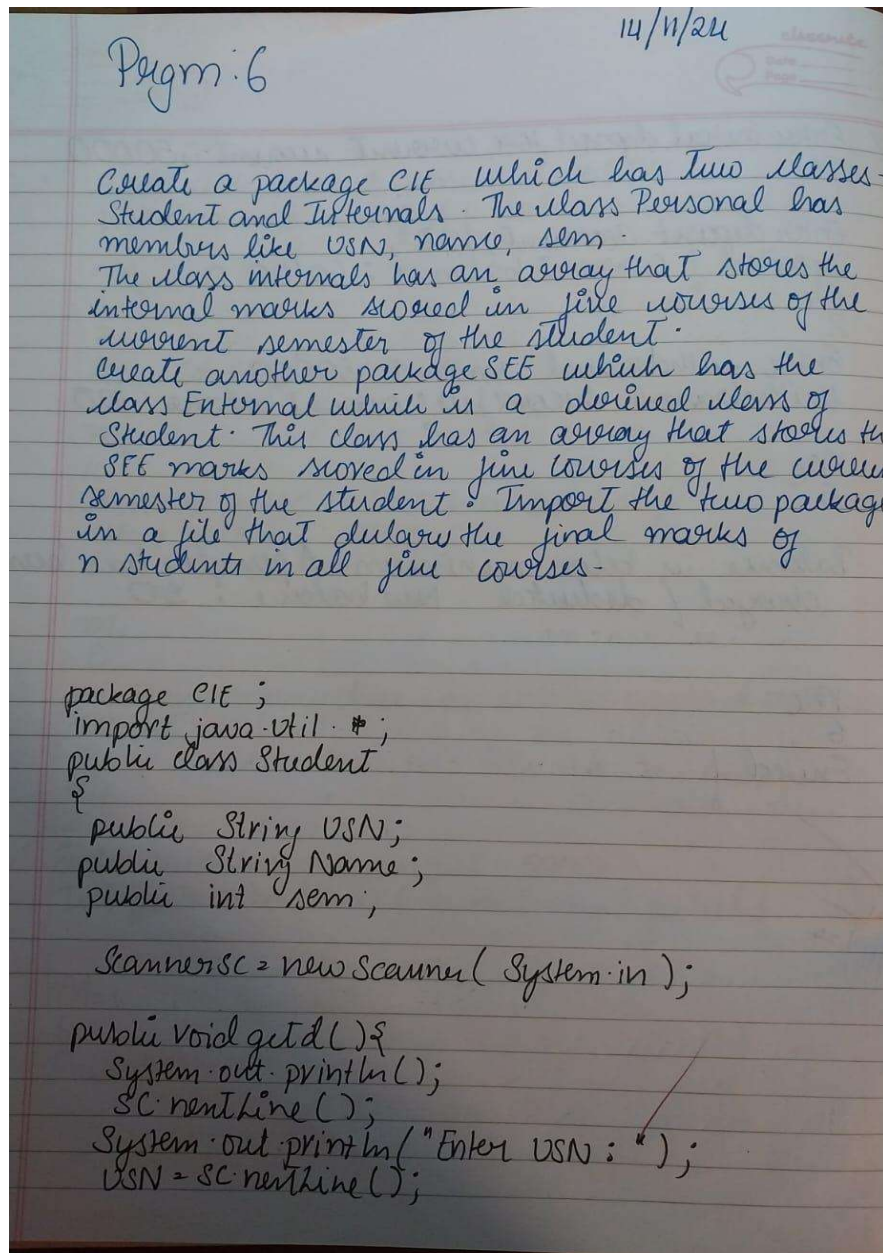


## WEEK 6 :

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.



```

package SEE
import CIE.*;
import java.util.*;
public class External extends Student {
    Scanner sc = new Scanner(System.in);
    public int smarks[] = new int[5];
    public void getd() {
        System.out.println("Enter SEE marks");
        for (int i = 0; i < 5; i++) {
            smarks[i] = sc.nextInt();
        }
    }
    public void putd() {
        for (int i = 0; i < 5; i++) {
            System.out.println(smarks[i] + " ");
        }
    }
    public int finalmarks(int x, int smarks) {
        return marks + (smarks[x] / 2);
    }
}

import java.util.*;
import CIE.*;
import SEE.*;
class Main {
    public static void main (String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number of student");
        int n = sc.nextInt();
        Student s = new Student();
    }
}

```

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```

System.out.println("Enter name: ");
Name = SC.nextLine();
System.out.println("Enter sem: ");
sem = SC.nextInt();
}
public void putd() {
    System.out.println(" USN: " + USN);
    System.out.println(" Name: " + Name);
    System.out.println(" sem: " + sem);
}
}

```

