

Linked List

Singly Linked List

1. Write a menu driven program to implement a singly linked list with the following operations
 - a. Insert an element at any position (front, end or intermediate)
 - b. Delete an element from any position (front, end or intermediate)
 - c. Display the list
 - d. Perform a linear search on the list
 - e. Insert an element after a specified element
 - f. Delete a specified element
 - g. Count the number of nodes
 - h. Reverse the list, so that the last element becomes the first, and so on
 - i. Concatenate two lists

Doubly and Circular Linked List

1. Write a menu driven program to implement a doubly linked list with the following operations
 - a. Insert an element at any position (front, end or intermediate)
 - b. Delete an element from any position (front, end or intermediate)
 - c. Display the list
2. Write a menu driven program to implement a doubly circular linked list with the following operations
 - a. Insert an element at any position (front, end or intermediate)
 - b. Delete an element from any position (front, end or intermediate)
 - c. Display the list

Linked List Applications (Implement the Questions by your own Linked List class)

1. Write a program to implement a stack using linked list, such that the operations 'push' and 'pop' are performed in constant time.
2. Write a program to implement a queue using linked list, such that the operations 'enqueue' and 'dequeue' are performed in constant time.
3. Write a menu driven program to implement a double ended queue using linked list.

Note:

- Programs must be written using Java Programming Language.
- Do proper commenting so that it becomes easy for us to read your code.