

## Packages

### Lab program - 8

Create a package CIE which has two classes student and Internals. The class person has members like usn, name, sem. The class internals has an array that stores the internals marks scored in five courses of the current semester 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 five courses of the current semester of the student. Import the two packages in a file that declares the final marks of n students in all five courses.

```
A) public CIE ;  
import java.util.*;  
public class student.  
{  
    Scanner sc = new Scanner(System.in)  
    public String usn, name;  
    public int sem;  
    public void getData()
```

```
{  
    System.out.println("Enter usn, name  
                        and sem");  
    usn = sc.nextLine();  
    name = sc.nextLine();  
    sem = sc.nextInt();  
}
```

```
public void disp()
```

```
{  
    System.out.println("Name, " + name);  
    System.out.println("USN " + usn);  
    System.out.println("SEM " + sem);  
}
```

```
}  
import java.util.*;
```

```
public class internal extend student
```

```
{  
    Scanner SC = new Scanner(System.in);
```

```
    public int marks[] = new int[5];
```

```
    public void getdata()
```

```
{  
    super.getdata();
```

```
    System.out.println("Enter marks
```

```
of S C I E")
```

```
for (int i = 0, i < 5, i++)
```

```
{  
    marks[i] = SC.nextInt();
```

```
}
```

```
public void disp()
```

```
{
```

```
    System.out.print("ZJE mark")
```

```
for (int i = 0, i < 5, i++)
```

```
{
```

```
    System.out.println(marks[i])
```

```
    System.out.println()
```

```
}
```



```
package SEE ;
```

```
import CIE.internal
```

```
import java.util.*;
```

```
public class external int extends internal
```

```
{
```

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

```
public int emarks[] = new int [5]
```

```
public void getdata()
```

```
{
```

```
super.getdata()
```

```
System.out.println (" Enter 5
```

```
subject marks for see ");
```

```
for (int i=0; i<5; i++)
```

```
{
```

```
}
```

```
emarks[i] = sc.nextInt();
```

```
}
```

```
public void disp()
```

```
{
```

```
System.out.print ("See marks")
```

```
for (int i=0 ; i<5, i++)
```

```
{
```

```
System.out.print
```

```
(emarks[i] + " ");
```

```
}
```

```
System.out.println()
```

```
}
```

```
}
```

```
import CIE . student;
```

```
import CIE . internal;
```

```
import SEE . external;
```

```
import java.util.*;
```

```
class exam
```

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

```
{
```

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

```
System.out.println ("Enter number
```

```
int n = sc.nextInt(); of student
```

```
int sum[] = new int[5]
```

```
external e[] = new external [n];
```

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

```
{
```

```
    e[i] = new external ();
```

```
    e[i] = getData ();
```

```
    System.out.println ("Final marks of  
student + (i+1) +  
")
```

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

```
{
```

```
    sum[i] = e[i].marks[j] +
```

```
    e[i].marks[j];
```

```
    System.out.println (sum[i] + " ");
```

```
}  
}  
}
```

Output:

1

Enter student details

Enter USN, name and SEM:

IBM21CS003

Abhinav

3

Enter RIE marks of 5 subjects:

40

70

50

60

80

Enter SEE marks of 5 subjects:

70

60

35

45

83

Final marks of student in CIE:

300.