ICIN Bank

Developer: Om Shankar Mishra

DESCRIPTION

Create a 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.

Guide to Execute the projects

1. User Portal Backend (icinbank_new)
   1. Open Spring tool Suite
   2. Browse to the folder that contains the project.
   3. Configure the application.properties file to the database that you wish to use.
   4. Run the project as a spring boot app

2. Admin portal Backend(admin_service_new)
   1. Open Spring tool Suite
   2. Browse to the folder that contains the project.
   3. Configure the application.properties file to the database that you wish to use.(Note make sure that the database that you use for the user and admin portal is same)
   4. Run the project as a spring boot app

3. User Portal Front End (userportal-angular)
- Open Visual Studio Code
- In the terminal type Navigate to the project folder (cd userportal-angular)
- In the terminal type: npm install
- Once done type: ng s --o to execute

4. Admin portal Front End
- Open Visual Studio Code (adminportal-angular)
- In the terminal type Navigate to the project folder (cd userportal-angular)
- In the terminal type: npm install
- Once done type: ng s --o to execute
- Note: Please make sure that you configure all the ports
- User backend:8080
- Admin Backend:8084
- User frontend: 4200
- Admin Front End: 4201

5. User Portal testing (UserPortalTesting)

STEPS FOR TESTING OF BOTH THE PORTALS.

STEP 1: Open the project in Eclipse.
STEP 2: Go to src/test/java
STEP 3: There will be two packages:1)Authentication 2)User Actions
STEP 4: In the file, in System.setProperty("webdriver.gecko.driver", "(Give the path where the driver is stored)");
STEP 5: Under Authentication, There will be Login.java
STEP 6: Run the file as TestNG test
STEP 7: Similarly under UserActions,there are files named CheckBookRequests.java,EditProfile.java etc
STEP 8: Open them one by one . Make the changes mentioned in STEP 4 and do Step 6.

6) Admin Portal testing (AdminPortalAutomation)

STEP 1: Open the project in Eclipse
STEP 2 : Go to src/firsttestngpackage
STEP 3: Open the AdminAutomation.java file
STEP 4: In the file, in String driverPath = "(Give the path where the driver is stored)";
STEP 5: Run the file as TestNG test.

User Portal Description

1) **Registration**:

The registration is the first step to get started with the application. The user will have to enter his:

1. first name
2. last name
3. email
4. phone number
5. address
6. username
7. password
8. date of birth
9. select an identity card (Aadhaar card, pan card or voters id)
10. enter its number and the scanned copy of the identity provided.

If the username given by the user is checked for duplication in the database, if a similar username exists then he or she will have to register with a new username. On registration the user information is passed on to the admin for verification.

Once the admin verifies an email will be sent to the user that his/her account is activated and a primary and saving account is created for the user.

2) **Login**:

The user can login with the username and password that he had provided on registration after the admin authorizes his account. The admin can also enable or disable the account. So, for successful login the user has to enter correct username, correct password and the user has to be authorized and enabled by the admin.

3) **Deposit:**

The user can deposit money in his/her accounts by entering the correct account number and the amount if the feature is enabled by the admin.

4) **Withdraw:**

The user can withdraw money from his/her accounts by entering the account number and the amount if the feature is enabled by the admin. The operation won't go through if the amount to be withdrawn is more than the users account balance.

5) **Transfer:**

The user can transfer money from his/her accounts to other accounts by entering the his/her account number, the receivers account number, the IFSC code of the receivers account and the amount if the feature is enabled by the admin. The operation won't go through if the

amount to be transferred is more than the user's account balance or the IFSC code of the receiver account is incorrect.

6)Transaction History

In the view transaction history section, you can view transactions for a particular account. Both when money was deposited or withdrawn.

7) View Transfer History:

In the view transfer history section, you can view transfers for a particular account. Both when money was transferred or received from the account will be displayed.

8) Cheque Book Request:

The user can request cheque books for his/her accounts by entering the account number and number of pages. Once the admin accepts or rejects the request the user will get a mail.

