

LAB-6

1. CIE / Student.java

```
package CIE;  
import java.util.Scanner;  
public class Student {  
    protected String usn;  
    protected String name;  
    protected int sem;
```

```
    public void InputStudentDetails() {  
        Scanner s = new Scanner(System.in);  
        System.out.print("Enter usn: ");  
        usn = s.nextLine();  
        System.out.print("Enter Name: ");  
        name = s.nextLine();  
        System.out.print("Enter Semester: ");  
        sem = s.nextInt();  
    }
```

```
    public void displayStudentDetails() {  
        System.out.println("USN:" + usn);  
        System.out.println("Name:" + name);  
        System.out.println("Semester:" + sem);  
    }  
}
```


2. CIE/Internals.java

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

```
public class Internals extends Student {  
    protected int[] internalMarks = new int[5];  
    public void inputCIE marks() {  
        Scanner s = new Scanner(System.in);  
        System.out.println("Enter Internal Marks for  
        5 Subjects: ");  
        for (int i = 0; i < 5; i++) {  
            System.out.print("Subject " + (i + 1) + ": ");  
            internalMarks[i] = s.nextInt();  
        }  
    }  
}
```


3. SEE/ Externals .java

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

public class Externals extends Internals {
    private protected int[] seeMarks = new int[5];
    protected int[] finalMarks = new int[5];

    public void inputSEEmarks() {
        Scanner s = new Scanner(System.in);
        System.out.println("Enter SEE Marks for 5 Subjects:");
        for (int i = 0; i < 5; i++) {
            System.out.print("Subject " + (i + 1) + ": ");
            seeMarks[i] = s.nextInt();
        }
    }

    public void CalculateFinalMarks() {
        for (int i = 0; i < 5; i++) {
            finalMarks[i] = internalMarks[i] + seeMarks[i];
        }
    }
}
```



```
public void displayFinalMarks() {  
    displayStudentDetails();  
    System.out.println("Final Marks for 5 subs");  
    for (int i=0; i<5; i++) {  
        System.out.println("Subject " + (i+1) +  
            " : " + finalMarks[i]);  
    }  
}
```

4. Main.java

```
import SEE.Externals;  
import java.util.Scanner;
```

```
Class Main {
```

```
    public static void main(String[] args) {  
        Scanner s = new Scanner(System.in);  
        System.out.print("Enter number of students:");  
        int n = s.nextInt();
```

```
        Externals[] students = new Externals[n];
```



```
for (int i=0 ; i<n ; i++){  
    System.out.println("\nEnter details for student  
        + (i+1) + " : ");  
    students[i] = new Externals();  
    students[i].inputStudentDetails();  
    students[i].input CIE marks();  
    students[i].input SEE marks();  
    students[i].calculate Final Marks();  
}  
System.out.println("\n Final Marks of Students :")  
for (int i=0 ; i<n ; i++){  
    System.out.println("\n student" + (i+1) + " :");  
    students[i].display Final Marks();  
}  
}
```


Q/p: Enter number of students: 1

Enter details of student 1:

Enter USN: 1BM23CSD16

Enter Name: Areen

Enter Semester: 2

Enter Internal Marks for 5 subjects:

Subject 1: 15

Subject 2: 14

Subject 3: 13

Subject 4: 12

Subject 5: 15

Enter SEE Marks for 5 subjects:

Subject 1: 60

Subject 2: 58

Subject 3: 65

Subject 4: 62

Subject 5: 60

~~Final Marks of Students:~~

Student 1:

USN: 1BM231S016

Name: Afreen Anz

Semester: 2

Final Marks for 5 subjects:

Subject 1: 75

Subject 2: 72

Subject 3: 78

Subject 4: 74

Subject 5: 75

Seen
by
13/11/24