

CS2302 Data Structures

Spring 2020

Quiz 4

Open notes. You may request assistance from TA, IA, PL, teammate and instructor

1. Write the function `childrenOfRoot(t)` that receives a reference to an object of type `BST t` and returns the number of children that the root in the tree has.
2. Write the function `rootPredecessor(t)` that receives a reference to the root of a `BST t` and returns the largest item in the tree that is smaller than the item stored at the root. You may assume that the tree is not empty and that the root does not contain the smallest item in the tree.
3. Write the function `treeToList(t)` that receives a reference to the root of a binary search tree `t` and returns a sorted list containing the elements in the tree.