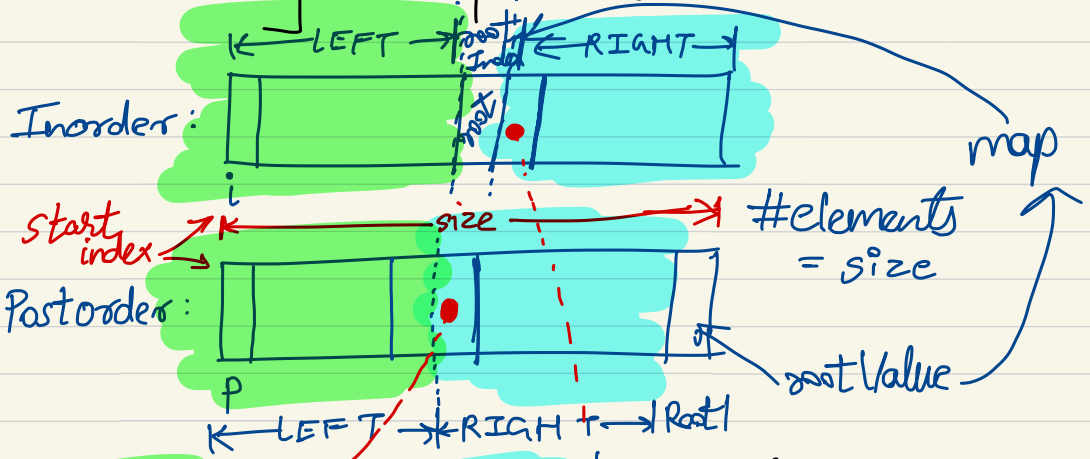


Create Binary Tree from Inorder and Postorder.



LEFT

RIGHT

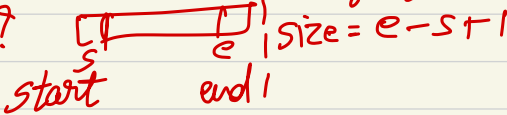
LEFTSIZE

$$\Rightarrow \text{rootIndex} - 1 - i + 1$$

RIGHTSIZE

$$\Rightarrow \text{size} - (\text{LEFTSIZE} + 1)$$

How?



buildTree(inorder, i, postorder, p, size, map)

if size == 0 get null

if size == 1
get new TreeNode
(postorder[p]);

rootValue = post[order[p + size - 1]]

rootIndex = map.get(rootValue)

root ← new TreeNode(rootValue)

leftsize = rootIndex - 1 - i + 1

rightsize = size - (leftsize + 1)

root.left ← buildTree(inorder, i, postorder, p, leftsize, map)

root.right ← buildTree(inorder, rootIndex + 1, postorder, p + leftsize, rightsize, map)

return root

Inorder Start Index

i

Postorder Start Index

p

Inorder Start Index

rootIndex + 1

Postorder Start Index

p + leftsize