CSE553

Assignment 4

(Please note that the previous assignment was mistakenly numbered as 4. That one was assignment no. 3)
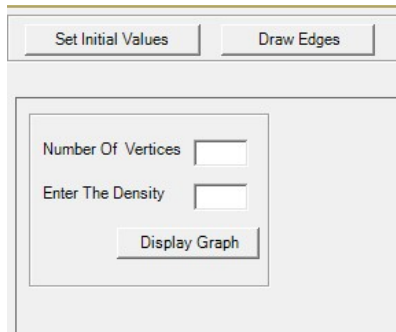
<u>This is an individual assignment</u>

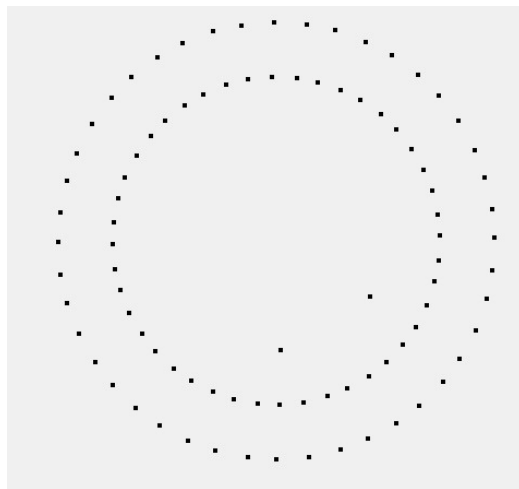Submission deadline: 20th April 2018 11:59 p.m.

Matlab is <u>**NOT**</u> acceptable for this assignment

In this assignment, you have to create an application for graph processing which should have following features:
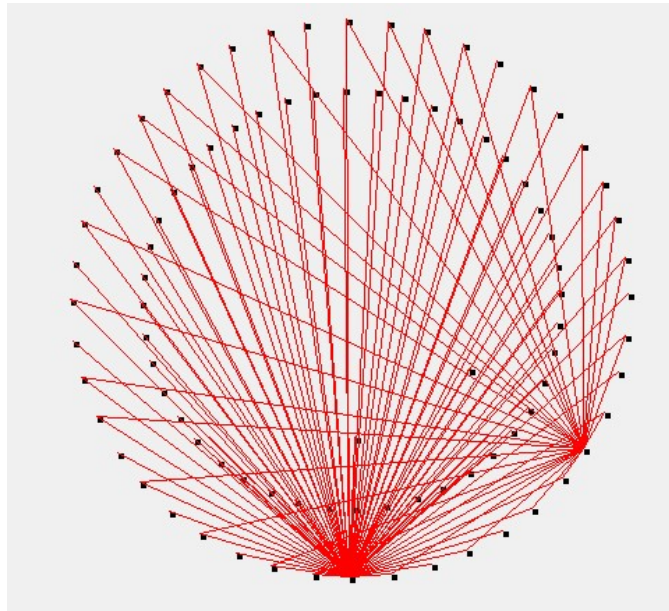
1. Take as input number of nodes in the graph
2. Take as input the density of the graph

3. Visually draw the graph with just nodes, put nodes on the screen in a circular way. Sample given as follows. Hint: See circle equation.

4. Visually draw the graph with nodes and edges, Sample given as follows

5. Add following features/function to your application
    a. Give a node show its degree
    b. Find the node with maximum degree
    c. Find the node with minimum degree
    d. Display the raw adjacency matrix
    e. Given two nodes find number of common neighbours (You code should be efficient)
    f. Give a node find all its neighbours and highlight them visually

Enjoy !