

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(x: "✅ Deposit successful!");
17         } else {
18             System.out.println(x: "❌ Invalid deposit amount.");
19         }
20     }
21
22     // Withdraw method
23     public void withdraw(double amount) {
24         if (amount <= 0) {
25             System.out.println(x: "❌ Invalid withdrawal amount.");
26         } else if (amount > balance) {
27             System.out.println(x: "❌ Insufficient balance.");
28         } else {
29             balance -= amount;
30             System.out.println(x: "✅ 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(x: "\n===== ATM INTERFACE =====");
54         System.out.println(x: "1. Withdraw Money");
55         System.out.println(x: "2. Deposit Money");
56         System.out.println(x: "3. Check Balance");
57         System.out.println(x: "4. Exit");
58         System.out.print(s: "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(s: "Enter amount to withdraw: ");
72                     double withdrawAmount = scanner.nextDouble();
73                     account.withdraw(withdrawAmount);
74                     break;
75
76                 case 2:
77                     System.out.print(s: "Enter amount to deposit: ");
78                     double depositAmount = scanner.nextDouble();
79                     account.deposit(depositAmount);
80                     break;
81             }
63         } while (choice != 4);
82     }
83 }
```

```

81
82         case 3:
83             System.out.println("💰 Current Balance: ₹" + account.getBalance());
84             break;
85
86         case 4:
87             System.out.println(x: "🙏 Thank you for using the ATM!");
88             break;
89
90         default:
91             System.out.println(x: "❌ Invalid option. Please try again.");
92     }
93     } while (choice != 4);
94 }
95 }
96
97 // Main class
98 public class ATMInterface {
99     Run | Debug
100     public static void main(String[] args) {
101         // Create a bank account with initial balance
102         BankAccount userAccount = new BankAccount(initialBalance: 5000.0);
103
104         // Create ATM and connect it to the bank account
105         ATM atm = new ATM(userAccount);
106
107         // Start ATM
108         atm.start();
109     }
110 }

```

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> █
```