

Date: 27 October 2020, Name: Shrikish Singh, USN: IBM19S0636

Week - 7 Extra Program:-

Q1.

Input:-

```
import java.util.Scanner;
class Student
{
    String usn, name;
    int sem;
    Scanner get = new Scanner (System.in);
    void get Stud Info (int m)
    {
        System.out.printf("\n Student %d", m+1);
        System.out.printf(" Name: "); name = get.next();
        System.out.printf(" USN: "); usn = get.next();
        System.out.printf(" Sem Number: "); sem = get.nextInt();
    }
}
```

```
class test extends Student
{
    int n;
    int c[] Marks [];
    int courses Credits [];
    Scanner get = new Scanner (System.in);
    void get Test Info ()
    {
        System.out.printf("\n Enter the no. of courses: "); n = get.nextInt();
        c[] Marks = new int[n];
        courses Credits = new int[n];
        System.out.printf("\n Enter course credit and Marks obtained:");
        for (int i = 0; i < n; i++)
        {
            // ... (code continues)
        }
    }
}
```

Date: 27 October 2020, Name: Harish Singh, UIN: IBM4JCS063

```

System.out.printf("\n Course : %.d", i+1);
System.out.printf("\n Course Credit and CIE marks (out of 50) obtained")
courses Credits [i] = get.next Int();
Cie Marks [i] = get.next Int();
}
}
}

```

class Exam extends test.

```

{
    int see Marks [];
    Scanner get = new Scanner (System.in);
    void get Exam Info()
    {
        see Marks = new int [n];
        System.out.printf("\nEnter the SEE Marks (out of 100) of %.d
                           courses : ", n);
        for (int i = 0; i < n; i++)
        {
            see Marks[i] = get.next Int();
        }
    }
}
}

```

class result extends Exam.

```

{
    double Sgpa = 0;
    int grade Point (double num)
    {
        if (num >= 50)
            return (int) (Math.ceil (num / 10));
        else
            if (num >= 40)
                return 4;
            else
                return 0;
    }
}

```


Date: 27 October 2020, Name: Shubhik Singh, USN: 1BM19C5062

```
void calculation()
```

```
{
    double marksSum = 0, creditSum = 0;
    for (int i = 0; i < n; i++)
    {
        marksSum += gradePoint((See Marks[i]/2) + crd Marks[i])
        * corrusCredits[i];
        creditSum += corrusCredits[i];
    }
    sgpa = marksSum / creditSum;
}
```

```
void displayInfo (int m)
```

```
{
    System.out.printf("\n\n Student %d", m+1);
    System.out.printf("\n Name: %s", name);
    System.out.printf("\n USN: %s", usn);
    System.out.printf("\n Sem Number: %d", sem);
    System.out.printf("\n Course Credits:");
    for (int i = 0; i < n; i++)
    {
        System.out.printf(" %d", corrusCredits[i]);
    }
    System.out.printf("\n SEE marks (out of 50):");
    for (int i = 0; i < n; i++)
    {
        System.out.printf(" %d", crd Marks[i]);
    }
    System.out.printf("\n SEE marks (out of 100):");
    for (int i = 0; i < n; i++)
    {
        System.out.printf(" %d", see Marks[i]);
    }
    System.out.printf("\n SGPA: %.2f", sgpa);
}
```

```
}

class StudMain
```

```
{
    public static void main (String[] args)
    {
        int noStud;
    }
}
```

Date :- 27 October 2020, Name :- Hritik Singh, USN :- 1BM19CS063

```

result r[];
Scanner get = new Scanner(System.in);
System.out.printf("\n Enter the no of students,")
noStud = get.nextInt();
r = new result [noStud];
for (int i = 0; i < noStud; i++)
{
    r[i] = new result();
    r[i].getStudInfo(i);
    r[i].getTestInfo();
}
System.out.printf("\n All students data saved:");
for (int i = 0; i < noStud; i++)
{
    r[i].calculation();
}
System.out.printf("\n the student details as follows:\n");
for (int i = 0; i < noStud; i++)
{
    r[i].displayInfo(i);
}

```

Output of the above Program

Enter The no of Students: 2
 Student 1 Name: hritik
 USN: 1BM19CS063
 Sem Number: 3.

Enter the No. of courses: 3
 Enter course credit and Marks obtained.

Course 1:
 Course Credit and CIE marks (out of 50) obtained: 3 45

Name: Iritik Singh, USN: IBM19CS063, Date: 27 October 2020

Course 2:

Course Credit and CIE Marks (out of 50) obtained: 4 50

Course 3:

Course Credit and CIE marks (out of 50) obtained: 2 46.

Enter the SEE marks (out of 100) of 3 courses: 89.

Student 2 Name:

Rishi

USN: 4ndfc4

Sem Number: 3.

Enter the No. of course: 3

Course 1:

Course Credit and CIE Marks (out of 50) obtained: 3 50

Course 2:

Course Credit and CIE Marks (out of 50) obtained: 4 39.

Course 3:

Course Credit and CIE Marks (out of 50) obtained: 2 49.

