

Week - 9 - Lab Program - 6

★) Below is two programs of class Student and class Internals. Both belong to a package named CIE. Class Internals extends from class Student.

①

```
package CIE;  
import java.util.Scanner;
```

```
public class Student  
{
```

```
    public String name;  
    public String USN;  
    public int sem;  
    public void display()  
{
```

```
        Scanner s = new Scanner(System.in);  
        System.out.println("Name: ");  
        name = s.next();  
        System.out.println("USN: ");  
        USN = s.next();  
        System.out.println("Semester: ");  
        sem = s.nextInt();
```

```
    }  
}
```

② package CIE;

import java.util.Scanner;

public class Internals extends Student

{

public double ciem[];

public void display ()

{

ciem = new double [5];

Scanner t = new Scanner (System.in);

System.out.println ("CIE marks for 5 subjects
(out of 50):");

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

ciem[i] = t.nextDouble();

}

}

* Below is a program of class Externals which belongs to package SEE. Class Externals extends from class Student.

③

package SEE;

import java.util.*;

import CIE.*;


```

public class External extends CIE.Student
{
    public double seem[];
    public void display()
    {

```

```

        seem = new double [5];

```

```

        Scanner s = new Scanner (System.in);
        System.out.println ("SEE Marks for 5
subjects (out of 100):");

```

```

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

```

```

            seem[i] = s.nextDouble();

```

```

        }

```

```

    }

```

*) Below is a driven program with class Main which imports both the packages CIE and SEE.

④

```

import CIE.*;

```

```

import SEE.*;

```

```

import java.util.Scanner;

```

```

public class Main

```

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

```
{  
        int n;
```

```
        Scanner s = new Scanner(System.in);  
        System.out.println("Enter the number of  
students: ");
```

```
        n = s.nextInt();
```

```
        CIE. Student st[] = new CIE. Student[n];
```

```
        CIE. Internals in[] = new CIE. Internals[n];
```

```
        SEE. Externals e[] = new SEE. Externals[n];
```

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

```
{
```

```
            st[i] = new CIE. Student();
```

```
            in[i] = new CIE. Internals();
```

```
            e[i] = new SEE. Externals();
```

```
            st[i].display();
```

```
            in[i].display();
```

```
            e[i].display();
```

```
            System.out.println("Total marks of  
student " + st[i].name + " in 5 subjects are:");
```

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

```
                System.out.println(in[i].ciem[j] + (e[i].sem[j]  
/ 2));
```

```
        } } } }
```