

6. Create a package CIE which has two classes- student and Internals. The class student has members like usn, name, sem. The class internals has an array that stores the internal marks scored in five courses of the current semester 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 the see marks scored in five courses of the current semester of the student. Import the two packages in a file that declares the final marks of n students in all five courses.

```

file 0
package cie;
import java.util.Scanner;
public class student
{
    public int usn, sem;
    public String sname;
    Scanner ss = new Scanner(System.in);
    public void getdc()
    {
        System.out.println("Enter name:");
        sname = ss.next();
        System.out.println("Enter usn:");
        usn = ss.nextInt();
        System.out.println("Enter sem:");
        sem = ss.nextInt();
    }
    public void disp()
    {
        System.out.println("name: " + sname);
        System.out.println("usn: " + usn);
        System.out.println("sem: " + sem);
    }
}

```

```

package cie;
import java.util.Scanner;
public class Internals
{
    public int marks[] = new int[5];
    Scanner sa = new Scanner(System.in);
    public void getdl()
    {
        System.out.println("Enter internal marks");
        for (int i=0; i<5; i++)
        {
            System.out.println("Enter marks of course " + (i+1) + ":");
            marks[i] = sa.nextInt();
        }
    }
    public void displ()
    {
        System.out.println("Internals marks");
        for (int i=0; i<5; i++)
        {
            System.out.println("Marks of course " + (i+1) + ": " + marks[i]);
        }
    }
}

```

File ③.

```

package cie;
import java.util.Scanner;
import java.util.Scanner;
public class External extends Student
{
    public int ml[] = new int[5];
    Scanner sr = new Scanner(System.in);
}

```



```

public void getd2()
{
    System.out.println("Enter see marks:");
    for(int j=0; j<5; j++)
    {
        System.out.println("Enter marks of course "+
            (j+1) + ":");
        m[j] = se.nextInt();
    }
}

public void disp2()
{
    System.out.println("see Marks:");
    for(int j=0; j<5; j++)
    {
        System.out.println("Marks of course "+ (j+1) + ": " +
            m[j]);
    }
}
}

```

file ④.

```

import cre.Internals;
import cre.Student;
import cre.External;
import java.util.Scanner;

class Finals
{
    public static void main(String args[])
    {
        int n;
        Scanner se = new Scanner(System.in);
        int mark[] = new int[5];
        Student s = new Student();
        Internals it = new Internals();
        External et = new External();
        System.out.println("Enter n:");
        n = se.nextInt();
    }
}

```

```

for (int f=0; f<n; f++)
{
    s.getd1(); it.getd1(); et.getd2();
    s.disp1(); it.disp1(); et.disp2();
    system.out.println("Marks of " + s.sname + " is");
    for (int k=0; k<5; k++)
    {
        mark[k] = (it.marks[k]) + (et.m[k]);
        system.out.println("Final marks in course"
            + (k+1) + ": " + mark[k]);
    }
}
}

```

Output:

Enter n:
 2
 Enter usn:
 345
 Enter sem:
 3
 Enter internals marks:
 Enter marks of course 1:
 44
 Enter marks of course 2:
 45
 Enter marks of course 3:
 46
 Enter marks of course 4:
 47
 Enter marks of course 5:
 48
 Enter see marks:
 Enter marks of course 1:
 49
 Enter marks of course 2:
 48
 Enter marks of course 3:
 47
 Enter marks of course 4:
 45

Enter marks of course 5:

46
 Name: Rony
 usn: 345
 sem: 3

Internals marks:

Marks of course 1: 44
 Marks of course 2: 45
 Marks of course 3: 46
 Marks of course 4: 47
 Marks of course 5: 48

See Marks:

Marks of course 1: 49
 Marks of course 2: 48
 Marks of course 3: 47
 Marks of course 4: 45
 Marks of course 5: 46

Marks of Rony "is"
 Final marks in course 1: 93
 Final marks in course 2: 93
 Final marks in course 3: 93
 Final marks in course 4: 98
 Final marks in course 5: 94

Enter name:

Emy

Enter usn:

234

Enter sem:

4

Enter internal marks:

Enter marks of course 1:

45

Enter marks of course 2:

46

Enter marks of course 3:

49

Enter marks of course 4:

48

Enter marks of course 5:

47

Enter see marks:

Enter marks of course 1:

50

Enter marks of course 2:

47

Enter marks of course 3:

48

Enter marks of course 4:

46

Enter marks of course 5:

45

Name: Lily

usn: 234

Sem: 4

Internals Marks:

Marks of course 1: 45

Marks of course 2: 46

Marks of course 3: 49

Marks of course 4: 48

Marks of course 5: 47

@

See Marks:

Marks of course 1: 50

Marks of course 2: 47

Marks of course 3: 48

Marks of course 4: 46

Marks of course 5: 45

Marks of Lily is:

Final marks in course 1: 95

Final marks in course 2: 93

Final marks in course 3: 97

Final marks in course 4: 94

Final marks in course 5: 92

21/0/24

```

package cie;
import java.util.Scanner;
public class Student
{
    public int usn,sem;
    public String sname;
    Scanner ss=new Scanner(System.in);
    public void getd()
    {
        System.out.println("enter name:");
        sname=ss.next();
        System.out.println("enter usn:");
        usn=ss.nextInt();
        System.out.println("enter sem:");
        sem=ss.nextInt();
    }
    public void disp()
    {

        System.out.println("name:"+sname);
        System.out.println("usn:"+usn);
        System.out.println("sem:"+sem);
    }
}

package cie;
import java.util.Scanner;
public class Internals
{
    public int marks[]=new int[5];
    Scanner sa=new Scanner(System.in);

    public void getd1()
    {
        System.out.println("enter internals marks:");
        for(int i=0;i<5;i++)
        {
            System.out.println("enter marks of course "+(i+1)+":");
            marks[i]=sa.nextInt();
        }
    }
    public void disp1()
    {
        System.out.println("internals marks");
        for(int i=0;i<5;i++)
        {
            System.out.println("marks of course "+(i+1)+":"+marks[i]);
        }
    }
}

```

```

}
}

package see;
import cie.Student;
import java.util.Scanner;
public class External extends Student
{
    public int m[]=new int[5];
    Scanner sr=new Scanner(System.in);

    public void getd2()
    {
        System.out.println("enter see marks");
        for(int j=0;j<5;j++)
        {
            System.out.println("enter marks of course "+(j+1)+":");
            m[j]=sr.nextInt();
        }
    }
    public void disp2()
    {
        System.out.println("see marks");

        for(int j=0;j<5;j++)
        {
            System.out.println("marks of course "+(j+1)+":"+m[j]);
        }
    }
}

import cie.Internals;
import cie.Student;
import see.External;
import java.util.Scanner;
class Finals
{
    public static void main(String args[])
    {
        int n;
        Scanner se=new Scanner(System.in);
        int mark[]=new int[5];
        Student s=new Student();
        Internals it=new Internals();
        External et=new External();

        System.out.println("enter n:");
        n=se.nextInt();
        for(int f=0;f<n;f++)

```

```
{  
  
s.getd();  
it.getd1();  
et.getd2();  
s.disp();  
it.disp1();  
et.disp2();  
System.out.println("marks of "+s.sname+"is");  
for(int k=0;k<5;k++)  
{  
mark[k]=(it.marks[k])+(et.m[k]);  
System.out.println("finals marks in course "+(k+1)+":"+mark[k]);  
}  
}  
}  
}
```


Command Prompt

X

+

✓

```
C:\1BM23CS303>javac Finals.java
```

```
C:\1BM23CS303>java Finals
```

enter n:

3

enter name:

rony

enter usn:

345

enter sem:

3

enter internals marks:

enter marks of course 1:

44

enter marks of course 2:

45

enter marks of course 3:

46

enter marks of course 4:

47

enter marks of course 5:

48

enter see marks

enter marks of course 1:

49

enter marks of course 2:

48

enter marks of course 3:

47

enter marks of course 4:

45

enter marks of course 5:

46

name:rony

usn:345

sem:3

internals marks

marks of course 1:44

marks of course 2:45

marks of course 3:46

marks of course 4:47

Command Prompt

```
sem:3
internals marks
marks of course 1:44
marks of course 2:45
marks of course 3:46
marks of course 4:47
marks of course 5:48
see marks
marks of course 1:49
marks of course 2:48
marks of course 3:47
marks of course 4:45
marks of course 5:46
marks of ronyis
finals marks in course 1:93
finals marks in course 2:93
finals marks in course 3:93
finals marks in course 4:92
finals marks in course 5:94
enter name:
lily
enter usn:
234
enter sem:
4
enter internals marks:
enter marks of course 1:
45
enter marks of course 2:
46
enter marks of course 3:
49
enter marks of course 4:
48
enter marks of course 5:
47
enter see marks
enter marks of course 1:
50
enter marks of course 2:
47
```

Command Prompt

enter marks of course 5:
47

enter see marks

enter marks of course 1:
50

enter marks of course 2:
47

enter marks of course 3:
48

enter marks of course 4:
46

enter marks of course 5:
45

name:lily

usn:234

sem:4

internals marks

marks of course 1:45

marks of course 2:46

marks of course 3:49

marks of course 4:48

marks of course 5:47

see marks

marks of course 1:50

marks of course 2:47

marks of course 3:48

marks of course 4:46

marks of course 5:45

marks of lilyis

finals marks in course 1:95

finals marks in course 2:93

finals marks in course 3:97

finals marks in course 4:94

finals marks in course 5:92

enter name:

emy

enter usn:

456

enter sem:

2

enter internals marks:


```
Command Prompt
enter name:
emy
enter usn:
456
enter sem:
2
enter internals marks:
enter marks of course 1:
34
enter marks of course 2:
35
enter marks of course 3:
38
enter marks of course 4:
39
enter marks of course 5:
45
enter see marks
enter marks of course 1:
46
enter marks of course 2:
4
enter marks of course 3:
47
enter marks of course 4:
48
enter marks of course 5:
49
name:emy
usn:456
sem:2
internals marks
marks of course 1:34
marks of course 2:35
marks of course 3:38
marks of course 4:39
marks of course 5:45
see marks
marks of course 1:46
marks of course 2:4
marks of course 3:47
```


Command Prompt

```
4
enter marks of course 3:
47
enter marks of course 4:
48
enter marks of course 5:
49
name:emy
usn:456
sem:2
internals marks
marks of course 1:34
marks of course 2:35
marks of course 3:38
marks of course 4:39
marks of course 5:45
see marks
marks of course 1:46
marks of course 2:4
marks of course 3:47
marks of course 4:48
marks of course 5:49
marks of emyis
finals marks in course 1:80
finals marks in course 2:39
finals marks in course 3:85
finals marks in course 4:87
finals marks in course 5:94

C:\1BM23CS303>
```