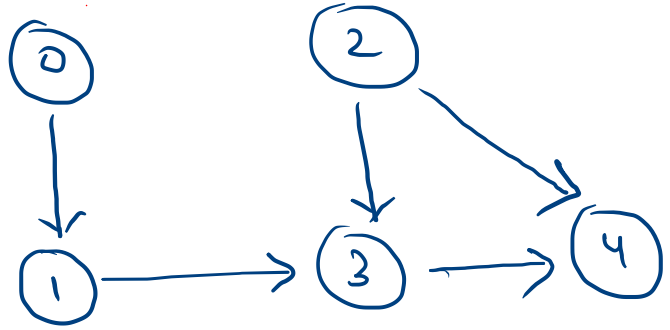
Topological Sort (DFS Based solution)

- Till now, we understood, Topological sort (BFS Based soln)



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0 2 1 3 4

~~2~~0 1 3 4

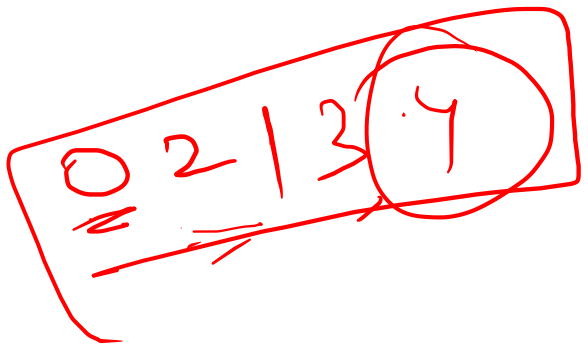
~~0 1 2~~

0 1 2 3 4

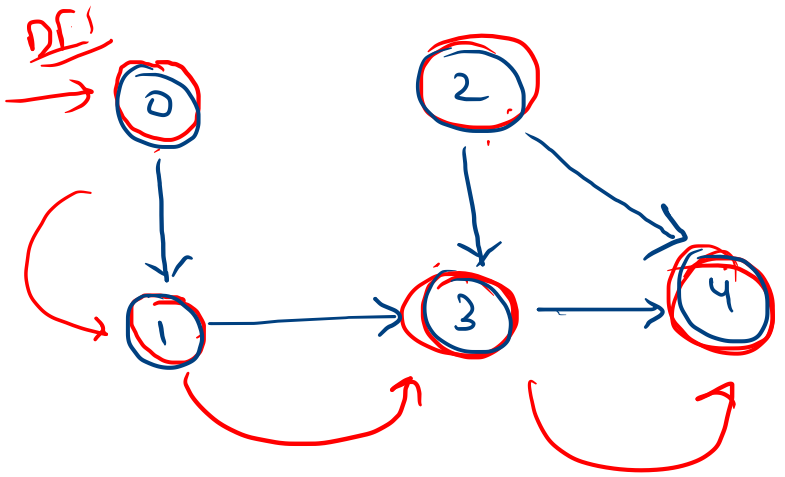
0 2 1 3 4

Common Observation

→ Topological sort



DFS →



DFS Based Solution

1) Create a Empty stack, St

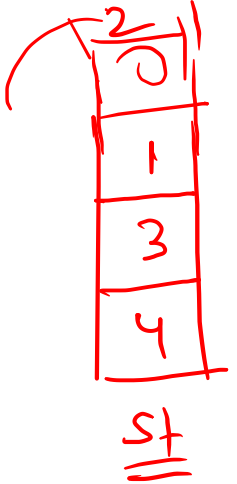
2) Now, DFS traversal

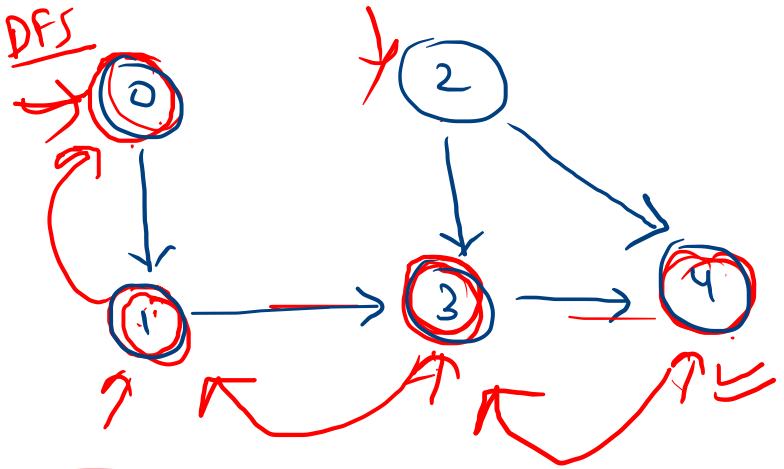
for every vertex u, do following

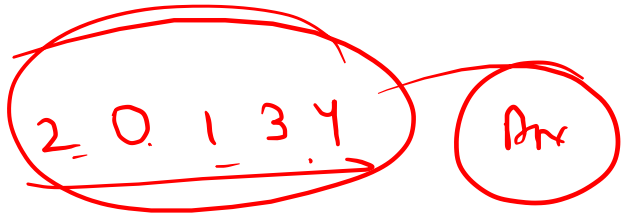
if(u is not visited)

DfsRec(u, St)

3) Empty stack, and print vertex







DfsRec (u, St)

1) mark u is visited

2) for every adjacent v of u, do following

if(v is not visited)

DfsRec(v, St)

3) Push u to stack.