DATA STRUCTURES
LAB- I

1. Write a C program that uses functions to perform the following operations using **Singly linked list** on employee data, where as every NODE in Linked list stores **Emp_Id**(String), **Emp_Name**(String), **Emp_Address**(String), **Employee_Age**(integer), **Employee_Salary**(Float).

a) Create 3 nodes in linked list.
b) Insert a NODE at a specified position in the Linked list.
c) Delete a NODE corresponding to the given Emp_Id.
d) Display the contents of the Every NODE in the above list.
e) display complete data of a Employee, corresponding to the given Emp_Id.

2. Repeat Program:1 using Doubly Linked list

3. Write a C program that will reverse a linked list while traversing it only once.
At the conclusion, each node should point to the node that was previously its predecessor; the head should point to the node that was formerly at the end(tail), and the node that was formerly first should have a NULL link.

4. Write a C program that will split a linked list into two linked lists, so that successive nodes go to different lists.(the first, third, and all odd numbered nodes to the first list, and the second, fourth, and all even- numbered nodes go to the second.)

5. Write a C program using Singly linked list to display all NODE contents in a Circular list.

6. Repeat Program:5 using Doubly Linked list

7. Write a C program that will concatenate two circularly singly linked lists, producing one circularly single linked list.

8. Repeat Program:7 using Doubly Linked list