9) Update User:

The user can update some of his details with this function. The user can reset his password by entering the new password and the correct old password. The user only has to enter the fields that he wants to update.

<u>Screens</u>

E

M

A

Em

Pr

Previous Password

Enter Password here

New password

Enter email here
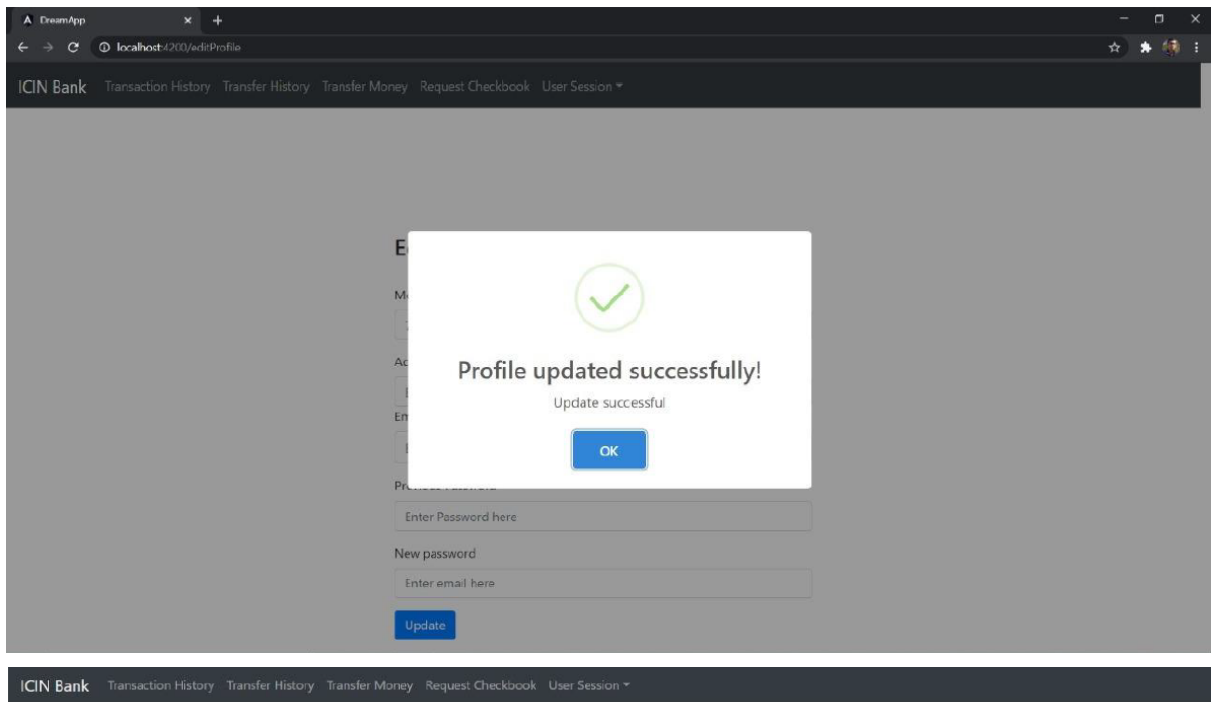
Update

Edit Profile

Mobile no

7878323739

Address

C2/3,example address2, near example station

Email

correctemail@gmail.com

Previous Password

•••••••••••••••

New password

••••••••

Update

Edit Profile

Mobile no

7878323739

Address

Enter your Address

Email

Enter email here

Previous Password

Enter Password here

New password

Enter email here

Update

Change Profile Settings

Logout

Edit Profile

Mobile no

Enter Phone here

Address

Enter your Address

Email

Enter email here

Previous Password

Enter Password here

New password

Enter email here

Update

✓

Chequebook request placed!

