ESTRUCTURA DE DATOS 1
Código ST0245

Laboratory No. 3
Linked lists and dynamic vectors

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3)

3.1

- Arraylist: O(n^2)
- LinkedList: O(n)

3.2

The broken keyboard algorithm will read the lines from the file and add them to the list given the following condition: If the character found is "[" or "]" then the initial position will be moved and written to the position at the end or at the beginning.

The beginning is considered when the opening bracket "[" appears and likewise the end is only considered when the closing bracket "]" appears. Then the string appears.

3.3 The complexity of the broken keyboard problem is O(n).

3.4 The variable n in this case b is the text string you enter.

4) Simulacro de Parcial

4.1

4.1.1 res = res + ((str.get((str.size()-1)-i)-'0')*((int)(Math.pow(2,i))));

4.1.2 Complexity: O(n)

4.2 c) O(n)

4.3

4.3.1 iv) 0, 2, 4, 6, 8, 10

4.3.2 i) O(1)

4.4

4.4.1 token

4.4.2 c) O(1)

4.5 a) [7,8,3,1,2,9]

4.6 b) O(n2)

4.7 iv) 5, 4, 3, 2

4.8 d) O(1) y O(n)

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4.9

4.9.1 a) O(k)
4.9.2 d) 3
4.9.3 (c) O(1)

4.10

4.10.1 d) O(n)
4.10.2 a) 6
4.10.3 b) O(n)

4.11

4.11.1 b) O(max(list)×n)

4.13

4.13.1 iii) O(n 2)
4.13.2 i) O(n)

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