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Practice Programs

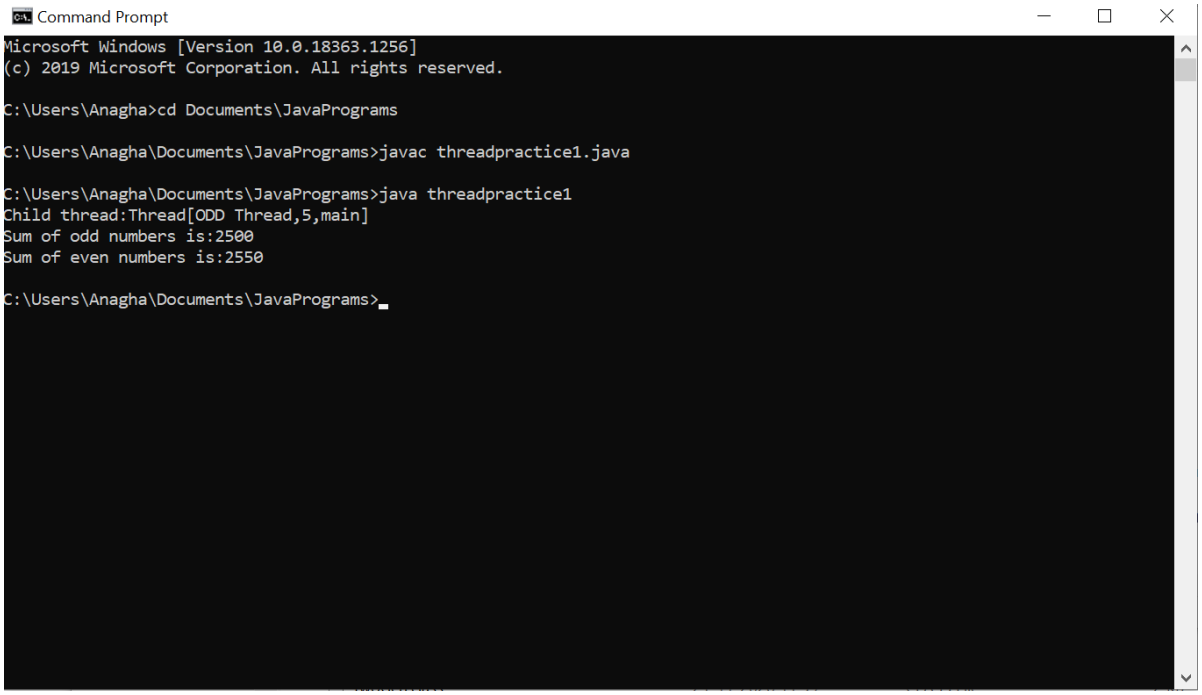
Write a program to create a thread and find the sum of odd numbers from 1 to 100 in this thread. Find the sum of even numbers for the same range in the main thread.

```
import java.lang.*;
import java.util.*;
class OddThread extends Thread
{
 int odd_sum=0;
 OddThread(){
  super("ODD Thread");
  System.out.println("Child thread:"+this);
  start();
 }
 public void run(){
 try{
    for(int i=1;i<=100;i++)
    {
     if(i%2!=0)
      {
       odd_sum=odd_sum+i;
       Thread.sleep(100);
       }
     }
    }catch(InterruptedException e){
      System.out.println("Child Interrupted");
     }
  System.out.println("Sum of odd numbers is:"+odd_sum);
```

```
  }
}

class threadpractice1
{
 public static void main(String args[])
 {
  int even_sum=0;
  new OddThread();
  try{
     for(int i=1;i<=100;i++)
     {
       if(i%2==0)
       {
       even_sum=even_sum+i;
       Thread.sleep(200);
       }
      }
     }catch(InterruptedException e){
        System.out.println("Main thread interrupted");
        }
   System.out.println("Sum of even numbers is:"+even_sum);
 }
}
```

OUTPUT:



Practice Program-2: Develop a multithreaded Java program to create three threads. First thread generates random integer for every second and if the value is even, second thread computes the square of number and prints. If the value is odd, the third thread will print the value of cube of number

```
import java.util.Random;
class RandomNumberThread extends Thread{
 public void run(){
  Random random=new Random();
  for(int i=0;i<10;i++)
  {
    int random_int=random.nextInt(100);
     System.out.println("The random number generated is:"+random_int);
     if((random_int%2)==0){
      SquareThread sThread=new SquareThread(random_int);
      sThread.start();
     }
     else{
```

```
        CubeThread cThread=new CubeThread(random_int);
        cThread.start();
      }
      try{
       Thread.sleep(1000);
      }catch(InterruptedException e){
          System.out.println(e);
       }
    }
  }
}

class SquareThread extends Thread{
int number;
SquareThread(int random_no){
  number=random_no;
 }
public void run(){
 System.out.println("Square of " +number+ "="+(number*number));
 }
}

class CubeThread extends Thread {
int number;
CubeThread(int random_no) {
number = random_no;
}
public void run() {
System.out.println("Cube of " + number + " = " + number * number * number);
 }
}
```

```
public class threadpractice2{
 public static void main(String args[])
 {

    RandomNumberThread rnThread=new RandomNumberThread();
    rnThread.start();
  }
}
```

OUTPUT: