**1.**

**Package** Practiceday11;

**public** **class** Storage {

**private** **int** value;

**public** **synchronized** **int** getValue() {

**return** value;

}

**public** **synchronized** **void** setValue(**int** value) {

**this**.value = value;

}

}

//Counter class

**Package** Practiceday11;

**public** **class** Counter **implements** Runnable{

**private** Storage storage;

**public** Counter(Storage storage) {

**super**();

**this**.storage = storage;

}

@Override

**public** **void** run() {

// **TODO** Auto-generated method stub

**for**(**int** i=0; i<=10; i++) {

storage.setValue(i);

**try** {

Thread.*sleep*(100);

}**catch**(InterruptedException e) {

e.printStackTrace();

}

}

}

}

**Package** Practiceday11;

**public** **class** Printer **implements** Runnable {

**private** Storage storage;

**public** Printer(Storage storage) {

**super**();

**this**.storage = storage;

}

@Override

**public** **void** run() {

// **TODO** Auto-generated method stub

**while**(**true**) {

**int** value = storage.getValue();

System.***out***.println("Value from storage: " + value);

**try** {

Thread.*sleep*(200);

}**catch**(InterruptedException e) {

e.printStackTrace();

}

}

}

}

**Package** Practiceday11;

**public** **class** Main {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Storage storage = **new** Storage();

Thread counterThread = **new** Thread(**new** Counter(storage));

Thread printerThread = **new** Thread(**new** Printer(storage));

counterThread.start();

printerThread.start();

}

}

**2.**

**Package** Practiceday11;

**public** **class** NumberPrinter **extends** Thread{

**private** **int** start;

**private** **int** end;

**public** NumberPrinter(**int** start, **int** end) {

**super**();

**this**.start = start;

**this**.end = end;

}

@Override

**public** **void** run() {

**for**(**int** i = start; i<= end; i++) {

System.***out***.println(i);

**try** {

Thread.*sleep*(100);

}**catch**(InterruptedException e) {

e.printStackTrace();

}

}

}

}

**Package** Practiceday11;

**public** **class** Main {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

NumberPrinter printer1 = **new** NumberPrinter(1,10);

NumberPrinter printer2 = **new** NumberPrinter(11,20);

NumberPrinter printer3 = **new** NumberPrinter(21,30);

printer1.start();

printer2.start();

printer3.start();

}

}

**3.**

**Package** Practiceday11;

import java.io.BufferedReader;

import java.io.FileReader;

import java.io.IOException;

public class NumberReader extends Thread {

private String filename;

public NumberReader(String filename) {

this.filename = filename;

}

@Override

public void run() {

try (BufferedReader reader = new BufferedReader(new FileReader(filename))) {

String line;

while ((line = reader.readLine()) != null) {

int number = Integer.parseInt(line);

System.out.println("Read from " + filename + ": " + number);

FactorialCalculator.calculateFactorial(number);

}

} catch (IOException e) {

e.printStackTrace();

}

}

}

**Package** Practiceday11;

**public** **class** FactorialCalculator {

**public** **static** **void** calculateFactorial(**int** number) {

**int** factorial = 1;

**for** (**int** i = 1; i <= number; i++) {

factorial \*= i;

}

System.***out***.println("Factorial of " + number + " is " + factorial);

}

}

**Package** Practiceday11;

**public** **class** Main {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

**if** (args.length != 2) {

System.***out***.println("Usage: java Main <file1> <file2>");

**return**;

}

String file1 = args[0];

String file2 = args[1];

Thread readerThread1 = **new** NumberReader(file1);

Thread readerThread2 = **new** NumberReader(file2);

readerThread1.start();

readerThread2.start();

}

}