Home Assignment #Jenil Class

1. Traverse a Linked List.
2. Insert a key element in the Linked List at
3. Start of the Linked List
4. End of the Linked List
5. At given index
6. Deletion in Linked List   
   i. At the front   
   ii. At the end  
   iii. At a given Index.
7. Find Length of a Linked List.
8. Write a Function to print the middle element of a Linked List.
9. Given a Key, Find it in the Linked List. Return 1 if Found, else return 0.
10. Given an integer value n, find the nth Node from the starting of the Linked List.
11. Given an integer value n, find the nth Node from the end of the Linked List.
12. Given a Key Value, Count the number of time it appears in the Linked List.
13. Reverse a Linked List.
14. Merge two sorted Linked Lists.
15. Given a Linked List, check if this Linked List has loop or not? Return 0 if there is no loop, else return 1.



1. Given a Linked List, check whether it is a palindrome or not?

For eg

1 -> 2 -> 3 -> 2 -> 1 is a palindrome

1 -> 2 -> 3 -> 4 not a palindrome

1. You’re given a sorted Linked List. Remove all the duplicate elements.

For eg.

Input : 1 -> 1 -> 1 -> 2 -> 3 -> 4 -> 4 -> 5

Output : 1 -> 2 -> 3 -> 4 -> 5

1. Perform Insertion and Deletion in doubly Linked List at Front, at End and Given Index.
2. Reverse a doubly linked List.
3. Given is a singly Linked List, Perform pair wise swap operation.

Input : 1 -> 2 -> 3 -> 4 -> 5

Output : 2 -> 1 -> 4 -> 3 -> 5

Input : 1 -> 2 -> 3 -> 4 -> 5 -> 6

Output : 2 -> 1 -> 4 -> 3 -> 6 -> 5

1. Sort a Linked List.
2. Given two numbers represented by two Linked Lists, perform the summation Operation.

Input :

First List : 5 -> 6 -> 3

Second List : 8 -> 4 -> 2

Output :

Resultant List : 1 ->4 -> 0 -> 5

1. Move the last element of a Given Linked List to front.

Input : 1 -> 2 -> 3 -> 4

Output: 4 -> 1 -> 2 -> 3