

Bank Management System with ATM Interface in JAVA

Learn about the design and implementation of a robust Bank Management System with an intuitive ATM interface using JAVA, JAVA Swing and AWT.

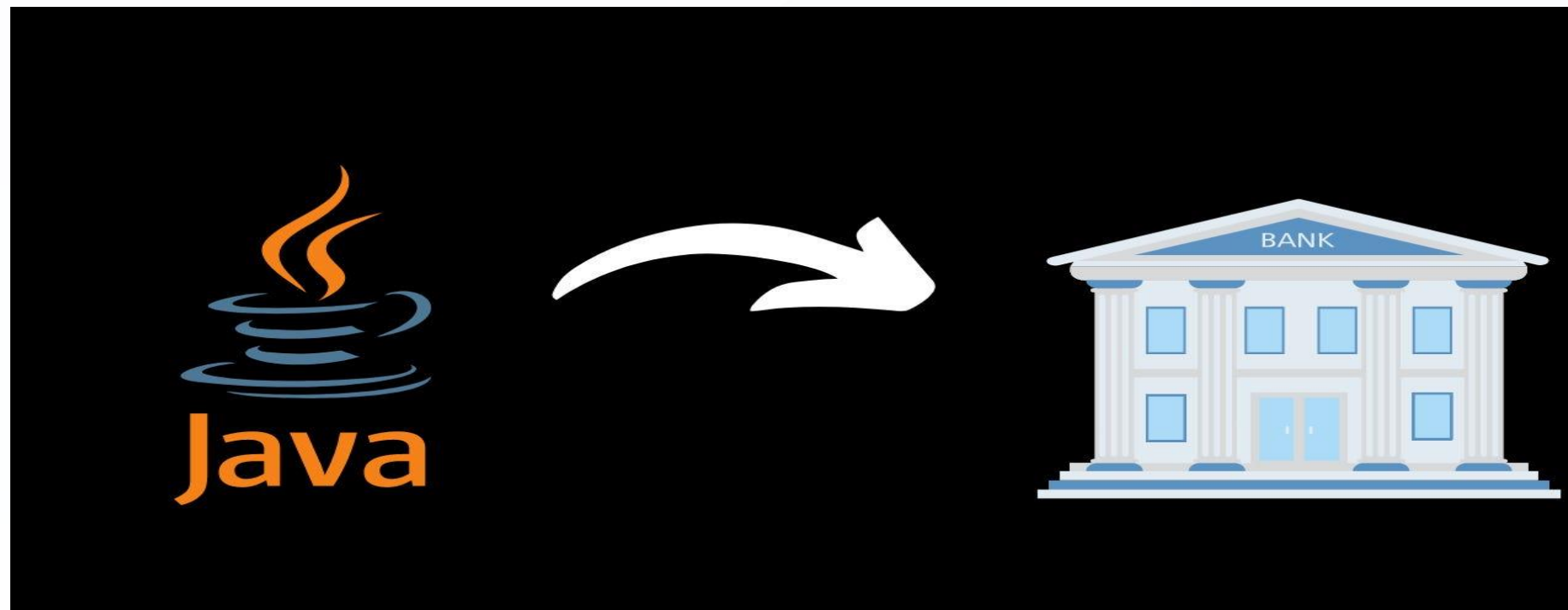
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Intern, VaultofCodes



Introduction

Bank Management System is a software-based application.

This project is a model Internet Banking Application. This site enables the customers to perform the basic banking transactions by sitting at their office or at homes through PC or laptop. The system provides the access to the customer to create an account, deposit/withdraw the cash from his account, also to view reports of all accounts present. The customers can access the banks app for viewing their Account details and perform the transactions on account as per their requirements.



Working

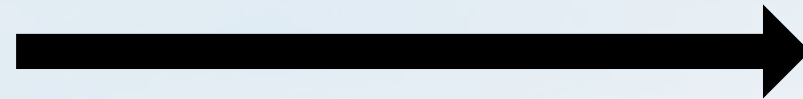
Understand the inner workings of our Bank Management System with ATM interface, including real-time transaction processing, account management, and secure authentication mechanisms.

Components


1. MySQL Database :- "bms"
2. Java Files :- Named as "BalanceEnquiry", "Deposit", "conn", "FastCash", "Pin", "MiniStatement", "Signup", "Login", "Withdrawl" and more.
3. Image icons used in java files.
4. Libraries :- MySQL java connector, JDK17, jcalendar-1.3.3-4.

Login.java

Startup class of our project. Prompts customer to either sign in with card no. & pin OR gives signup option to create new account.

A screenshot of a web-based ATM interface. The window title is "AUTOMATED TELLER MACHINE". It features a red logo with three vertical bars of increasing height. To the right of the logo, it says "WELCOME TO ATM". Below this, there are two input fields: "Card No:" and "PIN:". At the bottom, there are three buttons: "SIGN IN", "CLEAR", and "SIGN UP".

AUTOMATED TELLER MACHINE

 WELCOME TO ATM

Card No:

PIN:

Signup.java

If the user chooses signup then :-


Signup2.java

User is required to submit additional information.

Signup3.java

User submits the last set of inputs. The following windows shows up.

