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CST 370

Final Project 2

The Algorithm

While traversing tree from top to bottom,

If node n we encounter with value between item1 and item2, i.e., item1 < n < item2 or same as one of the item1 or item2,

It is FCA of item1 and item2 (assuming that item1 < item2).

Else continue to traverse the BST,

If node’s value is greater than both item1 and item2

Then our FCA lies in left side of the node,

If it’s is smaller than both item1 and item2,

Then FCA lies on right side.

Otherwise root is FCA (assuming that both item1 and item2 are present in BST)

Time complexity is O(h) where h is the height of the tree in which is the furthest distance the tree will be traversed.

Video Link:

<https://youtu.be/otHsNCP91uU>