account by their static Credentials.**
- **Customers can check Account details, Account Summary, Account statement, Transactions once they logged in.**
- **Customer can change existing password.**
- **Provide Online Banking Facility to Customers such as Account Transaction Operation like Fund Transfer using NEFT from one account to another existing account of bank.**

OBJECTIVE OF THE PROJECT

- **Enhance User Convenience:**
 - **Provide a seamless and easy-to-navigate interface that allows customers to perform transactions anytime, anywhere.**
- **Digitize Banking Operations:**
 - **Shift traditional banking tasks like balance inquiries and fund transfers to a secure online platform.**
- **Customer and Administrator both can interact with Frontend.**
- **Administrator are allowed to do Credit and Debit Transactions by provide the credential each transaction.**

SYSTEM REQUIREMENTS

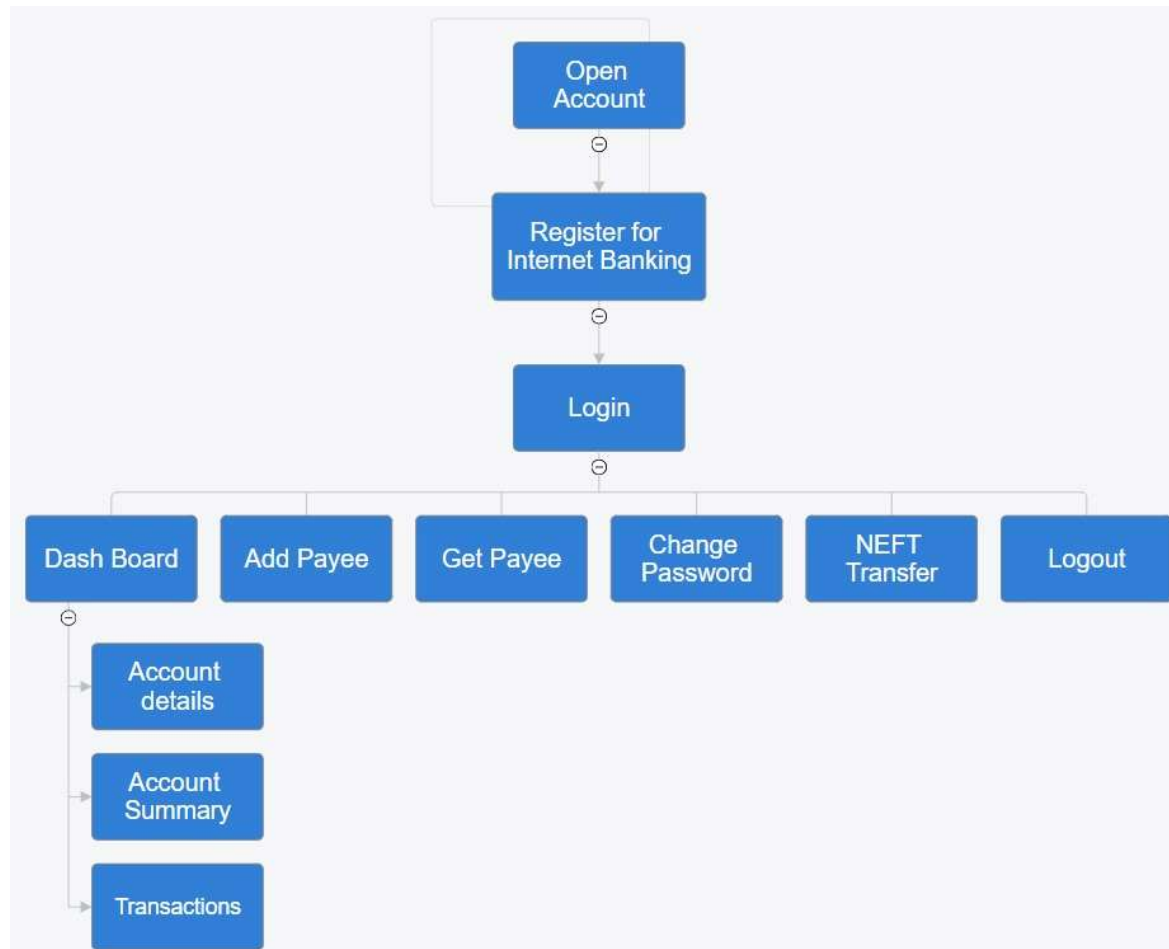
✓ **Hardware Requirements:**

- ☐ **Processor:** Quad-core processor (at least 2.5 GHz)
- ☐ **RAM:** 16 GB (minimum), 32 GB (recommended)
- ☐ **Storage:** 512 GB SSD (minimum), 1 TB SSD (recommended)
- ☐ **Operating System:** Windows

