Profile a graph for the following properties.

1. What is average degree of a vertex in the graph?

2. Is the graph a regular graph?

3. Is the graph a complete graph?

4. Is the graph a cycle graph?

5. Is the graph a path graph but not a cycle graph?

6. Does the graph has an Euler circuit?

7. Does the graph has an Euler path but not an Euler circuit?

8. Does the graph satisfy the sufficient condition of the Ore's theorem?

Input constraints:

1. Graph is connected

2. Graph is undirected

3. Graph is unweighted

4. Graph has at least 3 vertices and upmost 100 vertices

5. No self loops and no parallel edges

6. A testcase must complete within 1 second of time

7. Graph input is a 0/1 matrix

What is the assignment?

Rename the file PES1201800000.c with your SRN.

Implement the functions in the file.

Rename the file PES1201800000.txt with your SRN.

In PES1201800000.txt, type in the explanation of the logic you have used to implement the functions.

Submit only the files PES1201800000.c and PES1201800000.txt through the Google Form.

Due Date/Time:

Not later than 23:59 hours on Friday 22nd of November, 2019.

Submit at:

https://forms.gle/NbxK12dNNVQfiMLp8

Only one submission, no re-submits.

Both the c file and txt file (report) should be submitted in one shot.

Assessment:

8 marks for the implementation of the functions.

2 marks for the report.

Plagiarism leads to zero marks.

Compilation errors and runtime errors leads to zero marks.

Printing anything in the function implementations leads to wrong answers.