Week 2 Lab B - Singly/ Doubly Linked List

1. Write a program in C to create a single linked list of 10 nodes.

2. Write a program in C to count the number of nodes in the linked list and find out the max and min value node.

3. Write a program in C to insert an element at the beginning of the linked list.

4. Write a program in C to insert an element at a specific location in a linked list.

5. Write a program that takes input an integer number, split the number in its digits and stores the digits in a linked list structure.

6. Write a program in C which reads a name and generates the link list of the characters in that name. Later it removes the vowels from the link list and displays the modified link list

7. Create a link list of user supplied ten characters to store a name. Create a second link list of same type of user supplied five characters. Now using a function remove(), traverse first link list and if any three consecutive characters of second link list appears as consecutive characters of first link list, remove those from first link list.

8. Write a program in C to insert an element at specific location in doubly linked list.

9. Write a program in C to delete last element from the doubly linked list.

10. Given a doubly linked list of any number of nodes, write a function ExtremeSwap(), which will swap values of the node at extreme pairs. For e.g., if the node values of a doubly linked list are:

1 2 3 4 5 6 7 8

After first call, values will be

8 2 3 4 5 6 7 1

After second call, values will be

8 7 3 4 5 6 2 1

And finally function will stop after fourth call, and the values will be

8 7 6 5 4 3 2 1