

CS440 Introduction to Artificial Intelligence

Uninformed Search Algorithms

For the graph provided in Figure 1, run the Graph-Search Variant of the following search algorithms to find a path from node START to node GOAL.

- 1) Breadth-first Search (BFS)
- 2) Uniform Cost Search
- 3) Depth-first Search (DFS)
- 4) Bidirectional Search

At each step, you must show the status of your open list(s). When two nodes have equal priority to be expanded next, break ties in alphabetical order. For example, if you expand node C, if nodes B, D are not already in the open list, they must be added to the open list in alphabetical order, i.e. node B must be expanded next, followed by node D.

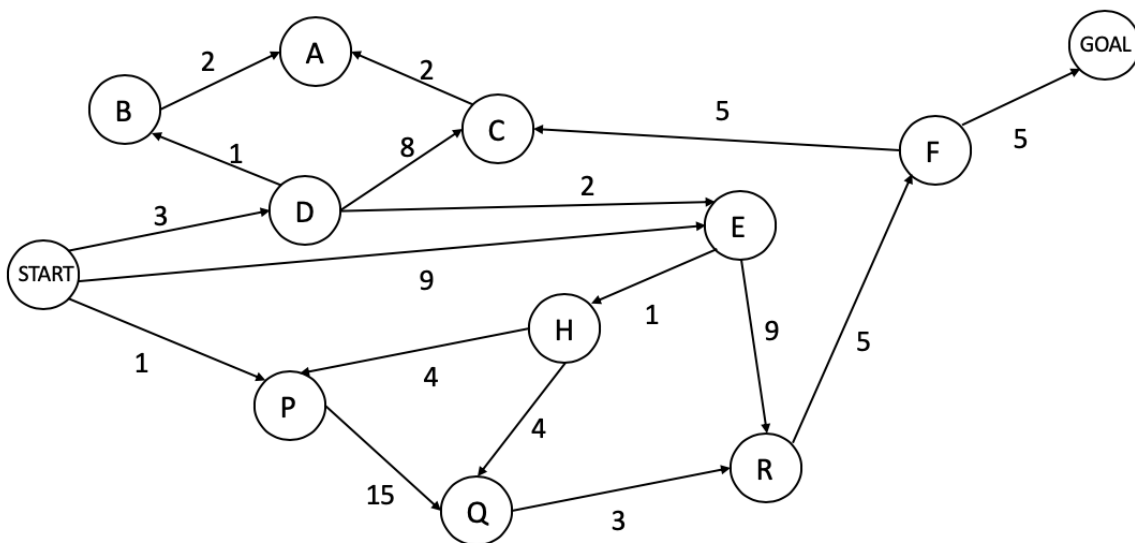


Figure 1