

## Homework Assignment #3: An Exercise on Using Eclipse

### Due Date

10PM Wednesday, October 31, 2012.

### Note

The purpose of this exercise is for you to get familiar with Eclipse and Javadoc comments.

### Task Description

Extend the shape drawing application to draw a new shape.

Requirements:

- The shape should be unique.
- Your code should compile. Resolve all errors with red markers.
- Methods to access private variables of the shape should be provided.
- Javadoc comments should be provided as detailed as possible. Resolve all warnings with yellow markers.
- Your code should be formatted.

Instructions:

1. Clone the following two repositories in Eclipse and check out the two Java projects in them.
  - <https://sdm.im.ntu.edu.tw/git/sdm2012/ShapeDrawingCore.git>
  - <https://sdm.im.ntu.edu.tw/git/sdm2012/ShapeDrawingUI.git>
2. To declare what shape you want to draw, update the `UsedShapes` file in the `ShapeDrawingCore` project, commit, and then push. Make sure that the shape is not chosen by anyone else.
3. Make the `ShapeDrawingUI` project refer to the `ShapeDrawingCore` project.
4. Create a class that implements `example.drawing.core.shape.Shape` or extends `example.drawing.core.shape.AbstractShape`. This class defines how the shape is drawn. You can use methods in `example.drawing.core.Util` to draw your shape.

5. Create a brush that implements the interface `example.drawing.core.shape.Brush`. This brush will be used to create objects of the shape.
6. (Optional) Create a codec that implements `example.drawing.core.io.Codec` or extends `example.drawing.core.io.AbstractShapeCodec`. This codec will be used to encode and decode objects of the shape.
7. Add the brush of the shape to the tool bar `example.drawing.ui.ToolBar`.
8. Run the application to see if everything works well.
9. Push your commits back to the two repositories. Please don't forget that the two repositories are shared.

## Useful Links

- Eclipse: <http://www.eclipse.org>
- How to write Javadoc:  
<http://www.oracle.com/technetwork/java/javase/documentation/index-137868.html>