Coding 07: Graphs

In this assignment you will create graphs and demonstrate basic graph functions. This is essentially a "free-form" assignment and has very few requirements except for the standard good programming practice, good architecture, and following the standard rules for graphs.

Using the graph in figure 20-36 of your text (page 661)...
- Create that graph programmatically. You are free to use any structures you like to create that structure in memory.
- Demonstrate programatically a breadth first and depth first search that can work with any node as the starting point.

Using the graph in figure 20-39 of your text (page 662)...
- Create that graph programmatically. You are free to use any structures you like to create that structure in memory.
- Demonstrate programatically the shortest path algorithm that can work from any node as the starting point.

You may create these as two separate programs, or one large one. You must follow all good programming practice, good architecture practices, and the standard textbook rules for graphs.

You must document your code heavily and explain your code thoroughly (either in comments or a separate document).

You must demonstrate all functionality through extensive testing and demonstration.

You grade will be based equally on your comments and explanation, and your coding and architecture.