```
        System.out.println(" Enter details
        of students");
        name = S.next();
        usn = S.next();
        sem = S.nextInt();
    }
    public void displayStudentDetails() {
        System.out.println(" Name " + name
                + "\n USN " + usn
                + "\n Sem: " + sem);
    }
}
```

Internals.java

```
Package CIE;
import java.util.Scanner;
public class Internals extends Student {
    protected int marks[] = new int[5];
    public void inputCieMarks()
    {
        Scanner s = new Scanner(System.in);
        System.out.println(" Enter marks of
        students");
        for (int i=0; i<5; i++)
        {
```

```
            marks[i] = s.nextInt();
        }
    }
}
```

Externals.java

```
package SEE;

import CIE.Internals;
import java.util.Scanner;

public External class Externals extends Internals {
    protected int marks[];
    protected int finalmarks[];

    public Externals() {
        marks = new int[5];
        finalmarks = new int[5];
    }

    public void inputSEEmarks() {
        Scanner s = new Scanner(System.in);
        for(int i=0; i<5; i++)
        {
            System.out.println("Subject "+(i+1)+
                    " marks:");
            marks[i] = s.nextInt();
        }
    }
}
```

o Create a package called maths having a class number (add & subtract method). Implement a simple class called MathsDemo to use maths (outside package maths) also makes use of package provided by maths.

---

o Create a package CIE which has two classes Student and Internals. The class Student has members like usn, name, sem. The class internals has an array that stores 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

Student.java

```
Package CIE;
impor java.util.Scanner;
public class Student { protected String usn = new String();
    protected String name = new String();
    protected int sem;
    public void inputStudentDetails () {
                                    Scanner s = new
                                    Scanner(System.in);
```

Subject 4 marks : 4

Subject 5 marks : 94

Error set marks

Subject 1 marks : 68

Subject 2 marks : 75

Subject 3 marks : 87

Subject 4 marks : 94

Subject 5 marks : 88

Displaying data :

Subject 1 marks : 81

Subject 2 marks : 82

Subject 3 marks : 92

Subject 4 marks : 92

Subject 5 marks : 82

24-1-24

```
public void calculateFinalMarks() {
    for (int i=0; i<5; i++)
    {
        finalMarks[i] = marks(i)/2
                        + Super.marks(i)/2;
    }
}
public void displayFinalMarks() {
    displayStudentDetails();
    for (int i=0; i<5; i++)
        System.out.println("Subject " +
                           (i+1) + " : " +
                           finalMarks[i]);
}
```

Main.java

```
import SEE.External;

class Main{

    public static void main(String args[]) {

        int numOfStudents = 2;

        External finalMarks[] = new External[numOfStudents];

        for (int i=0; i<numOfStudents; i++)
        {
            finalMarks[i] = new External();
```

```
            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<numofStudents; i++)
        {
            finalMarks[i].calculateFinalMarks();
            finalMarks[i].displayFinalMarks();
        }
    }
}
```

Output

```
Enter USN: 1BM22CS235
Enter Name: Samarth
Enter semester: 2
Enter CIE marks
Enter internal marks
Subject 1 marks: 47
subject 2 marks: 44
subject 3 marks: 48
```