**Lab 1**

**Singly Linked List**

**Introduction:**

This lab is about analyzing different algorithms in terms of their time and space complexity. We determine both of these in numerical terms, in such a way that we avoid going into hardware detail and just compare the complexity and efficiency of algorithms. For this purpose, we perform ***analytical analysis*** using ***asymptotic notation*** formally known as ***Big-Oh***. This mathematical relation provides with upper bound of time and space complexity of given algorithm.

**Objective:**

* . To be able to analyze an algorithm in terms of its space and time complexity.

To be able to tell which algorithm will be better in terms of efficiency.

**APPLICATION:**

* To improve the efficiency of our given algorithm.
* To determine whether an algorithm is suitable or not.
* To build efficient algorithms In terms of space and time complexity.

**ISSUE:**

No issue regarding this lab.

**CONCLUSION:**

Algorithms of order ***n*** and ***nlog(n)*** are the relatively better algorithms.