```java
import java.util.Scanner;
class student{
    private int usn;
    private String name;
    private int cr[];
    private int mar[];
    private int i, tem, temp2 = 0;

    void getDetails()(){
        System.out.println("Enter student Details");
        Scanner s1 = new Scanner(System.in);
        usn = s1.nextInt();
        name = s1.next();
        int i;
        int n = s1.nextInt();
        cr = new int[];
        for(i=0; i<n; i++){
            System.out.println("Enter credits");
            cr[i] = s1.nextInt();
            temp2 = temp2 + cr[i];
        }

        mar = new int[n];
        for(i=0; i<n; i++){
            System.out.println("Enter 5 subject marks");
            mar[i] = s1.nextInt();
            if(mar[i] >= 90 && mar[i] <= 100){
                temp = 10;
            }
```

```java
        else if ( mar[i] >= 70 && mar[i] < 90) {
            temp = 9;
        }
        else if (mar[i] >= 50 && mar[i] < 70) {
            temp = 8;
        } else {
            temp = 7;
        }
        temp1 = temp1 + temp * cr[i];
    }
}

void printDetails() {
    System.out.println("usn:" + usn);
    System.out.println("name:" + name);
    System.out.println("Total credits:" + temp2);
    System.out.println("sgpa:" + temp1/30);
}
}

class StudentMain {
    public static void main(String rs[]) {
        Student s1 = new Student();
        s1.getDetails();
        s1.printDetails();
    }
}
```

Algorithm

i] create objects usn, name, array of credits & mar

ii] Get input of student Details

iii]. Calculate total credits and grades on basis
of marks using if else.

```
if (mar[i] >= 90 && mar[i] <= 100)
    grade = 10;
else if (mar[i] >= 70 && mar[i] < 90)
    grade = 9;
else if (mar[i] >= 50 && mar[i] < 70)
    grade = 8;
else
    grade = 7;
```

iv]. Calculate total by multiplying
credits of each subject with marks
grade1 = grade + grade * cr[i];

v]. Print the details
USN: 83
name: manoj;
total credits: 20
sgpa: grade1/20;

vi]. Create class student main and get
details of students by calling function.

```
Microsoft Windows [Version 10.0.18363.1082]
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C:\Users\Manoj H A>cd Documents

C:\Users\Manoj H A\Documents>javac Student.java

C:\Users\Manoj H A\Documents>java StudentMain
Enter student details
83
manoj
5
Enter credits
5
Enter credits
4
Enter credits
4
Enter credits
4
Enter credits
3
Enter 5 subject marks
95
Enter 5 subject marks
85
Enter 5 subject marks
75
Enter 5 subject marks
65
Enter 5 subject marks
45
usn:83
name:manoj
Total credits:20
cgpa:8.75

C:\Users\Manoj H A\Documents>
```