

23/01/22

Lab - 7

Q Create a package CTE which has two classes. Student & Internals. The class student has members like usn, name and sem.

Student.java

package CTE;

public class Student

{

public String usn;

public String name;

public int sem;

public void inputStudentDetails()

{

Scanner sc = new Scanner(System.in);

System.out.println("Enter the student usn:");

usn = sc.nextLine();

System.out.println("Enter student name:");

name = sc.nextLine();

System.out.println("Enter student semester:");

sem = sc.nextInt();

}

public void display()

{

System.out.println("Student USN: " + usn);

System.out.println("Student Name: " + name);

System.out.println("Student Sem: " + sem);

}

Internals.java

```
package CIE;  
import java.util.Scanner;  
public class Internals extends Student  
{
```

```
    public int marks[], new int [5];  
    public void InputCIEmarks()  
    {
```

```
        Scanner sc = new Scanner(System.in);  
        for (int i = 0; i < 5; i++)  
        {
```

```
            System.out.println("Enter the marks for  
            subject " + (i+1) + " : ");  
            marks[i] = sc.nextInt();
```

```
        }
```

```
    }
```

```
}
```

Externals.java

```
package SEK;  
import CIE.Internals;  
import java.util.Scanner;  
public class Externals extends CIE.Internals?  
    public int marks[];  
    public int finalMarks[];
```

```
public Externals()  
{
```

```
    marks = new int[5];
```

```
    finalMarks = new int[5];
```

```
}
```


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```
public void inputSEEMarks()
```

```
{  
    Scanner sc = new Scanner(System.in);  
    for (int i = 0; i < 5; i++)
```

```
{  
        System.out.println ("Enter subject " + (i+1) + " marks:");  
        marks[i] = sc.nextInt();  
    }
```

```
}
```

```
public void calculateFinalMarks()
```

```
{  
    for (int i = 0; i < 5; i++)
```

```
{  
        finalMarks[i] = marks[i] / 2 + super.marks[i];  
    }
```

```
}
```

```
public void displayFinalMarks()
```

```
{  
    inputStudentDetails();
```

```
    for (int i = 0; i < 5; i++)  
    {
```

```
        System.out.println ("Subject " + (i+1) + " final marks: ");  
    }
```

```
}
```

```
}
```

Main.java

```
import SEE.Externals;
```

```
class Package Main {
```

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

```
        int numOfStudent = 2;
```

```
        Externals finalMarks[], new Externals[numOfStudent];
```

```
        for (int i = 0; i < numOfStudent; i++)  
        {
```

```

finalMarks[i].newExternals();
finalMarks[i].inputStudentDetails();
System.out.println("Enter CIE Marks");
finalMarks[i].inputCIEmarks();
System.out.println("Enter SEE marks");
finalMarks[i].inputSEEMarks();
}
    
```

```

System.out.println("Displaying Data:\n");
for (int i = 0; i < numOfStudent; i++)
{
    }
    
```

```

finalMarks[i].calculateFinalMarks();
finalMarks[i].displayFinalMarks();
}
}
}
    
```

O/p

Enter student USN : 2023BM302541

Enter student name: Sindhuja

Enter student semester: 3

Enter CIE marks :

Enter 5 marks : 45 44 46 42 49

Enter SEE marks

98 95 96 88 85

Enter student USN : IBM20CS279

Enter student name : Shreya

Enter student semester: 3

Enter CIE marks: 50 40 48 45 45

Enter SEE marks: 98 96 95 98 100

Displaying Data

Student Name: Sindhuja

Student USN: 2023BMSD2541

Semester 3

Marks 1 : 94

Marks 2 : 91

Marks 3 : 94

Marks 4 : 86

Student Name: Shreya

Student USN: 1BM22CS279

Semester: 3

Marks 1 : 99

Marks 2 : 91

Marks 3 : 95

Marks 4 : 94

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