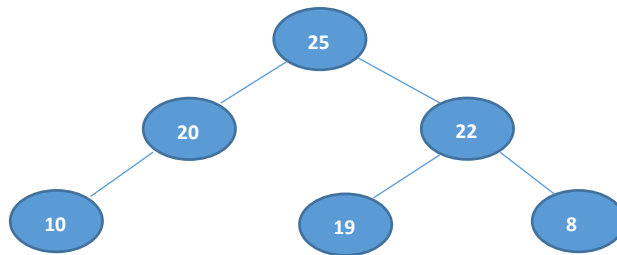# CO1107 Algorithm, Data Structure & Advanced Programming - Workshop Week 8

Task 1:

Download the **binaryTree.py** provided. Then add a new function *sum_leaves(self)* that adds the value of every leaf in the tree. It returns 0 if the tree is empty.
Assumption: are the stored items in the tree are numeric.

For example for a binary tree of the form above, the result of the *sum_leaves* function would be 10+19+8=37

Pre-Task 2:

Download the *binarySearchTree.py* class provided on blackboard. Task 2, 3 and 4 is going to be built on this class.

Task 2:

Implement another function called *search* which does the search operation in binary search tree. The basic algorithm is discussed in the lecture slides. Make sure to test your code on some examples

Task 3:

Extends the *binarySearchTree.py* class by adding another function called *find_minimum*, that returns the minimum item in the tree, or None if the tree is empty.

Task 4:

Add another function called ***treeRange (a,b)*** that returns a list with all items between a and b.
Assumption: are the stored items in the tree are numeric.