

## LAB 06 :

### LAB - 06 :-

\* Create a package CIE which has two classes - student and internals. The class internals derived from student has an array that stores the internal marks scored in five courses of the current semester of the student.



```
Package CIE;  
public class student {  
    public int USN, SEM;  
    public String name;  
    student () {  
        public student (String name, int USN, int SEM) {  
            this.name = name, + int USN, int SEM );  
        Super (name, USN, SEM);  
        this.name = name;  
        this.USN = USN;  
        this.SEM = SEM; } } }
```

### Package CIE;

```
public class internals extends CIE.student {  
    public int marks [] = new int [5];  
    public internals () {  
        public internals ( String name, int USN, int SEM ) {  
            Super (name, USN, SEM); } }
```

### Package SEF;

```
public class Externals extends CIE.students {  
    public int marks [] = new int [5]; }
```

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

class Lab6 {
    public static void main (String args[]) {
        Scanner sc = new Scanner (System.in);
        String name; int usn, sem;
        System.out.println ("Enter the number of students");
        int n = sc.nextInt();
        Internals in[] = new Internals [n];
        Externals ex[] = new Externals [n];
        for (int i=0; i<n; i++) {
            System.out.println ("Enter the name of the student " + (i+1));
            name = sc.nextLine();
            System.out.println ("Enter the USN of the student " + (i+1));
            usn = sc.nextInt();
            System.out.println ("Enter the Sem of the student " + (i+1));
            sem = sc.nextInt();
            in[i] = new Internals (name, usn, sem);
            ex[i] = new Externals ();
            System.out.println ("Enter the internal marks of the student in 5 subjects ");
            for (int j=0; j<5; j++)
                in[i].imarks[j] = sc.nextInt();
            System.out.println ("Enter the external marks of the student in 5 subjects ");
            for (int j=0; j<5; j++)
                ex[i].emarks[j] = sc.nextInt();
        }
    }
}
```

```

for (int i=0; i<n ; i++) {
    system.out.println ("Details of student " + (i+1) + ":");
    system.out.println ("Name :" + pn[i].name + " I.T" +
    " USN :" + pn[i].usn + " IT " + " Sem :" + pn[i].sem);
    system.out.println ("Internal Marks :");
    for (int j=0 ; j < 5 ; j++)
        system.out.print ("Subject " + (j+1) + ":" + in[i].marks
        [j] + " IT");
    system.out.println ("External Marks :");
    for (int j=0 ; j < 5 ; j++)
        System.out.print ("Subject " + (j+1) + ":" + ex[i].
        emarks[j] + " IT");
    system.out.println ("Total Marks :");
    for (int j=0 ; j < 5 ; j++)
        System.out.print ("Subject " + (j+1) + ":" + (in[i].
        imark[j] + ex[i].emark[j]));
}

```

→ Output:

Enter n:

1

Enter name : Pooja

Enter USN : 34567

Enter sem : 3

Enter Internal Marks : 43

45

42

44

47

Enter External Marks : 80

78

63

78

85

Name : Pooja

USN : 34567

SEM : 3

Marks of sub 1 = 43

Marks of sub 2 = 45

Marks of sub 3 = 42

Marks of sub 4 = 44

Marks of sub 5 = 47

Marks of sub 1 = 80

Marks of sub 2 = 78

Marks of sub 3 = 73

Marks of sub 4 = 78

Marks of sub 5 = 85

Final Marks of sub [1] = 83.0

Final Marks of sub [2] = 84.0

Final Marks of sub [3] = 73.0

Final Marks of sub [4] = 83.0

Final Marks of sub [5] = 89.0

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Code :

```
package SEE;
public class External extends CIE.Student{
public int emarks[]={new int[5];
}
package CIE;
public class Student{
public int usn,sem;public String name;
public Student(){}
public Student(String name,int usn,int sem){
this.name=name;this.usn=usn;this.sem=sem;
}
}
package CIE;
public class Internals extends CIE.Student{
public int imarks[]={new int[5];
public Internals(){}
public Internals(String name,int usn,int sem){
super(name,usn,sem);
}
}
import java.util.Scanner;
import CIE.Student;
import CIE.Internals;
import SEE.External;
class LabQ6{
public static void main(String args[]){
Scanner sc=new Scanner(System.in);
String name,int usn,sem;
System.out.println("Enter the number of students:");
int n=sc.nextInt();
Internals in[]={new Internals[n];
External ex[]={new External[n];
for(int i=0;i<n;i++){
System.out.println("Enter the name of the student "+(i+1)+":");
name=sc.next();
System.out.println("Enter the USN of the student "+(i+1)+":");
usn=sc.nextInt();
System.out.println("Enter the sem of the student "+(i+1)+":");
sem=sc.nextInt();
in[i]=new Internals(name,usn,sem);
ex[i]=new External();
System.out.println("Enter the internal marks of the student in 5 subjects:");
for(int j=0;j<5;j++)
}
```

```

in[i].imarks[j]=sc.nextInt();
System.out.println("Enter the external marks of the student in 5 subjects:");
for(int j=0;j<5;j++)
ex[i].emarks[j]=sc.nextInt();
}

for(int i=0;i<n;i++){
System.out.println("Details of student "+(i+1)+":");
System.out.println("Name:"+in[i].name+"\t"+"USN:"+in[i].usn+"\t"+"Sem:"+in[i].sem);
System.out.println("Internal marks:");
for(int j=0;j<5;j++)
System.out.print("Subject "+(j+1)+":"+in[i].imarks[j]+\t");
System.out.println("External marks:");
for(int j=0;j<5;j++)
System.out.print("Subject "+(j+1)+":"+ex[i].emarks[j]+\t");
System.out.println("\nTotal marks:");
for(int j=0;j<5;j++)
System.out.println("Subject "+(j+1)+": "+(in[i].imarks[j]+ex[i].emarks[j]));
}
}
}

```

```

Enter the number of students:
1
Enter the name of the student 1:
nidhi
Enter the USN of the student 1:
12345
Enter the sem of the student 1:
2
Enter the internal marks of the student in 5 subjects:
45
43
45
46
50
Enter the external marks of the student in 5 subjects:
34
45
44
48
49
Details of student 1:
Name:nidhi      USN:12345      Sem:2
Internal marks:
Subject 1:45    Subject 1:43    Subject 1:45    Subject 1:46    Subject 1:50    External marks:
Subject 1:34    Subject 2:45    Subject 3:44    Subject 4:48    Subject 5:49
Total marks:
Subject 1:79
Subject 2:88
Subject 3:89
Subject 4:94
Subject 5:99
PS C:\Users\Admin\Desktop\1bm22cs177> |

```