

ICIN Bank

Writeup

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GitHub Repository: https://github.com/SameerKhan0411/ICIN_Bank.git

About ICIN Bank:

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.

Features Requested by ICIN Bank:

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

Technologies used in this Project are:

❖ Java:

Java is an object-oriented programming language that produces software for multiple platforms. When a programmer writes a Java application, the compiled code (known as bytecode) runs on most operating systems (OS), including Windows, Linux and Mac OS. Java derives much of its syntax from the C and C++ programming languages.

Java was developed in the mid-1990s by James A. Gosling, a former computer scientist with Sun Microsystems, together with Mike Sheridan and Patrick Naughton.

❖ Spring Boot:

Java Spring Boot (Spring Boot) is a tool that makes developing web application and microservices with Spring Framework faster and easier through three core capabilities: Autoconfiguration. An opinionated approach to configuration. The ability to create standalone applications.

❖ MySQL:

MySQL is an open-source relational database management system. Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language.

❖ GitHub:

GitHub, Inc. is a provider of Internet hosting for software development and version control using Git. It offers the distributed version control and source code management functionality of Git, plus its own features.

❖ Angular:

Angular is a TypeScript-based free and open-source web application framework led by the Angular Team at Google and by a community of individuals and corporations. Angular is a complete rewrite from the same team that built AngularJS.

❖ CSS:

Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

❖ HTML:

The Hypertext Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript.

❖ Selenium:

Selenium is an open-source umbrella project for a range of tools and libraries aimed at supporting browser automation. It provides a playback tool for authoring functional tests without the need to learn a test scripting language.

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 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, 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.

User Portal Description

Features:

Registration:

The registration is the first step to get started with the application. The user will have to enter his first name, last name, email, phone number, address, username, password, date of birth, and an select an identity card (Aadhaar card, pan card or voters id) and 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 send to the user that his/her account is activated and a primary and saving account is created for the user.

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. On successful login we are navigated to the home page.

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.

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.

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 users account balance or the IFSC code of the receiver account is incorrect.

Transaction History:

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

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.

Cheque Book Request:

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

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.