NEW ACCOUNT APPLICATION FORM

 **APPLICATION FORM NO. 103**

Page 1: Personal Details

Name:

Father's Name:

Date of Birth:

Gender: ☒ Male ☐ Female

Email Address:

Marital Status: ☐ Married ☒ Unmarried ☐ Other

Address:


City:

Pin Code:

State:

Next

NEW ACCOUNT APPLICATION FORM - PAGE 2

 **Page 2: Additional Details** Form No: 103

Religion:

Category:

Income:

Educational Qualification:

Occupation:

PAN Number:


Aadhar Number:

Senior Citizen: ☐ Yes ☒ No

Existing Account: ☐ Yes ☒ No

Next

NEW ACCOUNT APPLICATION FORM - PAGE 3

 **Page 3: Account Details** Form No: 103

Account Type: ☒ Saving Account ☐ Fixed Deposit Account ☐ Current Account ☐ Recurring Deposit Account

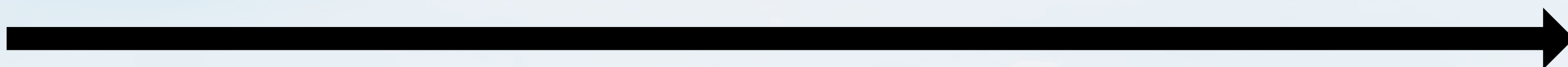
Card Number:
(Your 16-digit Card number) It would appear on ATM Card/Cheque Book and Statements

PIN:
(4-digit password)

Services Required: ☒ ATM CARD ☒ Internet Banking ☒ Mobile Banking ☐ EMAIL Alerts ☐ Cheque Book ☐ E-Statement

☒ I hereby declares that the above entered details correct to the best of my knowledge.

Submit Cancel



Creation of User

If the user chooses signup then the following windows appears.

Card No and Pin

User gets the account access details in a dialog box.

Login.java

This class handles the login of the user. After login then we get the our ATM interface.

NEW ACCOUNT APPLICATION FORM - PAGE 3 Form No: 103

Page 3: Account Details

Account Type:

☒ Saving Account ☐ Fixed Deposit Account

☐ Current Account ☐ Recurring Deposit Account

Card Number: XXXX-XXXX-XXXX-4184
(Your 16-digit Card number) It would appear on ATM Card/Cheque Book and Statements

PIN: XXXX
(4-digit password)

Services Required:

☒ ATM CARD ☒ Internet Banking

☒ Mobile Banking ☐ EMAIL Alerts

☐ Cheque Book ☐ E-Statement

☒ I hereby declares that the above entered details correct to the best of my knowledge.

Submit **Cancel**

NEW ACCOUNT APPLICATION FORM - PAGE 3 Form No: 103

Page 3: Account Details

Account Type:

☒ Saving Account ☐ Fixed Deposit Account

☐ Current Account ☐ Recurring Deposit Account

Card Number: XXXX-XXXX-XXXX-4184
(Your 16-digit Card number) It would appear on ATM Card/Cheque Book and Statements

PIN: XXXX
(4-digit password)

Services Required:

☒ ATM CARD ☒ Internet Banking

☒ Mobile Banking ☐ EMAIL Alerts

☐ Cheque Book ☐ E-Statement

☒ I hereby declares that the above entered details correct to the best of my knowledge.

Submit **Cancel**

Message

Card Number: 5040936016235995 -4184

Pin:3908

OK

AUTOMATED TELLER MACHINE

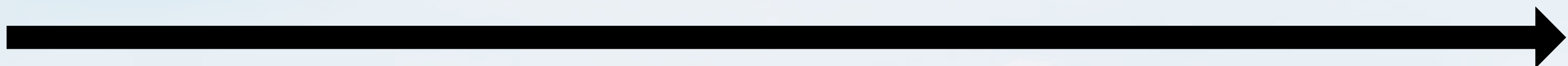
WELCOME TO ATM

Card No: 5040936016235995

PIN: ****

SIGN IN **CLEAR**

SIGN UP



Project DEMO

Check on LinkedIn: [Demo Link](#)

Uses

Improved Customer Experience

Empower customers with self-service banking banking and quick transactions through the user-the user-friendly ATM interface.

Efficient Transaction Processing

Ensure fast and accurate processing of various various banking transactions, such as deposits, deposits, withdrawals, transfers, and balance balance inquiries.

Enhanced Data Security

Protect sensitive customer information and and prevent fraudulent activities with advanced advanced encryption and authentication measures.

Streamlined Operations

Optimize internal processes and reduce manual manual effort by automating routine tasks like like account management and transaction recording.

Advantages & Disadvantages

Advantages

- Increased convenience for customers
- Improved accuracy in transaction processing
- Enhanced security measures
- Efficient use of resources

Disadvantages

- Dependency on technology
- Potential for system failures
- Reduced personal interaction
- Initial setup and maintenance costs

Future Scope

1

Advanced AI Integration

Explore the potential of integrating artificial intelligence to offer personalized banking services and predictive analytics.

2

Biometric Authentication

Implement biometric authentication methods, such as fingerprint or facial facial recognition, for enhanced security and convenience.

3

Support for Indian Languages

Assess the integration of various Indian and International languages to provide secure provide secure and transparent banking transactions to the customer from diverse diverse backgrounds.