CS1371 Take-Home Assignment

For the graph below, compute the paths generated by the depth-first (DFS), breadth-first (BFS) and optimal (Dijkstra) algorithms ***from node a to node g***. Whenever you need to consider children nodes, use them in ***increasing*** alphabetical order.

For example, with the DFS algorithm, when processing node a, the stack should contain:

a-i

a-h

a-d

where a-i, the last node added, will be the first path off the stack for the next iteration.

For each solution, show the final path, its cost and the contents of the stack, queue or priority queue at the point where the final path was discovered.