```

package CIE;
import java.util.*;
public class Internals;
Scanner SC = new Scanner(System.in);
public int marks[] = new int[5];
public void getd() {
    System.out.println("Enter CIE marks:");
    for (int i = 0; i < 5; i++) {
        marks[i] = SC.nextInt();
    }
}
public void getputd() {
    for (int i = 0; i < 5; i++) {
        System.out.println(marks[i] + " ");
    }
}
}

```



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```

Internals IC[] = new Internals[n];
Externals EC[] = new Externals[n];
for (int i = 0; i < n; i++) {
    s.getd(i);
    s.putd(i);
    IC[i] = new Internals();
    IC[i].getd(i);
    IC[i].putd(i);
    EC[i] = new Externals();
    EC[i].getd(i);
    EC[i].putd(i);
}

```

```

System.out.println("Final Marks");
for (int j = 0; j < 5; j++) {
    int finalmarks = EC[i].getfinalmarks(
        j, IC[i].marks[j]);
}

```

```

System.out.println(finalmarks);
}
}
}

```

Enter number of student  
2

Enter USN:

IBM23CS292

Enter name:

Samir

Enter Sem :

3

USN : IBM23CS292

Name : Samudra

Sem : 3

Enter CIE marks :

20

21

22

23

24

Enter SEE marks

30

31

32

33

34

Final marks

35

36

38

39

41

Enter USN :

IBM 23A1018

Enter Name :

Sahana

Enter Sem :

3

USN : IBM23A10S8  
Name : Sahana  
Sem : 3  
Enter CIE marks :

30

31

32

33

34

Enter SEE mark

30

31

32

33

34

~~3~~

Final marks

60

62

64

66

~~68~~ 68

21 / 11 / 24

```

package SEE;
import CIE.Student;
import CIE.Internals;
import java.util.Scanner;
public class Externals extends Student {
    int marksSee[] = new int[5];
    public void getMarks() {
        for(int i=0;i<5;i++) {
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter SEE marks in subject "+(i+1));
            marksSee[i]=sc.nextInt();
        }
    }
    public void calcTotalMarks(Internals i1) {
        for(int i=0;i<5;i++) {
            System.out.println("Subject "+(i+1)+" :
"+(i1.returnCieMarks(i)+(marksSee[i]/2)));
        }
        System.out.println();
    }
}
}

```

```

package CIE;
import java.util.Scanner;
public class Internals {
    public int marksCie[] = new int[5];
    public void getMarks() {
        for(int i=0;i<5;i++) {
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter CIE marks in subject "+(i+1));
            marksCie[i]=sc.nextInt();
        }
    }
    public int returnCieMarks(int i) {

```

```

        return marksCie[i];
    }
}
package CIE;
import java.util.Scanner;
public class Student {
    String usn;
    String name;
    int sem;
    public void getd() {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter student USN");
        usn = sc.nextLine();
        System.out.println("Enter student name");
        name = sc.nextLine();
        System.out.println("Enter semester");
        sem = sc.nextInt();
    }
    public void display() {
        System.out.println();
        System.out.println("Student USN: "+usn);
        System.out.println("Student name: "+name);
        System.out.println("Semester: "+sem);
        System.out.println();
    }
}

```

```

import CIE.Student;
import CIE.Internals;
import SEE.Externals;
import java.util.Scanner;
public class Main {
    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number of students whose details you want
to enter");
        int n = sc.nextInt();
        Internals[] i1 = new Internals[n];
        Externals[] e1 = new Externals[n];
        for(int i=0;i<n;i++) {
            System.out.println("Student "+(i+1)+" details:");
            e1[i] = new Externals();

```



```

        i1[i] = new Internals();
        e1[i].getd();
        i1[i].getMarks();
        e1[i].getMarks();
    }
    for(int i=0;i<n;i++) {
        e1[i].display();
        e1[i].calcTotalMarks(i1[i]);
    }
}
}

```

```

Enter number of students: 2
Enter details for CIE Student 1:
USN: 1
Name: sagar
Semester: 2
Enter internal marks for 5 courses:
38 40 41 45 46
Enter details for SEE Student 1:
USN: 1
Name: sagar
Semester: 2
Enter external marks for 5 courses:
39 42 45 50 48
Enter details for CIE Student 2:
USN: 2
Name: chetan
Semester: 3
Enter internal marks for 5 courses:
40 44 46 47 50
Enter details for SEE Student 2:
USN: 2
Name: chetan
Semester: 3
Enter external marks for 5 courses:
40 44 46 47 50

Final Marks for all students:
USN: 1, Name: sagar, Semester: 2
Internal Marks: 38 40 41 45 46
USN: 1, Name: sagar, Semester: 2
External Marks: 39 42 45 50 48
Final Marks: 77 82 86 95 94

USN: 2, Name: chetan, Semester: 3
Internal Marks: 40 44 46 47 50
USN: 2, Name: chetan, Semester: 3
External Marks: 40 44 46 47 50
Final Marks: 80 88 92 94 100

```