import java.util.Scanner;

// Class representing the user's bank account

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.println("Successfully deposited $" + amount);

} else {

System.out.println("Deposit amount must be positive.");

}

}

public void withdraw(double amount) {

if (amount > 0) {

if (balance >= amount) {

balance -= amount;

System.out.println("Successfully withdrew $" + amount);

} else {

System.out.println("Insufficient balance.");

}

} else {

System.out.println("Withdrawal amount must be positive.");

}

}

}

// Class representing the ATM machine

class ATM {

private BankAccount account;

public ATM(BankAccount account) {

this.account = account;

}

public void start() {

Scanner scanner = new Scanner(System.in);

while (true) {

System.out.println("\nWelcome to the ATM!");

System.out.println("1. Withdraw");

System.out.println("2. Deposit");

System.out.println("3. Check Balance");

System.out.println("4. Exit");

System.out.print("Please choose an option: ");

int option = scanner.nextInt();

switch (option) {

case 1:

System.out.print("Enter the amount to withdraw: ");

double withdrawAmount = scanner.nextDouble();

account.withdraw(withdrawAmount);

break;

case 2:

System.out.print("Enter the amount to deposit: ");

double depositAmount = scanner.nextDouble();

account.deposit(depositAmount);

break;

case 3:

System.out.println("Your current balance is $" + account.getBalance());

break;

case 4:

System.out.println("Thank you for using the ATM. Goodbye!");

scanner.close();

return;

default:

System.out.println("Invalid option. Please try again.");

}

}

}

}

// Main class to run the ATM system

public class Main {

public static void main(String[] args) {

BankAccount account = new BankAccount(1000.0); // Create a bank account with initial balance of $1000

ATM atm = new ATM(account); // Create an ATM with the bank account

atm.start(); // Start the ATM

}

}