Request submitted successfully

OK

Request Cheque Book

Account Number : 391491820226

ChequeBook pages

20	⌄

Request Chequebook

Date	Transaction Id	Amount	Sender Account Number	Receiver Account Number
2020-08-18	44	8500	391491820226	39149182021
2020-08-18	43	1500	391491820226	39149182021
2020-08-18	42	4600	391491820226	39149182021
2020-08-18	41	3200	391491820226	39149182021
2020-08-18	40	1280	391491820226	39149182021
2020-08-18	39	780	391491820226	39149182021
2020-08-18	38	360	391491820226	39149182021
2020-08-18	37	400	391491820226	39149182021
2020-08-18	36	2000	391491820226	39149182021

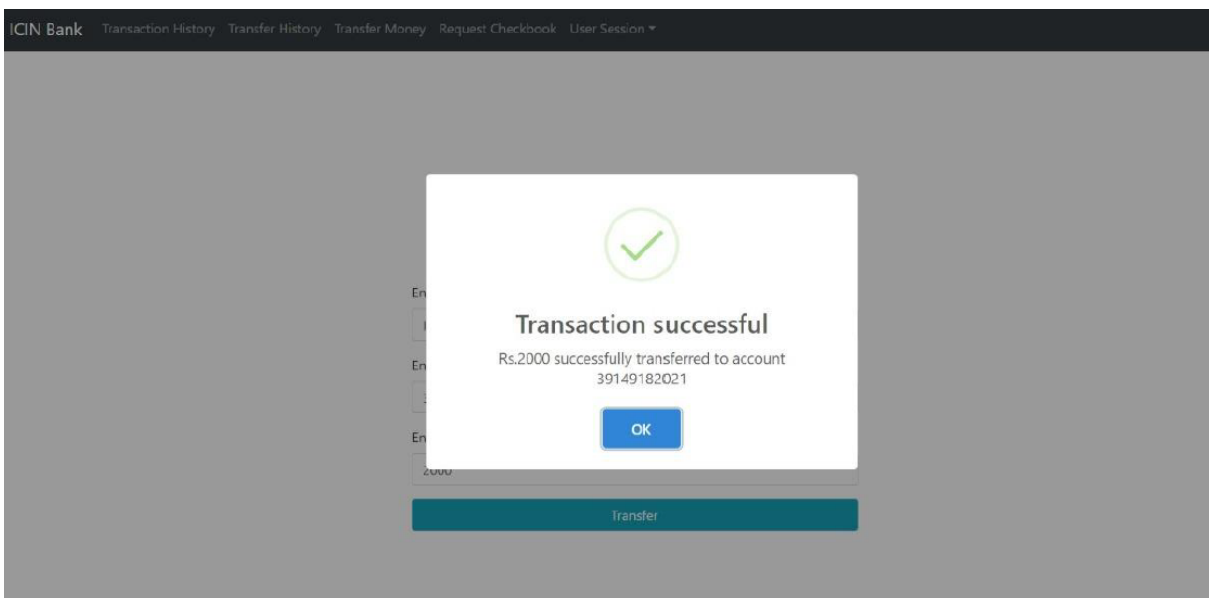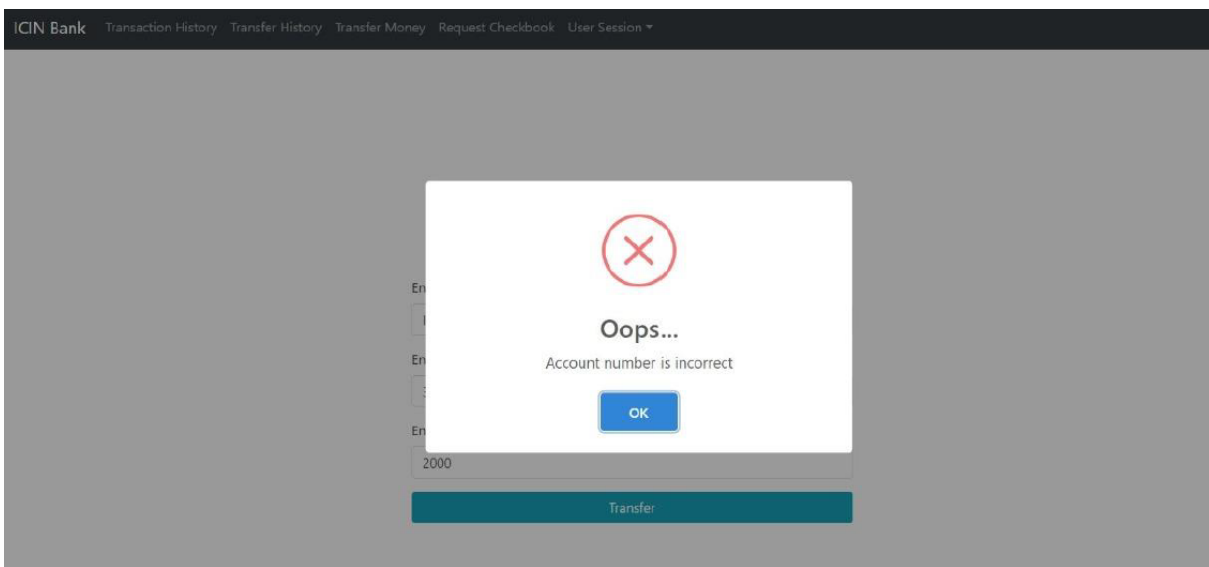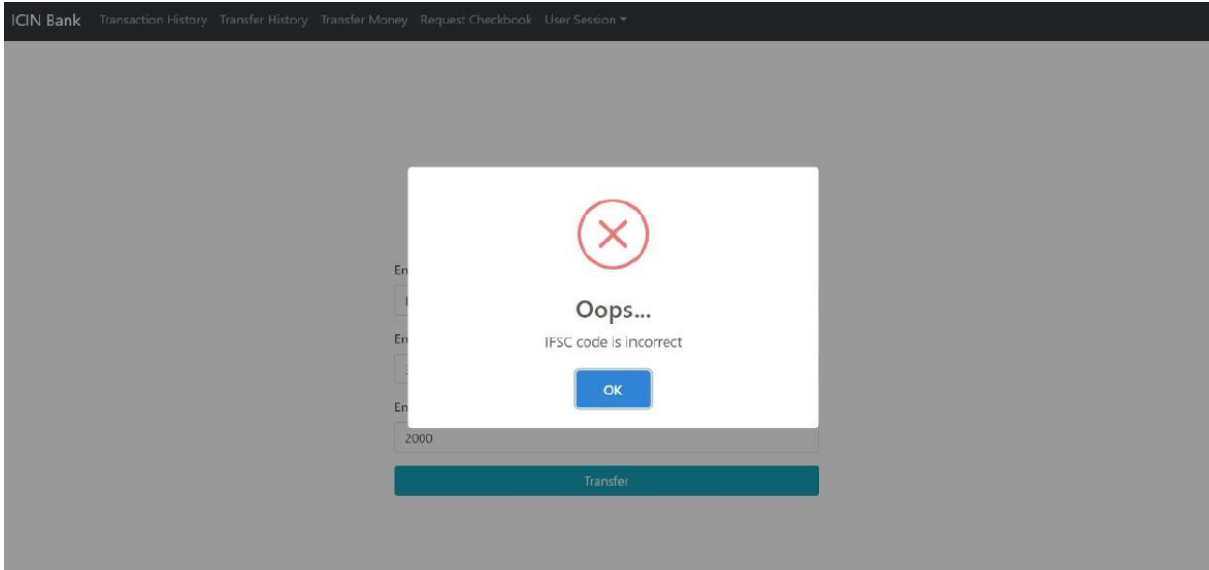## Transaction History

