



ASSIGNMENT 1 REPORT : CIRCLE INSIDE/OUTSIDE

COMP 110 OBJECT-ORIENTED PROGRAMMING



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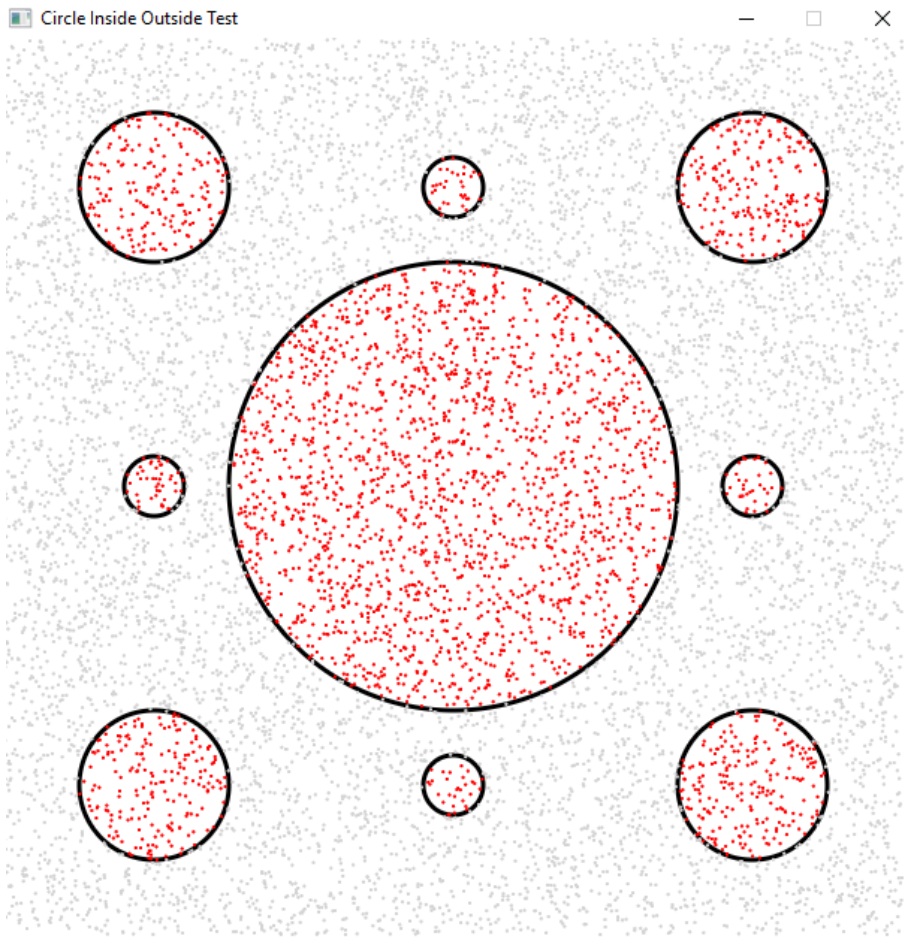
1. Algorithm Explanation:

In this assignment, I stored nine circles' x,y and radiuses in a 2D array and test whether a randomly generated 2D point is within any of these circles. My algorithm first stores circles in 2D array. Then it creates 9 circles in the for loop and assigns the x, y, and radiuses of these circles.

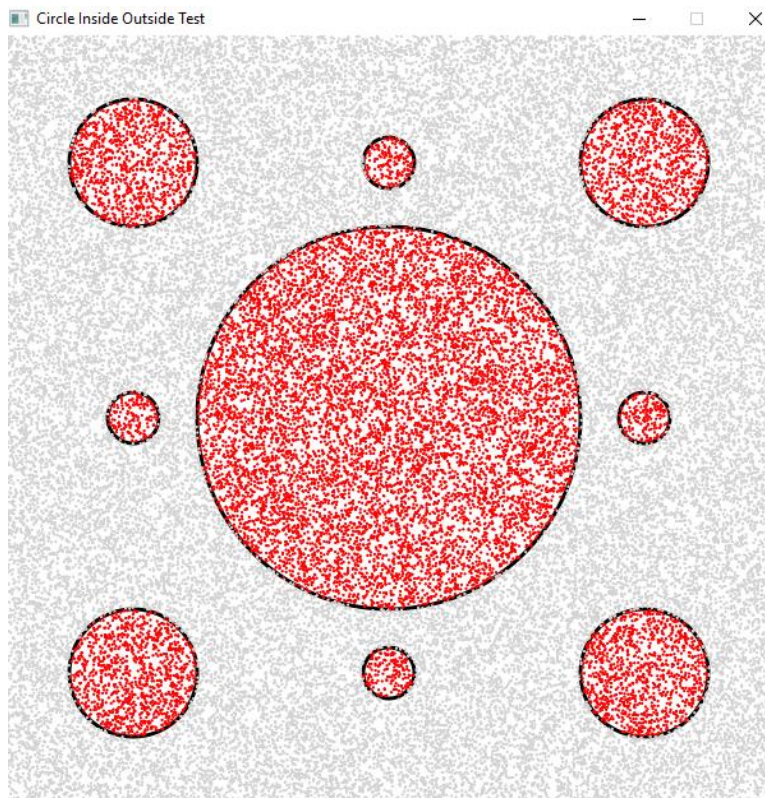
And then again in for loop, it shots random points. It calculates 'distances' that whether points are in the circles or not. If they are in circles, points became red color, otherwise grey color.

