1. Implement a binary search tree that supports insertion, deletion and searching for a value.
2. Implement a function to find the minimum value in a binary search tree in O(h) complexity where **h** is the height of the tree.
3. Implement a function to find the maximum value in a binary search tree in O(h) complexity where **h** is the height of the tree.
4. Implement a function to check if a binary search tree is valid, meaning that all values in the left subtree are less than the node value, and all values in the right subtree are greater than the node value.