

## Assignment on Tree

Write a program to create a binary search tree for N given data items as input (A binary search tree is a rooted binary tree, whose internal nodes each store a key (and optionally, an associated value) and each have two distinguished sub-trees, commonly denoted left and right. The tree additionally satisfies the binary search tree property, which states that the key in each node must be greater than or equal to any stored in the left sub-tree, and less than or equal to any stored in the right sub-tree).

Your program also performs the following operations on the binary search tree:

- Traverse the tree in
  - pre-order
  - in-order
  - post-order
- Search the tree for a given key value and return “Yes” if the search is successful and “No” otherwise.
- Insert a key which will be placed at an appropriate place.
- Calculate the path length of the given tree.