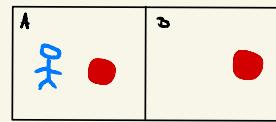


Uninformed Search Algorithms

- Possibly a review from other courses
- Main difference:
- Naturally leads to heuristic search

Implicitly defined state space



Question: Why is this important?

How many states?

100

☒	☒	☒	
☒	☒	☒	
		☒	☒

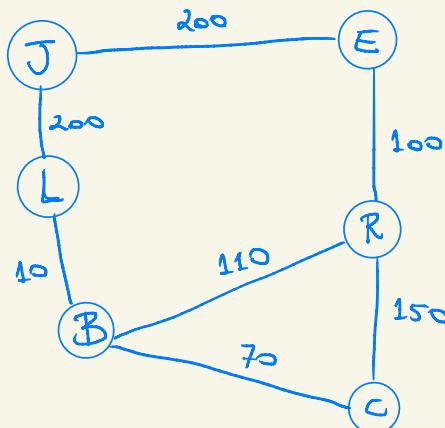
200

How many states?

We will consider both implicit or explicit state spaces.

			100
♀	♀	♀	
♀	♀	♀	
		♀	♀

200



Properties we care about

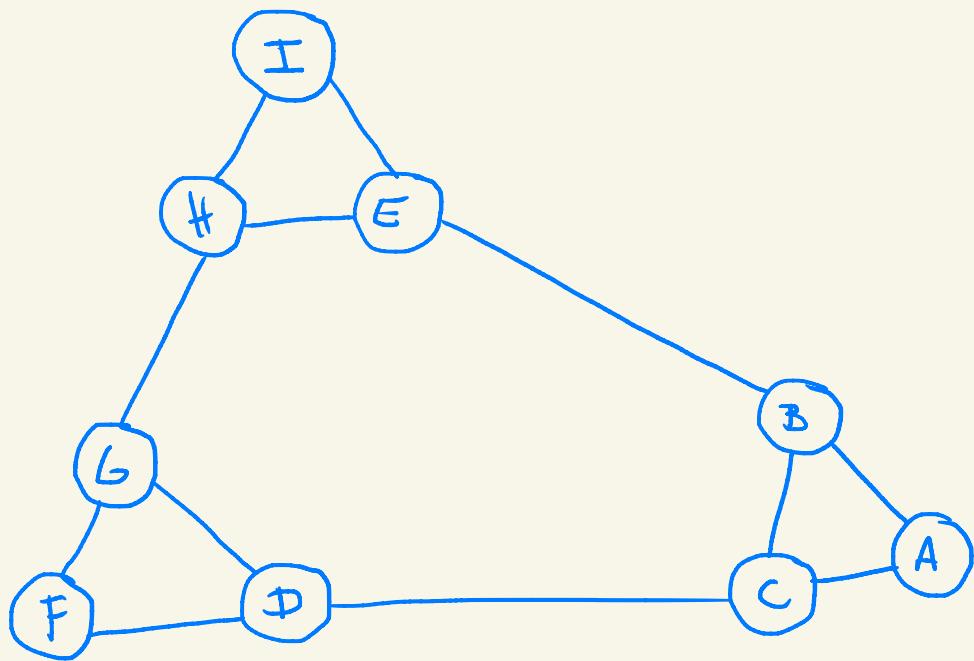
Complete:

Optimal:

Time Complexity:

Memory Complexity:

Breadth-First Search (BFS)



BFS's Search Tree

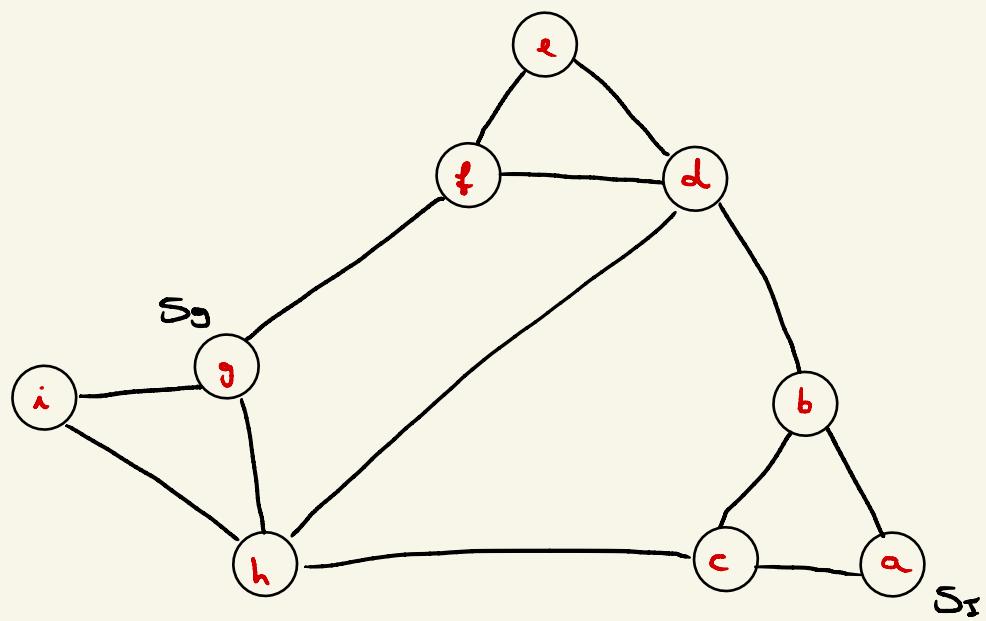
How to implement BFS ?

Two Data structures:

1- Open List

2- Closed List

Example



OPEN

CLOSED

PSEUDO CODE

Def BFS (S_i, S_g, T):

Properties :

Quiz: Which solution path does BFS find in the problem below?

