

Hint : Minimum and Maximum in the Binary Tree

1. Initialise current as root.
2. Take two variables, max and min.
3. While current is not null:
 - If the current does not have a left child:
 - Update variable max and min with current's data if required.
 - Go to the right, i.e., `current = current->right`.
 - Else:
 - Make current as the right child of the rightmost node in the current's left subtree.
 - Go to this left child, i.e., `current = current->left`.

This algorithm is based on the approach of traversing the given tree and for every node returning the maximum and minimum of 3 values: node's data, maximum in node's left subtree, and maximum in node's right subtree 1. The time complexity of this algorithm is $O(N)$, where N is the number of nodes in the tree, as every node of the tree is processed once 2. The space complexity of this algorithm is $O(1)$ as no extra space is used 2.

PSEUDO CODE

```
Procedure findMinMax(node, min, max)
  If node is NULL Then
    Return
  End If

  If node.data is less than min Then
    min = node.data
  End If

  If node.data is greater than max Then
    max = node.data
  End If

  Call findMinMax(node.left, min, max)
  Call findMinMax(node.right, min, max)
End Procedure
```

