

Assignment 1d

COMP 2526 Object-Oriented Programming with Java

Due on Sunday October 8th at 11:59 PM

1 Purpose

In assignment 1d, you will continue to practice basic programming and Java skills and explore the WHY and the HOW in Object Oriented Programming by modifying your multi-class solution so that Shapes can be printed using the console or a GUI.

2 Description

You are to develop a program that prints out Shapes: Rectangle, Triangle, Diamond, Right-Angled Triangle, and Square, given the type, width, and height. Your program design should be a modification of A1c. For A1d, the Shape may be displayed using a GUI interface or the standard console. See assignments 1a, 1b, and 1c for further details.

3 Requirements

1. Create and implement a Displayer type (you may choose between using an abstract class, a concrete class, or an interface). The Displayer type has ONE method called displayShape(Shapeshape). Implementation of this method should be found in the appropriate displayer class: ConsoleDisplayer or SwingDisplayer.
2. The main method must be modified to take an additional argument - either ConsoleDisplayer or SwingDisplayer. Make sure that you use the provided Main.java source code on D2L as a starting point.
3. The SwingDisplayer method will make use of the DisplayerFrame class (shown below) to display the Shape (code provided). For simplicity, each value of the table is stored in a JButton.
4. Validate your code with Checkstyle. We will continue to use the Eclipse Checkstyle plugin. Checkstyle is a great tool that helps us to write code that's consistent and easy to read.
5. **(HINT) Rectangle, Triangle, RTriangle, Diamond, Square are all Shapes. In fact a Square is-a Rectangle (!).**

```
class DisplayerFrame extends JFrame {
    public void init(final Table table) {
        //code to create a gridlayout with buttons that will display the
        //table results
    }
}
```

4 Marking Guidelines

Submit your assignment to the correct Dropbox folder in D2L at or before 11:59 PM on Sunday October 8th 2017. Late assignments will not be accepted. Grades will be assigned as follows:

40% Displayer classes
30% DisplayerFrame
10% New Shapes
20% Comments and style (remember to use the Checkstyle plugin!)

Good luck, and have fun!