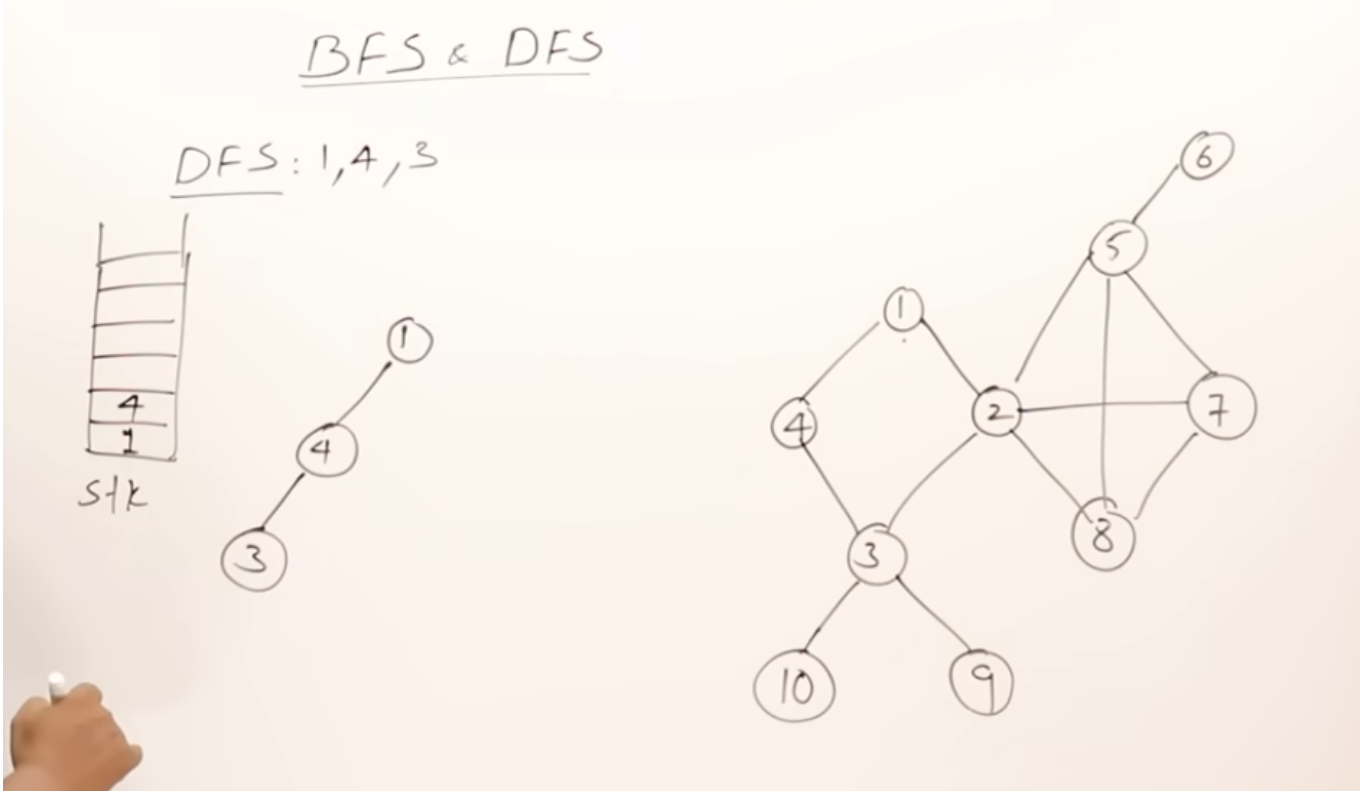
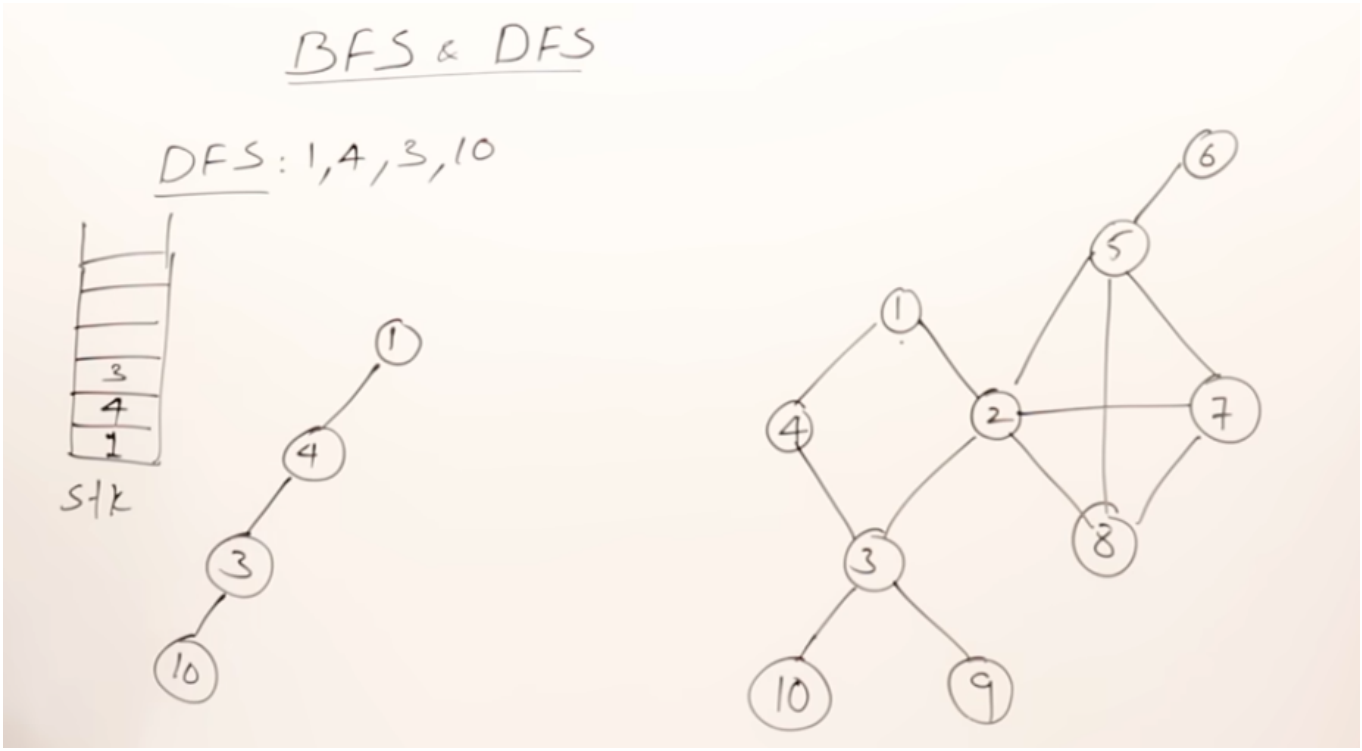
