Aim:

Write a Java program to illustrate the **multilevel inheritance** concept.

Create a class `Student`
- contains the data members **id** of **int** data type and **name** of **string** type
- write a method **setData()** to initialize the data members
- write a method **displayData()** which will display the given **id** and **name**

Create a class `Marks` which is derived from the class `Student`
- contains the data members **javaMarks**, **cMarks** and **cppMarks** of **float** data type
- write a method **setMarks()** to initialize the data members
- write a method **displayMarks()** which will display the given data

Create another class `Result` which is derived from the class `Marks`
- contains the data members **total** and **avg** of **float** data type
- write a method **compute()** to find total and average of the given marks
- write a method **showResult()** which will display the total and avg marks

Write a class `MultilevelInheritanceDemo` with the **main()** method which will receive five arguments as **id**, **name**, **javaMarks**, **cMarks** and **cppMarks**.

Create object only to the class `Result` to access the methods.

If the input is given as command line arguments to the **main()** as **"99"**, **"Lakshmi"**, **"55.5"**, **"78.5"**, **"72"** then the program should print the output as:

```
Id : 99
Name : Lakshmi
Java marks : 55.5
C marks : 78.5
Cpp marks : 72.0
Total : 206.0
Avg : 68.666664
```

Note: Please don't change the package name.

Source Code:

q11264/MultilevelInheritanceDemo.java

```java
package q11264;
class Student
{
    int id;
    String name;
    void setData(String args[])
    {
        id = Integer.valueOf(args[0]);
        name = args[1];
    }
    void displayData()
    {
        System.out.println("Id : "+id);
```

```java
            System.out.println("Name : "+name);
    }
}
class Marks extends Student
{
    float jm,cm,cppm;
    void setMarks(String args[])
    {
        super.setData(args);
        jm=Float.valueOf(args[2]);
        cm=Float.valueOf(args[3]);
        cppm=Float.valueOf(args[4]);
    }
    void displayMarks()
    {
        super.displayData();
        System.out.println("Java marks : "+jm);
        System.out.println("C marks : "+cm);
        System.out.println("Cpp marks : "+cppm);
    }
}
class Result extends Marks
{
    float t,a;
    void compute(String args[])
    {
        super.setMarks(args);
        t=jm+cm+cppm;
        a=t/3;
    }
    void showResult()
    {
        super.displayMarks();
        System.out.println("Total : "+t);
        System.out.println("Avg : "+a);
    }
}
class MultilevelInheritanceDemo
{
    public static void main(String args[])
    {
        Result r = new Result();
        r.compute(args);
        r.showResult();
    }
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Id : 99
Name : Geetha
Java marks : 56.0

C marks : 75.5
Cpp marks : 66.6
Total : 198.1
Avg : 66.03333

Test Case - 2
User Output
Id : 199
Name : Lakshmi
Java marks : 55.5
C marks : 78.5
Cpp marks : 78.0
Total : 212.0
Avg : 70.666664