

TP 1 Searching

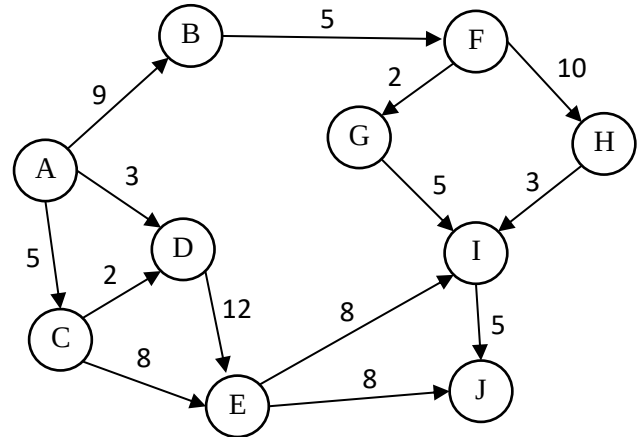
Exercise 1:

Examine the python code provided at the lab session, and try to understand each algorithm (BFS, DFS, UCS) to answer the following questions:

Which part of the code is responsible for creating the graph?

What we used to implement the fringe for each algorithm?
 And what are its related instructions?

Let's consider the following search space, where A represents the start state and J the objective state.



1. Give the order in which the nodes are visited, the path founded (and the cost for UCS) when we feed this graph to BFS, DFS and UCS.

Algorithm	BFS	DFS	UCS
the order in which the nodes are visited			
the path founded			

2. Compare your results with those of your colleagues.
3. Try to modify the graph definition and watch the given results.

Exercise 2: The same question for the provided code for A*

1. Apply the A* algorithm to this graph.
2. Explain the result found?
3. Suggest a correction?