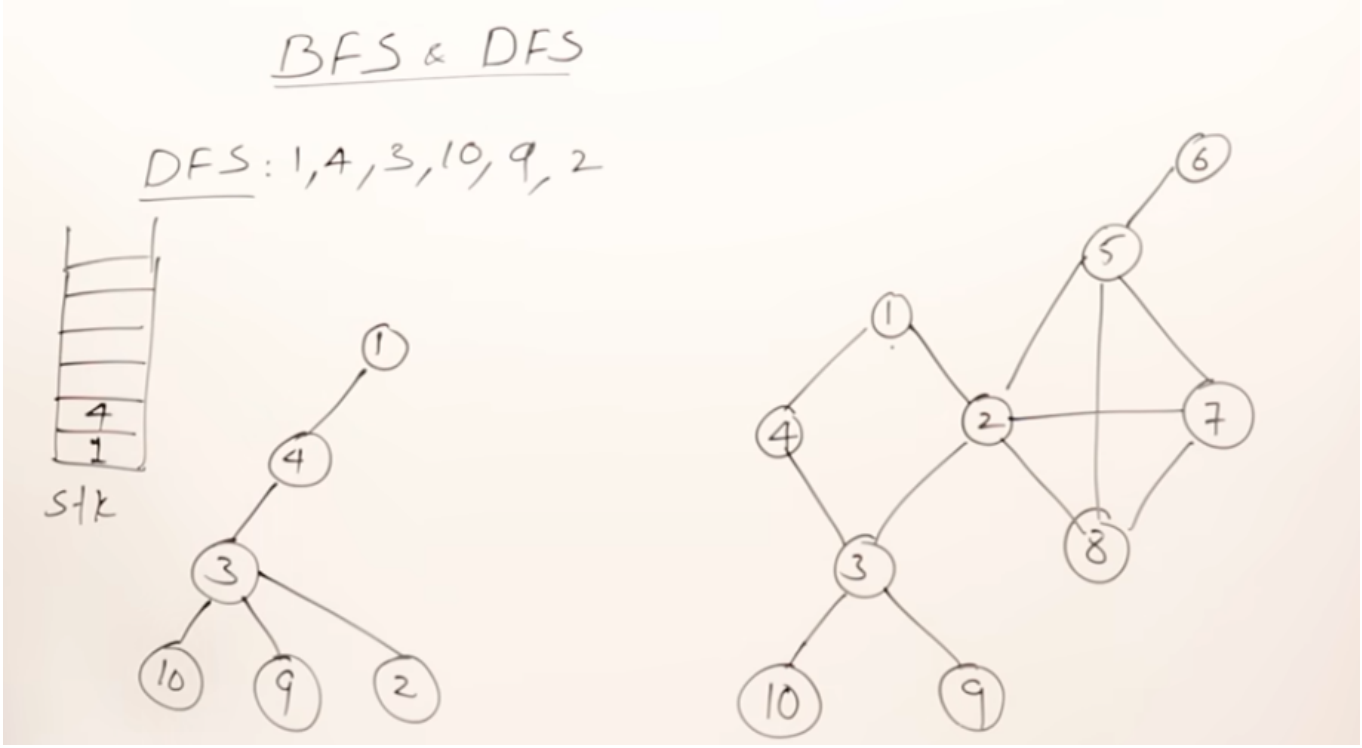
Depth First Search

