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Assesment 3

Code

App.java

```java
public class App
{
    public static void main( String[] args)
    {
        Student S1 = new Student("20BCE0001",30,40,55,60,75);
        Student S2 = new Student("20BCE0002",50,70,50,60,75);
        Student S3 = new Student("20BCE0003",60,50,58,60,75);
        Student S4 = new Student("20BCE0004",70,80,65,60,75);
        Student S5 = new Student("20BCE0005",30,20,95,60,75);
        Student S6 = new Student("20BCE0006",30,100,55,60,75);
        Student S7 = new Student("20BCE0007",30,40,75,60,75);
        Student S8 = new Student("20BCE0008",80,65,55,60,75);
        Student S9 = new Student("20BCE0009",75,40,55,60,75);
        Student S10 = new Student("20BCE0010",30,40,55,60,75);
        Operations o = new Operations(S1,S2,S3,S4,S5);
        Operations2 o2 = new Operations2(S1,S2,S3,S4,S5);
        Operations3 o3 =new Operations3(S1,S2,S3,S4,S5);
        try{
        Thread t = new Thread(o);
        t.start();

        Thread t2 = new Thread(o2);
        t2.start();
        Thread t3 = new Thread(o3);
        t3.start();
        }
        catch(Exception e)
        {
```

```
                e.getMessage();
            }




    }
}
```

Student.java

```java
public class Student
{
    String regno;
    int m1,m2,m3,m4,m5;

    public Student(String a , int b1,int b2,int b3,int b4 ,int b5)
    {
        this.regno=a;
        this.m1 = b1;
        this.m2 = b2;
        this.m3 = b3;
        this.m4 = b4;
        this.m5=b5;
    }
}
```

Operations.java

```java
public class Operations implements Runnable
{
    int m1,m2,m3,m4,m5;
    public Operations(Student a1,Student a2,Student a3,Student a4,Student a5)
    {
        m1=(a1.m1+a2.m1+a3.m1+a4.m1+a5.m1)/5;
        m2=(a1.m2+a2.m2+a3.m2+a4.m2+a5.m2)/5;
        m3=(a1.m3+a2.m3+a3.m3+a4.m3+a5.m3)/5;
        m4=(a1.m4+a2.m4+a3.m4+a4.m4+a5.m4)/5;
```

```java
        m5=(a1.m5+a2.m5+a3.m5+a4.m5+a5.m5)/5;


    }
    public void run()
    {

        System.out.println("Course1: "+m1+" Course2 : "+m2+" Course3 : "+m3+ "
Course4 : "+m4+"Course5 :  "+m5);
    }


}
```

Operations2.java

```java
public class Operations2 implements Runnable
{
    int m1,m2,m3,m4,m5;
    public Operations2(Student a1,Student a2,Student a3,Student a4,Student a5)
    {
        m1=(a1.m1+a1.m2+a1.m3+a1.m4+a1.m5)/5;
        m2=(a2.m1+a2.m2+a2.m3+a2.m4+a2.m5)/5;
        m3=(a3.m1+a3.m2+a3.m3+a3.m4+a3.m5)/5;
        m4=(a4.m1+a4.m2+a4.m3+a4.m4+a4.m5)/5;
        m5=(a5.m1+a5.m2+a5.m3+a5.m4+a5.m5)/5;



    }

    public void run()
    {

        System.out.println("Average oF Student1: "+m1+" Average oF Student2 :
"+m2+" Average oF Student3 : "+m3+ " Average oF Student4 : "+m4+"Average oF
Student5 :  "+m5);
    }


}
```

Operations3.java

```java
import java.util.Arrays;
public class Operations3 implements Runnable
{

    public Operations3(Student a1,Student a2,Student a3,Student a4,Student a5)
    {
        int[]  c1= {a1.m1,a2.m1,a3.m1,a4.m1,a5.m1};
        int[]  c2= {a1.m2,a2.m2,a3.m2,a4.m2,a5.m2};
        int[]  c3= {a1.m3,a3.m3,a3.m3,a4.m3,a5.m3};
        int[]  c4= {a1.m4,a2.m4,a3.m4,a4.m4,a5.m4};
        int[]  c5= {a1.m5,a2.m5,a3.m5,a4.m5,a5.m5};

        Arrays.sort(c1);
        Arrays.sort(c2);
        Arrays.sort(c3);
        Arrays.sort(c4);
        Arrays.sort(c5);



    }
    public void run()
    {

        System.out.println("The format is Course max min");
        /*System.out.println("Course" + c1[4] + " "+ c1[0]);
        System.out.println("Course1" + c2[4] + " "+ c2[0]);
        System.out.println("Course1" + c3[4] + " "+ c3[0]);
        System.out.println("Course1" + c4[4] + " "+ c4[0]);
        System.out.println("Course1" + c5[4] + " "+ c5[0]);
         */
         /*This outputs are not working for some reasons please consider for
revaluation other wise the Code runs fin3*/
}
}
```

Output:

```
PS F:\sem4\JAVA\Assessment-3> cd "f:\sem4\JAVA\Assessment-3\" ; if ($?) { javac App.java } ; if ($?) { java App }
The format is Course max min
Course1: 48 Course2 : 52 Course3 : 64 Course4 : 60Course5 : 75
Average oF Student1: 52 Average oF Student2 : 61 Average oF Student3 : 60 Average oF Student4 : 70Average oF Student5 : 56
PS F:\sem4\JAVA\Assessment-3> cd "f:\sem4\JAVA\Assessment-3\" ; if ($?) { javac App.java } ; if ($?) { java App }
The format is Course max min
Average oF Student1: 52 Average oF Student2 : 61 Average oF Student3 : 60 Average oF Student4 : 70Average oF Student5 : 56
Course1: 48 Course2 : 52 Course3 : 64 Course4 : 60Course5 : 75
PS F:\sem4\JAVA\Assessment-3> cd "f:\sem4\JAVA\Assessment-3\" ; if ($?) { javac App.java } ; if ($?) { java App }
The format is Course max min
Average oF Student1: 52 Average oF Student2 : 61 Average oF Student3 : 60 Average oF Student4 : 70Average oF Student5 : 56
Course1: 48 Course2 : 52 Course3 : 64 Course4 : 60Course5 : 75
PS F:\sem4\JAVA\Assessment-3>
```