2. Develop Java Program to create a class student with members usn, name, an array marks. Include methods to accept and display details and a method to calculate sgpa of a student.

Prog:

```java
import java.util.Scanner;
class Student {
    String usn, name;
    int marks[] = new int[8];
    int credits[] = new int[8];
    double sgpa;
    int escore=0, total_c = 0;

    void accept_dt()
    {
        Scanner s = new Scanner(System.in);
        System.out.println("Enter usn:");
        usn = s.next();
        System.out.println("Enter name:");
        name = s.next();
        System.out.println("Enter Marks & Credits of 8 sub:");
        for (int i=0; i<8; i++)
        {
            System.out.println("Sub"+i+":");
            marks[i] = s.nextInt();
            credits[i] = s.nextInt();
        }
    }
    double calc_sgpa()
    {
        int grade;
        grade = (mark
```

```java
for (int i=0; i<8; i++)
{
    grade = (marks[i]/10)+1;
    if (grade == 11)
        grade=10;
    else if (grade < 4) { return -1.0; }
    escore += (grade * credits[i]);
    total_c += credits[i];
}

double sgpa = (double) escore / total_c;
return sgpa;
}

void display()
{
    System.out.println("Details: \n Name:" + name + "\n Usn:" + usn);
    System.out.println("Marks of Subjects :");
    for (int i=0; i<8; i++)
    {
        System.out.print("Sub" + (i+1) + ":" + marks[i]+ " ");
    }
    System.out.println("Sgpa:" + sgpa);
}
}

class StudSgpa {
public static void main(String args[])
{
    System.out.println("Anu Sai Shru R \n 1BM23CS045");
    Student stud[] = new student[3];
    for (int i=0; i<3; i++)
    {
        stud[i] = new student();
        stud[i].accept-act();
    }
}
```

```
for (int i=0; i<3; i++)
{
    if (stud[i].calc_sgpa() >= -1.0)
    {
        System.out.println(stud[i].name + "with usn:" + stud[i].usn
                                        + ": Sgpa not calculated: One Sub or 2 Fail);
    }
    else
        stud[i].display();
}
}
```

Output:

Enter usn and name: IBM123CS111 Sun
Enter subject Marks and credits for 8 sub:
Sub 1: 99 4
Sub 2: 87 4
Sub 3: 90 3
Sub 4: 86 3
Sub 5: 92 3
Sub 6: 67 1
Sub 7: 95 1
Sub 8: 89 1

Details:
Name: Sun
Usn: IBM23CS111
Marks of subjects:
Sub1: 99   Sub2: 87   Sub3: 90   Sub4: 86   Sub6: 67
Sub7: 95   Sub8: 89

Sgpa: 9.45.