Enter the SEE marks (out of 100) of 3 courses: 89. 44

All students data Saved.

The student details are follows:

Student 1.

Name: Iritik

USN: IBM19CS063

Sem Number: 3

Course Credits: 3 4 2

CIE Marks (out of 50): 45 50 46

SEE Marks (out of 100) = 89 345 45.

SGPA: 14.78.

Student 2:

Name :- Jitlik Singh, USN: IBM19CS063, Date: 27 October 2020.

Name : ritvi

USN : 4hdjc4

Sem Number : 3

Course Credits : 3 4 2

CIE Marks (out of 50) : 50 39 49

SEE Marks (out of 100) : 89 44.

SGPA : 6.44.

C:\Users\hriti\Documents\studentsee.java - Notepad++

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fbt www.java whathappened.java practicehelloworld.java PalindromeString.c xyzw.java segment.java samsung.java studentsee.java Playermain.java

```
42 }
43 class exam extends test
44 {
45     int seeMarks[];
46     Scanner get = new Scanner(System.in);
47
48     void getExamInfo()
49     {
50         seeMarks=new int[n];
51         System.out.printf("\n Enter the SEE Marks (out of 100) of %d Courses: ",n);
52         for (int i=0;i<n;i++)
53         {
54             seeMarks[i]=get.nextInt();
55         }
56     }
57
58 }
59
60 class result extends exam
61 {
62     double sgpa=0;
63
64     int gradePoint(double num)
65     {
66         if(num>=50)
67             return (int) (Math.ceil(num/10));
68         else
69             if(num>=40)
70                 return 4;
71             else
72                 return 0;
73     }
74
75     void calculation()
76     {
77         double marksSum=0,creditSum=0;
78         for(int i=0;i<n;i++)
79         {
80
81             marksSum+=gradePoint((seeMarks[i]/2)+cieMarks[i])*corresCredits[i];
82             creditSum+=corresCredits[i];
83         }
84         sgpa=marksSum/creditSum;
85     }
86 }
```

Command Prompt

```
Sem Number:3
Enter the No of courses : 3
Enter Course credit And Marks obtained :
Course 1:
Course Credit and CIE Marks(out of 50) Obtained : 3 45
Course 2:
Course Credit and CIE Marks(out of 50) Obtained : 4 50
Course 3:
Course Credit and CIE Marks(out of 50) Obtained : 2 46
Enter the SEE Marks (out of 100) of 3 Courses: 89
345
45
Student 2 Name:
rishi
Usn:4hdfc4
Sem Number:3
Enter the No of courses : 3
```

Java source file length: 2,935 lines: 139 Ln: 44 Col: 2 Sel: 0 | 0 Windows (CR LF) UTF-8 INS

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```
C:\Users\hriti\Documents\studentsee.java - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

1 import java.util.Scanner;
2
3 class student
4 {
5     String usn,name;
6     int sem;
7     Scanner get = new Scanner(System.in);
8
9     void getStudInfo(int m)
10    {
11        System.out.printf("\nStudent %d",m+1);
12        System.out.printf(" Name:"); name=get.next();
13        System.out.printf(" Usn:"); usn=get.next();
14        System.out.printf(" Sem Number:"); sem=get.nextInt();
15    }
16 }
17
18 class test extends student
19 {
20     int n;
21     int cieMarks[];
22     int corresCredits[];
23     Scanner get = new Scanner(System.in);
24
25     void getTestInfo()
26     {
27         System.out.printf("\n Enter the No of courses : "); n=get.nextInt();
28         cieMarks=new int[n];
29         corresCredits=new int[n];
30         System.out.printf("\n Enter Course credit And Marks obtained :\n ");
31         for (int i=0;i<n;i++)
32         {
33             System.out.printf("\n Course %d: ",i+1);
34             System.out.printf("\n Course Credit and CIE Marks(out of 50) Obtained : ");
35             corresCredits[i]=get.nextInt();
36             cieMarks[i]=get.nextInt();
37         }
38     }
39
40 }
41
42
43 class exam extends test
44 {
45 }
```

```
Command Prompt
Microsoft Windows [Version 10.0.18363.1139]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\hriti>cd..
C:\Users>cd..
C:\>cd C:\Users\hriti\Documents
C:\Users\hriti\Documents>javac studentsee.java
C:\Users\hriti\Documents>java studMain

Enter The no of Students :2

Student 1 Name:hritik
Usn:1bm19cs063
Sem Number:3

Enter the No of courses : 3

Enter Course credit And Marks obtained :

Course 1:
Course Credit and CIE Marks(out of 50) Obtained : 3 45
Course 2:
Course Credit and CIE Marks(out of 50) Obtained : 4 50
Course 3:
```

Java source file length: 2,935 lines: 139 Ln: 44 Col: 2 Sel: 0 | 0 Windows (CR LF) UTF-8 INS

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C:\Users\hriti\Documents\studentsee.java - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

fbt www.java whatthappened.java practicehelloworld.java PalindromeString.c xyzw.java segment.java samsung.java studentsee.java Playermain.java

