

Laboratory practice No. X: Trees

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3) Practice for final project defense presentation

3.1
3.2
3.3

There is a public method called `printPreFix`, which calls a private method called `printPreFixAux` that has as parameter a node, inside of it has an if statement that sees if the node is null, if it is not he prints the Data, then he makes a recursive call with the left root until he found a null root, he starts to print them and then he sees the right roots until he founds another null root and starts to print them.

Then we have the public method `printPosFix`, which calls a private method that has as parameter a node, inside him has another if statement that works exactly the same as the other, but the prints and the recursive call are upside down, he first makes the call and the prints the nodes.

3.4 $O(h)$.

3.5 h, it means the height of the tree.

4) Practice for midterms

4.1 a) `altura(raiz.izq)`
b) `altura(raiz.der)`

4.2 c) 3

4.3 a) 0

b) a

c) `a.izq`, suma

d) `a.der`, suma

4.4 .1 a) $T(n) = T(n-1) + c$

.2 a) $O(n)$

.3 d) Wilkenson, joquina, eustaquia, florinda, eustaquio, jovin, wilberta, piolina, sufranio, piolin, usnavy

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ESTRUCTURA DE DATOS 1
Código ST0245

.4 c) *cambiar el orden de las líneas 03, 04 y 05 por 03, 05 , 04*

4.5

4.6

4.7

4.7.1) a) 0,2,1,7,5,10,13,11,9,4

4.7.2) b) 2

4.7.3) d) $O(n)$

4.8 b) 2

4.9 a) 5,3,6,1,7,4,8,0,2

4.10 b) No

4.11

4.11.1) b) 2,3,4,0,5,7,6

4.11.2) b) 4

4.11.3) b) No

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