✓ **Software Requirements:**

- ☐ **Java Development Kit (JDK) 17 or later**
- ☐ **STS**
- ☐ **Postman - REST API Testing Tool**
- ☐ **Swagger 2.0.2 - REST API Documentation Tool**
- ☐ **Node.js (for Angular development)**
- ☐ **npm (package manager for Node.js)**
- ☐ **Angular CLI (for Angular development)**
- ☐ **Visual Studio Code - Editor**

ACTIVITY DIAGRAM FOR USER



TECHNOLOGIES USED

- ▣ **Spring Boot 3.3**
- ▣ **Angular 18**
- ▣ **MongoDB 4.4 or later**
- ▣ **Bootstrap 5**
- ▣ **Hibernate 6**
- ▣ **JPA 3.3**
- ▣ **Git (for source code management)**

PROJECT MODULES

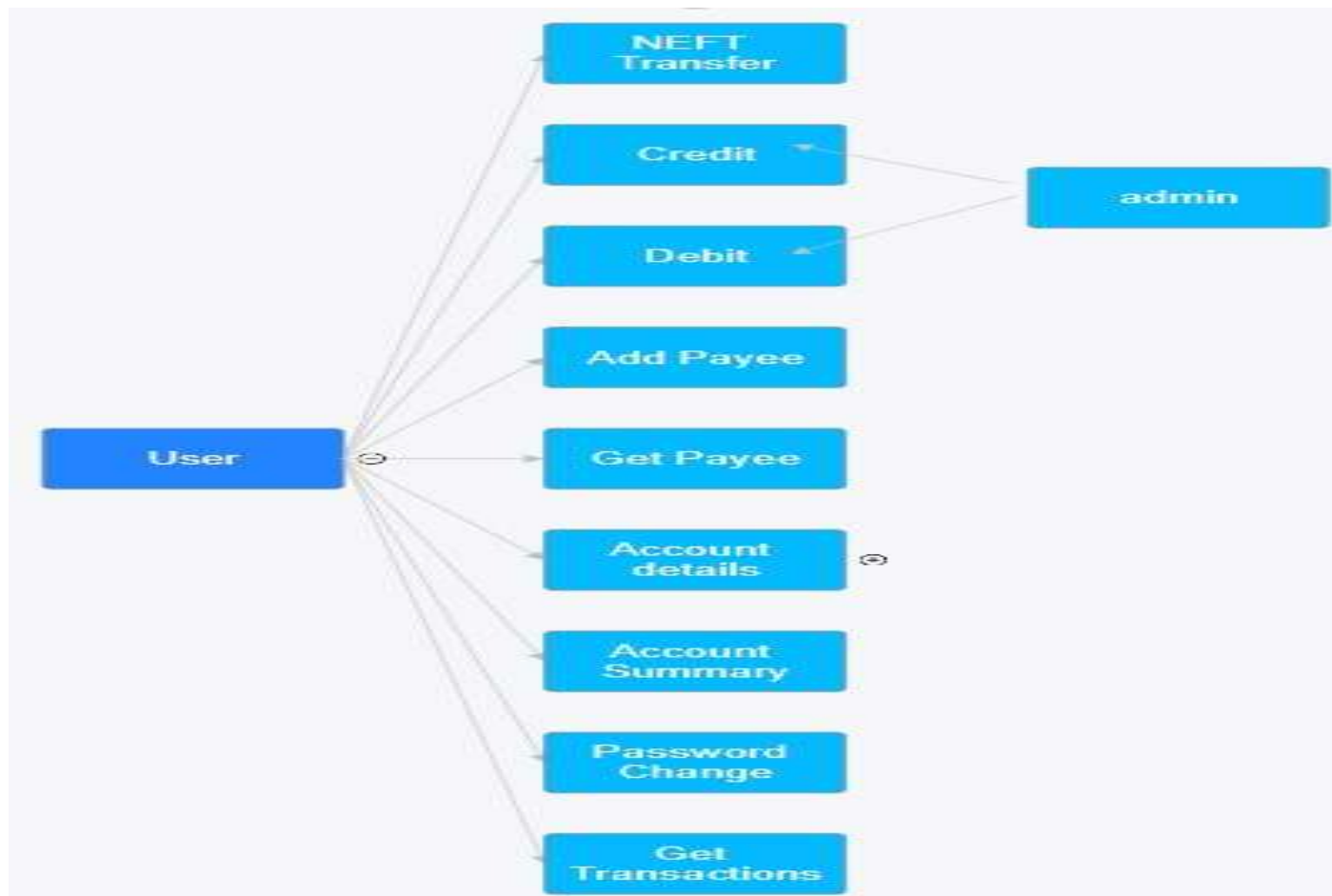
ADMIN MODULE:

