

Lab Programs.

```
#1) import java.util.*;  
class Student {  
    String usn;  
    String name;  
    int sem;  
    void details().  
}
```

```
Scanner z = new Scanner (System.in);  
System.out.println ("Enter student details");  
System.out.println ("Enter usn:");  
usn = z.next();  
System.out.println ("Enter name:");  
name = z.next();  
System.out.println ("Enter semester:");  
sem = z.nextInt();  
}
```

```
}  
class Test extends Student {  
    int credits[];  
    int c[];  
    int t;  
    void accept()  
}
```

```
Scanner s = new Scanner (System.in);
System.out.println ("Enter the number of subjects : ");
t = s.nextInt();
credits = new int [t];
ae = new int [t];
System.out.println ("Enter credits & ae marks (out of 100) attained by the student in each subject");
for (int i=0 ; i<t ; i++)
{
    credits [i] = s.nextInt();
    ae [i] = s.nextInt();
}
}
```

```
class Exam extends Test {
    int see [];
    void read ()
    {
```

```
Scanner a = new Scanner (System.in);
```

```
see = new int [t];
```

```
System.out.println ("Enter SEE mark of student in each subject (out of 100)");
```

```
for
for (int i=0; i<t ; i++)
{
```

```
} see(i) = a.next INT(1);  
}
```

```
}
```

```
class Result extends Exam {
```

```
    int marks[];
```

```
    double calculate()
```

```
{
```

```
    marks = new int[t];
```

```
    int tcp = 0, tc = 0;
```

```
    for (int i = 0; i < t; i++)
```

```
    {
```

```
        tc = tc + credits(i);
```

```
        marks[i] = uc[i] + see[i] / 2;
```

```
        if (marks[i] >= 50)
```

```
        {
```

```
            tcp = tcp + (((marks[i] / 70) + 1) * credits[i]);
```

```
        }
```

```
    else if (marks[i] >= 40 && marks[i] < 50)
```

```
    {
```

```
        tcp = tcp + (4 * credits[i]);
```

```
    }
```

```
}
```

```
    return (double) tcp / tc;
```

```
}
```

```
}
```



```
class Main {
```

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

```
    {
```

```
        Scanner ss = new Scanner (System.in);
```

```
        System.out.println ("Enter the number of students.");
```

```
        int n = ss.nextInt ();
```

```
        Student a[] = new Student (n);
```

```
        Test b [] = new Test (n);
```

```
        Exam c [] = new Exam (n);
```

```
        Result d[] = new Result (n);
```

```
        for (int i = 0; i < n; i++)
```

```
        {
```

```
            a[i] = new Student ();
```

```
            a[i].details ();
```

```
            b[i] = new Test ();
```

```
            b[i] = accept ();
```

```
            c[i] = new Exam ();
```

```
            c[i] = read ();
```

```
            d[i] = new Result ();
```

```
            System.out.println ("SGPN of Student " + (i+1) +  
                                " is : " + d[i].calculate ());
```

```
        }
```

```
    }
```

```
}
```

#2)

```
import java.util.*;

abstract class PLAYER
{
    String name;
    int matches_played;
    double average;
    abstract void cal_average (String i, int m, int n);
}
```

```
class BATSMAN extends PLAYER
```

```
{
    int runs_scored;
    void cal_average (String x, int y, int z)
    {
        name = x;
        matches played = y;
        runs scored = z;
        average = (double) runs_scored / matches_played;
        System.out.println ("The avg runs scored by " + name + " is "
            + average);
    }
}
```

```
class BOWLER extends PLAYER
```

```
{
    int runs_given;
    void cal_average (String a, int b, int c)
```

```

    }
    name = a
    matches played = b;
    runs given = c;
    average = (double) runs-given / matches-played;
    System.out.println ("the avg runs given by " + name + " is
                        " + average);
}
}

```

```

class PLAYERNAME1

```

```

{
    public static void main (String args[])
    {
        int m, n, i;
        Scanner ss = new Scanner (System.in);
        System.out
        .println ("Enter the number of Bowlers & batsmen respectively");
        m = ss.nextInt();
        n = ss.nextInt();
        BATSMAN BA[] = new BATSMAN(m);
        for (i=0; i<m; i++)
        {
            BA[i].name = ss.next();
            BA[i].matches-played = ss.nextInt();
            BA[i].runs-scored = ss.nextInt();
        }
    }
}

```


}

BOWLER BO[i] = new BOWLER(n);

for (i=0; i<n; i++)

{

BO[i] = new BOWLER(1);

System.out.println("Enter the name, number of matches played, & number of runs given by Bowler "+(i+1)+":");

BO[i].name = ss.next();

BO[i].matches played = ss.nextInt();

BO[i].runs-given = ss.nextInt();

}

for (i=0; i<1; i++)

{

BA[i].cal-average (BA[i].name, BA[i].matches played, BA[i].runs-scored);

for (i=0; i<n; i++)

{

BO[i].cal-average (BO[i].name, BO[i].matches played, BO[i].runs-given);

}

}

}