

3.19(O) - Binary Trees

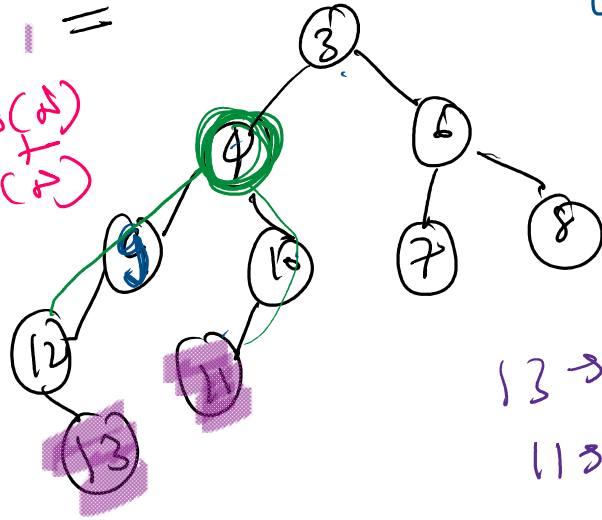
Thursday, August 21, 2025 9:16 PM

Lowest Common Ancestor

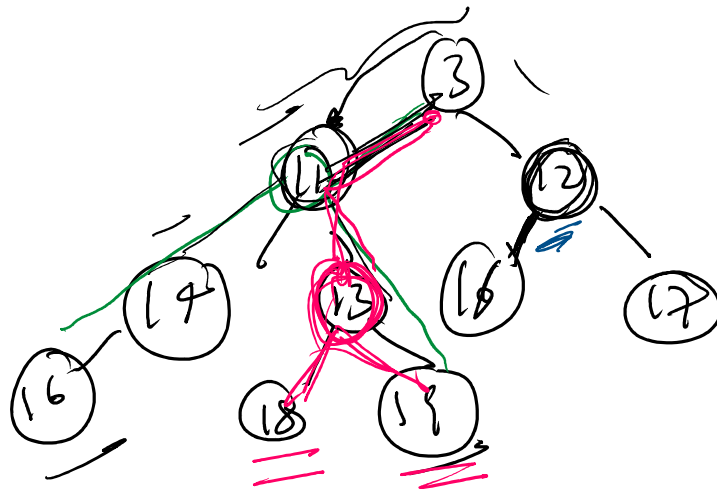
$[3, 4, 9, 12, 13]$ $\rightarrow O(N)$
 $[3, 4, 10, 11]$ $\rightarrow O(N)$
 $O(N)$

$[4, 3]$

$[12, 9, 4, 3]$
 $[10, 4, 3]$



$13 \rightarrow O(N)$
 $11 \rightarrow O(N)$
 $\rightarrow O(N)$



$3, 12$
 > 1

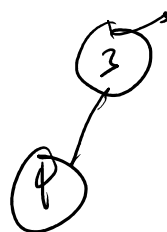
⊛ LCA is the point where the paths diverge for two nodes

Edge Case

1) root = null

2)

3)

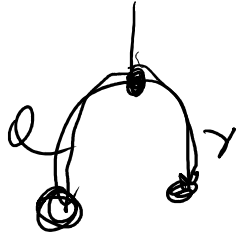


edge case

$[3, 4]$

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