import java.util.Scanner;

class BankAccount {

    private double balance;

    public BankAccount(double initialBalance) {

        this.balance = initialBalance;

    }

    public synchronized void deposit(double amount) {

        balance += amount;

        System.out.println("Deposited: $" + amount + ". New balance: $" + balance);

    }

    public synchronized void withdraw(double amount) {

        if (amount > balance) {

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

        } else {

            balance -= amount;

            System.out.println("Withdrew: $" + amount + ". New balance: $" + balance);

        }

    }

    public double getBalance() {

        return balance;

    }

}

public class BankSimulation {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        BankAccount account = new BankAccount(1000); // Start with $1000

        while (true) {

            System.out.println("\n1. Deposit  2. Withdraw  3. Check Balance  4. Exit");

            System.out.print("Choose an option: ");

            int choice = sc.nextInt();

            if (choice == 4) {

                System.out.println("Final Balance: $" + account.getBalance());

                break;

            }

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

            double amount = sc.nextDouble();

            if (choice == 1) {

                new Thread(() -> account.deposit(amount)).start();

            } else if (choice == 2) {

                new Thread(() -> account.withdraw(amount)).start();

            } else if (choice == 3) {

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

            } else {

                System.out.println("Invalid choice!");

            }

        }

        sc.close();

    }

}