

Laboratory practice No. 4

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3) Practice for final project defense presentation

3.1

The data structure we used was the Linked list, we chose it because it is the most direct way to find which bees are closest to the others to warn about collisions, it is also very important to mention that its complexity is $O(n)$.

3.4

* Inserting elements in the tree has a complexity $O(\log n)$. So, adding n elements of the tree has a complexity of $O(n \log n)$.

* To traverse the elements of the tree in preOrder, inOrder and postOrder has $O(n)$ complexity.

3.5

Its complexity is $O(\log n)$ since "n" in this case is the data found within the node that is only obtained when the tree is traversed, so n is the total of all nodes.

4) Practice for midterms

4.1

- 1) D
- 2) A

4.2

- 1) Retorna los nodos con el mismo valor
- 2) $O(n)$
- 3) to improve the code we can make it compare the root with n_1 and n_2 and depending on whether it is higher or lower, it goes to the left or right

4.3

- 1). return true;

ESTRUCTURA DE DATOS 1
Código ST0245

2) $O(n)$

4.4

4.4.1 C

4.4.2 A

4.4.3 D

4.4.4 A

4.5

1) if(toInsert == p)

2) if(toInsert > p)

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