

LAB-6

23/1/24
Create package CIE which has 2 classes students & internals. The class students has members USN, name, sem. The class derived from student has an array that stores internal marks scored in 5 subject.

student.java

Package CIE

import java.util.*;

public class student {

protected string usn = new string();

protected string name = new string();

protected int sem;

public void inputStudentDetails() {

Scanner s = new Scanner(System.in);

this.usn = s.nextLine();

this.name = s.nextLine();

this.sem = s.nextInt();

}

public void displayStudentDetails() {

System.out.println(this.usn + " " + this.name);

}

}

Internals.java

```

packages CIE;
import java.util.*;
public class Internal extends Student {
    protected int marks[] = new int[5];
    public void input (IE marks[]) {
        Scanner S = new Scanner (System.in);
        for (int i=0; i<S; i++)
            marks[i] = S.next Int();
    }
}

```

External.java

```

packages SEE;
import CIE.internals;
import java.util.*;
public class External extends Internal {
    protected int marks[];
    protected int finalMarks[];
    public External() {
        marks = new int[5];
        finalMarks = new int[5];
    }
    public void input SEE marks() {
        for (int i=0; i<5; i++)
            marks[i] = S.next int();
    }
    public void calculate final marks() {
        for (int i=0; i<5; i++)
            finalMarks[i] = marks[i]/2; +
            super.marks[i];
    }
}

```

```

public void display final Marks() {
    display student details();
    for (int i=0; i<5; i++)
        System.out.println ("Subject : + (i+1) : "
            + finalMarks[i]);
    }
}

```

Main.java

```

import SEE.Externals;
class main {
    public static void main (String args[]) {
        int num of students = 2;
        Externals final marks[] = new Externals[];
        for (int i=0; i<num of students; i++) {
            final Marks [i] = new Externals();
            final Marks [i] = input student details();
            System.out.println ("Enter CIE marks");
            final Marks [i].input (CIE marks);
            System.out.println ("Enter SEE marks");
            final Marks [i].input SEE marks();
        }
        for (int i=0; i<num of students; i++) {
            final [i]. calculate final Marks();
            final [i]. display final Marks();
        }
    }
}

```


Output:-

Enter Student Details:

IBM22CS271

Shreyas

2

Enter CIE Marks

35

40

41

47

44

Enter SEE Marks

80

90

86

80

84

Enter Student Details

IBM22CS256

Shashank

2

Enter CIE marks

50

45

40

48

46

Enter SEE marks

90

96

100

90

92

Display Details:

USN : IBM22CS271

Name : Shreyas

sem : 2

subject 1 : 80

subject 2 : 90

subject 3 : 84

subject 4 : 88

subject 5 : 86

USN IBM22CS256

Name : Shashank

sem : 2

subject 1 : 95

subject 2 : 93

subject 3 : 90

subject 4 : 96

subject 5 : 92

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