import java.util.Scanner;

class BankAccount {

private double balance;

public BankAccount(double balance) {

this.balance = balance;

}

public double getBalance() {

return balance;

}

public void deposit(double amount) {

if (amount > 0) {

balance += amount;

System.out.println("Deposit of $" + amount + " successful.");

} else {

System.out.println("Invalid deposit amount.");

}

}

public void withdraw(double amount) {

if (amount > 0 && amount <= balance) {

balance -= amount;

System.out.println("Withdrawal of $" + amount + " successful.");

} else {

System.out.println("Insufficient funds or invalid withdrawal amount.");

}

}

}

class ATM {

private BankAccount account;

public ATM(BankAccount account) {

this.account = account;

}

public void displayMenu() {

System.out.println("ATM Menu:");

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

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

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

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

}

public void processOption(int option) {

Scanner scanner = new Scanner(System.in);

switch (option) {

case 1:

System.out.print("Enter withdrawal amount: $");

double withdrawAmount = scanner.nextDouble();

account.withdraw(withdrawAmount);

break;

case 2:

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

double depositAmount = scanner.nextDouble();

account.deposit(depositAmount);

break;

case 3:

System.out.println("Current balance: $" + account.getBalance());

break;

case 4:

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

System.exit(0);

break;

default:

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

}

}

}

public class Main {

public static void main(String[] args) {

BankAccount bankAccount = new BankAccount(1000); // Initial balance $1000

ATM atm = new ATM(bankAccount);

Scanner scanner = new Scanner(System.in);

while (true) {

atm.displayMenu();

System.out.print("Enter your choice: ");

int option = scanner.nextInt();

atm.processOption(option);

       }

    }

}