

```
1  /*Create a package CIE which has two classes- Student and Internals. The class Personal has
2  members like usn, name, sem. The class internals has an array that stores the internal marks
3  scored in five courses of the current semester of the student. Create another package SEE
4  which has the class External which is a derived class of Student. This class has an array that
5  stores the SEE marks scored in five courses of the current semester of the student. Import the
6  two packages in a file that declares the final marks of n students in all five courses.*/
7  package cie;
8  import java.util.Scanner;
9  public class Internals extends Student{
10     public int marks[]=new int[5];
11     Scanner ss=new Scanner(System.in);
12     public void getInternals(){
13         for(int i=0;i<5;i++){
14             System.out.println("Enter your marks in subject "+(i+1)+":");
15             marks[i]=ss.nextInt();
16         }
17     }
18 }
```

```
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2  members like usn, name, sem. The class internals has an array that stores the internal marks
3  scored in five courses of the current semester of the student. Create another package SEE
4  which has the class External which is a derived class of Student. This class has an array that
5  stores the SEE marks scored in five courses of the current semester of the student. Import the
6  two packages in a file that declares the final marks of n students in all five courses.*/
7  package see;
8  import cie.*;
9  import java.util.Scanner;
10 public class External extends cie.Student{
11     public int externalm[]=new int[5];
12     Scanner ss=new Scanner(System.in);
13     public void getExternals(){
14         for(int i=0;i<5;i++){
15             System.out.println("Enter your marks in subject "+(i+1)+" out of 100:");
16             externalm[i]=ss.nextInt();
17         }
18     }
19 }
```

```
1 package cie;
2 import java.util.Scanner;
3 public class Student{
4     public String name,usn;
5     public int sem;
6     Scanner ss=new Scanner(System.in);
7     public void get(){
8         System.out.println("Enter your name:");
9         name=ss.nextLine();
10        System.out.println("Enter your usn:");
11        usn=ss.next();
12        System.out.println("Enter your semester:");
13        sem=ss.nextInt();
14    }
15 }
16
```

```
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2  members like usn, name, sem. The class internals has an array that stores the internal marks
3  scored in five courses of the current semester of the student. Create another package SEE
4  which has the class External which is a derived class of Student. This class has an array that
5  stores the SEE marks scored in five courses of the current semester of the student. Import the
6  two packages in a file that declares the final marks of n students in all five courses.*/
7  import cie.*;
8  import see.*;
9  import java.util.Scanner;
10 class StudentMain{
11     public static void main(String args[]){
12         Scanner ss=new Scanner(System.in);
13         System.out.println("Enter the number of students:");
14         int n=ss.nextInt();
15         int total[];
16         int i,j;
17         total=new int[5];
18         cie.Internals in[]=new cie.Internals[n];
19         see.External e[]=new see.External[n];
20         for(i=0;i<n;i++){
21             in[i]=new cie.Internals();
22             e[i]=new see.External();
23             System.out.println("Enter details of student "+(i+1)+":");
24             in[i].get();
25             System.out.println("Enter your internals marks:");
26             in[i].getInternals();
27             System.out.println("Enter your externals marks:");
28             e[i].getExternals();
29         }
30     }
31     for(i=0;i<n;i++){
32         System.out.println("Student "+(i+1));
33     }
```



```
8 import see.*;
9 import java.util.Scanner;
10 class StudentMain{
11     public static void main(String args[]){
12         Scanner ss=new Scanner(System.in);
13         System.out.println("Enter the number of students:");
14         int n=ss.nextInt();
15         int total[];
16         int i,j;
17         total=new int[5];
18         cie.Internals in[]=new cie.Internals[n];
19         see.External e[]=new see.External[n];
20         for(i=0;i<n;i++){
21             in[i]=new cie.Internals();
22             e[i]=new see.External();
23             System.out.println("Enter details of student "+(i+1)+":");
24             in[i].get();
25             System.out.println("Enter your internals marks:");
26             in[i].getInternals();
27             System.out.println("Enter your externals marks:");
28             e[i].getExternals();
29         }
30     }
31     for(i=0;i<n;i++){
32         System.out.println("Student "+(i+1));
33         for(j=0;j<5;j++){
34             total[j]=in[i].marks[j]+(e[i].externalm[j]/2);
35             System.out.println("The total marks in subject "+(j+1)+":"+total[j]);
36         }
37     }
38 }
39 }
```

```
C:\Program Files\Java\bin\basic\Student Pack>javac Student.java

C:\Program Files\Java\bin\basic\Student Pack>javac Internals.java

C:\Program Files\Java\bin\basic\Student Pack>javac External.java

C:\Program Files\Java\bin\basic\Student Pack>javac StudentMain.java

C:\Program Files\Java\bin\basic\Student Pack>java StudentMain
Enter the number of students:
2
Enter details of student 1:
Enter your name:
harshitha
Enter your usn:
1bm1cs090
Enter your semester:
3
Enter your internals marks:
Enter your marks in subject 1:
34
Enter your marks in subject 2:
45
Enter your marks in subject 3:
45
Enter your marks in subject 4:
42
Enter your marks in subject 5:
36
Enter your externals marks:
Enter your marks in subject 1 out of 100:
62
Enter your marks in subject 2 out of 100:
90
Enter your marks in subject 3 out of 100:
80
Enter your marks in subject 4 out of 100:
7
Enter your marks in subject 5 out of 100:
89
```

```
Enter your marks in subject 5:
36
Enter your externals marks:
Enter your marks in subject 1 out of 100:
62
Enter your marks in subject 2 out of 100:
90
Enter your marks in subject 3 out of 100:
80
Enter your marks in subject 4 out of 100:
7
Enter your marks in subject 5 out of 100:
89
Enter details of student 2:
Enter your name:
kuhsi
Enter your usn:
1bm19cs099
Enter your semester:
2
Enter your internals marks:
Enter your marks in subject 1:
32
Enter your marks in subject 2:
31
Enter your marks in subject 3:
41
Enter your marks in subject 4:
42
Enter your marks in subject 5:
45
Enter your externals marks:
Enter your marks in subject 1 out of 100:
90
Enter your marks in subject 2 out of 100:
80
Enter your marks in subject 3 out of 100:
76
Enter your marks in subject 4 out of 100:
89
Enter your marks in subject 5 out of 100:
```

```
ibm19cs099
Enter your semester:
2
Enter your internals marks:
Enter your marks in subject 1:
32
Enter your marks in subject 2:
31
Enter your marks in subject 3:
41
Enter your marks in subject 4:
42
Enter your marks in subject 5:
45
Enter your externals marks:
Enter your marks in subject 1 out of 100:
90
Enter your marks in subject 2 out of 100:
80
Enter your marks in subject 3 out of 100:
76
Enter your marks in subject 4 out of 100:
89
Enter your marks in subject 5 out of 100:
96
Student 1
The total marks in subject 1:65
The total marks in subject 2:90
The total marks in subject 3:85
The total marks in subject 4:45
The total marks in subject 5:80
Student 2
The total marks in subject 1:77
The total marks in subject 2:71
The total marks in subject 3:79
The total marks in subject 4:86
The total marks in subject 5:93
```

```
C:\Program Files\Java\bin\basic\Student Pack>_
```