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3.1

### Objective :

- To book or cancel appointment using linked list

### Input :

- start time, end time, min and max time
- status as booked or free

### Out come :

- Display Appointment schedule
- show appointment booking status
- Result of get 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 storing appointment linked list.

### Algorithms :

( Write your own algorithms for your program )



Flow chart :

(Draw your own algorithms flowchart  
for your algorithms)

Algorithm to book and cancel appointment

1. Create an interval tree, initially with the first appointment
2. Do following for all other appointments starts from the record one
3. Check if the existing appointment in interval tree if consists then print the current appointment this step can be done in  $O(\log n)$  time
4. Insert the current appointment in interval tree



3.3



Conclusion :

By this way we can book or cancel appointment so using linked list

Flowchart

