

```

import java.util.Scanner;

class Student{

String USN;
String name;
int[] credits;
int[] marks;
int noOfSubjects;

void details(){

Scanner s=new Scanner(System.in);
System.out.println("Enter USN:");
USN=s.nextLine();

System.out.println("Enter Name:");
name=s.nextLine();

System.out.println("Enter no. of Subjects:");
noOfSubjects = s.nextInt();

credits=new int[noOfSubjects];
marks=new int[noOfSubjects];
for(int j=0;j<noOfSubjects;j++){
System.out.println("Enter credits" +(j+1)+ "subject:");
credits[j]=s.nextInt();
System.out.println("Enter marks for" +(j+1)+ "subject:");
marks[j]=s.nextInt();
}
}

void display(){

System.out.println("\n Student details:\n");
System.out.println("USN:"+USN);
System.out.println("Name:"+name);
System.out.println("Subjects and credits:");
for(int j=0;j<noOfSubjects;j++){
System.out.println("Subject" +(j+1)+ "credits="+credits[j]+ "marks="+marks[j]);
}
System.out.println("SGPA:"+calcSGPA());
}

double calcSGPA(){

int total_credits=0;
double grade_points=0.0;
for(int j=0;j<noOfSubjects;j++){
int gradePoints=calcGP(marks[j]);
grade_points+=gradePoints*credits[j];
}
}
}

```

```
int total_credits=0;
double grade_points=0.0;
for(int j=0;j<noOfSubjects;j++){
int gradePoints=calcGP(marks[j]);
grade_points+=gradePoints*credits[j];
total_credits+=credits[j];
}
return grade_points/total_credits;
}
```

```
int calcGP(int marks){
```

```
if(marks>=90)
return 10;
if(marks>=80)
return 9;
if(marks>=70)
return 8;
if(marks>=60)
return 7;
if(marks>=50)
return 6;
if(marks>=40)
return 5;
else
return 0;
}
```

```
public static void main(String args[]){
```

```
Student stud1=new Student();
Student stud2=new Student();
Student stud3=new Student();
stud1.details();
stud1.display();
stud2.details();
stud2.display();
stud3.details();
stud3.display();
}
}
```

```
C:\Users\Admin\Desktop>javac Student.java
```

```
C:\Users\Admin\Desktop>java Student
```

```
Enter USN:
```

```
1BM23CS001
```

```
Enter Name:
```

```
AADIT TOMAR
```

```
Enter no. of Subjects:
```

```
3
```

```
Enter credits1subject:
```

```
4
```

```
Enter marks for1subject:
```

```
88
```

```
Enter credits2subject:
```

```
3
```

```
Enter marks for2subject:
```

```
90
```

```
Enter credits3subject:
```

```
2
```

```
Enter marks for3subject:
```

```
95
```

Student details:

USN:1BM23CS001

Name:AADIT TOMAR

Subjects and credits:

Subject1credits=4marks=88

Subject2credits=3marks=90

Subject3credits=2marks=95

SGPA:9.5555555555555555

Enter USN:

1BM23CS004

Enter Name:

AARUSH GARG

Enter no. of Subjects:

3

Enter credits1subject:

4

Enter marks for1subject:

67

Enter credits2subject:

3

Enter marks for2subject:

99

Enter credits3subject:

Enter marks for2subject:

99

Enter credits3subject:

2

Enter marks for3subject:

88

Student details:

USN:1BM23CS004

Name:AARUSH GARG

Subjects and credits:

Subject1credits=4marks=67

Subject2credits=3marks=99

Subject3credits=2marks=88

SGPA:8.4444444444444445

Enter USN:

1BM23CS067

Enter Name:

ADIT J GOND

Enter no. of Subjects:

3

Enter credits1subject:

4

Enter marks for1subject:

88

Enter credits2subject:

Enter credits2subject:

3

Enter marks for2subject:

45

Enter credits3subject:

2

Enter marks for3subject:

69

Student details:

USN:1BM23CS067

Name:ADIT J GOND

Subjects and credits:

Subject1credits=4marks=88

Subject2credits=3marks=45

Subject3credits=2marks=69

SGPA:7.2222222222222222