Clarification Questions

Please ask any question related to this assignment in the class or in the Moodle forum. To be fair to everyone, it is best to ask assignment question openly rather than in email. Do not share your code with anyone. Do not post your code online. Do not ask for help in any public discussion forum (e.g., Stackoverflow or developer forums). You can search over the internet and read books. Let me know if you find any error in the assignment question as soon as possible. DO NOT SHARE OR DESCRIBE YOUR OUTPUT TO ANY OTHER STUDENT. DO NOT ASK DIRECT QUESTIONS FOR VERIFYING YOUR VISUALISATION: 'DOES MY OUTPUT LOOK CORRECT?' However, you can always ask questions about the methods, definitions or approaches to solve a question. Any case of plagiarism will be reported to the Department of Computer Science.

Assignment 4

Create a network visualization

Task 1 (30): You are given two datasets. The dataset gemstone15.csv is a list of the gemstone trade transactions among countries in 2015. The lat and lon of the countries are located in CountryList.csv Write a d3 code to Read CountryList and gemstone15 to create a trade network visualization.

Task 2 (40): Create the nodes for the countries and edges that represent the trade relationships. Each edge represents an import or an export. Therefore, there can be at most two edges between two countries (one for import and the other is for export).

A pair of countries may have many transactions in the dataset, so sum all imports and all exports to create one edge for import and the other for export. If a pair of countries do not have trade relation, then they must not be connected by an edge.

Task 3 (30): Clear up the layout by mapping import and export edge weights to the opacity.

An example expected output is given at the end of this document.

Add interaction such that clicking on a node x shows only the nodes that it exported to and the corresponding edges. Clicking on x again will show the nodes that it imports from, and clicking on it the third time resets the visualization.

Submission

Submit a zip file containing all your code and supporting files. Mark is based on task completion.