

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi – 590 018



OBJECT ORIENTED PROGRAMMING WITH JAVA (21CSE44)

Assignment

“AUTOMATED TELLER MACHINE”

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CHAPTER 1

PROBLEM DEFINITION

An automated teller machine (ATM) is a self-service banking outlet that allows customers to complete basic transactions without the aid of a branch representative. ATMs are typically located in convenient places such as banks, grocery stores, and gas stations.

ATMs are an efficient way to bank, and they are available 24 hours a day, 7 days a week.

To use an ATM, customers need to insert their debit or credit card and enter their PIN. They can then select from a variety of transactions, such as:

- Cash withdrawals
- Balance inquiries
- Deposits and many more.

Here we have written a Java program that will depict the working of an ATM in a simple manner which includes withdrawing, depositing, checking the balance, and exiting from the interface.

CHAPTER 2

IMPLEMENTATION

2.1 PROGRAM CODE

```
import java.util.Scanner;
public class ATM
{
    public static void main(String args[] )
    {

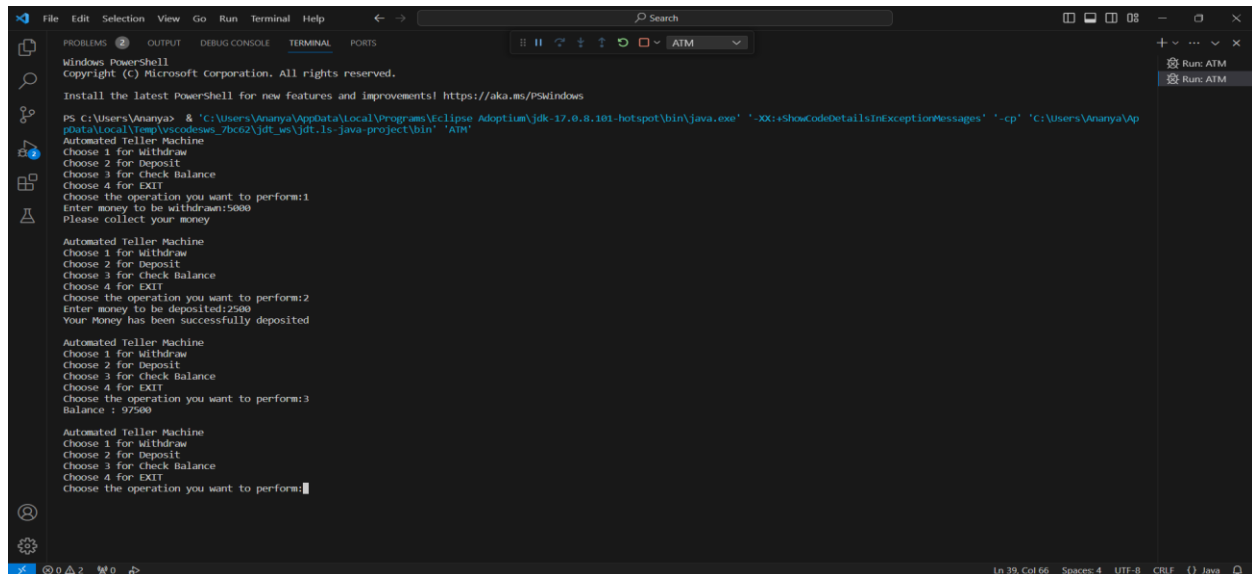
        int balance = 100000, withdraw, deposit;
        Scanner sc = new Scanner(System.in);
        while(true)
        {
            System.out.println("Automated Teller Machine");
            System.out.println("Choose 1 for Withdraw");
            System.out.println("Choose 2 for Deposit");
            System.out.println("Choose 3 for Check Balance");
            System.out.println("Choose 4 for EXIT");
            System.out.print("Choose the operation you want to perform:");
            int choice = sc.nextInt();
            switch(choice)
            {
                case 1:
                    System.out.print("Enter money to be withdrawn:");
                    withdraw = sc.nextInt();
                    if(balance >= withdraw)
                    {
                        balance = balance - withdraw;
                        System.out.println("Please collect your money");
```

```
    }  
    else  
    {  
        System.out.println("Insufficient Balance");  
    }  
    System.out.println("");  
    break;  
  
    case 2:  
        System.out.print("Enter money to be deposited:");  
        deposit = sc.nextInt();  
        balance = balance + deposit;  
        System.out.println("Your Money has been successfully deposited");  
        System.out.println("");  
        break;  
  
    case 3:  
        System.out.println("Balance : "+balance);  
        System.out.println("");  
        break;  
  
    case 4:  
        System.exit(0);  
    }  
    }  
    }  
}
```

