Project 1

Java 2D Graphics

Overview

In this project you will create 3 simple, images or your choice and use Java 2D graphic methods to rotate, scale and translate each of the images.

Requirements:

1. Using Netbeans or Eclipse, develop a Java 2D graphics application that creates 3 images. The images should have the following specifications:
    a. Size: minimum 25x25 pixels, larger images are Okay
    b. Type: Color (consists of two or more colors)
    c. Simple form or shape (Hint: consider a letter or number, or even simple shapes such as crossing lines, rectangles, or circles
    d. You should generate the image inside of separate methods and store them as 2D arrays.
2. Use Java 2D graphics to display your original images.
3. For each image use the existing Java 2D graphics transformation methods to translate, rotate and scale each object. You should perform the following transformations on each image:
    a. Translate -5 in x direction, Translate +7 in the y direction.
    b. Rotate 45° counter clockwise.
    c. Rotate 90° clockwise
    d. Scale 2 times for the x component, scale 0.5 times for the y component
    e. Each of these transformations should be displayed in sequence with the images always starting from the previous transformation as opposed to the original image.
    f. Use Java 2D graphics to display each transformation for each image. (Hint: review the Project 1 template for a good start for this project.)
4. All Java source code should be written using Google Java style guide.
5. Prepare, conduct and document a test plan verifying your application is working as expected. This plan should include a test matrix listing each method you tested, how you tested it, and the results of testing.

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 success execution of your 2D graphics transformation. The document should be well-written, well-organized, include your test plan, 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.