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) {

balance += amount;

}

public boolean withdraw(double amount) {

if (amount <= balance) {

balance -= amount;

return true;

} else {

System.out.println("Insufficient funds. Withdrawal failed.");

return false;

}

}

}

class ATM {

private BankAccount userAccount;

public ATM(BankAccount account) {

this.userAccount = 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();

if (userAccount.withdraw(withdrawAmount)) {

System.out.println("Withdrawal successful. Remaining balance: " + userAccount.getBalance());

}

break;

case 2:

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

double depositAmount = scanner.nextDouble();

userAccount.deposit(depositAmount);

System.out.println("Deposit successful. New balance: " + userAccount.getBalance());

break;

case 3:

System.out.println("Current Balance: " + userAccount.getBalance());

break;

case 4:

System.out.println("Exiting ATM. Thank you!");

System.exit(0);

break;

default:

System.out.println("Invalid option. Please choose a valid option.");

}

}

}

public class Main {

public static void main(String[] args) {

// Create a BankAccount with an initial balance

BankAccount userAccount = new BankAccount(1000.0);

// Create an ATM and connect it to the user's account

ATM atm = new ATM(userAccount);

Scanner scanner = new Scanner(System.in);

while (true) {

// Display the ATM menu

atm.displayMenu();

// Get user's choice

System.out.print("Enter your choice (1-4): ");

int choice = scanner.nextInt();

// Process the user's choice

atm.processOption(choice);

}

}

}