Experiment 3

Aim: write a program to implement following operation

s on singly linked list.

1. create

2. Insert beginning

3. Insert end

4. Delete beginning

5. Delete end

6. display

Lab outcome:

Implement linear data structure & be able to handle operations like insertion, deletion and display operations

Practice Questions.

Q1. Difference beth gray/Linked list.

	Parameter	Array	Linked list
	memory	static memory	Dynamic memory
	allocation	allocation	allocation (Heap)
	allies at all	HIBM RELEASED TO THE PARTY OF T	
	Allocation	Contigous	Ram Random
1	In the trained to the	a lamborania to	
	Types	10/20/30	singly Doubly circular
1			
1	Access		To get element . tra-
1		element available	verse whole List

a 2.	Advantages and disadvantages of singly linked list
Q 2°	Advantages and alsaquariages sign
	Advantage
	Advantages. 1. It is a dynamic data structure which can grow
	Vshrink while program is running.
	2. Other data structures like stacks and queues
	can also be implement using linked list.
	3. Backtracking is possible
	3. Backeracking 15 possine
	Disadvantages.
ia	In linked list pointer needs extra memory
2.	In linked list, random access is not provided, w
	user have to traverse whole list or each node in
	sequential manner.
3.	Linked nodes are not at contigous memory location
0	Hence access time of indivisual node is ocn).
4.	Linked list has heap memory restriction.
17	17.54 (17.5117.64)
	- 1 10 mil
Q3 .	Applications of linked list.
-	1. Maintainance of black directory
	1. Maintainance of block directory. 2. Performing arithmetic operation on long integers
	3- Passacantation of consecution on long integers
	3. Representation of sparse matrices.
	4. Manipulation of polymnomial by storing constants in each node.
	11) each node.
	aller to the same of the same seems to the same of the same seems to the same of the same seems to the same of the

FOR EDUCATIONAL USE

Spectarani)