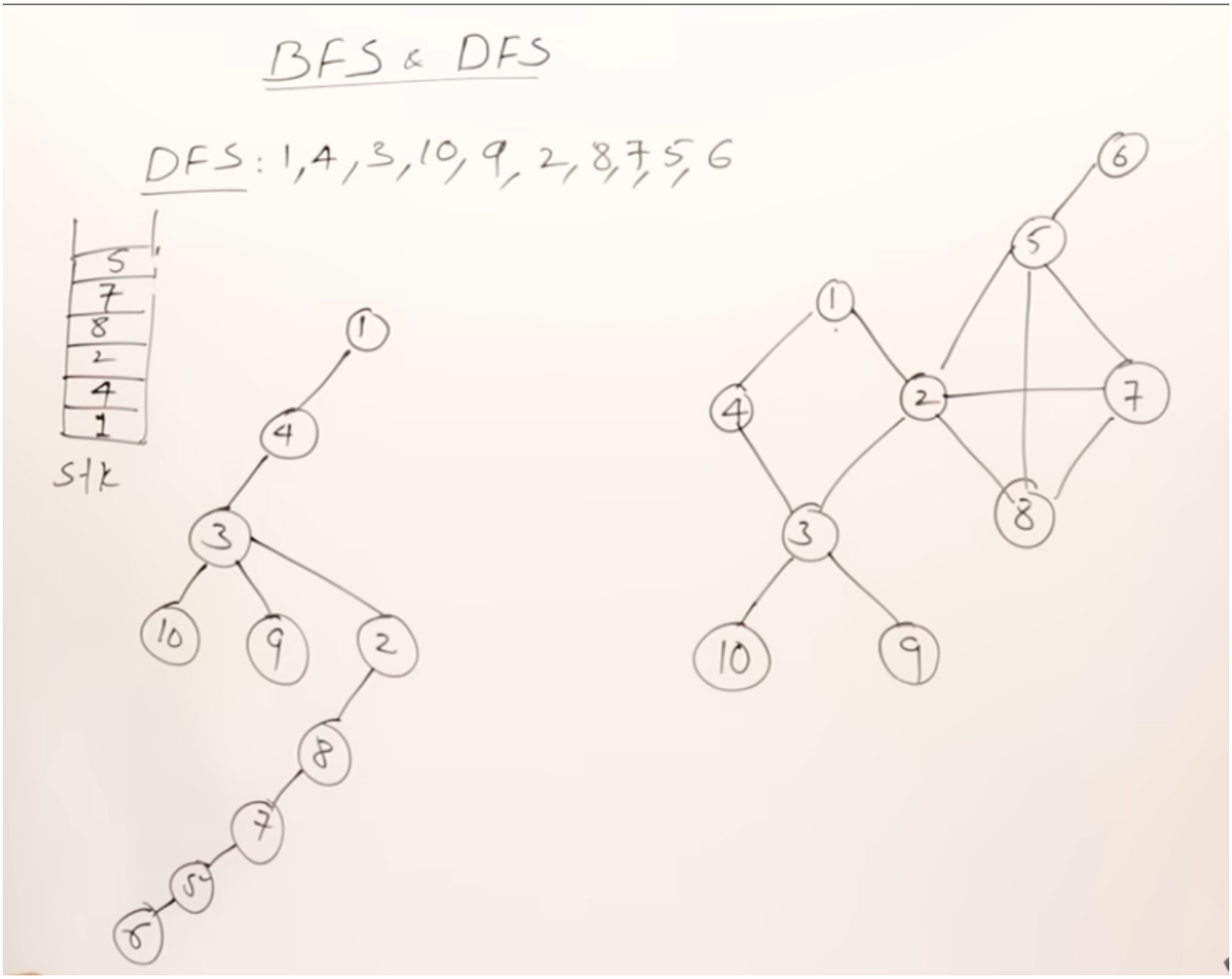


So the idea of depth first search is to
visit the child nodes, say we are starting from 1, we first visit the child node 4, and then instead of visiting the other child node 2, we proceed to visit the child node 3(child node of the child node). We do this till we reach the end where the node does not have a child -in this case the node 10 does not have a child
in the process of visiting the next child node, we **first store the visited child node** into the stack and then proceed to the child node



after reaching "dead end" i.e. node 10, we then again visit node 3, see if there are other nodes connected to it

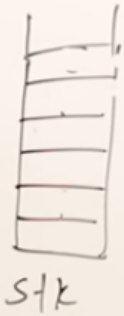




you then proceed to pop things of the stack, first 5 will be popped, but after popping, we see that it is connected to 2,7 and 8, it will create links maybe if they do not already exist

BFS & DFS

DFS: 1, 4, 3, 10, 9, 2, 8, 7, 5, 6



DFS spanning Tree