frontier

~~(0,0)~~

(0,1)

~~(1,0)~~

(1,1)

~~(2,0)~~

~~(2,1)~~

(3,1)

Depth-First Search

seen ← Data structure to store this

frontier ← new stack
frontier.push(start state)
mark start as visited
While frontier not empty:
    next ← frontier.pop()
    for each neighbor:

       if neighbor is the Finish:
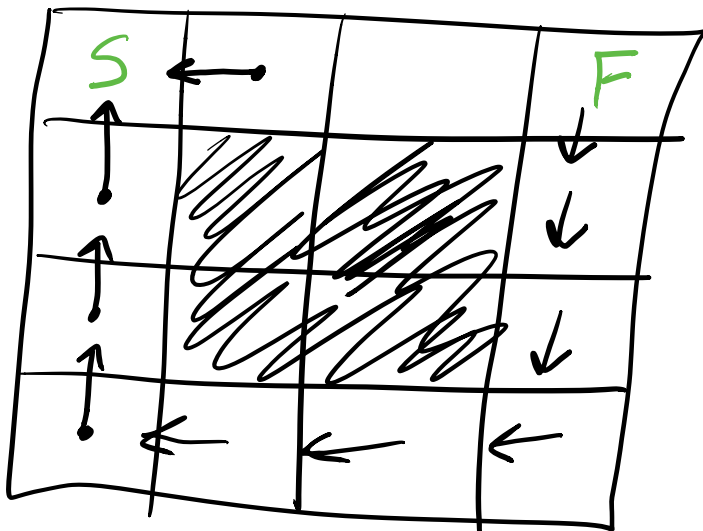   return True ←

     if not seen:
      frontier.push(neighbor)
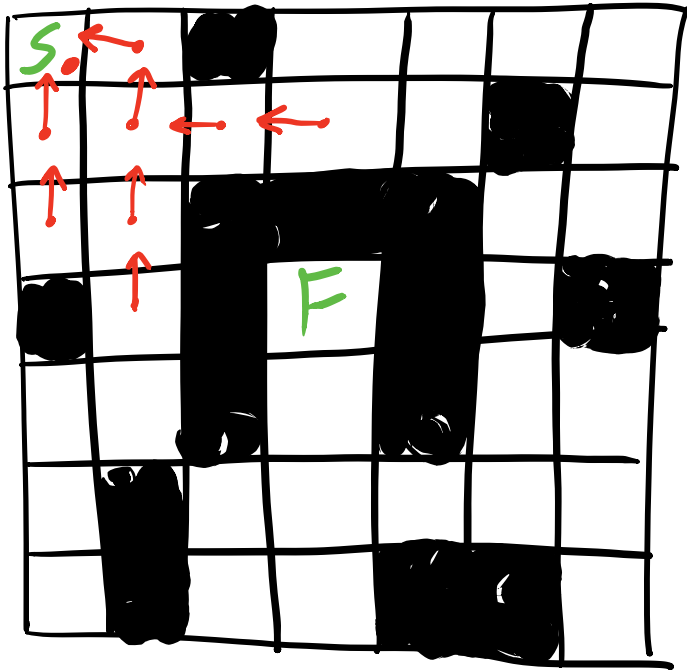   mark neighbor as seen

end while

return False

Stack : Last In First
Out

LIFO

Queue : First In First Out

ADT : Queue

	LL op O(?)	AL op O(?)
enqueue	insert Last $O(1)$	$O(1)$
dequeue	remove First $O(1)$	$O(n)$
peek	get First $O(1)$	

Breadth-First Search

Frontier

(0,0)

(0,1)

(1,0)

(1,1)

(2,0)

(1,2)

(2,1)