

PACKAGES.

1) CIE - Student.java

⇒ package CIE;

import java.util.*;

public class Student {

protected String name = new String();

protected String USN = new String();

protected int sem;

public void inputstuddetails() {

Scanner s = new Scanner (System.in);

System.out.println ("Name :");

name = s.nextLine();

System.out.println ("OSN :");

USN = s.nextLine();

System.out.println ("Sem :");

sem = s.nextInt();

}

public void display() {

System.out.println ("Student Details");

System.out.println ("Name : " + name);

System.out.println ("USN : " + USN);

System.out.println ("Sem : " + sem);

}

}

2) CIE - Internals.java

⇒ package CIE;

import java.util.*;

public class Internals extends Student {

protected int marks[] = new int[5];

```
public void inputcie() {  
    Scanner s = new Scanner(System.in);  
    System.out.println("Enter the marks in 5 subjects:");  
    for (int i=0; i<5; i++) {  
        marks[i] = s.nextInt();  
    }  
}
```

3) SEE - External.java

```
→ package SEE;  
import CIE.Internals;  
import java.util.*;  
public class External extends Internals {  
    protected int marks[];  
    protected int finalmarks[];  
    public External() {  
        marks = new int[5];  
        finalmarks = new int[5];  
    }  
    public void inputsee() {  
        Scanner s = new Scanner(System.in);  
        for (int i=0; i<5; i++) {  
            System.out.println("Subject " + (i+1) + " marks:");  
            marks[i] = s.nextInt();  
        }  
    }
```

```
public void cfmarks() {
    for (int i = 0; i < 5; i++) {
        finalmarks[i] = marks[i]/2 + super.marks[i];
    }
}

public void displayfmarks() {
    display();
    for (int i = 0; i < 5; i++) {
        System.out.println("Subject " + (i+1) + ":" +
            finalmarks[i]);
    }
}
```

4) Student Main.java

```
→ import SEE.Externals;
public class StudentMain {
    public static void main (String args[]) {
        int n = 1;
        Externals finalmarks[] = new Externals[n];
        for (int i = 0; i < n; i++) {
            finalmarks[i] = new Externals();
            finalmarks[i].inputstuddetails();
            System.out.println("Enter IIE marks:");
            finalmarks[i].inputcic();
            System.out.println("Enter SEE marks:");
            finalmarks[i].inputsee();
        }
    }
}
```

```
System.out.println ("Displaying data:");
for( int i = 0 ; i < n ; i++ ) {
    finalmarks [i].cmarks ();
    finalmarks [i].displayfmarks ();
}
```

→ OUTPUT:-

Enter Student's Name: Shivaraj K Pujari

USN : IBM22CS259

Sem : 3

Enter CIE marks:

50 50 48 48 48

Enter SEE marks:

Subject 1 marks : 98

Subject 2 marks : 96

Subject 3 marks : 100

Subject 4 marks : 98

Subject 5 marks : 96

Displaying Data:

NAME : Shivaraj . K . Pujari

USN : IBM22CS259

Sem : 3

Subject 1 : 99

Subject 2 : 98

Subject 3 : 98

Subject 4 : 97

Subject 5 : 96

100 / 100