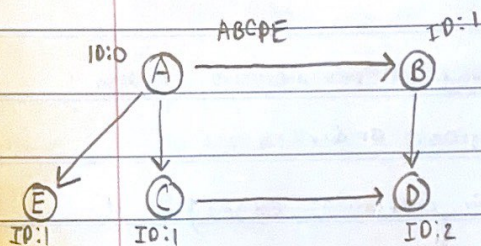


Topological Sort #5

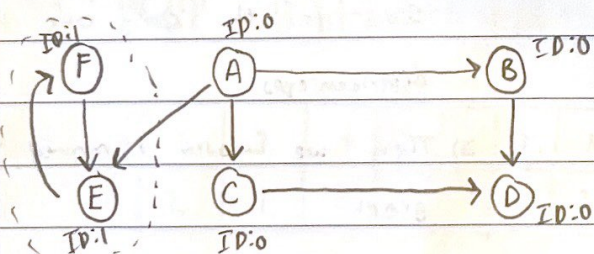
Topological sort \rightarrow of a directed graph is a linear ordering of its vertices such that for every directed edge UV from vertex U to vertex V , U comes before V in the ordering.



(in topological sort we just focus on the indegree of a vertex)

- (1) we start out by going to A, as it is ID:0.
- (2) After visiting A, all the Nodes that need A will turn into ID:0
- (3) So now we can visit E, D, B in any order
- (4) continue visiting all of them

Now if we have: ~~ABCDE~~



↑ Cycle exists in the graph!

Steps

we need to calculate in-degree for all vertices Array

Time Complexity

$$O(V+E)$$