

## Project 2

### JOGL OpenGL Project

#### Overview

In this project you will create a unique 3 scene composed of OpenGL graphic components using transformation methods.

#### Requirements:

1. Using Netbeans or Eclipse, develop a JOGL application that displays a unique 3D scene. The scene has the following specifications:
  - a. Size: 640x480
  - b. Includes at least 6 different shapes
  - c. Uses at least 6 different transformation methods
2. Use Java and JOGL for your implementation of OpenGL
3. All Java source code should be written using Google Java style guide.
4. Prepare, conduct and document a test plan verifying each method is functioning properly. (Hint: Using JUNIT tests are recommended)

#### Deliverables:

1. All Java source code used for this project. Code should adhere to the Google Java style guide.
2. Word or PDF file demonstrating with clearly labeled screen captures and associated well-written descriptions, the successful execution of your 3D graphics scene. The document should be well-written, well-organized, include page numbers, captions for all screen captures, and a title page including your name, class, section number and date. References should be included for all sources used and formatted in APA style.

#### Grading guidelines:

Attribute	Meets
Design	<b>20 points</b> Methods used to isolate functionality (10 points)  Code is efficient without sacrificing readability and understanding. (5 points) Code can easily be used and maintained. (5 points)
Functionality	<b>50 points</b> Uses Netbeans or Eclipse to develop a JOGL application that displays a unique 3D scene. (10 points)  Size of scene is at 640x480. (10 points)  Includes at least 6 different shapes. (10 points)

	<p>Uses at least 6 different transformation methods (10 points)</p> <p>Use Java and JOGL for your implementation of OpenGL (10 points)</p>
Testing	<p><b>10 points</b></p> <p>Prepares, conducts and documents a test plan verifying each method is functioning properly. (10 points)</p>
Documentation and deliverables	<p><b>20 points</b></p> <p>Submits all Java source code used for this project. (5 points)</p> <p>Code adheres to the Google Java style guide. (5 points)</p> <p>Submits Word or PDF file demonstrating with clearly labeled screen captures and associated well-written descriptions, the successful execution of your 3D graphics scene. (5 points)</p> <p>The document is well-written, well-organized, includes page numbers, captions for all screen captures, and a title page including your name, class, section number and date. References are included for all sources used and formatted in APA style. (5 points)</p>