2) Java program to create a class student with members usn, name, an array credits and an array marks. Include methods to accept and display details and a method to calculate SGPA of a student.

```
import java.util.Scanner;
class Student {
    int cdt[], marks[];
    String sname, usn;
    Student() {
        cdt = new int[5];
        marks = new int[5];
    }
    void getd() {
    Scanner ss = new Scanner(System.in);
    sname = ss.next(); usn = ss.next();
    for (int i=0; i<3; i++)
    { System.out.println("Enter credits " + (i+1) + ":");
      cdt[i] = ss.nextInt();
      System.out.println("Enter marks " + (i+1) + ":");
      marks[i] = ss.nextInt();
    }
}
void display(){
 System.out.println("details are: \n Name:" + sname);
 System.out.println("USN:" + usn);
 for (int i=0; i<3; i++)
{ System.out.println("Credits:" + (i+1) + ":" + cdt[i]);
  System.out.println("Marks:" + (i+1) + ":" + marks[i]);
}
```

```
void calc()
{
int tc=0;
double tp=0.0;
for(int i=0;i<3;i++){
   tc+=cdt[i];
int gp=getpoint(marks[i]);
   tp+=gp*cdt[i];
}
double s=tp/tc;
System.out.println("sgpa:"+s);
}
int getpoints(int marks)
{
 if(marks>=90 && marks<=100)
    return 10;
 else if(marks>=80 && marks<=90)
    return 9;
 else if(marks>=70 && marks<=80)
    return 8;
 else if(marks>=60 && marks<=70)
    return 7;
 else if(marks>=50 && marks<=60)
    return 6;
 else if(marks>=40 && marks<=50)
    return 5;
 else
    return 0;
}
}
```

```
public class main
{
public static void main
    (String[] args)
{
 Student s1=new Studen
 s1.getdc();
 s1.display();
 s1.calc();
}
}
```

Output: Enter details:

Harry

1BM23CS106

Enter credits 1: 4

Enter marks 2: 89

Enter Credits 2: 3

Enter marks 2: 93

Enter credits 3: 2

Enter marks 3: 94

Details are:

Name: Harry

USN: 1BM23CS106

Credits 1: 4

Marks 1: 89

Credits 2: 3

Marks 2: 93

Credits 3: 2

Credits : 94

Marks : 94

sgpa : 9.55

3/10/24

contains four

```
import java.util.Scanner;
class Student {

   int[] cdt, marks;
   String sname, usn;
   Student() {

      cdt = new int[10];

      marks = new int[10];

   }
   void getd() {

      Scanner ss = new Scanner(System.in);
      System.out.println("Enter student details:");
      System.out.print("Name: ");
      sname = ss.next();
      System.out.print("USN: ");
      usn = ss.next();
      for (int j = 0; j < 3; j++) {

         System.out.print("Enter credits for subject " + (j + 1) + ": ");
         cdt[j] = ss.nextInt();
         System.out.print("Enter marks for subject " + (j + 1) + ": ");
         marks[j] = ss.nextInt();

      }

   }
   void display() {

      System.out.println("\nStudent Details:");
      System.out.println("Name: " + sname);
      System.out.println("USN: " + usn);
      for (int j = 0; j < 3; j++) {

         System.out.println("Subject " + (j + 1) + ": Credits = " + cdt[j] + ", Marks = " + marks[j]);

      }

   }
void calc() {

      int tc = 0;
      double tp = 0.0;
      for (int i = 0; i < 3; i++) {
```

```
            tc += cdt[i];

            int gp = getpoints(marks[i]);

            tp+= gp*cdt[i];

        }
        double s = tp / tc;
        System.out.printf("SGPA: %.2f\n", s);

    }
    int getpoints(int marks) {

        if (marks >= 90 && marks <= 100)

            return 10;

        else if (marks >= 80 && marks < 90)

            return 9;

        else if (marks >= 70 && marks < 80)

            return 8;

        else if (marks >= 60 && marks < 70)

            return 7;

        else if (marks >= 50 && marks < 60)

            return 6;

        else if (marks >= 40 && marks < 50)

            return 5;

        else

            return 0;

    }

}
```

```
class Studentdemo {

    public static void main(String[] args) {

        Student s1 = new Student();
        s1.getd();
        s1.display();
        s1.calc();

    }
}
```