

Spencer York
Graph ADT Questions

Q1: Explain how you would use the try/catch exception mechanism to verify that a constructed graph ADT was formed correctly.

I would personally put my try catch in my input function. I would have it check the edges with the vertexes and throw exceptions where needed.

Q2: How does your program handle the fact that some vertices of a defined graph may not be reachable?

I handle this problem inside of my graph ADT. Whenever the graph is created, using a 2D Array, I have it look for any empty rows. If there is an empty row, I know that there is an orphaned vertex.

Q3: What would your program do if I defined an edge from a vertex to itself with a weight other than zero? What should the program do? (note: I will not actually test this, but explain to me what will happen, and what you think is the correct behavior regardless of what your program might do)

My program will automatically set the weight to zero. However, if you added an edge to itself with a weight, it would let you. I guess, realistically, this should not be the case. If you are already on the vertex, it should not cost you anything to get to yourself.