



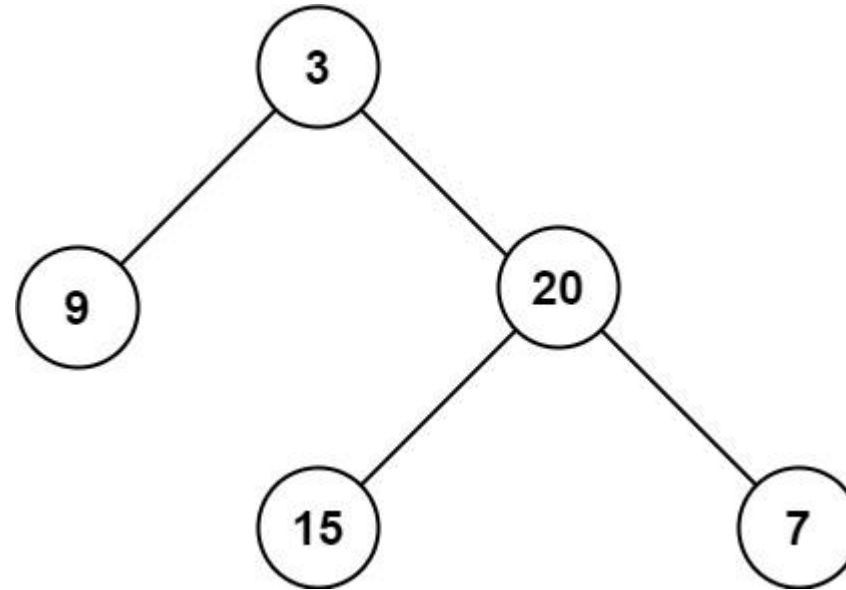
TECH-CREERE

Data Structure Problems

Data Structures

- Stack
- Queue
- Set
- Map (Object)
- Linked List
- Binary Tree (BST)
 - BST
 - pre/in/post orders
- Heaps
- Hash Table

Q1: Maximum Depth of Binary Tree

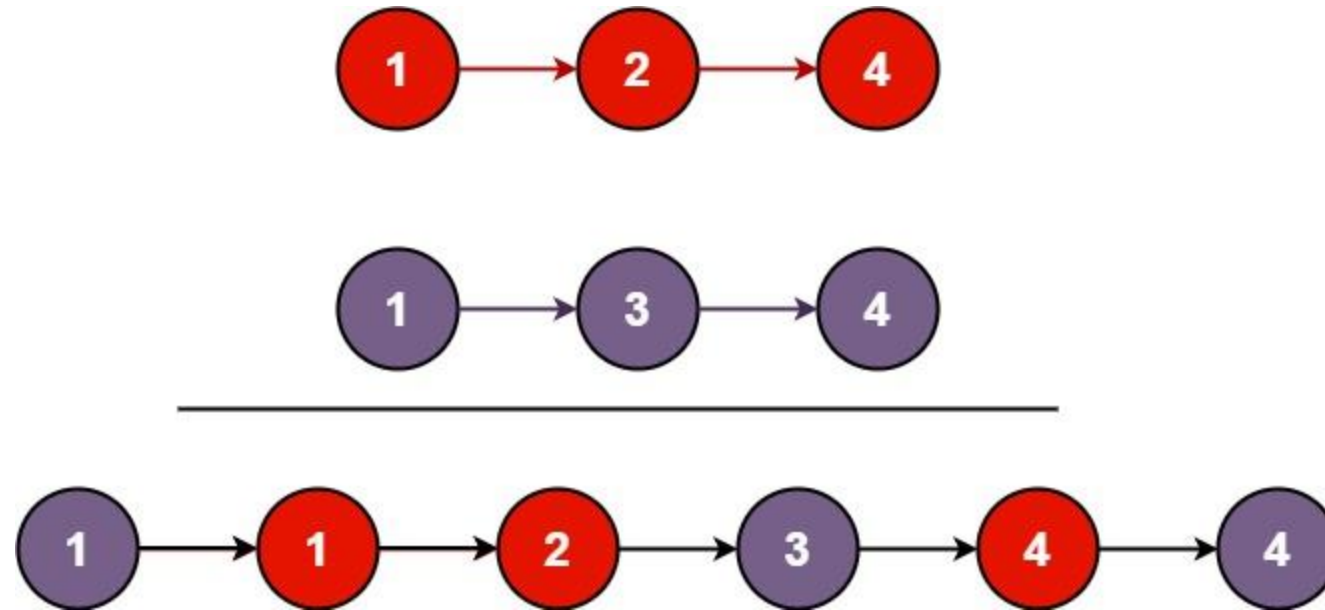


- **Input:** root = [3,9,20,null,null,15,7]
- **Output:** 3

Q2: Validate Binary Tree

- Given the root of a binary tree, *determine if it is a valid binary search tree (BST)*.
- A **valid BST** is defined as follows:
- The left subtree
 - of a node contains only nodes with keys **less than** the node's key.
- The right subtree of a node contains only nodes with keys **greater than** the node's key.
- Both the left and right subtrees must also be binary search trees.

Q3: Merge k sorted list



Input: list1 = [1,2,4], list2 = [1,3,4]

Output: [1,1,2,3,4,4]