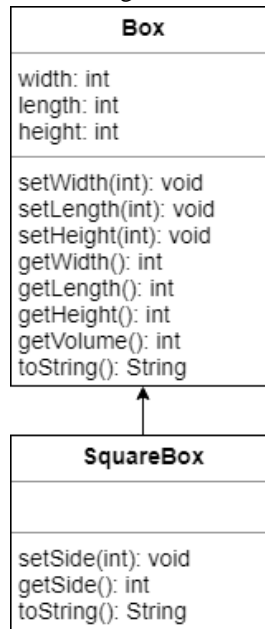


## Lab 11

Create a new Eclipse project named **YourStudentId\_Lab11** and add two classes and one tester to the project.

Following figure shows the inheritance, attributes and methods for each class. For setter and getter please refer to Figure 1.

Figure 1



Box	
Modifier and type	Method (or Variable) and description
<b>Instance variable</b>	
<b>int</b>	width The width of this rectangle
<b>int</b>	length The length of this rectangle
<b>int</b>	height The height of this rectangle
<b>Constructor</b>	
<b>Box(int width, int length, int height)</b> Constructs a box object with given values.	
<b>Instance methods</b>	
<b>int</b>	getVolume() Returns the volume of this box.
<b>String</b>	toString() Returns a String description for this box. (See output below)

SquareBox	
Modifier and type	Method (or Variable) and description
<b>Constructor</b>	
<b>Square(int side)</b> Constructs a square object with given value.	
<b>Instance methods</b>	
<b>String</b>	toString() Returns a String description for this square. (See tester output below)

Instruction:

1. Implement Box class first.
2. Test the box object.
3. Implement SquareBox class.
4. Test the squareBox object.
5. Implement a static method named `getLargerOne` which has two input parameters (both inputs are a box object) and returns the object with the volume.

Tester for your reference:

```
public class Tester11 {
    public static void main(String[] args) {
        Box box = new Box(4, 5, 6);

        SquareBox squareBox = new SquareBox(5);

        System.out.println(box.getVolume());
        System.out.println(box.toString());
        System.out.println("-----");
        System.out.println(squareBox.getVolume());
        System.out.println(squareBox.toString());
        System.out.println("-----");

        Box largerOne = getLargerOne(box, squareBox);
        System.out.println(largerOne.toString());
    }

    public static Box getLargerOne(Box r1, Box r2) {
        //TO-DO
    }
}
```

Output:

```
120
Box[width=4, length=5, height=6]
-----
125
SquareBox[side=5]
-----
SquareBox[side=5]
```

**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)