

Assignment-secondarythread602

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```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading;

class Program
{
    public static void DoCount()
    {
        for (int i = 1; i < runThread; i++)
        {
            Console.WriteLine(i);
        }
    }
    static object showthread = new object();
    static int runThread = 20;
    static void Main(string[] args)
    {
        //Please do comment for block of code to see outputs for individual
questions.

        // Qn-1,2,3 & 4

        Program p = new Program();
        Thread T1 = new Thread(DoCount);
        ThreadStart threadDelegate = new ThreadStart(DoCount);
        T1.Start();
        Thread T2 = new Thread(DoCount);
        ThreadStart threadDelegate1 = new ThreadStart(DoCount);
        T2.Start();
        T1.IsBackground = true;
        T1.Priority = ThreadPriority.Lowest;
        T2.Priority = ThreadPriority.Highest;

        //QN- 5

        for (int i = 1; i < runThread; i++)
        {
            ThreadPool.QueueUserWorkItem(DoCounting, i);
        }
        Console.WriteLine("Running 20 threads 1 by 1 stop after 3 sec...");
        lock (showthread)
        {
            while (runThread > 0) Monitor.Wait(showthread);
        }
        Console.WriteLine("All threads run successfully");
        Console.ReadLine();
    }
    public static void DoCounting(object obj)
```

```

    {
        Console.WriteLine("Start Thread :" + obj);
        Thread.Sleep(3000);
        Console.WriteLine("End Thread :" + obj);
        lock (showthread)
        {
            runThread = -runThread;
            Monitor.Pulse(showthread);
        }
    }
}

```

OUTPUT

```

1
2
3
4
5
6
1
Start Thread :3
Running 20 threads 1 by 1 stop after 3 sec...
Start Thread :2
Start Thread :4
Start Thread :5
Start Thread :6
Start Thread :7
Start Thread :8
2
3
4
5
6
7
8
9
10
11
12
13

```

14
15
16
17
18
19
Start Thread :1
7
8
9
10
11
12
13
14
15
16
17
18
19
Start Thread :9
Start Thread :10
Start Thread :11
End Thread :8
End Thread :4
Start Thread :13
End Thread :3
End Thread :2
Start Thread :15
End Thread :1
Start Thread :16
Start Thread :14
End Thread :6
Start Thread :17
End Thread :7
Start Thread :18
All threads run successfully
Start Thread :12
End Thread :5

Start Thread :19

End Thread :9

End Thread :10

End Thread :11

End Thread :14

End Thread :13

End Thread :16

End Thread :15

End Thread :18

End Thread :17

End Thread :19

End Thread :12

