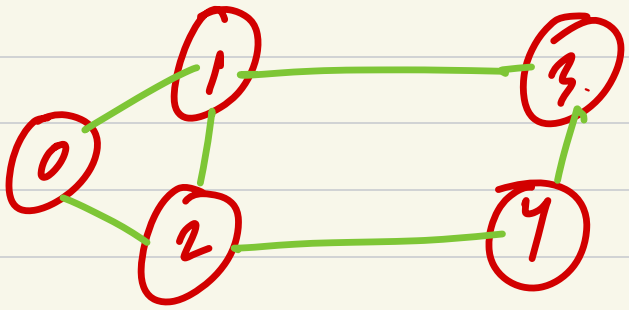


vis = [ ]

Q = [ ]

⇓

0 → 1, 2
1 → 0, 2, 3
2 → 0, 1, 4
3 → 1, 4
4 → 2, 3

* connected list
* undirected graph.

Adjacency list.

Iterations.

(1)

start 0

vis = [ ]

Q = [0]

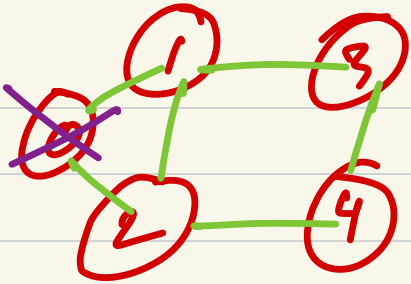
Algorithm

mark visited

1. Insert the start Node.
2. While Q has elements.
   i. pop left.
   ii. insert the unvisited neighbors, mark each of them visited

(2) vis = [0]

Q = [1, 2]



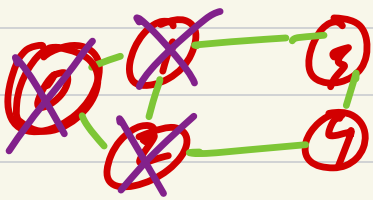
(3) vis = [0, 1]

Q = [2, 3]

0 → Already vis
2 → Already in Q

(4) vis = [0, 1, 2]

Q = [3, 4]



(5) vis = [0, 1, 2, 3]

Q = [4]

(6) vis = [0, 1, 2, 3, 4]

Q = [ ]

When Q empty, return