

# EXTRA PROGRAMS

## PROGRAM 1:

### INPUT:

```
C:\Users\91944\OneDrive\Desktop\OOJLAB\Week_11\OETHread.java - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

Threads.java x OETHread.java x
1 class OddEven implements Runnable
2 {
3     Thread t;
4     int osum;
5     OddEven()
6     {
7         osum = 0;
8         t = new Thread(this, "ODD");
9         System.out.println("Current Thread : ODD");
10        t.start();
11    }
12
13    public void run()
14    {
15        try
16        {
17            for(int i = 1; i <= 100; i++)
18            {
19                if (i % 2 != 0)
20                {
21                    osum += i;
22                    Thread.sleep(200);
23                }
24            }
25        }
26        catch (InterruptedException e)
27        {
28            System.out.println("Odd Thread interrupted");
29        }
30        System.out.println("\nOdd Thread EXITING...");
31        System.out.println("\n-----SUM OF ODD NUMBERS IS "+osum+"-----");
32    }
33 }
```

```
C:\Users\91944\OneDrive\Desktop\OOJLAB\Week_11\OETHread.java - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

Threads.java x OETHread.java x
34 class OETHread
35 {
36     public static void main(String[] args)
37     {
38         int esum = 0;
39         OddEven oe = new OddEven();
40         System.out.println("Current Thread : EVEN");
41
42         try
43         {
44             for(int i = 1; i <= 100; i++)
45             {
46                 if (i % 2 == 0)
47                 {
48                     esum += i;
49                     Thread.sleep(200);
50                 }
51             }
52         }
53         catch (InterruptedException e)
54         {
55             System.out.println("Even Thread interrupted");
56         }
57         System.out.println("\nEven Thread EXITING...");
58         System.out.println("\n-----SUM OF EVEN NUMBERS IS "+esum+"-----");
59     }
60 }
61 }
```

# OUTPUT:

```
Select Command Prompt

C:\Users\91944\OneDrive\Desktop\OOJLAB\Week_11>javac OETHread.java

C:\Users\91944\OneDrive\Desktop\OOJLAB\Week_11>java OETHread
Current Thread : ODD
Current Thread : EVEN

Even Thread EXITING...

-----SUM OF EVEN NUMBERS IS 2550-----

Odd Thread EXITING...

-----SUM OF ODD NUMBERS IS 2500-----

C:\Users\91944\OneDrive\Desktop\OOJLAB\Week_11>
```

## PROGRAM – 2

### INPUT :

```
C:\Users\91944\OneDrive\Desktop\OOJLAB\Week_11\ThreeThreads.java - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

Threads.java x OETHread.java x ThreeThreads.java x

1 import java.util.Random;
2 class OneThread implements Runnable
3 {
4     Thread t;
5     int num;
6     OneThread()
7     {
8         t = new Thread(this, "Random generator");
9         System.out.println("Current Thread : "+t);
10        t.start();
11    }
12
13    public void run()
14    {
15        try
16        {
17            Random rand = new Random();
18            for(int i = 5; i > 0; i--)
19            {
20                num = (int) (100 * rand.nextDouble());
21                System.out.println("The random value generated is : "+num);
22                Thread.sleep(1000);
23            }
24        }
25        catch (InterruptedException e)
26        {
27            System.out.println("Thread interrupted");
28        }
29    }
30 }
31
```

```
C:\Users\91944\OneDrive\Desktop\OO\LAB\Week_11\ThreeThreads.java - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

Threads.java x OETHread.java x ThreeThreads.java x

31
32 class TwoThread implements Runnable
33 {
34     Thread t;
35     int n;
36     TwoThread(int number)
37     {
38         n = number;
39         t = new Thread(this, "Square");
40         System.out.println("Current Thread : "+t);
41         t.start();
42     }
43
44     public void run()
45     {
46         try
47         {
48             n = n * n;
49             System.out.println("Square : "+n);
50             Thread.sleep(0);
51         }
52         catch (InterruptedException e)
53         {
54             System.out.println("Thread interrupted");
55         }
56     }
57 }
58
59 class ThreeThread implements Runnable
60 {
```

```
C:\Users\91944\OneDrive\Desktop\OO\LAB\Week_11\ThreeThreads.java - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

Threads.java x OETHread.java x ThreeThreads.java x

61     Thread t;
62     int n;
63     ThreeThread(int number)
64     {
65         n = number;
66         t = new Thread(this, "Cube");
67         System.out.println("Current Thread : "+t);
68         t.start();
69     }
70
71     public void run()
72     {
73         try
74         {
75             n = n * n * n;
76             System.out.println("Cube : "+n);
77             Thread.sleep(0);
78         }
79         catch (InterruptedException e)
80         {
81             System.out.println("Thread interrupted");
82         }
83     }
84 }
85
86 class Threadmain
87 {
88     public static void main(String[] args)
89     {
90         OneThread one = new OneThread();
```

```
C:\Users\91944\OneDrive\Desktop\OO\LAB\Week_11\ThreeThreads.java - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

Threads.java x OETHread.java x ThreeThreads.java x

91         try
92         {
93             Thread.sleep(200);
94             for(int i = 5; i > 0; i--)
95             {
96                 if(one.num % 2 == 0)
97                     new TwoThread(one.num);
98                 else
99                     new ThreeThread(one.num);
100                 Thread.sleep(1000);
101             }
102         }
103         catch (InterruptedException e)
104         {
105             System.out.println("Thread interrupted");
106         }
107         System.out.println("Program EXITING...!");
108     }
109 }
```

# OUTPUT:

```
Command Prompt
C:\Users\91944\OneDrive\Desktop\OOJLAB\Week_11>javac ThreeThreads.java

C:\Users\91944\OneDrive\Desktop\OOJLAB\Week_11>java Threadmain
Current Thread : Thread[Random generator,5,main]
The random value generated is : 72
Current Thread : Thread[Square,5,main]
Square : 5184
The random value generated is : 11
Current Thread : Thread[Cube,5,main]
Cube : 1331
The random value generated is : 99
Current Thread : Thread[Cube,5,main]
Cube : 970299
The random value generated is : 65
Current Thread : Thread[Cube,5,main]
Cube : 274625
The random value generated is : 94
Current Thread : Thread[Square,5,main]
Square : 8836
Program EXITING...!

C:\Users\91944\OneDrive\Desktop\OOJLAB\Week_11>
```