



```
1 import java.util.Scanner;
2 abstract class PLAYER{
3     String name;
4     int matches_played;
5     float average;
6     abstract float cal_avg();
7 }
8 class BATSMAN extends PLAYER{
9     int runs_scored;
10    float cal_avg(){
11        return average=runs_scored/matches_played;
12    }
13 }
14 class BOWLER extends PLAYER{
15     int runs_given;
16     float cal_avg(){
17        return average=runs_given/matches_played;
18    }
19 }
20 class PlayerMain{
21     public static void main(String args[]){
22         int m,n;
23         Scanner ss=new Scanner(System.in);
24         System.out.print("Enter Number of Batsmen:");
25         m=ss.nextInt();
26         System.out.print("Enter Number of Bowlers:");
27         n=ss.nextInt();
28         BATSMAN BA[]=new BATSMAN[m];
29         BOWLER BO[]=new BOWLER[n];
30         for(int i=0;i<m;i++){
31             BA[i]=new BATSMAN();
32             System.out.print("\nEnter Batsman "+(i+1)+" Details below,");
33             System.out.print("\nEnter Name:");
34             BA[i].name=ss.next();
35             System.out.print("Enter number of matches played:");
36             BA[i].matches_played=ss.nextInt();
37             System.out.print("Enter total runs scored:");
38             BA[i].runs_scored=ss.nextInt();
39         }
40         for(int i=0;i<n;i++){
41             BO[i]=new BOWLER();
42             System.out.print("\nEnter Bowler "+(i+1)+" Details below,");
43             System.out.print("\nEnter Name:");
44             BO[i].name=ss.next();
45             System.out.print("Enter number of matches played:");
46             BO[i].matches_played=ss.nextInt();
47             System.out.print("Enter runs conceded:");
48             BO[i].runs_given=ss.nextInt();
49         }
50         for(int i=0;i<m;i++){
51             System.out.print("\nBatsman "+(i+1)+" Details,");
52             System.out.print("\nName:"+BA[i].name);
53             System.out.print("\nMatches Played:"+BA[i].matches_played);
54             System.out.print("\nTotal runs scored:"+BA[i].runs_scored);
55             System.out.print("\nAverage runs scored:"+BA[i].cal_avg());
56         }
57         for(int i=0;i<n;i++){
58             System.out.print("\nBowler "+(i+1)+" Details,");
59             System.out.print("\nName:"+BO[i].name);
60             System.out.print("\nMatches Played:"+BO[i].matches_played);
61             System.out.print("\nTotal runs Conceded:"+BO[i].runs_given);
62             System.out.print("\nAverage runs scored:"+BO[i].cal_avg());
63         }
64     }
65 }
```



```
Enter Number of Batsmen:2
Enter Number of Bowlers:2

Enter Batsman 1 Details below,
Enter Name:Dhoni
Enter number of matches played:42
Enter total runs scored:2570

Enter Batsman 2 Details below,
Enter Name:Raina
Enter number of matches played:17
Enter total runs scored:1420

Enter Bowler 1 Details below,
Enter Name:Jaddu
Enter number of matches played:5
Enter runs conceded:120

Enter Bowler 2 Details below,
Enter Name:Bhuvi
Enter number of matches played:14
Enter runs conceded:280

Batsman 1 Details,
Name:Dhoni
Matches Played:42
Total runs scored:2570
Average runs scored:61.0
Batsman 2 Details,
Name:Raina
Matches Played:17
Total runs scored:1420
Average runs scored:83.0
Bowler 1 Details,
Name:Jaddu
Matches Played:5
Total runs Conceded:120
Average runs scored:24.0
Bowler 2 Details,
Name:Bhuvi
Matches Played:14
Total runs Conceded:280
Average runs scored:20.0
Process finished.
```

```
2
3 class Student
4 {
5     private
6         String usn,name;
7         float cr[]=new float[5];
8         float m[]=new float[5];
9     public
10    Scanner s=new Scanner(System.in);
11    void getdet()
12    {
13
14        System.out.println("Enter Name:");
15        name=s.next();
16        System.out.println("Enter USN:");
17        usn=s.next();
18        for(int i=0;i<5;i++)
19        {
20            System.out.println("Enter Credits for subject "+(i+1)+":");
21            cr[i]=s.nextFloat();
22            System.out.println("Enter Marks for subject "+(i+1)+"(for 100):");
23            m[i]=s.nextFloat();
24        }
25    }
26    public void printdet()
27    {
28        System.out.println("Student Details are,");
29        System.out.println ("Name:"+name);
30        System.out.println ("USN:"+usn);
31        for(int i=0;i<5;i++)
32        {
33            System.out.println("Subject "+(i+1)+" Credits:"+cr[i]);
34            System.out.println("Subject "+(i+1)+" Marks:"+m[i]);
35        }
36    }
37    public void scgpa()
38    {
39        int a;
40        float scgp=0,tcr=0;
41        for(int i=0;i<5;i++)
42        {
43            tcr+=cr[i];
44        }
45        for(int i=0;i<5;i++)
46        {
47            if(m[i]>=90)
48                a=10;
49            else if(m[i]>=80)
50                a=8;
51            else if(m[i]>=70)
52                a=7;
53            else if(m[i]>=60)
54                a=6;
55            else if(m[i]>=50)
56                a=5;
57            else
58                a=4;
59            scgp+=((cr[i]*a)/tcr);
60        }
61        System.out.println("SCGP is "+scgp);
62    }
63 }
64
65 class main
66 {
67     public static void main(String args[])
68     {
69         float scgp;
70         Scanner n=new Scanner(System.in);
71         Student s1=new Student();
72         s1.getdet();
73         s1.printdet();
74         s1.scgpa();
75     }
76 }
```




```
Enter Name:
rahil
Enter USN:
1BM19CS090
Enter Credits for subject 1:
5
Enter Marks for subject 1(for 100):
87
Enter Credits for subject 2:
4
Enter Marks for subject 2(for 100):
91
Enter Credits for subject 3:
4
Enter Marks for subject 3(for 100):
81
Enter Credits for subject 4:
4
Enter Marks for subject 4(for 100):
76
Enter Credits for subject 5:
3
Enter Marks for subject 5(for 100):
71
Student Details are,
Name:rahil
USN:1BM19CS090
Subject 1 Credits:5.0
Subject 1 Marks:87.0
Subject 2 Credits:4.0
Subject 2 Marks:91.0
Subject 3 Credits:4.0
Subject 3 Marks:81.0
Subject 4 Credits:4.0
Subject 4 Marks:76.0
Subject 5 Credits:3.0
Subject 5 Marks:71.0
SCGP is 8.05

Process finished.
```