

JAVA

PACKAGES

```
import CIE.Student;
import CIE.Internals;
import SEE.External;
import java.util.Scanner;

public class Main {
    public static void main (String args []){
        int n,sem;
        String name,usn;
        System.out.println("Enter number of students:");
        Scanner sc=new Scanner(System.in);
        n=sc.nextInt();
        Student stds[]=new Student[n];
        Internals i[]=new Internals[n];
        External e[]=new External[n];

        for(int j=0;j<n;j++){
            System.out.println("Enter Details of Student "+(j+1)+":");
            sc.nextLine();
            System.out.println("Name:");
            name=sc.nextLine();
            System.out.println("USN:");
            usn=sc.nextLine();
            System.out.println("Enter Semester");
            sem=sc.nextInt();
            stds[j]=new Student(usn,name,sem);
            i[j]=new Internals();
            System.out.println("Enter internal marks");
            i[j].setImarks();
            e[j]=new External();
            System.out.println("Enter external marks");
            e[j].setEmarks();
        }
        for(int j=0;j<n;j++){
            System.out.println("Student "+(j+1)+" details:");
            stds[j].displayDetails();
            System.out.println("Internal Marks:");
            i[j].displayImarks();
            System.out.println("External Marks:");
            e[j].displayEmarks();
            System.out.println("Total Marks :");
```

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```
        for(int k=0;k<5;k++){
            System.out.println("Subject"+" "+ (k+1)+" : "+(i[j].imarks[k]+e[j].emarks[k]));
        }
    }
}
```

OUTPUT :

Enter number of students:

2

Enter Details of Student 1:

Name:

seeta

USN:

1A0123

Enter Semester

3

Enter internal marks

23 36 38 40 34

Enter external marks

85 45 96 78 96

Enter Details of Student 2:

Name:

reeta

USN:

1A02123

Enter Semester

3

Enter internal marks

45 25 36 36 40

Enter external marks

45 26 36 38 40

Student 1 details:

USN:1A0123

Name:seeta

Sem:3

Internal Marks:

Subject 1: 23

Subject 2: 36

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Subject 3: 38

Subject 4: 40

Subject 5: 34

External Marks:

Subject 1: 85

Subject 2: 45

Subject 3: 96

Subject 4: 78

Subject 5: 96

Total Marks :

Subject 1 : 108

Subject 2 : 81

Subject 3 : 134

Subject 4 : 118

Subject 5 : 130

Student 2 details:

USN:1A02123

Name:reeta

Sem:3

Internal Marks:

Subject 1: 45

Subject 2: 25

Subject 3: 36

Subject 4: 36

Subject 5: 40

External Marks:

Subject 1: 45

Subject 2: 26

Subject 3: 36

Subject 4: 38

Subject 5: 40

Total Marks :

Subject 1 : 90

Subject 2 : 51

Subject 3 : 72

Subject 4 : 74

Subject 5 : 80

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- 1) Create a folder CIE & save the programs Student.java & Internals.java within it.
- 2) Create a folder SEE & save the program External.java within it.
- 3) Save the main program outside these two folders.
- 4) Compile main.java & execute the main class.

CIE / Student

```
Package CIE {  
public class Student {  
    public String usn;  
    public String name;  
    protected int sem;  
    public Student (String usn, String name, int sem) {  
        this.usn = usn;  
        this.name = name;  
        this.sem = sem;  
    }  
}
```

CIE / Internals

```
package CIE;  
public class Internals extends Student {  
    public int[] internalmarks = new int[5];  
    public Internals (String usn, String name, int sem,  
        int[] internalmarks) {  
        super (usn, name, sem);  
        this.internalmarks = internalmarks;  
    }  
}
```

X SEE / External

```
package SEE;  
import CIE.Student;  
public class External extends Student {  
    public int[] see marks;  
}
```

```

public External (String usn, String name, int sem,
int [] seeMarks) {
    Super (usn, name, sem);
    this.seeMarks = seeMarks; }
} X

```

Main SEE/External

```

import CIE.Student;
public class External extends Student {
    public int [] seeMarks;
    public External (String usn, String name, int sem,
int [] seeMarks) {
        Super (usn, name, sem);
        this.seeMarks = seeMarks; }
}

```

Main

```

import CIE.Internals;
import SEE.Externals;
public class main {
    public static void main (String [] args) {
        int [] internalMarks1 = {80, 75, 90, 85, 88};
        Internals student1 = new Internals ("1ABC123", "John Doe",
        3, internalMarks1);
    }
}

```

```

int [] seeMarks1 = {70, 85, 78, 92, 88};
External student2 = new External ("2XYZ456", "Jane Smith",
3, seeMarks1);

```

```

int [] finalMarks1 = new int [5];
for (int i=0; i<5; i++) {
    finalMarks1[i] = student1.internalMarks[i] +
student2.seeMarks[i]; }

```

```
System.out.println("Final marks for" + student.name +  
"(USN: " + student.usn + ")");  
for(int i=0; i<5; i++){  
    S.o.P("course " + (i+1) + ": " + finalmarks[i]);  
}  
}
```

Output:

Final marks for All (USN: IAB123)

Course 1: 150

Course 2: 160

Course 3: 168

Course 4: 177

Course 5: 176.

Don
29/1/24

