

# C++ Assignments | Binary Trees | Week 17

## 1 . Find the product of all values in Binary Tree

Sol:

```
int product (node* root){  
  
    if(root==NULL)return 1;  
  
    int ans= root->val * sum(root->left) * sum(root->right);  
  
    return ans;  
  
}
```

## 2 . Find the min value in Binary Tree

Sol:

```
int min(node*root){  
  
    if(root==NULL)return INT8_MAX;  
  
    int lmin=min(root->left);  
  
    int rmin=min(root->right);  
  
    return min(root->val,min(lmin,rmin));  
  
}
```

### 3 . Balanced Binary Tree [Leetcode 110]

Sol:

```
class Solution {
public:
    int levels(TreeNode*root) {
        if(root==NULL) return 0;
        return (1+max(levels(root->left), levels(root->right)));
    }

    bool isBalanced(TreeNode* root) {
        if(root==NULL) return true;
        int ld=levels(root->left);
        int rd=levels(root->right);
        if(abs(ld-rd)>1) return false;
        return isBalanced(root->left) && isBalanced(root->right);
    }
};
```

### 4 . Symmetric Tree [LeetCode 101]

Sol: