**Practical No: 9 (C)**

**Practical Title:** Write C++ program to maintain the ticket booking system of Cinemax theatre using Singly Linked List.

**Aim:** Write C++ program for storing appointment schedule for day. Appointments are booked randomly using **linked list**. Set start and end time and min and max duration for visit slot. Write functions for-

a) Display free slots.

b) Book appointment.

c) Cancel appointment (check validity, time bounds, availability etc.).

d) Sort list based on time.

e) Sort list based on time using pointer.

**Pre-requisite:**

* Basics of Singly Linked List.
* Different Operations that can be performed on Singly linked list.

**Objective**:

* To book or cancel appointment using linked list.

**Input:**

* Start time, end time, min and max time.
* Status as booked or free.

**Outcome:**

* Display Appointment schedule
* Shoe appointment booking status
* Result of Sort appointment as per start time on linked list

**Theory:**

Write short theory of linked list.

Explain logic/algorithms to book and cancel appointment.

Explain logic/algorithms for sorting appointment linked list.

**Algorithm:**

(Write your own algorithm for your program)

**Flowchart:**

(Draw your own flowchart for your algorithms)

**Conclusion:**

By this way, we can book or cancel appointment ss using linked list.

**Questions: (No need to write answers)**

1. What is Doubly Circular Linked List?

2. How to represent doubly circular linked list?

3. How to book or cancel seat?

3. What is doubly linked list?

4. How to insert and delete elements from doubly circulars linked list?