- Credit
- Debit

USER MODULE:

- Open Account
- Register For Internet Banking
- Login
- Dashboard
 - Account Details Page
 - Account Summary Page
 - Account Transaction
- Add Payee
- Get Payees
- Change Password
- Fund Transfer
- Logout

USE CASE DIAGRAM



PROBLEM STATEMENT

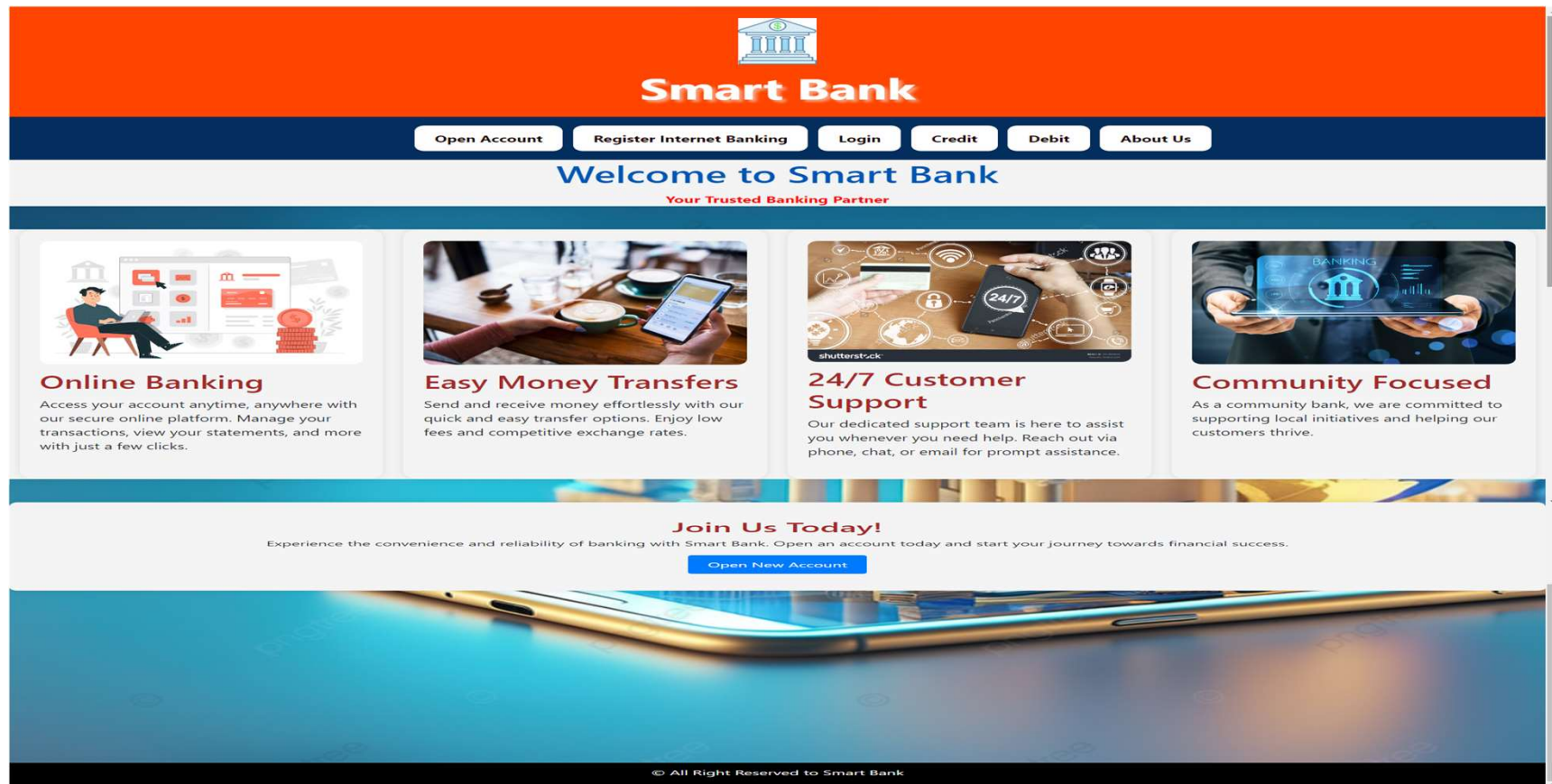
- Today's most of the online banking websites are lagging in some areas like, some are not providing proper UI which could be user friendly, while some are slow in processing pages or are not dynamic.
- Software must be developed for online banking system to be responsive.

