

## Task 3 : ATM Interface

Input:

```
J ATMInterface.java
1 import java.util.Scanner;
2
3 // Class to represent the user's bank account
4 class BankAccount {
5     private double balance;
6
7     // Constructor
8     public BankAccount(double initialBalance) {
9         balance = initialBalance;
10    }
11
12     // Deposit method
13     public void deposit(double amount) {
14         if (amount > 0) {
15             balance += amount;
16             System.out.println("✓ Deposit successful!");
17         } else {
18             System.out.println("✗ Invalid deposit amount.");
19         }
20     }
21
22     // Withdraw method
23     public void withdraw(double amount) {
24         if (amount <= 0) {
25             System.out.println("✗ Invalid withdrawal amount.");
26         } else if (amount > balance) {
27             System.out.println("✗ Insufficient balance.");
28         } else {
29             balance -= amount;
30             System.out.println("✓ Withdrawal successful!");
31         }
32     }
33
34     // Check balance method
35     public double getBalance() {
36         return balance;
37     }
38 }
39 }
```

```
40 // Class to represent the ATM machine
41 class ATM {
42     private BankAccount account;
43     private Scanner scanner;
44
45     // Constructor
46     public ATM(BankAccount account) {
47         this.account = account;
48         scanner = new Scanner(System.in);
49     }
50
51     // Display ATM menu
52     public void displayMenu() {
53         System.out.println("n===== ATM INTERFACE =====");
54         System.out.println("1. Withdraw Money");
55         System.out.println("2. Deposit Money");
56         System.out.println("3. Check Balance");
57         System.out.println("4. Exit");
58         System.out.print("Choose an option: ");
59     }
60
61     // Run ATM operations
62     public void start() {
63         int choice;
64
65         do {
66             displayMenu();
67             choice = scanner.nextInt();
68
69             switch (choice) {
70                 case 1:
71                     System.out.print("Enter amount to withdraw: ");
72                     double withdrawAmount = scanner.nextDouble();
73                     account.withdraw(withdrawAmount);
74                     break;
75
76                 case 2:
77                     System.out.print("Enter amount to deposit: ");
78                     double depositAmount = scanner.nextDouble();
79                     account.deposit(depositAmount);
80                     break;
81             }
82         } while (choice != 4);
83     }
84 }
```

```
81     |         |     case 3:  
82     |         |         System.out.println("🏧 Current Balance: ₹" + account.getBalance());  
83     |         |         break;  
84     |         |  
85     |         case 4:  
86     |         |         System.out.println("👋 Thank you for using the ATM!");  
87     |         |         break;  
88     |         |  
89     |         default:  
90     |         |         System.out.println("✖ Invalid option. Please try again.");  
91     |         }  
92     |     } while (choice != 4);  
93     | }  
94  
95 // Main class  
96 public class ATMInterface {  
97     Run|Debug  
98     public static void main(String[] args) {  
99         // Create a bank account with initial balance  
100        BankAccount userAccount = new BankAccount(initialBalance: 5000.0);  
101  
102        // Create ATM and connect it to the bank account  
103        ATM atm = new ATM(userAccount);  
104  
105        // Start ATM  
106        atm.start();  
107    }  
108}  
109 }
```

## Output:

```
PS C:\Users\Asus\Desktop\java programming language> java ATMInterface.java

===== ATM INTERFACE =====
1. Withdraw Money
2. Deposit Money
3. Check Balance
4. Exit
Choose an option: 1
Enter amount to withdraw: 2000
? Withdrawal successful!

===== ATM INTERFACE =====
1. Withdraw Money
2. Deposit Money
3. Check Balance
4. Exit
Choose an option: 2
Enter amount to deposit: 1000
? Deposit successful!

===== ATM INTERFACE =====
1. Withdraw Money
2. Deposit Money
3. Check Balance
4. Exit
Choose an option: 3
? Current Balance: ?4000.0

===== ATM INTERFACE =====
1. Withdraw Money
2. Deposit Money
3. Check Balance
4. Exit
Choose an option: 4
? Thank you for using the ATM!
PS C:\Users\Asus\Desktop\java programming language>
```