Info Vis Comp5048 Systems Assignment

You need to create a visualization system (perhaps as a plug-in to an existing system). Your system should take data from some domain and make beautiful and useful pictures of the data.

You can do this assignment either individually or in groups. If you form a group, you should let me know by August 20.

The assignment consists of the following 10 steps.

1. You must decide the domain from which you will visualize data. Suggestions include social networks based on facebook or email, program flow graphs, process trees, class hierarchies, collaboration networks based on DBLP. You should also aim for a specific range of data size (eg, a network with 10 – 200 nodes). You can choose your own favorite domain, but you must discuss it with me first.

2. You must decide what metaphor to use; what will be the general appearance of the pictures?

3. You must decide what algorithms to use.

4. You must design the architecture of your system. Most likely, this will be a kind of “pipeline” architecture, but you need to decide the components of the pipeline.

5. By August 20 you need to hand in a specification report (1 or 2 pages); this is a description of your decisions on points 1 – 4 above. You should concentrate on point 1. For point 2, a sketch is adequate. For point 3, a rough idea of your algorithm expressed in English is adequate. For point 4, a simple diagram is adequate.

6. You must implement your system.

7. You must evaluate your system.

8. By October 5 you must hand in a draft presentation (powerpoint or pdf) that describes your domain, metaphor, algorithms, architecture, and implementation.

9. On either October 22, you must give a 15 minute presentation of your domain, metaphor, algorithms, architecture, and implementation to class. You should also demonstrate the working system.

10. By October 29 you must hand in a report. This report should include:
    a. A beautiful 10 page description of your domain, your metaphor, your algorithms, your architecture, your implementation and your evaluation.
    b. Your code.
    c. A print-out of your presentation.

Further, you might be required to demonstrate your system to me individually.