SOLUTION


- Many people used online banking as means of money transaction so that they can transfer money from one user to another without visiting to respective branch.
- Users can transfer money within a short period of time and verify recent transactions.
- Users can view their account profile whenever they want.
- Information is saved, and the corresponding Update take place in database.

SCREENSHOTS OF THE PROJECT

HOME PAGE



OPEN ACCOUNT

**Smart Bank**

Open AccountRegister Internet BankingLoginCreditDebitAbout Us

Open Account

Personal Details

Title:

First Name:

Middle Name:

Last Name:

Father's Name:

Mobile:

Email:

Aadhaar:

Date of Birth:

Address

Address Line 1:

Address Line 2:

Landmark:

State:


City:

Pincode:

Open AccountCancel

© All Right Reserved to Smart Bank

REGISTER FOR INTERNET BANKING



Smart Bank

Open Account Register Internet Banking Login Credit Debit About Us

Account Number:

User ID:

Login Password:

Confirm Login Password:

Transaction Password:

Confirm Transaction Password:

Register Cancel

LOGIN



Smart Bank

[Open Account](#)[Register Internet Banking](#)[Login](#)[Credit](#)[Debit](#)[About Us](#)

Login Form

UserId:

Login Password:



CREDIT



Smart Bank

Open Account

Register Internet Banking

Login

Credit

Debit

About Us

Credit Money

Account Number:

Amount:

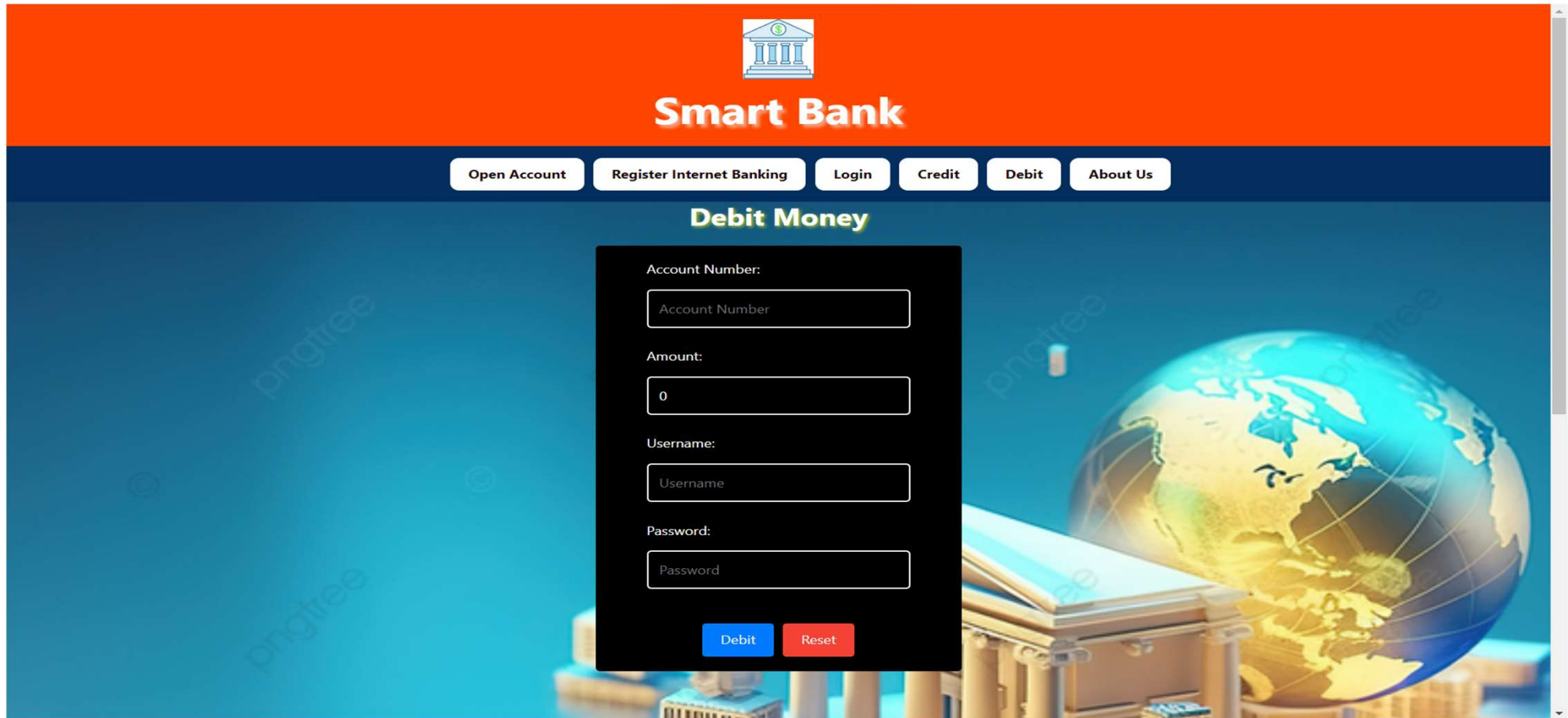
Username:

Password:

Credit

Reset

DEBIT



The image shows a web interface for 'Smart Bank' with a blue header. Below the header is a navigation bar with buttons: 'Open Account', 'Register Internet Banking', 'Login', 'Credit', 'Debit', and 'About Us'. The main content area has a blue background with a globe and classical architecture. A central black modal box titled 'Debit Money' contains the following fields and buttons:

Account Number:

Amount:

Username:

Password:

ABOUT US



Smart Bank

[Open Account](#)[Register Internet Banking](#)[Login](#)[Credit](#)[Debit](#)[About Us](#)

About Us

At Smart Bank, we are committed to providing exceptional banking services to our community. Our team is dedicated to understanding your financial needs and helping you achieve your goals. With a rich history and a focus on innovation, we strive to offer solutions that empower our customers.



Our Mission

Our mission is to deliver comprehensive financial solutions tailored to each customer's unique needs. We aim to foster a trustworthy environment where our clients can thrive and achieve financial stability through personalized support and innovative products.

Mission

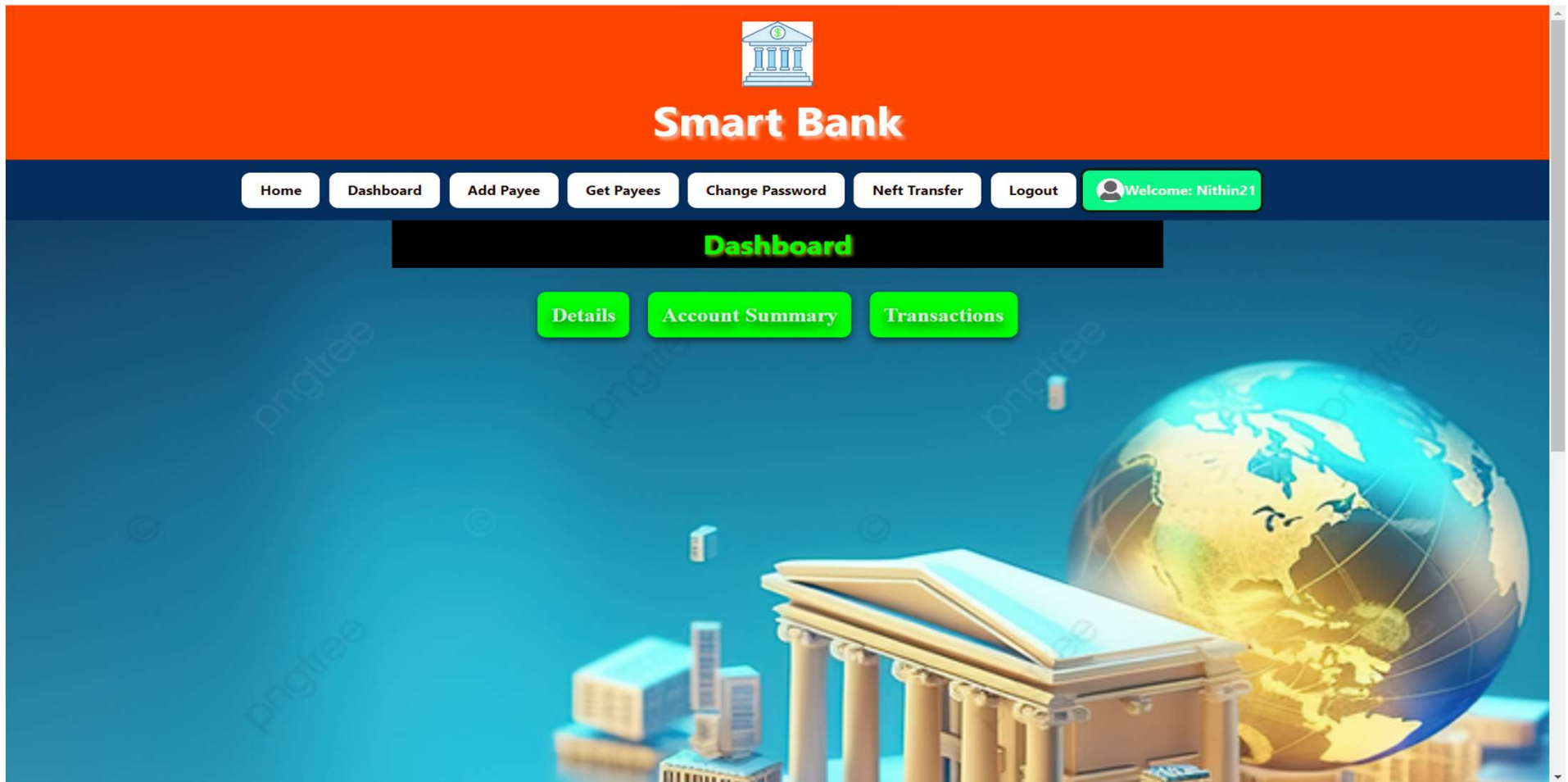


Our Values

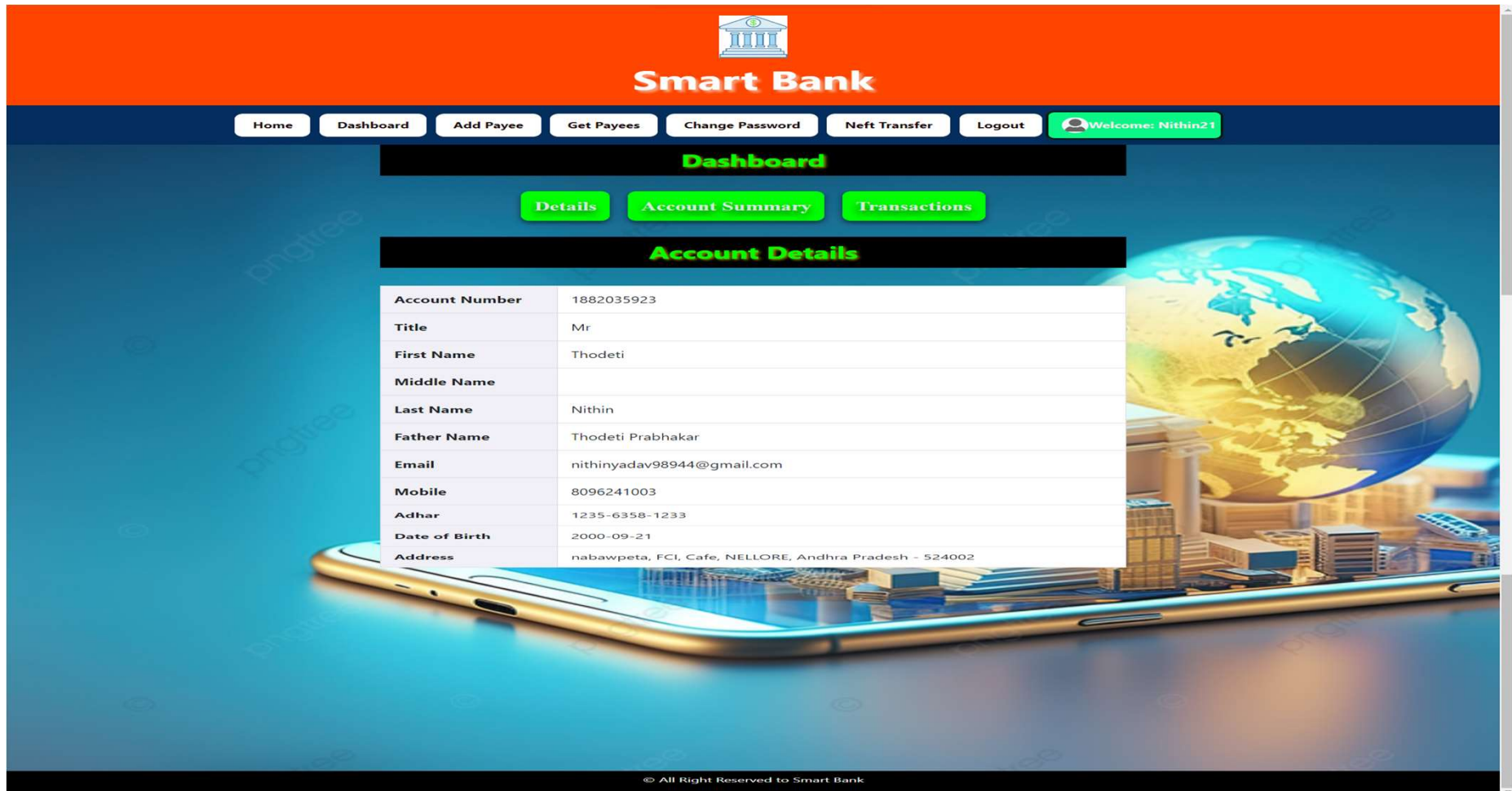
Integrity, excellence, and customer focus are at the core of our values. We believe in transparency and are committed to building lasting relationships with our clients. Our team works tirelessly to ensure that we provide the best products and services to help you succeed financially.

© All Right Reserved to Smart Bank

DASHBOARD




ACCOUNT DETAILS



The image shows a web application interface for 'Smart Bank'. At the top, there is an orange header with the bank's logo (a classical building) and the name 'Smart Bank'. Below this is a dark blue navigation bar with buttons for 'Home', 'Dashboard', 'Add Payee', 'Get Payees', 'Change Password', 'Neft Transfer', and 'Logout'. A green button on the right says 'Welcome: Nithin21'. The main content area has a blue background with a globe and a smartphone. A black bar at the top of the content area says 'Dashboard' in green. Below it are three green buttons: 'Details', 'Account Summary', and 'Transactions'. The 