

2. Develop a 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.

CODE:

```
import java.util.*;

class Student {

    private String usn;

    private String name;

    private    int cred[];

    private int marks[];

    private int n;

    void accept()

    {

        Scanner s=new Scanner(System.in);

        System.out.println("Enter student details");

        System.out.println("USN of the student:");

        usn=s.next();

        System.out.println("Name of student:");

        name=s.next();

        System.out.println("Enter the number of subjects:");

        n=s.nextInt();

        cred=new int[n];

        marks=new int[n];

        System.out.println("Enter credits and marks attained by the student in each
subject(out of 100)");

        for(int i=0;i<n;i++)

        {
```

```

        cred[i]=s.nextInt();
        marks[i]=s.nextInt();
    }
}

void display()
{
    System.out.println("Student details:");
    System.out.println("USN:"+usn);
    System.out.println("Name:"+name);
    System.out.println("Marks in each subject:");
    for(int i=0;i<n;i++)
    {
        System.out.println("Subject "+(i+1)+":"+marks[i]);
    }
}

double calculate()
{
    int tcp=0,tc=0;
    for(int i=0;i<n;i++)
    {
        tc=tc+cred[i];
        if(marks[i]>=50)
        {
            tcp=tcp+(((marks[i]/10)+1)*cred[i]);
        }
        else if(marks[i]>=40 && marks[i]<50)
        {
            tcp=tcp+(4*cred[i]);
        }
    }
}

```

```

        }

        return (double)tcp/tc;

    }
}

class Main

{

    public static void main(String ss[]) {

        Student s1=new Student();

        s1.accept();

        s1.display();

        System.out.println("SGPA: "+s1.calculate());

    }

}

```

OUTPUT:

```

USN of the student:
1BM19CS001
Name of student:
ABC
Enter the number of subjects:
4
Enter credits and marks attained by the student in each subject(out of 100)
2
3
4
1
55
57
88
99
Student details:
USN:1BM19CS001
Name:ABC

```

```

Marks in each subject:
Subject 1:3
Subject 2:1
Subject 3:57
Subject 4:99
SGPA: 8.120805369127517

```