

OOJ LAB WEEK 9- EXTRA PROGRAM

Program and Output

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Program-

Use packages to calculate sgpa of n students.

Package CIE

student.java

```
package CIE;

public class student{

    public int usn,sem;

    public String name;

    public void get(int u,int s,String n)

    {

        usn=u;

        sem=s;

        name=n;

    }

    public void set()

    {

        System.out.println("\nNAME= "+name+"\nUSN= "+usn+"\nSEM= "+sem); }

}
```

internals.java

```
package CIE;

import java.util.Scanner;

public class internals extends CIE.student{

    public float inm[];

    public internals()

    {

        Scanner ss= new Scanner(System.in);

        inm=new float[5];

        System.out.println("internals marks for 5 subjects (out of 50):");

        for(int i=0;i<5;i++){

            System.out.println("subject "+(i+1));

            inm[i]=ss.nextFloat();

        }

    }

}
```

Package SEE

external.java

```
package SEE;

import CIE.*;

import java.util.Scanner;

public class external extends CIE.student{

    public float exm[];

    public external()
```

```

{
    Scanner ss= new Scanner(System.in);

    exm=new float[5];

    System.out.println("external marks for 5 subjects (out of 100):");

    for(int i=0;i<5;i++){

        System.out.println("subject "+(i+1));

        exm[i]=ss.nextFloat();

    }

}
}
}

```

credits.java

```

package SEE;

import CIE.*;

import java.util.Scanner;

public class credits extends CIE.student{

    public float cred[];

    public credits()

    {

        Scanner ss= new Scanner(System.in);

        cred=new float[5];

        System.out.println("enter credits of the 5 subjects:");

        for(int i=0;i<5;i++){

            System.out.println("subject "+(i+1));

            cred[i]=ss.nextFloat();

        }

    }

}

```

```
}  
  
}  
  
}
```

Driver class

sgpa.java

```
import CIE.*;  
  
import SEE.*;  
  
import java.util.Scanner;  
  
class sgpa{  
  
    public static void main(String args[]){  
  
        Scanner ss=new Scanner(System.in);  
  
        int g=0;  
  
        float sum=0, sum2=0;  
  
        float sg;  
  
        System.out.println("enter the number of students");  
  
        int no=ss.nextInt();  
  
        for(int j=0;j<no;j++){  
  
            float tot[]=new float[5];  
  
            CIE.student stud=new CIE.student();  
  
            System.out.println("\nenter name, usn and sem");  
  
            String n=ss.next();  
  
            int u=ss.nextInt();  
  
            int s=ss.nextInt();  
  
            stud.get(u,s,n);  
  

```

```

CIE.internals ci=new CIE.internals();
SEE.external se=new SEE.external();
SEE.credits cr=new SEE.credits();
stud.set();
for(int i=0;i<5;i++){
    tot[i]=(ci.inm[i]+(se.exm[i]/2));
    if(tot[i]>=90)
        {g=10;}
    else if(tot[i]>=80 && tot[i]<90)
        {g=9;}
    else if(tot[i]>=70 && tot[i]<80)
        {g=8;}
    else if(tot[i]>=60 && tot[i]<70)
        {g=7;}
    else if(tot[i]>=50 && tot[i]<60)
        {g=6;}
    else if(tot[i]>=40 && tot[i]<50)
        {g=4;}
    else if(tot[i]<40)
        {g=0;}
    sum+=g*cr.cred[i];
    sum2+=cr.cred[i];
}
sg=(float)sum/(float)sum2;