Type of account :   Saving
Saving balance :   44100
Account number : 391491820226

Date	Transaction Id	Action Type	Amount
2020-08-18	35	deposit	4500
2020-08-18	34	withdraw	3600
2020-08-18	33	withdraw	2400
2020-08-18	32	deposit	2400
2020-08-18	31	deposit	1200
2020-08-18	30	deposit	42000

En

Er

En

2000

Transfer

Oops...

IFSC code is incorrect

OK

Er

Er

En

2000

Transfer

Oops...

Account number is incorrect

OK

Er

En

En

2000

Transfer

Transaction successful

Rs.2000 successfully transferred to account
39149182021

OK

Transfer Money

Account Number :391491820226

Enter the IFSC Code of the account to be transfered to:

ICIN7465

Enter the account number you would like to transfer To:

39149182021

Enter Amount:

2000

Transfer

Welcome to ICIN Bank

We offer you actions like Transfer of money, Checkbook request, Deposit, Withdraw

Happy Banking !!!

Your Savings Account number: 391491820226

Your Savings Account balance :   44100

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ADMIN PORTAL

ADMIN PORTAL DESCRIPTION:
It deals with all the back-end data generation and product information. The role of the admin is to:
- Authorize the user
- Grant access to user
- Enable/disable the user
- Authorize the Cheque Book requests

User Authorization:

After successful registration on the user portal, the user waits for the confirmation mail from the admin for his/her registration. The admin verifies the data given by the user and upon verification, the status is sent to the user's email which is provided by the user at the time of registration. Only upon successful verification, the user's account will get activated, the account number gets generated and he/she can proceed with banking activities. In case of failure, the user has to re-register by providing the correct data. The admin also has a login to view the user details and perform actions accordingly.

Access Granting:

The admin must set the transaction rights for the user. The three transaction rights are:
- Credit – User is allowed only to deposit.
- Credit + Debit – User is allowed to deposit and withdraw money.
- Credit + Debit + Transfer – User is granted full transaction rights (i.e) he/she can deposit, withdraw and also perform transfer of money to other account holders.

Enabling/Disabling the User:

The admin can disable(block) the user if he/she is found to be suspicious. If the user is disabled, he/she cannot login and hence is restricted from performing transactions. The admin can also enable the disabled user after verification in person.

Authorizing Cheque Book Requests:

The admin has to authorize the user's request for cheque book issue. Only upon admin's confirmation, cheque books are issued to respective user and the confirmation mail is also sent to the user's email id.

Screens:

Admin Portal

UserName

Password

Login

ICIN Bank   User Account Info   CheckBook Requests   Authorization(KYC)   Log Out

First Name	Last Name	Phone Number	Address	Date of Birth	Type of Verification Document	Verification ID No.	Email	Create Account	Cancel Account Creation
Shivang	Bajaj	7384783474	abc street, block no7, mumbai	19-11-0012	pancard	XCDJ3483438434	shivangabcdshi328@gmail.com	Create	Cancel
Pankaj	Saini	3748734943	c1/3,shanti sadan, chennai	19-03-0013	aadhar	63876437833424323	pankajabcdd5256@gmail.com	Create	Cancel
Denzil	Dsouza	9328734637	d1/456, santacruz, mumbai	15-07-1998	pancard	GDVGHDV23	denzil13563@gmail.com	Create	Cancel

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ICIN Bank   User Account Info   CheckBook Requests   Authorization(KYC)   Log Out

First Name	Last Name	UserName	Primary Account Number	Savings Account Number	Enable Account	Disable Account	Features Granted to the User	Change Features
Aditya	Bhogate	adityabhogate05	391491820126	391491820226	Enable	Disable	Deposit + Withdraw + Transfer Access	Set
Sayali	Bhogate	sayali27	391491820146	391491820246	Enable	Disable	Deposit + Withdraw + Transfer Access	Set
Shivang	Bajaj	shivang05	391491820156	391491820256	Enable	Disable	Deposit + Withdraw Access	Set
Pankaj	Saini	pankaj2526	391491820157	391491820257	Enable	Disable	Deposit Access	Set
Denzil	Dsouza	denzil12345	391491820158	391491820258	Enable	Disable	Deposit + Withdraw + Transfer Access	Set

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ICIN Bank   User Account Info   CheckBook Requests   Authorization(KYC)   Log Out

Request Number	Type of Account	Account Number	Applied Date	Number of Pages	Confirm Request ?
55	Secondary	391491820246	2020-08-18	75	Confirm Request
65	Secondary	391491820226	2020-08-18	20	Confirm Request
66	Secondary	391491820256	2020-08-18	50	Confirm Request
67	Secondary	391491820257	2020-08-18	20	Confirm Request

Github project link:

https://github.com/omi92229/ICINBank