

# LEETCODE: 1008

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By

Priyansh



# PROBLEM:

You are provided with preorder of a BST  
And you have to construct the tree!!! (BST)

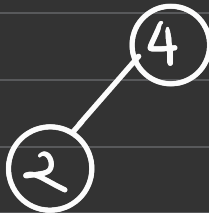
## My Algorithm:-

- Make first element of the Array a root of the tree as Pre means **Root LEFT RIGHT**
- Now Traverse to All remaining elements of the Array and place them on their Suitable position... in the tree!!!

## Example:-

4	2	1	3	5	6
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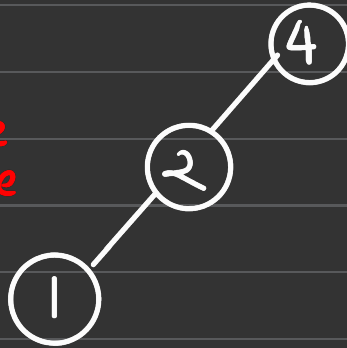
↑ ↑  
root to provide  
A place  
in root



4	2	1	3	5	6
---	---	---	---	---	---

↑  
root

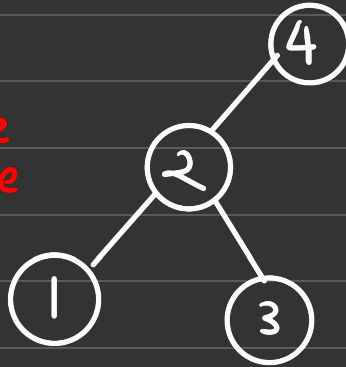
↑ to provide  
A place  
in tree



4	2	1	3	5	6
---	---	---	---	---	---

↑  
root

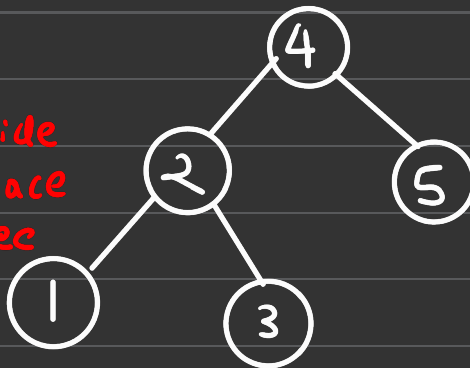
↑ to provide  
A place  
in tree



4	2	1	3	5	6
---	---	---	---	---	---

↑  
root

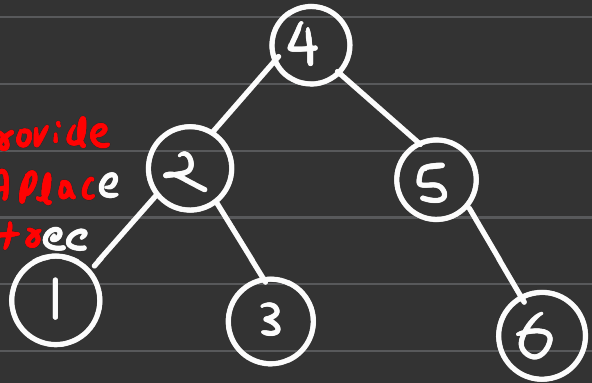
↑ to provide  
A place  
in tree



4	2	1	3	5	6
---	---	---	---	---	---

↑  
root

↑ to provide  
A place  
in tree



Tree constructed Successfully!!!

## Code Implementation:-

```

class Solution {
public:
    void insert(TreeNode* root,int val){
        if(root == NULL){ root = new TreeNode(val);
            return;}
        else if(root->val > val){
            if(root->left == NULL){
                TreeNode* temp = new TreeNode(val);
                root->left = temp;
                return;
            }
            insert(root->left,val);
        }
        else{
            if(root->right == NULL){
                TreeNode* temp = new TreeNode(val);
                root->right = temp;
                return;
            }
            insert(root->right,val);
        }
    }
    TreeNode* bstFromPreorder(vector<int>& preorder) {
        TreeNode* root = new TreeNode(preorder[0]);
        for(int i=1;i<preorder.size();i++){
            insert(root,preorder[i]);
        }
        return root;
    }
};
  
```