```

```
        System.out.println("SGPA of student "+(j+1));

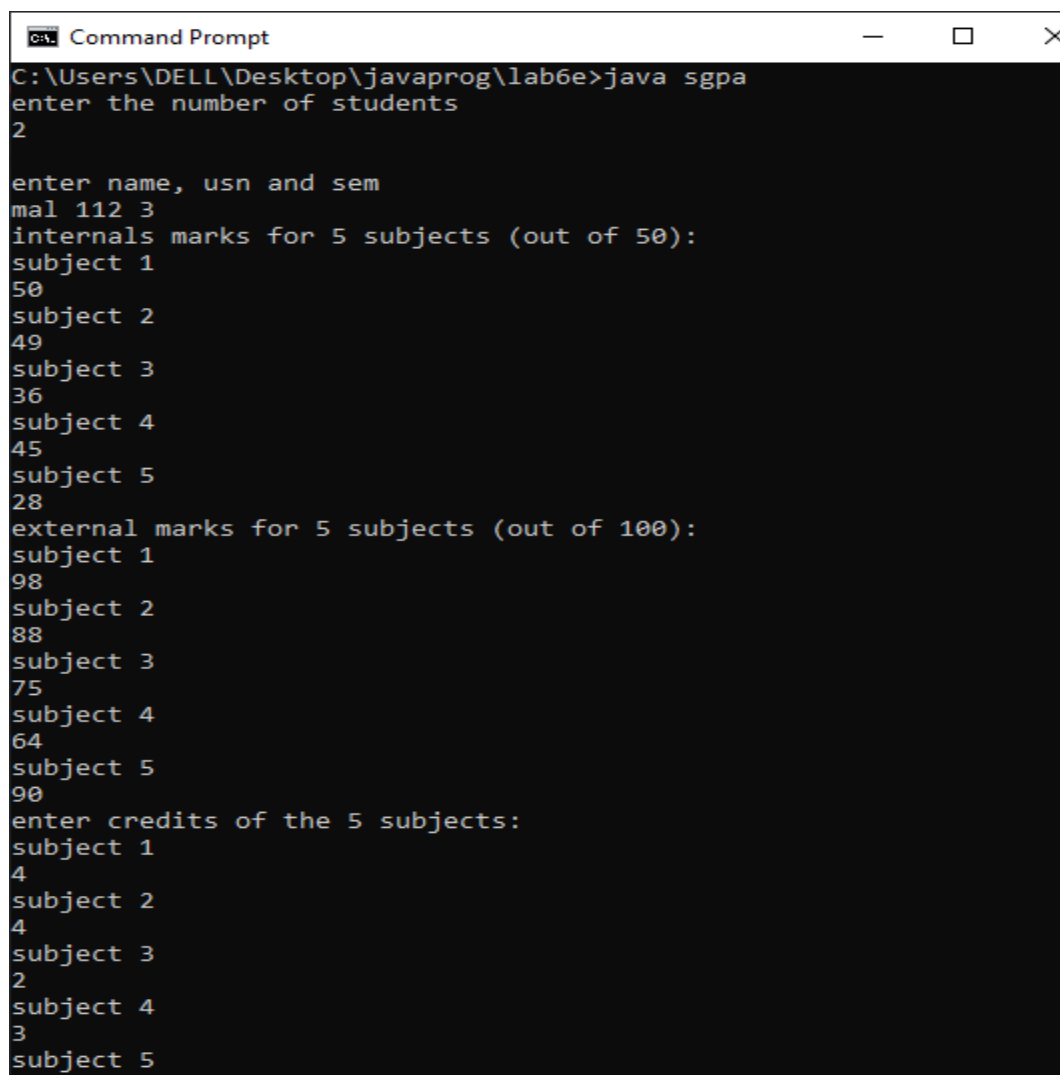
        System.out.println(sg);

    }

}

}
```

Output-



```
Command Prompt
C:\Users\DELL\Desktop\javaprogram\lab6e>java sgpa
enter the number of students
2
enter name, usn and sem
mal 112 3
internal marks for 5 subjects (out of 50):
subject 1
50
subject 2
49
subject 3
36
subject 4
45
subject 5
28
external marks for 5 subjects (out of 100):
subject 1
98
subject 2
88
subject 3
75
subject 4
64
subject 5
90
enter credits of the 5 subjects:
subject 1
4
subject 2
4
subject 3
2
subject 4
3
subject 5
```

```
Command Prompt
subject 4
3
subject 5
3
NAME= mal
USN= 112
SEM= 3
SGPA of student 1
9.0

enter name, usn and sem
freya 311 4
internals marks for 5 subjects (out of 50):
subject 1
43
subject 2
26
subject 3
40
subject 4
33
subject 5
35
external marks for 5 subjects (out of 100):
subject 1
67
subject 2
78
subject 3
89
subject 4
45
subject 5
90
enter credits of the 5 subjects:
subject 1
4
```

```
Command Prompt
subject 2
78
subject 3
89
subject 4
45
subject 5
90
enter credits of the 5 subjects:
subject 1
4
subject 2
3
subject 3
2
subject 4
1
subject 5
2

NAME= freya
USN= 311
SEM= 4
SGPA of student 2
8.535714

C:\Users\DELL\Desktop\javaprogram\lab6e>
```