'Details' button is selected, and a white box displays the 'Account Details' table. At the bottom of the page, there is a copyright notice: '© All Right Reserved to Smart Bank'.

Account Number	1882035923
Title	Mr
First Name	Thodeti
Middle Name	
Last Name	Nithin
Father Name	Thodeti Prabhakar
Email	nithinyadav98944@gmail.com
Mobile	8096241003
Adhar	1235-6358-1233
Date of Birth	2000-09-21
Address	nabawpeta, FCI, Cafe, NELLORE, Andhra Pradesh - 524002

ACCOUNT SUMMARY



Smart Bank

[Home](#) [Dashboard](#) [Add Payee](#) [Get Payees](#) [Change Password](#) [Neft Transfer](#) [Logout](#) [Welcome: Nithin21](#)

Dashboard

[Details](#) [Account Summary](#) [Transactions](#)

Account Summary

Account Holder Name	Thodeti Nithin
Balance	2500
Recent Transactions	<ul style="list-style-type: none">Transaction: neft debit Amount: 1500.0Transaction: debit Amount: 1000.0Transaction: credit Amount: 5000.0

TRANSACTION



Smart Bank

[Home](#)[Dashboard](#)[Add Payee](#)[Get Payees](#)[Change Password](#)[Neft Transfer](#)[Logout](#)[Welcome: Nithin21](#)

Dashboard

[Details](#)[Account Summary](#)[Transactions](#)

Transactions

From Account	To Account	Amount	Type	Date	Remark
NA	NA	5000	CREDIT	9/22/24, 3:18 PM	ADMIN
NA	NA	1000	DEBIT	9/22/24, 3:18 PM	ADMIN
1882035923	1886209858	1500	NEFT DEBIT	9/22/24, 4:10 PM	Nithin to Pavan

ADD PAYEE



Smart Bank

[Home](#)[Dashboard](#)[Add Payee](#)[Get Payees](#)[Change Password](#)[Neft Transfer](#)[Logout](#) Welcome: Nithin21

Add Payee

Beneficiary Name:


Account Number:

Confirm Account Number:

Nickname:



GET PAYEES




Smart Bank


[Home](#) [Dashboard](#) [Add Payee](#) [Get Payees](#) [Change Password](#) [Neft Transfer](#) [Logout](#) Welcome: Nithin21

Payees

S.No	Beneficiary Name	Account Number	Nickname
1	Pavan	1886209858	pav
2	Pranay	1469545131	Pran



CHANGE PASSWORD



Smart Bank

[Home](#) [Dashboard](#) [Add Payee](#) [Get Payees](#) [Change Password](#) [Neft Transfer](#) [Logout](#) Welcome: Nithin21

Change Password

User ID:

Old Password:

New Password:

Confirm New Password:

[Update Password](#)

NEFT TRANSFER



Smart Bank

[Home](#)[Dashboard](#)[Add Payee](#)[Get Payees](#)[Change Password](#)[Neft Transfer](#)[Logout](#)[Welcome: Nithin21](#)

NEFT Transaction

From Account:

To Account:

Amount:

Remark:

TRANSFER SUCCESSFUL



Smart Bank

[Home](#)[Dashboard](#)[Add Payee](#)[Get Payees](#)[Change Password](#)[Neft Transfer](#)[Logout](#)[Welcome: Nithin21](#)

NEFT Transaction

NEFT Transaction Successful!

Transaction Successfull

From Account: 1882035923

To Account: 1886209858

Amount: 500

Type: NEFT DEBIT

Transaction Date: Sep 23, 2024, 11:10:27 AM

Remark: Nithin to Pavan

LOGOUT



Smart Bank

Open Account

Register Internet Banking

Login

Credit

Debit

About Us

You are Logged out from Smart Bank



Thank You for choosing Smart Bank

SWAGGER

The image displays the Swagger UI for an OpenAPI definition. The interface is titled "Swagger" and "v3/api-docs". It shows the "OpenAPI definition" section with a "Servers" dropdown set to "http://localhost:8085 - Generated server url". The API is organized into controllers: "admin-controller", "payee-controller", "authentication-controller", "account-controller", and "transaction-controller". Each controller lists its endpoints with their respective HTTP methods (POST, GET). The "Schemas" section at the bottom lists various data models: AdminRequest, Admin, Transaction, Account, Address, Payee, PersonalDetails, RegisterRequest, LoginRequest, and AccountDetailsDTO.

admin-controller

- POST /api/admin/debit
- POST /api/admin/credit

payee-controller

- POST /api/account/{accountNumber}/payee
- GET /api/account/{accountNumber}/payees

authentication-controller

- POST /api/account/setNewPassword
- POST /api/account/login

account-controller

- POST /api/account/register
- POST /api/account/open
- GET /api/account/{accountNumber}
- GET /api/account/summary/{accountNumber}

transaction-controller

- POST /api/account/neft
- GET /api/account/{accountNumber}/transactions
- GET /api/account/recent-transaction/{accountNumber}

Schemas

- AdminRequest
- Admin
- Transaction
- Account
- Address
- Payee
- PersonalDetails
- RegisterRequest
- LoginRequest
- AccountDetailsDTO

CONCLUSION

- This project is designed to meet the requirements of an online banking system.
- We have designed the project to provide the user with an easy way to view his account profile do online transactions and other actions.
- In this project user is provided with a website that can be used for online banking.
- To implement this we have used SpringBoot as backend and Angular as Frontend.
- This website allows users to open, register for internet banking, login, view account details, account summary, statement, payees details, NEFT transfer.
- Admin is doing credit and debit transaction.

FUTURE SCOPE

- This project can be upgraded by using phone OTP for user authentication.
- We can add different modes of money transfer.
- Application can be upgraded by improving performance as per user feedback.
- There is a scope of adding more security.

