Q Create a package CIE which has two classes Student and Internals. The class Personal has members like usn, name, Sem. The class Internals has an array that stores the internal marks scored in 5 courses of the current sem of the student. Create another package SEE which has the class External which is a derived class of Student. This class has an array that stores the SEE marks scored in 5 course of the current sem of the student.

```java
package CIE;
import java.util.*;
public class Student
{

    public int sem;
    public String usn;
    public String name;


    public void accept()
    {   Scanner scan = new Scanner (System.in)
        System.out.println ("Enter usn, Name
and Sem:\n");
        usn = scan.nextline ();
        name = Scan.nextline();
        Sem = scan.nextInt();
}
};
```

```java
package CIE;
public class Internals
{
    public int im [ ] = new int [5];
}
package SEE;
import CIE. Student;
Public class External extends Student
{
    public int sm[ ] = new int [5];
}
import java.util.*;
import SEE.*;
import CIE.*;
public class Final_Marks
{
    public static void main (String args [ ])
    {
        int fm[ ] = new int [5];
        Scanner sc = new Scanner (System.in);
        System.out.println (" Enter n: ");
        int n = sc.nextInt();
        SEE. External st[ ] = new SEE.Externally
        CIE.Internals s[ ] = new CIE.Internals[n];
        for (int i=0; i<n; i++)
        {
            st [i] = new SEE. External();
```

```java
s[i] = new CIE.Internals();
System.out.println("Enter details" + (i+1));
st[i].accept();
for(int j=0; j<5; j++)
{
    System.out.println("Enter Imm and
Sm of sub" + (j+1));
    s[i].im[j] = sc.nextInt();
    st[i].sm[j] = sc.nextInt();
    fm[j] = s[i].im[j] + st[i].sm[j];
}
System.out.println("final marks of" +
st[i].name);
for(int k=0; k<5; k++)
{
    System.out.println("Coarse" + (k+1) + "="
+ fm[k]);
}
}
}
}
```

Algorithm:-

- Start
- Create a package CIE
- Create a class Student in this package with members USN, name, sem
- create another class Internals in the same
- In student class create a get method to accept the values.
- Create another package SEE
- create a class External extending Student
- In this class create an array of size 5 to store the Semester marks
- Inside the main function create an array of final marks of n students in 5 subjects
- create an array St of type External of size n 111ly for Internal as s
- Accept the details of all n & students accept the internal and external marks for all n students
- Calculate the final marks for each subject and store in final marks array
- Display the total final marks of all the students combindly (sum of marks of every subject of all the students)
- Stop

Output

* enter no of students: 1
  enter details 1
  Enter sem, usn

  2

  1BM22CS029
  Enter internal and see marks of sub1   49 49
      "   "   Sub2 45 45
      "   "   Sub3 49 49
      "   "   Sub4 47 47
      "   "   Sub5 43 43
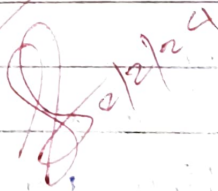   "   "   Sub6 46 46

final marks of 1bm22CS029
  Course 1 = 90
  Course 2 = 98
  Course 3 = 94
  Course 4 = 86
  Course 5 = 92

```
C:\Users\STUDENT\Desktop\1bm22cs029\ooj>javac -d . finalMarks.java

C:\Users\STUDENT\Desktop\1bm22cs029\ooj>java finalMarks
Akshara
1bm22cs029
enter no of students:
2
Enter details1
Enter sem,usn and name:

2
1bm22cs029
Enter internal and see marks of sub1
45
45
Enter internal and see marks of sub2
49
49
Enter internal and see marks of sub3
47
47
Enter internal and see marks of sub4
43
43
Enter internal and see marks of sub5
46
46
Final marks of 1bm22cs029
Course1=90
Course2=98
Course3=94
Course4=86
Course5=92
```

```
Enter details2
Enter sem,usn and name:

3
1bm22cs027
Enter internal and see marks of sub1
45
45
Enter internal and see marks of sub2
46
46
Enter internal and see marks of sub3
47
47
Enter internal and see marks of sub4
48
48
Enter internal and see marks of sub5
49
49
Final marks of 1bm22cs027
Course1=90
Course2=92
Course3=94
Course4=96
Course5=98
```