

Laboratory practice No. 4: Linked List and Array List

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2) the code was based on the following repository:

Gómez, M. Barona, C. (2018). Lab04 (version 1.0) [Source code], <https://github.com/cbaronac/ST0245-032/tree/master/laboratorios/lab04/codigo>

3) Practice for final project defense presentation

1. In a binary tree the average search and insertion is logarithmic, in the worst case we can consider if we have a tree as a list in this case the complexity would increase to $O(n)$, but in general if the tree is balanced this does not happen.
2. To the exercise 2.1 the data is entered in a way that the inequalities of major and minor are respected, after that they are printed in a post-order form which means that it will appear in the following form: left, right, root, whereas if it were printed in pre-order it would be: root-left-right
3. The complexity is $O(n)$ where n are all the input elements.

$$n = \sum_{i=0}^m x_i$$

4. n defined as:
the total of nodes in the tree.

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**4) Practice for
midterms**

1. raiz.getLeft()
raiz.getRight()

2. c

3.

a) false

b) a.data

c) a.right, suma-a.data

d) a.left, suma-a.data

4. 1. a

4.2.a

4.3.d

4.4.b

5.

a) toInsert == p.data;

b) toInsert > p.data;

6. 1. d

6.2. return 0;

6.3. %2==0;

7.1. a

7.2. b (2)

8. b

9. a

10. a