```
96 {System.out.printf(" %d ",corresCredits[i]);}
97 System.out.printf("\n CIE Marks(out of 50) :");
98 for(int i=0;i<n;i++)
99 {System.out.printf(" %d ",cieMarks[i]);}
100 System.out.printf("\n SEE Marks(out of 100) :");
101 for(int i=0;i<n;i++)
102 {System.out.printf(" %d ",seeMarks[i]);}
103 System.out.printf("\n SGPA : %.2F ",sgpa);
104 }
105 }
106 }
107 }
108 }
109 }
110 class studMain
111 {
112     public static void main(String[] args)
113     {
114         int noStud;
115         result r[];
116         Scanner get = new Scanner(System.in);
117         System.out.printf("\n Enter The no of Students : " );
118         noStud=get.nextInt();
119         r=new result[noStud];
120         for(int i=0;i<noStud;i++)
121         {
122             r[i]=new result();
123             r[i].getStudInfo(i);
124             r[i].getTestInfo();
125             r[i].getExamInfo();
126         }
127         System.out.printf("\n All Students data Saved : " );
128         for(int i=0;i<noStud;i++)
129         {
130             r[i].calculation();
131         }
132         System.out.printf("\n The Student Deatils As Follows: \n" );
133         for(int i=0;i<noStud;i++)
134         {
135             r[i].displayInfo(i);
136         }
137     }
138 }
139 }
```

Command Prompt

```
Course 3:
Course Credit and CIE Marks(out of 50) Obtained : 2 49

Enter the SEE Marks (out of 100) of 3 Courses: 89
4
4

All Students data Saved :
The Student Deatils As Follows:

Student 1
Name: hritik
Usn: 1bm19cs063
Sem Number: 3
Course Credits : 3 4 2
CIE Marks(out of 50) : 45 50 46
SEE Marks(out of 100) : 89 345 45
SGPA : 14.78

Student 2
Name: rishi
Usn: 4hdfe4
Sem Number: 3
Course Credits : 3 4 2
CIE Marks(out of 50) : 50 39 49
SEE Marks(out of 100) : 89 4 4
SGPA : 6.44
C:\Users\hriti\Documents>
```

Java source file length: 2,935 lines: 139 Ln: 102 Col: 49 Sel: 0 | 0 Windows (CR LF) UTF-8 INS

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C:\Users\hritik\Documents\studentsee.java - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

fbt www.java whathappened.java practicehelloworld.java PalindromeString.c xyzw.java segment.java samsung.java studentsee.java Playermain.java

```
81 marksSum+=gradePoint((seeMarks[i]/2)+cieMarks[i])*corresCredits[i];
82 creditSum+=corresCredits[i];
83 }
84 sgpa=marksSum/creditSum;
85 }
86
87
88 void displayInfo(int m)
89 {
90     System.out.printf("\n\n Student %d",m+1);
91     System.out.printf("\n Name: %s",name);
92     System.out.printf("\n Usn: %s",usn);
93     System.out.printf("\n Sem Number: %d",sem);
94     System.out.printf("\n Course Credits :");
95     for(int i=0;i<n;i++)
96     {System.out.printf(" %d ",corresCredits[i]);}
97     System.out.printf("\n CIE Marks(out of 50) :");
98     for(int i=0;i<n;i++)
99     {System.out.printf(" %d ",cieMarks[i]);}
100     System.out.printf("\n SEE Marks(out of 100) :");
101     for(int i=0;i<n;i++)
102     {System.out.printf(" %d ",seeMarks[i]);}
103     System.out.printf("\n SGPA : %.2F ",sgpa);
104 }
105
106
107 }
108
109
110 class studMain
111 {
112     public static void main(String[] args)
113     {
114         int noStud;
115         result r[];
116         Scanner get = new Scanner(System.in);
117         System.out.printf("\n Enter The no of Students :")
118         noStud=get.nextInt();
119         r=new result[noStud];
120         for(int i=0;i<noStud;i++)
121         {
122             r[i]=new result();
123             r[i].getStudInfo(i);
124             r[i].getTestInfo();
```

```
Command Prompt
Course Credit and CIE Marks(out of 50) Obtained : 3 50
Course 2:
Course Credit and CIE Marks(out of 50) Obtained : 4 39
Course 3:
Course Credit and CIE Marks(out of 50) Obtained : 2 49
Enter the SEE Marks (out of 100) of 3 Courses: 89
4
All Students data Saved :
The Student Deatils As Follows:

Student 1
Name: hritik
Usn: 1bm19cs063
Sem Number: 3
Course Credits : 3 4 2
CIE Marks(out of 50) : 45 50 46
SEE Marks(out of 100) : 89 345 45
SGPA : 14.78

Student 2
Name: rishi
Usn: 4hdfc4
Sem Number: 3
Course Credits : 3 4 2
```

Java source file

length: 2,935 lines: 139

Ln: 44 Col: 2 Sel: 0|0

Windows (CR LF) UTF-8 INS

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