2. Outputs

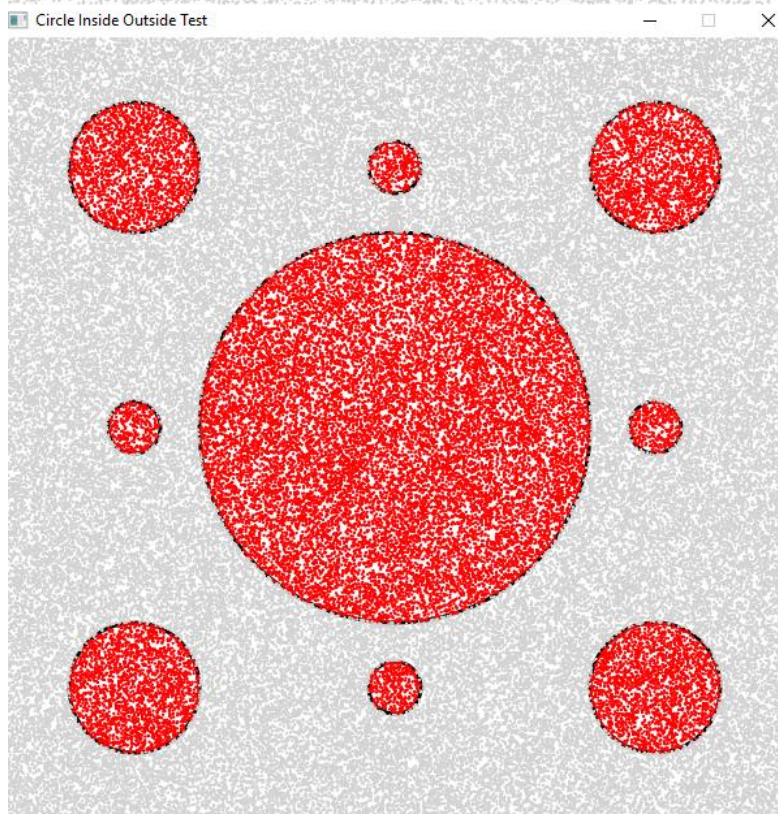
Pictures below shows that four different outputs. First figure is 10.000 random dots, second figure is 50.000 random dots, third figure is 100.000 random dots and fourth figure is 500.000 random dots.



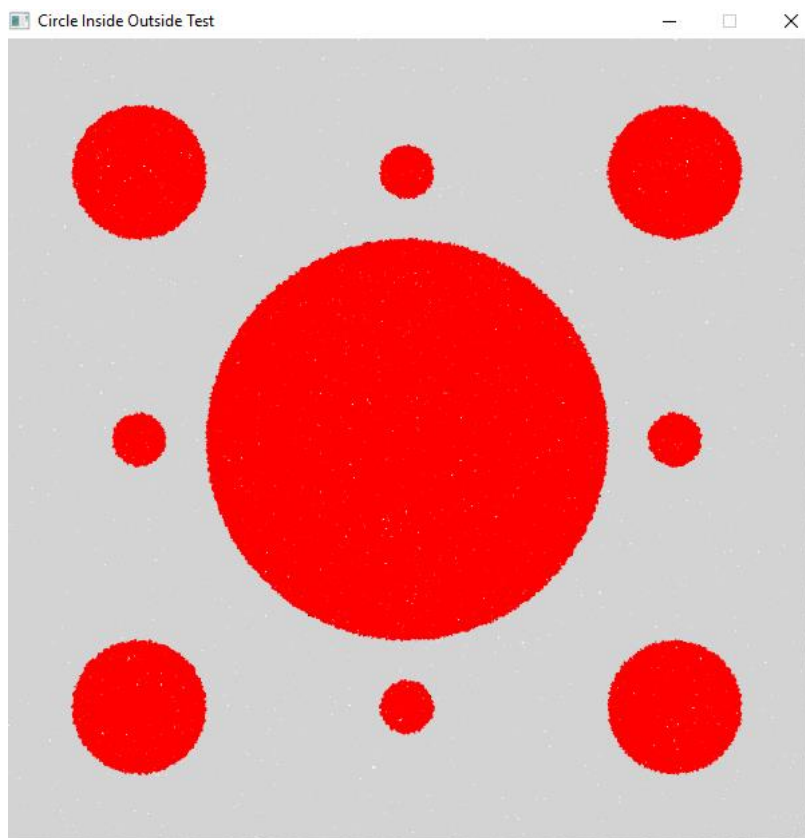
10.000



50.000



100.000



500.000

