Lab Program -2

SGPA Calculator

```java
import java.util.Scanner;
class student {
    String usn, name;
    int n;
    Student () {
        String subject [] = new String [10];
        int credits [] = new int [10];
        int marks [] = new int [10];
    }
}
void read ()
{
    Scanner input = new Scanner (System.in);
    System.out.println (" Enter your name : ");
    name = input.nextLine ();
    System.out.println (" Enter your USN ");
    usn = input.nextLine ();
    System.out.println (" Enter number of subjects ");
    n = input.nextInt ();
    input.nextLine ();

    for (int i = 0; i < n; i++) {
        System.out.println (" Enter Subject ");
        subject [i] = input.nextLine ();
        System.out.println (" Enter credits ");
        credits [i] = input.nextInt ();
        System.out.println (" Enter marks ");
        marks [i] = input.nextInt ();
        input.nextLine ();
    }
}
```

```java
void display ()
{
    System.out.println ("Name: " + name);
    System.out.println (" USN: " + usn + "\n");
    System.out.println (" Subject \t Credits \t Marks ");
    for (int i = 0; i < n; i++)
    {
        System.out.println ( subject [i] + "\t" + credits [i] + "\t" + marks (i));
    }
}

int grade (int a) {
    while (a/10 != 0) {
        a = a/10;
    }
    if ((a+1) > 5) {
        return (a+1);
    }
    else if ((a+1) == 5) {
        return a;
    }
    else { return 0; }
}

void calculate () {
    int total - credits = 0;
    int marks - credits = 0;
    for (int i = 0; i < n; i++)
    {
        total - credits += credits [i];
        marks - credits += grade (marks [i]) * credits [i];
    }
    System.out.println (" SGPA is " + (double) marks - credits / total - credits);
}
```

```
class marks {
    public static void main (String [] args) {
        Student cblc = new Student ();
        cblc.read ();
        cblc.display ();
        cblc.calculate ();
    }
}
```

Output -

```
Enter your name: Rishi
Enter your USN: 1BM22CS222
Enter number of subjects: 3

Enter subject : Math
Enter credits : 4
Enter marks: 80

Enter Subject : Chemistry
Enter credits : 4
Enter marks : 95

Enter Subject : Physics
Enter credits : 4
Enter marks : 85

Name : Rishi
USN : 1BM22CS222
```

Subjects	Credits	Marks
Math	4	80
Physics	4	95
Chemistry	4	85

SGPA is 9.15