Assignment Question

1. Given is two elements, write a program to swap nodes containing the two elements without swapping data in a linked list.

2. WAP to find N^{th} node from the end of a Linked List

3. Write a function to delete the whole Linked List

4. WAP to detect loop in a linked list. And if exist then find the starting node of the loop and break the loop from the linked list.

5. Write a program to check if a singly linked list is palindrome

6. Write a Recursive function to print the Linked List in forward and reverse direction.

7. WAP to Reverse a Linked List in groups of given size.(Note: If a linked list consists of 12 elements and size of the group is 3, then first 3 elements need to be reversed, next 3 elements need to be reversed, and so on.

8. WAP to Separate all even element nodes at one end of the linked list and all odd element nodes at other end of the Linked List.

9. WAP to Merge two sorted linked lists such that merged list is in reverse order

10. WAP to merge two sorted linked list such that the original two linked lists will change to single merged list. (Merge in-place).

11. WAP to Rearrange a linked list such that all even and odd positioned nodes will be together.

12. Write a program to arrange all odd numbers first then all even numbers in a linked list.

13. Write a recursive function in C to reverse a single linked list.

14. Write a function to find the union of two linked list.

15. Write a function to find the intersection of two linked list.

16. Write a function to find the differences of two linked list.

17. How do you find the sum of two linked lists using Stack?

18. Given a linked list and a value x, partition it such that all nodes less than x come before nodes greater than or equal to x.

19. How to find the node at which the intersection of two singly linked lists begins.

20. Given a singly linked list, write a function to swap elements pair-wise.

    For example, if the linked list is 1->2->3->4->5 then the function should change it to 2->1->4->3->5, and if the linked list is 1->2->3->4->5->6 then the function should change it to 2->1->4->3->6->5.