

## 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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Package Q.

```
package CIE;
```

```
public class Student
```

```
{  
    public String usn;  
    public String name;  
    public int sem;
```

```
    public Student(String usn, String name, int sem)
```

```
{  
        this.usn = usn;  
        this.name = name;  
        this.sem = sem;
```

```
}
```

```
}
```

```
package CIE;
```

```
public class Internals extends Student {
```

```
    public int[] internalMarks;
```

```
    public Internals(String usn, String name, int sem,  
        int[] internalMarks)
```

```
{  
        super(usn, name, sem);
```

```
        this.internalMarks = internalMarks;
```

```
}
```

```
}
```

```
package SEE;
```

```
import CIE.Student
```

```
public class External extends Student
```

```
{  
    public int[] seeMarks;
```

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

```
{  
    int[] internalMarks = {75, 80, 90, 85, 88};
```

```
    Internals student1 = new Internals("IABC123", "John",  
        internalMarks);
```

```
public External (String usn, String name, int sem,
                int [] seeMarks)
```

```
{
    super(name, usn, name, sem);
    this.seeMarks = seeMarks;
}
```

```
import CIE.Externals;
import SEE.Externals;
```

```
public class Main
```

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

```
{
    int [] internalMarks = {75, 80, 90, 85, 88};
    Internal student1 = new Internal
```

```
( "1ABC123", "John", 3, internalMarks);
```

```
int [] seeMarks = {70, 85, 88, 92, 78};
```

```
External student2 = new External
```

```
( "2XYZ456", "Jane", 3, seeMarks );
```

```
SOP ("Student 1:");
```

```
SOP ("USN: " + student1.usn);
```

```
SOP ("Name: " + student1.name);
```

```
SOP ("Semester" + student1.sem);
```

```
SOP ("Internal Marks: " + java.util.Arrays.
    toString(student1.internalMarks));
```

Output:

Student 1:

USN: 1ABC123

Name: John

Semester: 3

Internal Marks: 75, 80, 90, 85, 88

Student 2:

USN: 2XYZ456

Name: Jane

Semester: 3

SEE Marks: 70, 85, 88, 92, 78

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