1. Implement the following insertions in the AVL tree (1,2,3,4,5,6,7)

2. Delete value 3 from the tree and balance it.

3. Do a pre-order, in order and post-order traversal of the tree before deletion and after deletion.

4. Search for any value in the tree if it is present print, it with its index (key) value otherwise inserts it into the tree and balances it with the appropriate rotations.

5. Find the kth smallest and largest value in the AVL tree and print its key also print both the left side and right side height of the tree starting from root.