CHAPTER 3

RESULTS

3.1 SNAPSHOTS



```
Windows PowerShell
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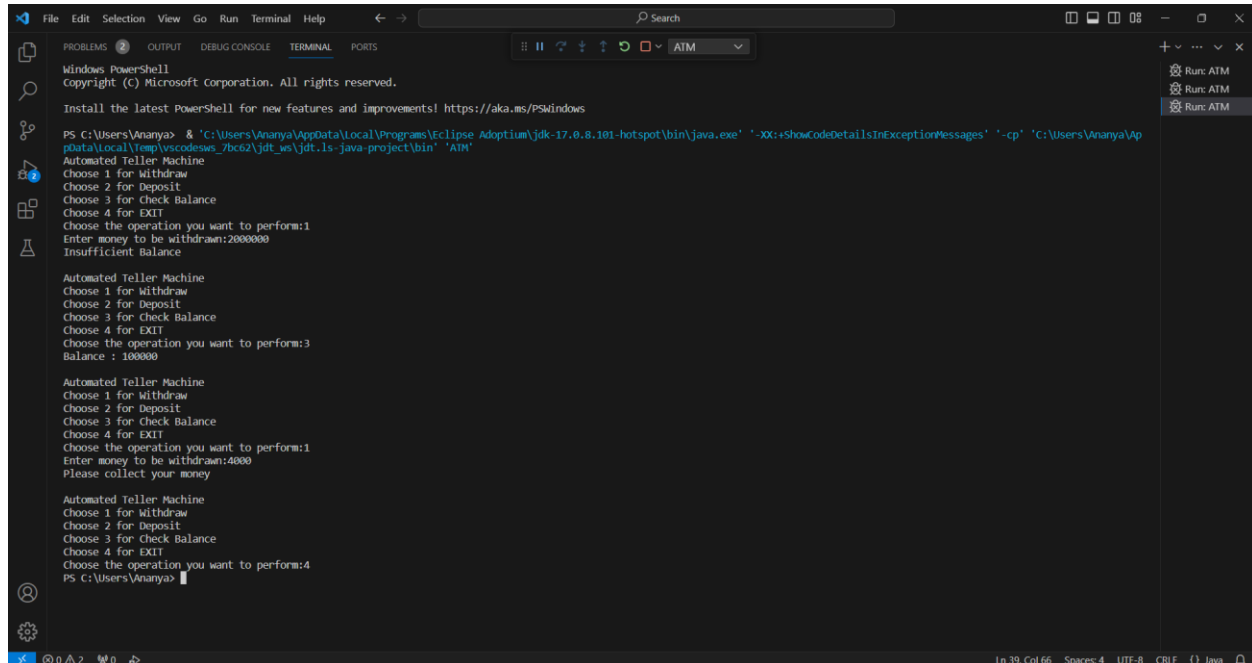
PS C:\Users\Ananya> & "C:\Users\Ananya\AppData\Local\Programs\Eclipse Adoptium\jdk-17.0.8.101-hotspot\bin\java.exe" "-XX:+ShowCodeDetailsInExceptionMessages" "-cp" "C:\Users\Ananya\AppData\Local\Temp\vscodesws_7bc62\jdt_ws\jdt.ls-java-project\bin" "ATM"

Automated Teller Machine
Choose 1 for Withdraw
Choose 2 for Deposit
Choose 3 for Check Balance
Choose 4 for EXIT
Choose the operation you want to perform:1
Enter money to be withdrawn:5000
Please collect your money

Automated Teller Machine
Choose 1 for Withdraw
Choose 2 for Deposit
Choose 3 for Check Balance
Choose 4 for EXIT
Choose the operation you want to perform:2
Enter money to be deposited:2500
Your Money has been successfully deposited

Automated Teller Machine
Choose 1 for Withdraw
Choose 2 for Deposit
Choose 3 for Check Balance
Choose 4 for EXIT
Choose the operation you want to perform:3
Balance : 97500

Automated Teller Machine
Choose 1 for Withdraw
Choose 2 for Deposit
Choose 3 for Check Balance
Choose 4 for EXIT
Choose the operation you want to perform:
```



```
Windows PowerShell
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PS C:\Users\Ananya> & "C:\Users\Ananya\AppData\Local\Programs\Eclipse Adoptium\jdk-17.0.8.101-hotspot\bin\java.exe" "-XX:+ShowCodeDetailsInExceptionMessages" "-cp" "C:\Users\Ananya\AppData\Local\Temp\vscodesws_7bc62\jdt_ws\jdt.ls-java-project\bin" "ATM"

Automated Teller Machine
Choose 1 for Withdraw
Choose 2 for Deposit
Choose 3 for Check Balance
Choose 4 for EXIT
Choose the operation you want to perform:1
Enter money to be withdrawn:200000
Insufficient Balance

Automated Teller Machine
Choose 1 for Withdraw
Choose 2 for Deposit
Choose 3 for Check Balance
Choose 4 for EXIT
Choose the operation you want to perform:3
Balance : 100000

Automated Teller Machine
Choose 1 for Withdraw
Choose 2 for Deposit
Choose 3 for Check Balance
Choose 4 for EXIT
Choose the operation you want to perform:1
Enter money to be withdrawn:4000
Please collect your money

Automated Teller Machine
Choose 1 for Withdraw
Choose 2 for Deposit
Choose 3 for Check Balance
Choose 4 for EXIT
Choose the operation you want to perform:4
PS C:\Users\Ananya>
```

CONCLUSION

To sum up, the steps followed in this program are,

- We import the scanner class.
- Initialize the balance amount to 100000.
- We enter a choice either to withdraw, deposit, check balance, or exit from the program.
- If the amount to be withdrawn is more than the initialized amount, we get a message saying, “**Insufficient balance**”. Otherwise, we get a message saying, “**Please collect your money**”. The balance amount after withdrawing is given by, $\text{balance} = \text{balance} - \text{withdraw}$.
- After a certain amount is deposited, we get a message saying, “**Your money has been successfully deposited**”. The balance amount after depositing is given by, $\text{balance} = \text{balance} + \text{deposit}$.
- Balance amount can be checked by selecting option 3.
- To exit from the program, we select option 4.