

Lab Task: Min Heap

Patient Appointment System

Develop a patient appointment system that organizes appointments based on the urgency of medical conditions using a min heap.

Schedule Appointment:

Prompt the user to enter the patient's name and urgency level of their medical condition. Here the min urgency level means the most urgent appointment. Insert the appointment into the min heap based on urgency.

Send next Patient to the Doctor:

Display and remove the details of the appointment with the highest urgency from the min heap.

Update Urgency:

Prompt the user to enter the patient's name whose urgency level needs to be updated. Update the urgency level of the specified appointment.

View Appointments:

Display the names and urgency levels of all appointments in the min heap.

Ensure the min heap property is maintained after the update.

Note: In this task you have to make a patient class with the data members: Name, and Urgency level. Then in the heap class use vector of patient to easily add and delete patients without worrying about adjusting the size again and again manually after each insertion and deletion.