DFS of Graph

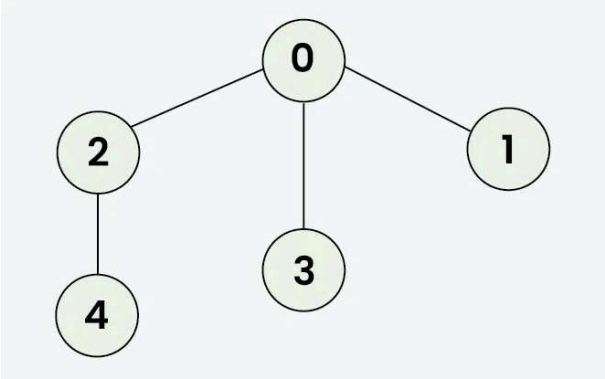
Difficulty: **Easy** Accuracy: **63.07%** Submissions: **293K+** Points: **2**

Given a **connected undirected graph** represented by an adjacency list **adj**, which is a vector of vecto where each adj[i] represents the list of vertices connected to vertex i. Perform a **Depth First Travers (DFS)** starting from vertex 0, visiting vertices from left to right as per the adjacency list, and return a list containing the DFS traversal of the graph.

Note: Do traverse in the same order as they are in the adjacency list.

Examples:

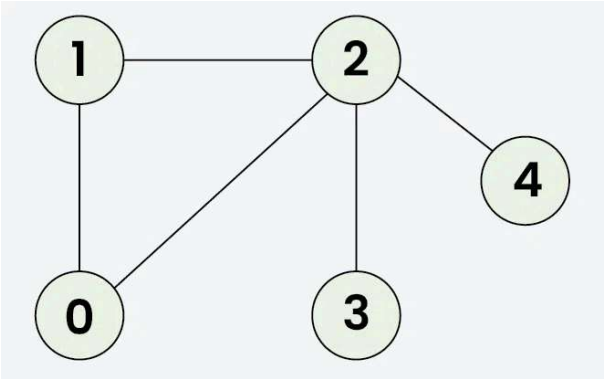
Input: adj = [[2,3,1], [0], [0,4], [0], [2]]



Output: [0, 2, 4, 3, 1]

Explanation: Starting from 0, the DFS traversal proceeds as follows:
Visit 0 → Output: 0
Visit 2 (the first neighbor of 0) → Output: 0, 2
Visit 4 (the first neighbor of 2) → Output: 0, 2, 4
Backtrack to 2, then backtrack to 0, and visit 3 → Output: 0, 2, 4, 3
Finally, backtrack to 0 and visit 1 → Final Output: 0, 2, 4, 3, 1

Input: adj = [[1, 2], [0, 2], [0, 1, 3, 4], [2], [2]]



Output: [0, 1, 2, 3, 4]

Explanation: Starting from 0, the DFS traversal proceeds as follows:
Visit 0 → Output: 0
Visit 1 (the first neighbor of 0) → Output: 0, 1
Visit 2 (the first neighbor of 1) → Output: 0, 1, 2
Visit 3 (the first neighbor of 2) → Output: 0, 1, 2, 3
Backtrack to 2 and visit 4 → Final Output: 0, 1, 2, 3, 4

Constraints:

$1 \leq adj.size() \leq 10^4$

$1 \leq adj[i][j] \leq 10^4$

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