Task 3

ATM INTERFACE

```
import java.util.Scanner;


class BankAccount {


 private double balance;
 public BankAccount(double initialBalance) {
 this.balance = initialBalance;
 }
 public double getBalance() {
 return balance;
 }
 public void deposit(double amount) {


 if (amount > 0) {


 balance += amount;
 System.out.printf("Successfully deposited $%.2f. New balance: $%.2f%n", amount, balance);
 } else {
 System.out.println("Deposit amount must be positive.");
 }
 }
 public boolean withdraw(double amount) {
 if (amount <= 0) {
 System.out.println("Withdrawal amount must be positive.");
 return false;
 } else if (amount > balance) {
```

```
System.out.println("Insufficient funds for this withdrawal.");
return false;
} else {
balance -= amount;
System.out.printf("Successfully withdrew $%.2f. New balance: $%.2f%n", amount, balance);
return true;
}
}
}
class ATM {
private BankAccount account;
private Scanner scanner;
public ATM(BankAccount account) {
this.account = account;
this.scanner = new Scanner(System.in);

}

public void showMenu() {
int choice;
do {
System.out.println("\nATM Menu:");
System.out.println("1. Check Balance");
System.out.println("2. Deposit Money");
System.out.println("3. Withdraw Money");
System.out.println("4. Exit");
System.out.print("Please choose an option: ");
choice = scanner.nextInt();
switch (choice) {
case 1:
checkBalance();
```

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break;
case 2:
depositMoney();
break;
case 3:
withdrawMoney();
break;
case 4:
System.out.println("Thank you for using the ATM. Goodbye!");
break;
default:
System.out.println("Invalid option. Please try again.");
}
} while (choice != 4);
}

private void checkBalance() {

System.out.printf("Your current balance is: $%.2f%n", account.getBalance());
}
private void depositMoney() {
System.out.print("Enter amount to deposit: ");
double amount = scanner.nextDouble();
account.deposit(amount);
}
private void withdrawMoney() {
System.out.print("Enter amount to withdraw: ");
double amount = scanner.nextDouble();
account.withdraw(amount);
}
}
```

```
public class Main {
 public static void main(String[] args) {
 // Initial balance for the bank account
 BankAccount myAccount = new BankAccount(500.00); // Example initial balance
 ATM myATM = new ATM(myAccount);
 myATM.showMenu();
 }
}
```