This program consists of several different implementations of binary search tree operations. The operations added were to create an iterative version of the search operation, to build a balanced binary search tee from a sorted list in O(n) time, and to extract the elements in the binary search tree into a sorted list.

The iterative version of the search operation is a function that searches the binary tree for the element requested. It will either return true or false depending if the element is found. This function is O(n) as it only depends in the depth of the binary tree. For the created balanced binary search tree from a sorted list at O(n) time, there are two recursive calls made and every time the middle element is added to a node in the binary search tree. The recurrence equation is T(n) = 2T(n/2) which will in turn equal O(n) time. For the extraction of the elements from the binary search tree, it also makes two recursive calls to the left and to the right side of the tree. This function also has the recurrence equation of T(n) = 2T(n/2) which will also be equivalent to O(n) time.