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Captain

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Date : .....

⑤ If the vertices are  $V$  and edges are  $E$ , time complexity for BFS and DFS are:

BFS:

When Adjacency List is used :  $O(V + E)$

When Adjacency Matrix is used :  $O(V^2)$

DFS:

When Adjacency list is used :  $O(V + E)$

When Adjacency Matrix is used :  $O(V^2)$

If we want to get the victory Road fast, we have to use the BFS algorithm because it is more suitable to find the shortest path. Whereas, in DFS, it goes through deep which might require more time.