

Time Complexity : DFS.

- \* Each vertex visited and explored exactly once.
- \* DFS(j) needs to examine all ~~neighbour~~ neighbours of j
- \* In adj. matrix, scan row j : n entries.

$\therefore$  Overall  $O(n^2)$

- \* ~~With~~ With adjacency list, scanning takes  $O(n)$  time across all vertices.

$\therefore$  Total time is  $O(nm)$ , like BFS.