

## Laboratory practice No. X: Linked Lists and Dynamic Vectors

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### 3) Practice for final project defense presentation

#### 3.1

##### 1.1

**ArrayList:**

$O(n^2)$

**LinkedList:**

$O(n)$

#### 3.2

**3.3 -**  $T(1) = c1$

$T(2) = c2$

$T(3) = c3$

$T(4) = c4$

$T(5) = c5*n + c6$

$T(7) = c7*n$

....

$T(9) = c20*n$

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$T(n) = Cn * n$

**3.4 -** In the case of linked lists, the worst case takes the algorithm to go through the entire list until it finds its stop condition. This is true for any function you want to apply to the linked lists so it is a linear function.

### 4) Practice for midterms

**4.1.1 – b**

**4.1.2 – b**

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**ESTRUCTURA DE DATOS 1**  
**Código ST0245**

4.2 – c  
4.4.1 –  
4.1.2 – b  
4.5 – c  
4.6 – a  
4.8 – c  
4.8.1 – b  
4.8.2 – c  
4.8.3 – c  
4.10.1 – b  
4.10.2 – b  
4.13.1 – 3  
4.13.2 – 3

**5) Recommended reading (optional)**

Mapa conceptual

**6) Team work and gradual progress (optional)**

6.1 Meeting minutes  
6.2 History of changes of the code  
6.3 History of changes of the report