Laboratory practice No. 3: Linked Lists and Dynamic Vectors

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3) Practice for final project defense presentation

3.1

	Vectors	Linked List
1.1	O(n + m)	O(n2 + m2)
1.2	O(n + m + w)	O(n2 + m2 + w2)
1.3	O(n)	O(n)
1.4	Using Stacks and Queues: O(n) If there are always more fridges than asked then n is the amount of fridges ordered from all stores, or if there are less fridges than orders n is the amount of fridges available.	
1.6	O(n + m + w + u)	O(n + m + w + u)

3.2 The method constructs a Linked List and adds each character that isn't a '[' or ']', when the end']' key is pressed the next added characters are addes at the end of the list, and when the start'[' key is pressed the next character will be added at the start of the list and a counter will start, the next added character will be at the index of the counter and increment it by one, the counter will reset when '[' or ']' are pressed.
3.3 T= 3 + 8n + 3n = O(n)
3.4 In this case n is simply the length of the entered string, because it loops for every character in the string and in the worst case scenario only does eight instructions per loop and printing the list takes O(n).

4) Practice for midterms

4.2 = c

4.4.1: token
4.4.2 = a

4.5 = a
4.6 = a

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4.8.1 = a
4.8.2=c
4.8.3=c

4.10.1=b
4.10.2=b

4.11.1= while(s2.size() < s1.size());
4.11.2= s2.push(s1.get(s2.size()+1));
4.11.3= return s1.head;

4.12.1= iv
4.12.2= i

4.13.1= iii
4.13.2=iii

4.14= iii

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