

- Create a package CIE which has two classes Student and Internal. The class Personal has members like usn, name, sem. The class Internal has an array that stores the internal marks scored in five courses of the current sem of the student. Create another package SEE which has the class External which is a derived class of Student.

This class has an array that stores SEE marks scored in five courses of the current semester of student. Import the two packages in a file that declares the final marks of 2 students in all Five courses



```
package CIE;
import java.util.*;
public class Student
{
    public int sem;
    String usn;
    String name;
    public void accept()
    {
        Scanner sc = new Scanner (System.in)
        System.out.println("Enter sem, USN & name:");
        sem = sc.nextInt();
        USN = sc.nextLine();
        name = sc.nextLine();
    }
}
```



```
public class Internals  
{  
    public int imf[] = new int [5];  
}
```

```
package SEE;  
import CIE.Student;  
{  
    public class External extends Student  
    {  
        public int smf[] = new int [5];  
    }  
}
```

```
import java.util.*;  
import SEE.*;  
import CIE.*;  
public class FinalMarks
```

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

```
    {  
        int fm[] = new int [5];  
        Scanner sc = new Scanner (System.in);  
        System.out.println ("Enter no of students: ");  
        int n = sc.nextInt();  
        SEE.External st[] = new SEE.External [n];  
        CIE.Internals s[] = new CIE.Internals [n];  
        for (int i=0; i<n; i++)
```

```
        {  
            st[i] = new SEE.External();  
            s[i] = new CIE.Internals();  
            System.out.println ("Enter details " + (i+1))
```



```

    st[i].accept();
    for (int j=0; j<5; j++)
    {
        System.out.println("Enter in and sm of sub " + (j+1));
        st[i].im[j] = sc.nextInt();
        st[i].sm[j] = sc.nextInt();
        fm[j] = st[i].im[j] + st[i].sm[j]
    }
}

```

```

System.out.println("Final marks of " + st[i].name);
for (int k=0; k<5; k++)

```

```

{
    System.out.println("Course " + (k+1) + "=" + fm[k]);
}

```

```

}
// Output -
1) Enter no of students: 1
2) Enter details of 1
   enter user name & sem: IBM22C9027

```

AKANKSHA 2

Enter internal & external marks: 50 46

Enter internal & external marks: 49 47

Enter internal & em marks: 48 48

Enter internal & external marks: 47 49

Enter internal & external marks: 46 50

Final marks of ~~Akanksha~~

Course 1 = 96

Course 2 = 96

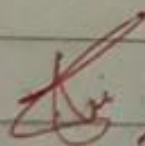
Course 3 = 96

Course 4 = 96

Course 5 = 96

Algorithm

- 1) Start
- 2) Create 2 packages as CSE and SEE
CSE consists of class which takes the personal details and another class ^{internal} which has an array for internal marks
- 3) Consider a package SEE which has an array to store SEE marks
- 4) Import these packages to the main file
- 5) Create two arrays one for no. of students present and other array $SC[]$ has objects of CSE package
- 6) Access packages with help of these 2 arrays and calculate the final marks i.e. CSE + SEE marks
- 7) To display the final marks it should be stored in another array and print its content at each
- 8) STOP


02.02.24

```
C:\Users\bmsce\Desktop\1bm22cs027 ooj\week 6>javac -d . FinalMarks.java
```

```
C:\Users\bmsce\Desktop\1bm22cs027 ooj\week 6>java FinalMarks
```

```
AKANKSHA SINGA
```

```
1BM22CS027
```

```
enter no. of students:
```

```
2
```

```
Enter details of 1
```

```
enter usn name and sem:
```

```
1BM22CS027
```

```
AKANKSHA
```

```
2
```

```
Enter internal and external marks:
```

```
49
```

```
49
```

```
Enter internal and external marks:
```

```
50
```

```
50
```

```
Enter internal and external marks:
```

```
48
```

```
48
```

```
Enter internal and external marks:
```

```
47
```

```
47
```

```
Enter internal and external marks:
```

```
46
```

```
46
```

```
Final marks of AKANKSHA
```

```
Course 1=98
```

```
Course 2=100
```

```
Course 3=96
```

```
Course 4=94
```

```
Course 5=92
```

```
Enter details of 2
```

```
enter usn name and sem:
```

```
1BM22CS027
```

```
akanksha
```

```
1
```

```
Enter internal and external marks:
```

```
50
```

```
46
```

```
Enter internal and external marks:
```

```
49
```

```
47
```

```
Enter internal and external marks:
```

```
48
```

```
48
```

```
Enter internal and external marks:
```

```
47
```

```
49
```

```
Enter internal and external marks:
```

```
50
```

```
46
```

```
Final marks of akanksha
```

```
Course 1=96
```

```
Course 2=96
```

```
Course 3=96
```

```
Course 4=96
```

```
Course 5=96
```