

Complete Comprehensive Flow Summary

ATM SIMULATOR

Main Menu Flow

- User starts the application.
- The main menu asks if the user has a VCN (Virtual Card Number) (YES/NO).
- If YES, prompt for VCN and PIN (Personal Identification Number), then authenticate.
- If authentication is successful, the user gets access to the options: reset PIN, check balance, deposit, withdraw, view transaction history.
- If PIN verification fails, they are asked if they forgot their PIN. If they select "YES," they are directed to the PIN reset process. If they select "NO," they have "g" attempts to re-enter the correct PIN. The 24-hour rule for OTP (One-Time Password) verification applies here.
- If NO, they are automatically directed to the PIN creation process, where a VCN is assigned automatically.
- The user is then asked to provide their mobile number and complete an OTP (One-Time Password) verification. The 24-hour rule for OTP verification applies here.
- Once OTP verification is successful, they are prompted to set their PIN.
- After PIN setup, they are directed back to the main menu with full access to options.

Function Execution Flow

- For each operation (e.g., reset PIN, withdraw, deposit, check balance, view history), the user enters their PIN.
- If PIN verification fails, they are asked if they forgot their PIN. If they select "YES," they are directed to the PIN reset process. If they select "NO," they have "g" attempts to re-enter the correct PIN. The 24-hour rule for OTP (One-Time Password) verification applies here.

Reset PIN

- User selects the reset PIN option.
- The system generates an OTP and sends it to the user's mobile number.
The 24-hour rule for OTP verification applies here.
- The user enters the OTP.
- If OTP verification is successful, the user can set a new PIN.
- If OTP verification fails, they have a limited number of attempts (e.g., "c" attempts) to resend OTP and get verified.
- If successful, they can enter a new PIN.
- If not, they will be restricted from resetting the PIN for the next 24 hours.

Withdraw

- Verify PIN.
- User enters the withdrawal amount.
- Execute the withdrawal (deduct the amount from the account balance).
- Send a confirmation SMS.
- Return to the main menu.

Deposit

- Verify PIN.
- User enters the deposit amount.
- Execute the deposit (add the amount to the account balance).
- Send a confirmation SMS.
- Return to the main menu.

Check Balance

- Verify PIN.
- Display the account balance.
- Send the account balance statement to the user's phone via SMS.
- Return to the main menu.

View Transaction History

- Verify PIN.
- Automatically use the "Check Balance" function to get the account balance.
- Send a combined message including the account balance to the user's phone via SMS.
- Return to the main menu.

Database Update

Any changes to data related to the VCN (Virtual Card Number) will be updated into the database.

Concise Deposit Operation Flow Summary For ATM Simulator

Main Menu Flow

- User starts the application.
- The main menu offers options for VCN (Virtual Card Number) and PIN (Personal Identification Number).
- If authenticated with a VCN and PIN, the user gains access to operations like deposit, withdraw, check balance, view transaction history, and reset PIN.
- If PIN verification fails, the user can reset their PIN, with OTP verification required.

Deposit Operation Flow

- User selects the deposit option.
- After verifying the PIN, they enter the deposit amount.
- The system updates the account balance in the database and sends a confirmation SMS.
- The user is returned to the main menu.