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BST AVL Tree

Summary:

This program implements the **Self-Balanced Binary Search Tree**, with the Insert, Delete Functions. You can display Balanced AVL Tree with (InOrder traversal, PreOrder traversal, PostOrder traversal)

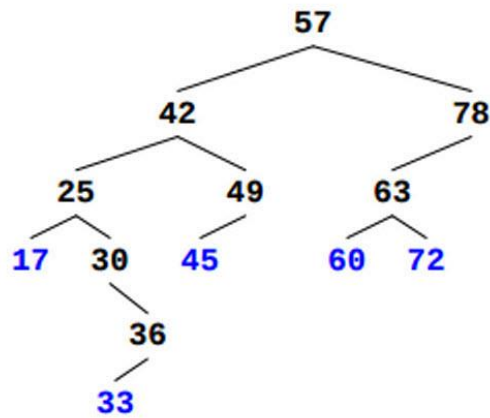The project is built using **C++, Visual Studio**.

Example1:

Add the element with value 61. This happens in two steps: Step1: just add the node to the tree. Step2: make the tree balance.
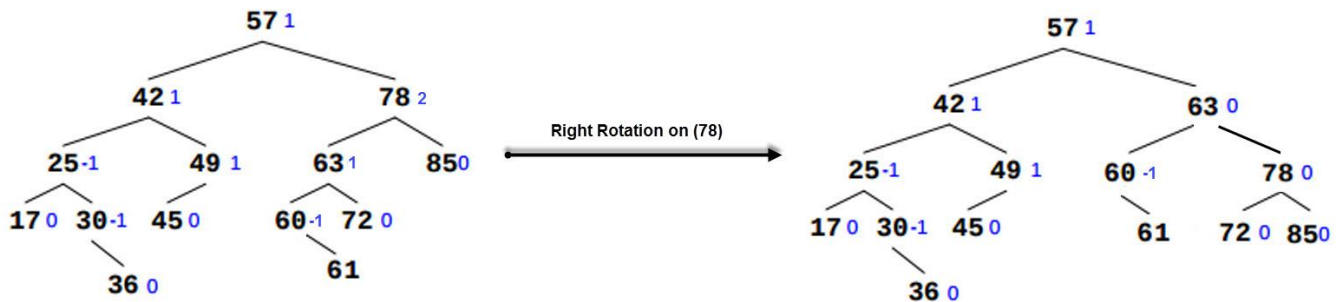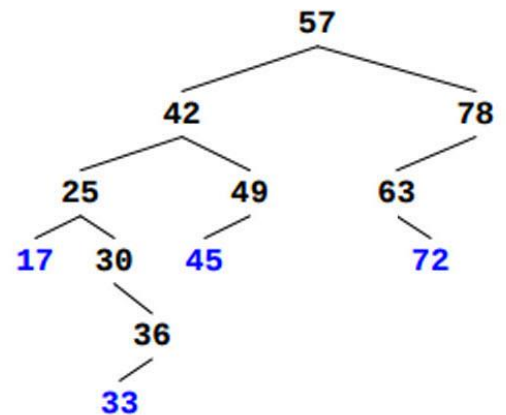

Example2:

1) **Delete** the node with value 60
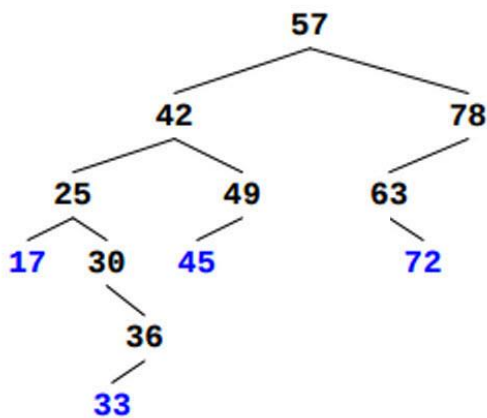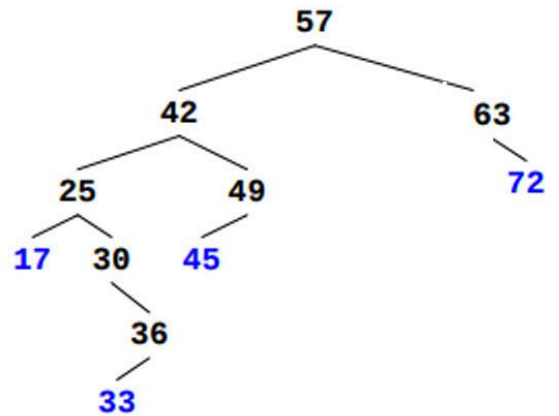2) **Delete** the node with value 78
3) **Delete** the node with value 42

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1) Delete 60

57
42 78
25 49 63
17 30 45 60 72
36
33

Just remove it directly as it's a leaf node.

57
42 78
25 49 63
17 30 45 72
36
33

2) Delete 78

57
42 78
25 49 63
17 30 45 72
36
33

Remove node 78 and shit node 63 up.

57
42 63
25 49 72
17 30 45
36
33

3) Delete 42

57
42 63
25 49 72
17 30 45
36
33
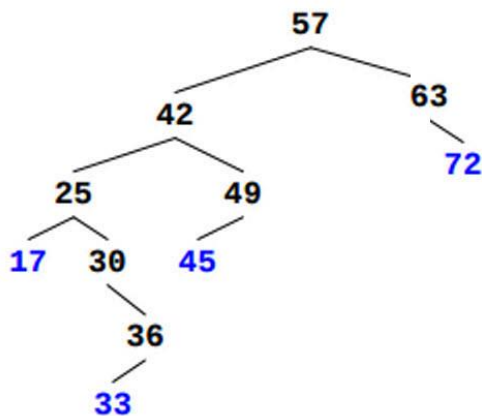
Remove 42 and replace it by its **successor**.

57
45 63
25 49 72
17 30
36
33