FILE: Student.java

```java
package CIE;

public class Student
{
        public String name,usn;

        public int sem;
}
```

FILE: Internals.java

```java
package CIE;

import java.util.Scanner;

public class Internals extends Student
{
        Scanner sc=new Scanner(System.in);

        public int intmarks[]=new int[5];

        public void accept(int s,String USN,String Name,int Sem)
        {
        int i;

        usn=USN;

        name=Name;

        sem=Sem;

        for(i=0;i<5;i++)
        {
                System.out.println("Enter "+s+" student's internals marks in "+(i+1)+" subject out of 50");

                intmarks[i]=sc.nextInt();
        }
        }
}
```

FILE: External.java

```java
package SEE;

import CIE.*;
```

```java
import java.util.Scanner;

public class External extends CIE.Student
{

        Scanner sc=new Scanner(System.in);

        public int extmarks[]=new int[5];

        public void accept(int s,String USN,String Name,int Sem)

        {

        int i;

        usn=USN;

        name=Name;

        sem=Sem;

        for(i=0;i<5;i++)

        {

                System.out.println("Enter "+s+" student's external marks in "+(i+1)+" subject out of
100");

                extmarks[i]=sc.nextInt();

        }

        }

}
```

FILE: marks.java

```java
import CIE.*;

import SEE.*;

import java.util.Scanner;

class marks
{

        public static void main(String args[])

        {

                int n,i,j,Sem;

                String USN,Name;

                Scanner sc=new Scanner(System.in);

                System.out.println("Enter the number of students");
```

```java
            n=sc.nextInt();

            CIE.Internals cie[]=new CIE.Internals[n];

            SEE.External see[]=new SEE.External[n];

            for(i=0;i<n;i++)

            {

                    System.out.println("Enter "+(i+1)+" student's USN, name and sem");

    USN=sc.next();

        Name=sc.next();

        Sem=sc.nextInt();

                    cie[i]=new CIE.Internals();

                    cie[i].accept(i+1,USN,Name,Sem);

                    see[i]=new SEE.External();

                    see[i].accept(i+1,USN,Name,Sem);

            }

            for(i=0;i<n;i++)

            {

                    System.out.println("---Details of student "+(i+1)+"---");

    System.out.println("USN: "+cie[i].usn);

    System.out.println("Name: "+cie[i].name);

                    System.out.println("Semester: "+cie[i].sem);

                    for(j=0;j<5;j++)

                    {

                    System.out.println("Final marks in "+(j+1)+" subject:
"+(cie[i].intmarks[j]+(see[i].extmarks[j]/2)));

                    }

                    System.out.println();

            }

        }

}
```

```
C:\Users\Adithi\Desktop\java_prgs\package1>javac Student.java

C:\Users\Adithi\Desktop\java_prgs\package1>javac Internals.java

C:\Users\Adithi\Desktop\java_prgs\package1>javac External.java

C:\Users\Adithi\Desktop\java_prgs\package1>javac marks.java

C:\Users\Adithi\Desktop\java_prgs\package1>java marks
Enter the number of students
2
Enter 1 student's USN, name and sem
1BM10CS001
Aditi
2
Enter 1 student's internals marks in 1 subject out of 50
40
Enter 1 student's internals marks in 2 subject out of 50
50
Enter 1 student's internals marks in 3 subject out of 50
44
Enter 1 student's internals marks in 4 subject out of 50
45
Enter 1 student's internals marks in 5 subject out of 50
43
Enter 1 student's external marks in 1 subject out of 100
80
Enter 1 student's external marks in 2 subject out of 100
90
Enter 1 student's external marks in 3 subject out of 100
99
Enter 1 student's external marks in 4 subject out of 100
100
Enter 1 student's external marks in 5 subject out of 100
98
Enter 2 student's USN, name and sem
1BM10CS002
Anu
2
Enter 2 student's internals marks in 1 subject out of 50
40
Enter 2 student's internals marks in 2 subject out of 50
```

```
Enter 2 student's USN, name and sem
1BM10CS002
Anu
2
Enter 2 student's internals marks in 1 subject out of 50
40
Enter 2 student's internals marks in 2 subject out of 50
43
Enter 2 student's internals marks in 3 subject out of 50
30
Enter 2 student's internals marks in 4 subject out of 50
43
Enter 2 student's internals marks in 5 subject out of 50
44
Enter 2 student's external marks in 1 subject out of 100
88
Enter 2 student's external marks in 2 subject out of 100
87
Enter 2 student's external marks in 3 subject out of 100
78
Enter 2 student's external marks in 4 subject out of 100
76
Enter 2 student's external marks in 5 subject out of 100
89
---Details of student 1---
USN: 1BM10CS001
Name: Aditi
Semester: 2
Final marks in 1 subject: 80
Final marks in 2 subject: 95
Final marks in 3 subject: 93
Final marks in 4 subject: 95
Final marks in 5 subject: 92

---Details of student 2---
USN: 1BM10CS002
Name: Anu
Semester: 2
Final marks in 1 subject: 84
Final marks in 2 subject: 86
Final marks in 3 subject: 69
Final marks in 4 subject: 81
Final marks in 5 subject: 88


C:\Users\Adithi\Desktop\java_prgs\package1>
```