



<b>Project Title</b>	Operation Scheduler For Hospital Management
<b>Technologies</b>	HTML, CSS, JS, and Firebase
<b>Domain</b>	Healthcare
<b>Project Difficulties level</b>	Medium

Problem Statement:

In terms of assigning doctors to specific operating rooms, operating room surgical schedules can provide logistical challenges. Surgical scheduling can be difficult due to a variety of considerations such as room availability, working hours per week, doctor preferences, and operating room capabilities. Administrators use a static schedule and make manual changes to assignments as needed. We focus on transforming this static timetable into a workable dynamic model that can be designed to integrate multiple scenarios within the hospital depending on specific hospital data in this senior design assignment. Using our booking mechanism, a surgical room is assigned along with the operation time.

Make a new module based on the instructions below.

One of the module's main functions is to provide an interface that allows any OT in the hospital to efficiently organize OT activities. (Managing interfaces for activity

schedule will be crucial in this case.)

Changes in surgery schedules, such as new additions, cancellations, postponed procedures, emergencies, and so on, must be factored into the scheduling process.

The following information should be included with each procedure.

- Date and time of your surgery
- The number of ID for Operation Theater (OT).
- The type of anesthesia used and the name of the anesthesiologist.
- Medic (Include if there is an Assistant surgeon).
- Nurses that work in the operating room are involved in the procedure (If possible).
- Pre- and post-operative events are tracked using this mechanism.
- Any surgical reports (patient surgery chart, operative reports – transcription) should be attached.
- Remarks from the operating room doctors.
- Drugs, instruments, and materials that are unique to this situation are required.

Create user interfaces for monitoring everyday occupational therapy activities. Viewing OT schedules for previous and future days should also be important.

Create the interface that hospital administrators will require to analyze OT activity and efficiency. Special needs for materials for planned procedures and resource use in each OT may be included in these interfaces.

System Modules:

- Admin
- User

Admin

- Login
- Manage Doctor Details
- Manage patient Details
- Post Operation Schedule Details

## User

- Register
- Login
- View Doctor Details
- View surgical Information

## Project Evaluation metrics:

### Code:

- You are supposed to write a code in a modular fashion
- Safe: It can be used without causing harm.
- Testable: It can be tested at the code level.
- Maintainable: It can be maintained, even as your codebase grows.
- Portable: It works the same in every environment (operating system)
- You have to maintain your code on GitHub.
- You have to keep your GitHub repo public so that anyone can check your code.
- Proper readme file you have to maintain for any project development.
- You should include basic workflow and execution of the entire project in the readme file on GitHub
- Follow the coding standards.

### Database:

- You are supposed to use FireBase.

### Logging:

- Logging is a must for every action performed by your code, use the JavaScript or python logging library for this.

### Deployment:

- You can host your model in the cloud platform, edge devices, or maybe local, but with a proper justification of your system design.

### Solutions Design:

- You have to submit complete solution design strategies in LLD document

## **System Architecture:**

- You have to submit a system architecture design in your wireframe document and architecture document.

## **Optimization of solutions:**

- Try to optimize your solution on code level, architecture level, and mention all of these things in your final submission.
- Mention your test cases for your project.

## **Submission requirements:**

### **Project code:**

You have to submit your code to the GitHub repo and you have to share the repo link at final submission of your project.

### **Detail project report:**

You have to create a detailed project report and submit that document as per the given sample.