Note: you are allowed to work with one other person to complete this assignment. You may choose to submit a single file per group.

You now have a functional pipe network program with GUI. This week we are adding some features to this program:

***Feature 1***: A modified pipe network file called “MyPipeNetwork-NodePos.txt” has been provided. In this file, we have eliminated pipe lengths in favor of specifying node positions (i.e., x, y, z coordinates). Modify your pipe network to read (and store) the positions of the nodes, and based on these positions and pipe names, calculate the pipe lengths such that the network can be analyzed properly. Of course, modifying node coordinates should update the model (including recalculating the lengths of pipes connected to that node). Your new program should also be able to write a file that contains node positions (and does not need to save the pipe lengths).

***Feature 2***: Your new pipe network program should use the QGraphicsView classes to draw a schematic of the pipe network (i.e., represent nodes, pipes, node names, node flows, etc. similar to the schematic in homework 5). This graphic should update if changes are made to the model by editing any of the pipes or nodes in the GUI, including adding/deleting pipes or nodes.

A program with some of the work already completed will be made available and it is recommended that you modify this program. As always, missing bits of code are marked with #$MISSING CODE HERE$#.

A screen shot of the working version of this program is shown:

