

Laboratory practice No. X:LinkedList and ArrayList

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3) Practice for final project defense presentation

3.1

ejercicios	ArrayList	LinkedList
1.1	$O(n*m*l)$	$O(n*m)$
2.1	$O(n^2)$	$O(n^2)$

3.2 The implementation of the exercises 2.1 works by receiving a String with minimum one char, after that we create a LinkedList and three variables, "inicio" and "end" both of type string and one named "cont" of type integer. In the time following we have two cycles, the first is in charge of looking all the elements of the string and with some ifs inside it adding those elements in the order that we need, each if has another cycle inside it, so it can put the letters in the start or in the end. After this first cycle ends and all the elements of the String are inside the LinkedList that we had create, a second cycle starts to run and his function is to print the elements of the LinkedList in the order that they are, from the position 0 to the last one.

3.3 $O(n^2)$

3.4 n = quantity of lines in the matrix

m = quantity of columns in the matrix

l = quantity of the third dimension of the matrix

4) Practice for midterms

4.1 a

4.2 b

4.3 a) length-1

b) <

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ESTRUCTURA DE DATOS 1
Código ST0245

- c) num
- d) q
- 4.4** a) *lista.size()*
- b) *lista.removeFirst(auxiliar.push)*
- 4.5** a) *personas.size() > 0* , *personas.size() > 0*
- b) *personas.poll()* , *organizar()*
- 4.6** c) $O(n^2)$
- 4.7** b) $O(n^3)$
- 4.8** c) $O(n)$
- 4.9.1** b) $O(n^2)$
- 4.9.2** c) 12
- 4.9.3** b) $O(n^2)$
- 4.10.1** d) $O(n)$
- 4.10.2** a) 6
- 4.10.3** b) $O(n)$
- 4.11.1** d) $O(\max(list) \times n)$
- 4.11.2** b) $O(n)$
- 4.12.1** *s2.size() <= s1.size()*
- 4.12.2** *s1.poll()*
- 4.12.3** *s1*

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