

class NewThread implements Runnable

```
{
    Thread t;
    NewThread()
    {
        t=new Thread(this,"New Thread");
        System.out.println("CT:"+t);
        t.start();
    }
    public void run()
    {
        int sum=0,i;
        try
        {
            for(i=1;i<=100;i++)
            {
                if(i%2==1)
                {
                    sum=sum+i;
                }
            }
            System.out.println("Sum of odd numbers "+sum);
            Thread.sleep(1000);
        }
        catch(InterruptedException ie)
        {
            System.out.println("Child Thread Interrupted");
        }
    }
}
```

class ThreadMain

```
{
    public static void main(String args[])
    {
        int sum=0,i;
        NewThread n1=new NewThread();
        try
        {
            for(i=1;i<=100;i++)
            {
                if(i%2==0)
                {
                    sum=sum+i;
                }
            }
        }
    }
}
```

```

    }
    Thread.sleep(2000);
    System.out.println("Sum of even numbers "+sum);
}
catch(InterruptedException ie)
{
    System.out.println("Child Thread Interrupted");
}
}
}

```

```

Administrator: Command Prompt
Microsoft Windows [Version 10.0.18363.1256]
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C:\WINDOWS\system32>cd C:\Program Files\Java\jdk1.8.0_261\bin
C:\Program Files\Java\jdk1.8.0_261\bin>javac ThreadMain.java
C:\Program Files\Java\jdk1.8.0_261\bin>java ThreadMain
CT:Thread[New Thread,5,main]
Sum of odd numbers 2500
Sum of even numbers 2550
C:\Program Files\Java\jdk1.8.0_261\bin>

```

```

import java.util.Random;
class Square implements Runnable
{
    Thread t2;
    int num;
    Square(int number)
    {
        num = number;
        t2=new Thread(this,"child thread");
        t2.start();
    }

    public void run()
    {
        System.out.println("Square of "+num+" = "+(num*num));
    }
}

```

class Cube implements Runnable

```
{
    Thread t3;
    int num;
    Cube(int number)
    {
        num = number;
        t3=new Thread(this,"child thread");
        t3.start();
    }

    public void run()
    {
        System.out.println("Cube of "+ num+" = "+(num*num*num));
    }
}
```

class RandomThread implements Runnable

```
{
    Thread t1;
    RandomThread()
    {
        t1=new Thread(this,"child thread");
        t1.start();
    }
    public void run()
    {
        Random randnum = new Random();
        for (int i = 0; i < 10; i++)
        {
            int n = randnum.nextInt(100);
            System.out.println("Random Integer : " + n);
            if((n%2) == 0)
            {
                Square s= new Square(n);
            }
            else
            {
                Cube c= new Cube(n);
            }
            try
            {
                Thread.sleep(1000);
            }
            catch (InterruptedException e)
            {
            }
        }
    }
}
```

```

        {
            System.out.println("Interrupted");
        }
    }
}

```

```

class MultipleThread
{
    public static void main(String args[])
    {
        RandomThread r= new RandomThread();
    }
}

```

```

C:\Program Files\Java\jdk1.8.0_261\bin>javac thread11.java
C:\Program Files\Java\jdk1.8.0_261\bin>java thread11
Random Integer generated : 1
Cube of 1 = 1
Random Integer generated : 1
Cube of 1 = 1
Random Integer generated : 56
Square of 56 = 3136
Random Integer generated : 6
Square of 6 = 36
Random Integer generated : 68
Square of 68 = 4624
Random Integer generated : 97
Cube of 97 = 912673
Random Integer generated : 15
Cube of 15 = 3375
Random Integer generated : 53
Cube of 53 = 148877
Random Integer generated : 72
Square of 72 = 5184
Random Integer generated : 20
Square of 20 = 400
C:\Program Files\Java\jdk1.8.0_261\bin>_

```