**Data Structures**

1. Write a Singly linked list programs for

i) insert the nodes at begin. ii) insert the nodes at end.

1. Write a Singly linked list program to sort the nodes. (add\_middle prog).
2. Write a program to merge two Singly linked list.
3. Write a prorgram to swap 'k'th node from begining and 'k' node from end in a Singly linked list. For Ex: if nodes are

A --- B --- C --- D --- E --- F --- G --- H --- I

if k = 2 , then o/p should be

A --- H --- C --- D --- E --- F --- G --- B --- I

1. Write a Singly linked list program to swap the adjacent nodes.

For Ex: if nodes are

A --- B --- C --- D --- E --- F --- G --- H --- I

then o/p should be

B --- A --- D --- C --- F --- E --- H --- G --- I

1. Write a Singly linked list program to delete a perticular according to any signature of a given structure.
2. Write a Singly linked list program to delete a perticular node from last and also find the count of no.of nodes using only single traverse.

Ex: Suppose if there are 7 nodes, and if 2nd node has to be delete from last, then it is 6th

node from starting.

Before delete : A --- B --- C --- D --- E --- F --- G

After delete : A --- B --- C --- D --- E --- G

1. Write a program to delete the duplicate nodes from sorted Singly linked list.
2. Write a program to delete the duplicate nodes from unsorted Singly linked list.
3. Write a program to reverse the data of given Singly linked list.
4. Write a program to reverse the data of only first 'M' no.of nodes of 'N' no.of nodes.

Input the 'M' value during runtime.

1. Write a program to reverse the links of first 'N' no.of nodes of a given Singly linked list.

Before reverse : A --- B --- C --- D --- E --- F --- G --- H

If M = 5, After reverse : E --- D --- C --- B --- A --- F --- G --- H

1. Write a program to reverse all links of given Singly linked list

i) using loops ii) using recursion.

1. Write a Singly linked list program to check the given linked list is palindrome or not.
2. Write a Singly linked list program to implement Stack and Queue operations.
3. Write the Double linked list programs for the all above question.
4. Wrtie a program to delete a node in a Circular Linked List.
5. Write a program to construct Binary-tree by the given nodes and print it in the order

i) pre-order ii) in-order iii)post-order

1. Write a program to search a node in a given Binary-tree.
2. Write a program to delete a particular node in a given Binary-tree according to any signature of a given structure.

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Dear students, If any mistakes found, kindly inform to me.

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