

Changes to HW4:

Changes documented below:

1. Graph Structure: I switched from using vectors to store my nodes/edges to storing sets so that my invariant would be help much more inherently.
2. Graph Structure: I also designed my graph to be a directed graph (as it can be adapted to undirected by adding edges), so to make access to edges faster, I used a hashmap to store the source node to all its children.
3. The above two changes also affected many of my other functions so I had to change, for example how I added to the set, and got rid of checking for duplicates.
4. I added a "hasNode" function to check whether a specific node is in the graph. Used for Marvel graph but also has general applications.
5. I added a getEdge function that will return the edge with weight, given the source and destination nodes.