ESTRUCTURA DE DATOS 1
Código ST0245

Laboratory practice No. 4: Hash tables and trees

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3) Practice for final project defense presentation

3.1 We chose a hash table as data structure because the time complexity was the priority and the hash table insertion time is O(1) and finding a required bee is also done in O(1) time as well as the deletion, so given the condition we thought that the hash table was the most optimum choice in time terms.

3.4
2.1 O(log n)

3.5
2.1 n: nodes quantity that the tree has

4) Practice for midterms

4.1
4.1.1 b) the chains that start with the same letter collide
4.1.2 d) O(1)

4.2
4.2.1 It returns the nearest common ancestor node
4.2.2 O(n)
4.2.3 The tree can be balanced into an AVL type

4.3
4.3.1 return true.
4.3.2 Is O(n+m).

4.4
4.4.1 c) T(n)=2.T(n/2)+C, que es O(n)
4.4.2 a) O(n)

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4.4.3 d) Wilkenson, Joaquina, Eustaquia, Florinda, Eustaquio, Jovín, Sufranio, Piolina, Wilberta, Piolín, Usnavy.

4.4.4 c) Change the order in 03, 04 y 05 lines for 03, 05, 04

4.5

a) p != null

b) toInsert > p

4.6

4.6.1 d) 4

4.6.2 return new Nodo(suma);

4.6.3 raiz.hijos.size() == 0

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)

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