Graphics Library Testing Plan- Custom Shape

Plan Progress: Incomplete

Plan Written by: Luke Warbey

Testing Progress: Complete

Tested by: [Zhihao Ma](mailto:zm926@york.ac.uk)

Module Version: CustomShape v1.0:

| Test Case | Test Criteria | Input value | Expected Result | Actual Result | Pass/Fail |
| --- | --- | --- | --- | --- | --- |
| CustomSchape() | Constructor with valid  parameters | 5 sides, [0,0, 50,0,  100,50, 50,100, 0,100],  Color.RED, 1.0, 200,  200 | testGetX() = 50, testGetY() = 50, testGetColor() = Color.RED, testGetStrokeWidth() = 1.0, testGetWidth() = 200, testGetHeight() = 200, testGetPoints() = [0,0, 50,0, 100,50, 50,100, 0,100] |  |  |
| Constructor with in-  valid number of sides | 2 sides, [0,0, 50,0,  100,50, 50,100, 0,100],  Color.RED, 1.0, 200,  200 | testInvalidSidesException() = IllegalArgumentException | Failed | Failed |
| Constructor with in-  valid number of points | 5 sides, [0,0, 50,0,  100,50], Color.RED,  1.0, 200, 200 | testInvalidPointsException() = IllegalArgumentException | Failed | Failed |
| setPoints() | setPoints() | [0,0, 50,0, 100,50,  50,100, 0,100] | testGetPoints() = [0,0, 50,0, 100,50, 50,100, 0,100] |  |  |
| Invalid | [0,0, -50,0 -100,50,  50,100, 0,100] | testInvalidPointsException() = IllegalArgumentException | Failed | Failed |
| setCenterX() | setCenterX() | 300 | testGetX() = 300 |  |  |
| Invalid | -300 | testInvalidXPositionException() = IllegalArgumentException | Failed | Failed |
| setCenterY() | setCenterY() | 300 | testGetY() = 300 |  |  |
| Invalid |  | testInvalidYPositionException() = IllegalArgumentException |  |  |
| setCenter() | setCenter() | 300, 300 | testGetX() = 300, testGetY() = 300 |  |  |
| Invalid |  | testInvalidXPositionException() = IllegalArgumentException,  testInvalidYPositionException() = IllegalArgumentException | Failed | Failed |
| setStroke() | setStroke() | Color.BLUE, 2.0 | testGetStrokeColor() = Color.BLUE, testGetStrokeWidth() = 2.0 |  |  |
| Invalid | Color.BLUE, -2.0 | testInvalidStrokeException() = IllegalArgumentException | Failed | Failed |
| rotate() | rotate() | 45 | testGetRotation() = “45 Degrees” |  |  |
| Invalid | N/A |  | Failed | Failed |
| fadeIn() | fadeIn() | 2.0 | testGetFadeInDuration() = 2.0 |  |  |
| Invalid | -2.0 | testInvalidFadeInDurationException() = IllegalArgumentException | Failed | Failed |
| fadeOut() | fadeOut() | 2.0 | testGetFadeOutDuration() = 2.0 |  |  |
| Invalid | -2.0 | testInvalidFadeOutDurationException() = IllegalArgumentException | Failed | Failed |
| setVisibleAfterDelay() | setVisibleAfterDelay() | 2.0 | testGetVisibleDelay() = 2.0 |  |  |
| Invalid | -2.0 | testInvalidVisibleDelayException() = IllegalArgumentException | Failed | Failed |
| setInvisibleAfterDelay() | setInvisibleAfterDelay() | 2.0 | testGetInvisibleDelay() = 2.0 |  |  |
| Invalid | -2.0 | testInvalidinVisibleDelayException() = IllegalArgumentException | Failed | Failed |
| setGradient() | setGradient() | Color.RED,  Color.BLUE, 45 | testGetGradient() = "Gradient set with colors RED to BLUE at 45 degrees" |  |  |
| Invalid |  | testInvalidGradientAngleException() = IllegalArgumentException | Failed | Failed |