

CASE STUDY-2

K Bhargava Chaitanya

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I have created 2 classes

- User class
- Main class

User class:

The User class contains all the user details of the user.

This class contains the following Fields

- Name:

It is for the name of the user.

- AccountNumber:

It is for the Account Number of the user.

- PIN:

It is for the pin of the user's account number.

- PhoneNumber:

It is for the Phone Number of the user.

- AadhaarNumber:

It is for the Aadhaar number of the user.

- currentBalance:

It is for storing the user balance.

- AmountTaken:

It is to store the amount of the money withdrawn by the user.

- AmountDeposited:

It is to store the amount deposited by the user.

- typeOfMoney:

It is used to store the type of money user deposited.

- noOfItems:

It is used to store the no of notes the user deposited.

I have created all the fields as a private because as the details of the user has to be private.

And I have created getters and setters of all the fields I created to access all the fields in the main class.

Main Class:

I have created a vector for multiple users. First, I thought to create multiple users with the help of arrays but it is limited so I thought to create a vector which do not have the limit.

I have created an object of the user class. Now when the user come to atm first he will have 2 options

- SignUp
- SignIn

SignUp:

First it will take the user's name as an input and sets his name in the Name field. It will take Account Number as the input and it will check whether the Account Number is already exists or not. If it exists it will say to signIn instead of signUp.

If it does not exist it will check whether the user entered account number is 5-digit number or not. If it is not 5-digit number it will ask the use to enter again.If it is a 5-digit number it will set the Account Number as user entered and ask the user to enter the pin and it will check whether the pin is a 5-digit number or not.If it is not a 5-digit number then it will ask the user to enter the pin again. If it is a 5-digit number it will set the pin of user's account number and ask the user to enter the phone number and sets the user's phone number and then it will ask the user to enter the Aadhaar number and sets the Aadhaar number. Finally, it will ask the user to deposit minimum balance of Rs500 by entering the type of money and no of notes he wanted to deposit and it will set the amount deposited by the user. It prints the amount deposit and It prints Your account is created successfully and prints Thank You. And I have added all the user details in vector.

SignIn:

If the user selects the SignIn option. It will ask the user to enter the account number and it will check whether the account number is already in the vector or not. If it is not in the vector it will prints "you do not have account please go and signUp".If it

is in the vector then we will access all the details of that account number. It will ask the pin number of the user and check whether the pin is correct or not. If it is not correct it will ask again to enter the pin. If he enters 4 times incorrect then it will send the OTP to the user's Phone Number and asks to enter the OTP and then it will reset the pin. If it is correct, it will show the following options,

- Deposit
- Balance
- Withdraw
- Details
- ChangeDetails

Deposit:

It displays "please deposit your money" and asks to enter the type of note he want to deposit and asks the number of notes he want to deposit and calculates the amount deposited and sets the amount deposited and displays the amount he deposited and sets the balance by incrementing the amount deposited by the user.

Balance:

If the user selects the Balance option, then it will display the Balance.

Withdraw:

If the user selects the withdrawal option, then it will ask the user to enter the amount he wants to withdraw. If the

Balance is not 500 more than the amount he wanted then it displays "Sorry your balance is less than the amount you wanted". If the balance is 500 more than the amount, he wanted then it will print "Please collect your amount at the dispenser" then it will set the balance by decrementing the amount withdraw by the user.

Details:

If the user selects the Details option, then it will print all the Details of the user like Name, Phone Number and Aadhaar Number.

ChangeDetails:

If the user selects the ChangeDetails option then the user can change the user's details like Name, Phone Number and Aadhaar Number and sets all the details of the user.

Finally,I have created a basic ATM. This is the code explanation