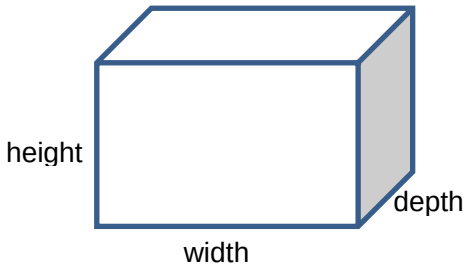
Lab 7

Box Class	
Attributes: width, height, depth **Public Interface:** Constructor() Constructor(3 parameters) 3 setter for each attribute 3 getter for each attribute calculateVolume() calculateSurfaceArea()	

Create a new Eclipse project named YourStudentId_Lab7. Add the following classes to the project: Box, BoxTester. Implement the Box class first as specified above.

For your reference
Box class

```
public class Box {
    private double height;
    private double width;
    private double depth;
}
```

BoxTester class

```
public class BoxTester {
    Public static void main(String[] args){
        //Add your code here.
    }
}
```

1. Create a Box object named `box1` in BoxTester, and use setter for assigning 5.0 to height, width, and depth.

```
Box box1 = new Box();
box1.setHeight(5.0);
…
```

2. Create a Box object named `box2`, and assign 10.0 to height, width, and depth in the constructor.

3. Show the height, width, and depth of box2 in the console.
   Sample output:

```
Height: 10.0
Width: 10.0
Depth: 10.0
```

4. Implement `calculateVolume()` in Box class, and show the volume of box2 in BoxTester.
   Sample code:

```
box2.calculateVolume();
```

Sample output:

```
The volume is: 1000.0
```

5. Implement `calculateSurfaceArea()` in Box class, and show the volume of box2 in BoxTester.
Sample code:

```
box2.calculateSurfaceArea();
```

Sample output:

```
The surface area is: 600.0
```

6. Try the following code in BoxTester, what will happen? Please explain it in comment.

```
box2.height = 9;
/*
    Write your answer here.
*/
```

Supposedly, you would see a compiler error. Please add "//" before box2.height = 9;

Submission: Submit your project as "zip (or rar) file" via WM5. No other submissions will be graded.

Reminder: Please zip the whole project

Deadline: Tomorrow's midnight (for both Mon56 and Tue23)