

Front Desk System at a Clinic

Overview

The **Front Desk System** is a simple web-based application to manage patient queues and doctor appointments at a clinic. The front desk staff will be able to:

- Manage patient queues by assigning queue numbers to walk-in patients.
- Book, reschedule, or cancel appointments for patients.
- Track patient progress in the queue and their appointment status with doctors.

Technology Stack

Backend:

- **NestJS** (Node.js framework for building scalable server-side applications)
- **JWT Authentication** (for secure login and authorization)
- **TypeORM** (ORM to manage MySQL database interactions)
- **MySQL** (database to store user, doctor, and appointment data)

Frontend:

- **Next.js** (React framework for server-side rendering and static web pages)
- **Tailwind CSS** (for fast and responsive UI styling)

Roles and Responsibilities

Front Desk Staff

- **Manage Doctor Profiles:** Add, edit, or delete doctor profiles, including specialization, gender, location, and availability.
- **Appointment Management:** View, cancel, or reschedule appointments for all patients.
- **Search and Filter Doctors:** Search doctors by specialization, location, and availability.
- **View All Appointments:** Admin can view all appointments for any patient and doctor.

Key Features

Authentication:

- Implement login functionality for front desk staff to securely access the system.



Queue Management:

- Front desk staff can add walk-in patients to the queue, assign them queue numbers, and update their status (e.g., waiting, with doctor, completed).
- View and manage the queue efficiently.

Appointment Management:

- Front desk staff can view available doctors, book appointments, reschedule existing appointments, or cancel appointments if necessary.

Appointment Status:

- Update and track the status of appointments (booked, completed, canceled).

Frontend Implementation

Front Desk Page

Queue Management Page

- A list of patients in the queue, showing their queue number and current status.
- Options to update the status of patients (e.g., “Waiting”, “With Doctor”, “Completed”).

Appointment Management View

- Display available doctors and their available time slots.
- Ability to book, cancel, or reschedule appointments.

Bonus Features(Optional)

Deploy the Application

Deploy the application and share the live link.

Advanced Queue Features

Ability to prioritize certain patients in the queue (e.g., urgent cases).

UI Example

This is a demo UI feel free to use your own design and maybe surprise us.

Front Desk System

Queue Management

Filter: All

Search patients

1
John Doe

⌚ Waiting

Arrival: 09:30 AM
Est. Wait: 15 min

Waiting

Normal

×

2
Jane Smith

👤 With Doctor

Arrival: 09:45 AM
Est. Wait: 0 min

With Doctor

Normal

×

3
Bob Johnson

⚠️

⌚ Waiting

Arrival: 10:00 AM
Est. Wait: 5 min

Waiting

Urgent

×

Add New Patient to Queue

Available Doctors

Dr. Smith
General Practice

Available

⌚ Next available: Now

View Schedule

Dr. Johnson
Pediatrics

Busy

⌚ Next available: 2:30 PM

View Schedule

Dr. Lee
Cardiology

Off Duty

⌚ Next available: Tomorrow 9:00 AM

View Schedule

Dr. Patel
Dermatology

Available

⌚ Next available: Now

View Schedule

Appointment Management

Filter: All

Date:

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December 2024

>

Su Mo Tu We Th Fr Sa
1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31 1 2 3 4

Search patients

