

Week 9- Lab Program 6

Solve this program and write the procedure you have used to execute this in your observation

Create a package CIE which has two classes- Student and Internals. The class Personal 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.

Internals.java

```
package CIE;
import java.util.Scanner;
public class Internals extends CIE.Student
{
    public int ciem[]=new int[5];
    Scanner xx =new Scanner (System.in);
    public void accept()
    {
        for(int i=0;i<5;i++)
        {
            System.out.println("Enter the cie marks of subject"+(i+1)+" out of 50");
            {
                ciem[i]=xx.nextInt();
            }
        }
    }
}
```

Externals.java

```
package SEE;
import CIE.*;
import java.util.Scanner;

public class Externals extends CIE.Student
{
    public int seem[]=new int[5];
    Scanner xx =new Scanner (System.in);
    public void accept()
    {
        for(int i=0;i<5;i++)
        {
            System.out.println("Enter the see marks of subject"+(i+1)+" out of 100");
            {
                seem[i]=xx.nextInt();
            }
        }
    }
}
```

Student.java

```
package CIE;
import java.util.Scanner;

public class Student
{
```

```

String name,usn;
int sem;
Scanner xx=new Scanner(System.in);
public void accept()
{
    System.out.println("Enter name:");
    name=xx.nextLine();
    System.out.println("Enter usn:");
    usn=xx.next();
    System.out.println("Enter sem:");
    sem=xx.nextInt();
}
public void display()
{
    System.out.println("Name :"+name);
    System.out.println("Usn :"+usn);
    System.out.println("Sem :"+sem);
}
}

```

TotalMarks.java

```

import CIE.*;
import SEE.*;
import java.util.*;

class TotalMarks
{
    public static void main(String sss[])
    {
        int i,j,n;
        int total[]=new int[5];
    }
}

```

```

Scanner xx=new Scanner(System.in);
System.out.println("Enter the number of students");
n=xx.nextInt();
CIE.Student s[]=new CIE.Student[n];
CIE.Internals ci[]= new CIE.Internals[n];
    SEE.Externals se[]=new SEE.Externals[n];
for(i=0;i<n;i++)
{
    System.out.println("ENTER STUDENT"+(i+1)+" DETAILS");
    s[i]=new CIE.Student();
    s[i].accept();
    ci[i]=new CIE.Internals();
    ci[i].accept();
    se[i]=new SEE.Externals();
    se[i].accept();
}
for(i=0;i<n;i++)
{
    System.out.println("DETAILS OF STUDENT "+(i+1));
    s[i].display();
    for(j=0;j<5;j++)
    {
        total[j]=ci[i].ciem[j]+(se[i].seem[j]/2);
        System.out.println("Total marks in subject"+(j+1)+" is "+total[j]);
    }
}
}
}
}

```

OUTPUT

```
OOPS_Progs — -bash — 80x24

Last login: Fri Nov 20 15:14:00 on ttys000

The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
Sudeshnas-MacBook-Air:~ sudeshnabhushan$ cd Desktop/3rd_SEM/OOPS_Progs
Sudeshnas-MacBook-Air:OOPS_Progs sudeshnabhushan$ javac CIE/Internals.java
Sudeshnas-MacBook-Air:OOPS_Progs sudeshnabhushan$ javac SEE/Externals.java
Sudeshnas-MacBook-Air:OOPS_Progs sudeshnabhushan$ javac TotalMarks.java
Sudeshnas-MacBook-Air:OOPS_Progs sudeshnabhushan$ java TotalMarks
Enter the number of students
3
ENTER STUDENT1 DETAILS
Enter name:
SUDESHNA
Enter usn:
1BM19CS189
Enter sem:
2
Enter the cie marks of subject1 out of 50
34
Enter the cie marks of subject2 out of 50
34
Enter the cie marks of subject3 out of 50
```

```
OOPS_Progs — -bash — 80x24

2
Enter the cie marks of subject1 out of 50
34
Enter the cie marks of subject2 out of 50
34
Enter the cie marks of subject3 out of 50
34
Enter the cie marks of subject4 out of 50
34
Enter the cie marks of subject5 out of 50
34
Enter the see marks of subject1 out of 100
77
Enter the see marks of subject2 out of 100
77
Enter the see marks of subject3 out of 100
77
Enter the see marks of subject4 out of 100
77
Enter the see marks of subject5 out of 100
77
ENTER STUDENT2 DETAILS
Enter name:
SUD
```

```
OOPS_Progs -- -bash -- 80x24

ENTER STUDENT2 DETAILS
Enter name:
SUD
Enter usn:
1BM19CS197
Enter sem:
3
Enter the cie marks of subject1 out of 50
22
Enter the cie marks of subject2 out of 50
22
Enter the cie marks of subject3 out of 50
22
Enter the cie marks of subject4 out of 50
22
Enter the cie marks of subject5 out of 50
22
Enter the see marks of subject1 out of 100
99
Enter the see marks of subject2 out of 100
99
Enter the see marks of subject3 out of 100
99
Enter the see marks of subject4 out of 100
```

```
OOPS_Progs -- -bash -- 80x24

99
Enter the see marks of subject2 out of 100
99
Enter the see marks of subject3 out of 100
99
Enter the see marks of subject4 out of 100
99
Enter the see marks of subject5 out of 100
99
ENTER STUDENT3 DETAILS
Enter name:
BHU
Enter usn:
1BM19CS567
Enter sem:
4
Enter the cie marks of subject1 out of 50
33
Enter the cie marks of subject2 out of 50
33
Enter the cie marks of subject3 out of 50
33
Enter the cie marks of subject4 out of 50
33
```

```
OOPS_Progs -- -bash -- 80x24

4
Enter the cie marks of subject1 out of 50
33
Enter the cie marks of subject2 out of 50
33
Enter the cie marks of subject3 out of 50
33
Enter the cie marks of subject4 out of 50
33
Enter the cie marks of subject5 out of 50
33
Enter the see marks of subject1 out of 100
66
Enter the see marks of subject2 out of 100
66
Enter the see marks of subject3 out of 100
66
Enter the see marks of subject4 out of 100
66
Enter the see marks of subject5 out of 100
66
DETAILS OF STUDENT 1
Name :SUDESHNA
Usn :1BM19CS189
```

```
OOPS_Progs -- -bash -- 80x24

DETAILS OF STUDENT 1
Name :SUDESHNA
Usn :1BM19CS189
Sem :2
Total marks in subject1 is 72
Total marks in subject2 is 72
Total marks in subject3 is 72
Total marks in subject4 is 72
Total marks in subject5 is 72
DETAILS OF STUDENT 2
Name :SUD
Usn :1BM19CS197
Sem :3
Total marks in subject1 is 71
Total marks in subject2 is 71
Total marks in subject3 is 71
Total marks in subject4 is 71
Total marks in subject5 is 71
DETAILS OF STUDENT 3
Name :BHU
Usn :1BM19CS567
Sem :4
Total marks in subject1 is 66
Total marks in subject2 is 66
```