LAB-4

Ajith-MS
1BM19CS010

```
import java.util.Scanner;
class Student
{
    String usn;
    String name;
    int sem;

    public Student (String usn, String name, int sem)
    {
    this.usn = usn;
    this.name = name;
    this.sem = sem;
    }
}
class Test extends Student {
    int [] cie_marks;
    int [] credits;

  public Test (String usn, String name, int sem, int[] cie_marks,
   int[] credits){

    super (usn, name, sem);
    this.cie_marks = cie_marks;
    this.credits = credits;
  }
}
class Exam extends Test {
    int [] see_marks;
```

```
public Exam(String usn, String name, int sem, int[] cie_marks,
            int[] credits, int[] see_marks){
    super(usn, name, sem, cie_marks, credits);
    this.see_marks = see_marks;
}
}

class results extends Exam{
    public Result(String usn, String name, int sem, int[] cie_marks,
    int[] credits, int[] see_marks)
    {

double sgpa;
char[] grade= new char[credits.length];
public void cal_grade sgpa(int total_credits);

int sum=0
for(int i=0; i<credits.length;i++){
    double marks= cie_marks[i]+
(see_marks[i]/2.0);
    if(marks>=90{
        sum+= credits[i]*10;
        grade[i]='S';
    } else if(marks>=80 && marks<90){
    sum+= credits[i]*9;
    grade[i]='A';
    } else if (marks>=70 && marks<80)
}
    sum+= credits[i]*8;
        grade[i]='B';
    } else if(marks>=60 && marks<70){
```

```
{
sum t = credits [i] * 6
    grade[i] = 'D';
}
else if (mals >= 40 && mals < 50)
{ sumt = credits [i] * 5;
  grade [i] = 'E';
}
else {
    sumt = credits[i] * 0;
      grade[i] = 'E';
}
else{
    sumt = credits [i] * 0;
      grade[i] = 'F';
}
}
sgpa = sum / 10 / tot credits; }

public void display()
{
    System.out.println("USN:" +usn);
    System.out.println("Name:" +name);
    System.out.println("Semester" +sem);
    System.out.println("Grades of each subject:");
for (int i=0; credit length; i++)
    {
        System.out.println("Subject" +(i+1)+":" +grade[i]);
    }
    System.out.println("SGPA:" + sgpa);
}
}
```

```
class Main {
public static void main(String args[])
{
  Scanner sc = new Scanner(System.in);
  System.out.println("Enter number of students");
  int n = sc.nextInt();
   Result[] s = new Result[n];
   int[] tot_credits = new int[n];
  for (int i=0; i<n; i++)
  {
System.out.println("..." + (i+1) + "...");
```

```
int[] cie_marks = new int[n];
  for (int j=0; j<n; j++)
   {
    int marks = sc.nextInt();
   cie_marks[j] = marks;
   }
System.out.println("Ent. credits:");
   int[] credits = new int[n];
     int sum = 0
   for (int j=0; j<n; j++)
   int marks = sc.nextInt();
     credits[j] = marks;
     sum = credits[j];
   }
```

```
tot credits[i] = sum;
System.out.println("Enter see_marks:");
int[]see_marks = new int[n];
for (int j= 0; j<n; j++)
{
  int marks1 = sc.nextInt();
  see_marks[j] = marks1;
}

s[i]=new
Result(usn, name, sem, cie_marks, credit, sec_marks);
}
for (int k=0 ; k<n; k++)
{
System.out.println("Details of student"+(k+1)+":");
s[i].grade= sgpa(tot_credits[k]);
s[i].display();
}
}
}
```