

```
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 students:");
```

```
        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 subjects:");  
    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());

}

}

