# **Laboratory practice No. 3: LinkedList and Dynamic vectors**

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**3) Practice for final project defense presentation**

**3.1 the next table only applies to exercise 1.**

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| --- | --- |
| **ArrayList** | **LinkedList** |
| **O(n)** | **O(n)** |

**Is equals to use LinkedList or ArrayList for this problem. The complexity of ArrayList is O(n) because, in case the ArrayList is full, all elements have to be translated into a new ArrayList.**

**3.3 c1+c2+c3\*n+c4+c5\*n\*n+c6\*n\*n+c7\*n\*n\*n+c8\*n\*n\*n+c9\*n\*n+n+1+c10+n+c11\*n= O( c8\*n^3)=O(n^3)**

**3.4 n : No. of elements of the List.**

***4) Practice for midterms***

* 1. *d*
  2. *a*
     1. *B*
     2. *D*

4.4

4.4.1 output.append(token).append(‘ ’);

4.4.2 b

4.5 a

4.6 a

4.8 c

4.9

4.9.1 c

4.9.2 c

4.9.3 b

4.10

4.10.1 d

4.10.2 a

4.10.3 b

4.11

4.11.1 c

4.11.2 b

4.12

4.12.1 return s.pop();

4.12.2 return s.pop();

4.12.3 return s.pop();

4.13

4.13.1 iv

4.13.2 i

4.14 iii