

Lab Assignment 2

Single Linked List

- ✓ 1. Develop a menu driven program for the following operations of on a Singly Linked List.
- Insertion at the beginning.
 - Insertion at the end.
 - Insertion in between (before or after a node having a specific value, say 'Insert a new Node 35 before/after the Node 30').
 - Deletion from the beginning.
 - Deletion from the end.
 - Deletion of a specific node, say 'Delete Node 60').
 - Search for a node and display its position from head.
 - Display all the node values.
- ✓ 2. Write a program to count the number of occurrences of a given key in a singly linked list and then delete all the occurrences. For example, if given linked list is 1->2->1->2->1->3->1 and given key is 1, then output should be 4. After deletion of all the occurrences of 1, the linked list is 2->2->3.
- ✓ 3. Write a program to find the middle of a linked list.

<https://www.geeksforgeeks.org/write-a-c-function-to-print-the-middle-of-the-linked-list/>

- ✓ 4. Write a program to reverse a linked list.

<https://www.geeksforgeeks.org/reverse-a-linked-list/>

Additional Questions:

- <https://www.interviewbit.com/problems/reverse-link-list-ii/>
- <https://www.interviewbit.com/problems/rotate-list/>
- <https://www.geeksforgeeks.org/adding-two-polynomials-using-linked-list/>
- <https://www.geeksforgeeks.org/write-a-function-to-get-the-intersection-point-of-two-linked-lists/>