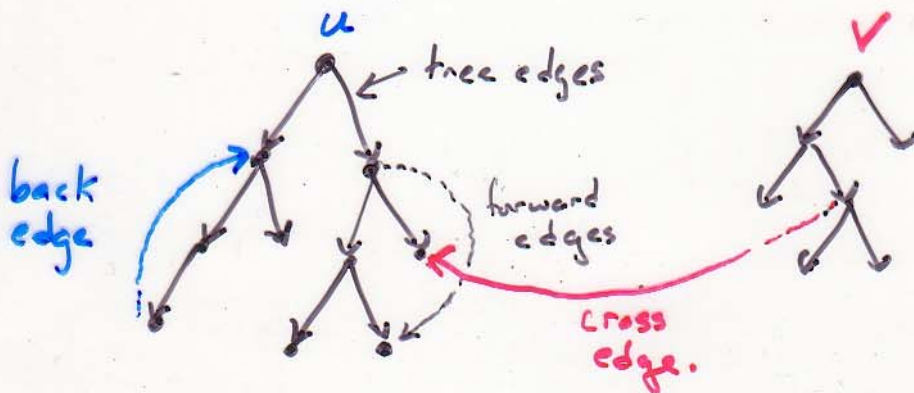


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... DFS

after DFS is called on
a graph G



DFS fact (Parenthesis Thm)

If $u, v \in V$

look at the intervals

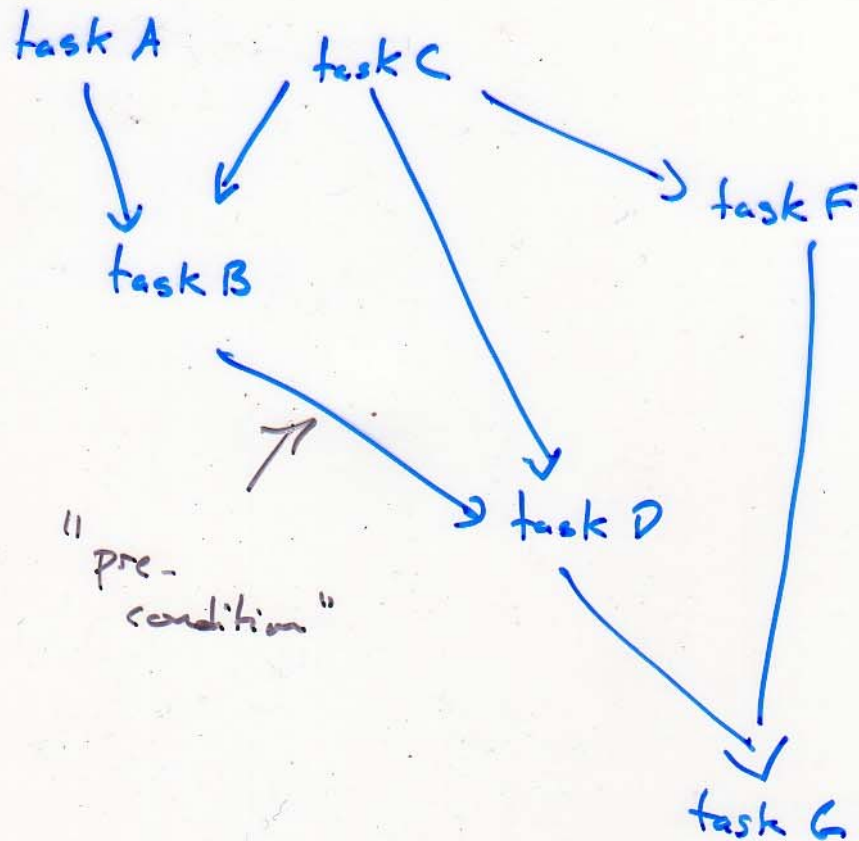
$$[d[u], f[u]]$$

$$+ [d[v], f[v]]$$

these are either dijoint or nested

Application of DFS

Topological Sorting



Problem: Is there a way to order the vertices so that all edges go to the right.



As long as G is
acyclic we can find
a top. sort for G .

TOP SORT(G)

1. call DFS(G)
2. put vertices in
decreasing order of
finishing time.