UNIVERSITY OF MADRAS
INSTITUTE OF DISTANCE EDUCATION
சென்னைப் பல்கலைக்கழகம்
தொலைதூரக் கல்வி நிறுவனம்

HEALTHCARE MANAGEMENT SYSTEM

Submitted by

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MCA II YR 3RD SEM
A22 BATCH

Under the Guidance of

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OBJECTIVE:

- Improve **patient care** by providing efficient access to accurate medical records.
- Enhance operational efficiency through streamlined administrative processes.
- Optimize resource utilization to **manage costs effectively**.
- Ensure quick and **secure access to patient information** for healthcare professionals.
- Facilitate seamless appointment scheduling and resource planning.
- Ensure compliance with healthcare regulations and standards.
- Promote interoperability for efficient information exchange among healthcare systems.
- Implement robust data security measures to protect patient information.
- Provide decision **support tools for informed healthcare** administration.
- Foster patient engagement and telemedicine integration for comprehensive healthcare services.

MODULES:

- **Patient Management**: The system allows healthcare providers to manage patient records, including their personal information, medical history, and treatment plans.
- **Appointment Management**: The system enables scheduling, rescheduling, and canceling of appointments for patients.
- **Prescription Management:** The system manages the prescription and medication of patients.
- Billing Management: The system provides billing management functionalities to manage patient payments, invoices, and receipts.
- **User Management:** The system allows managing the user roles and access permissions of the healthcare providers.
- **Reports:** The system provides a range of reports that help in decision making for the hospital management.

SOFTWARE REQUIREMENTS:

Front end: HTML, CSS, JavaScript

1.HTML: HTML is used to create and save web document. E.g. Notepad/Notepad++

2.CSS : (Cascading Style Sheets) Create attractive Layout

3.Bootstrap : responsive design mobile friendly site

Back end: Node.js, MySQL, Express.js:

1.Node.js – The backend technology used for building the application logic and server-side scripting.

2.MySQL – The relational database management system used for storing and managing data.

3.Express.js – The web framework used for building the RESTful API endpoints and middleware.

Server:

1. XAMPP Server

HARDWARE REQUIREMENTS:

Server:

Intel Pentium-IV Processor (1.8 GHz)

20 GB HDD

512 MB RAM

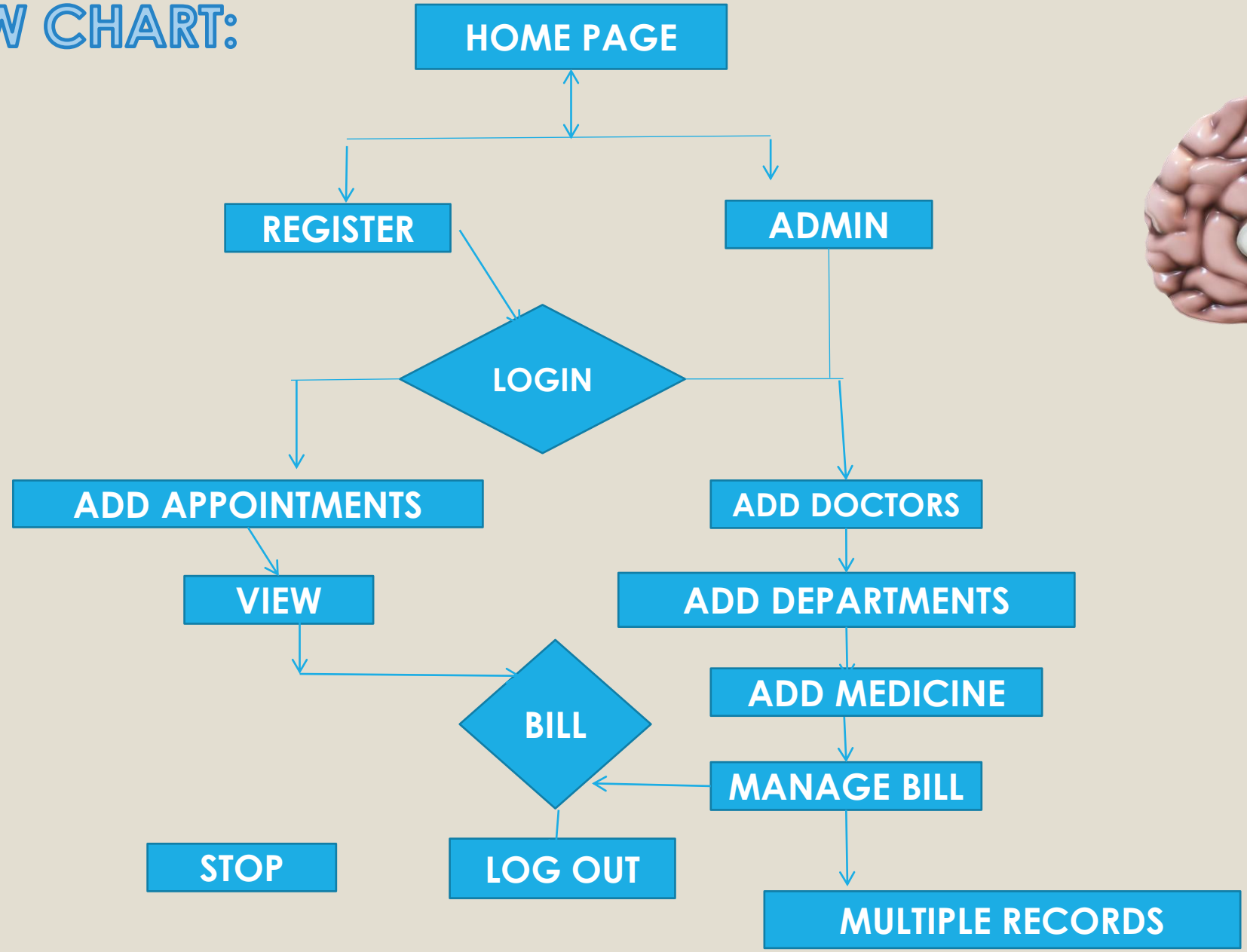
Client:

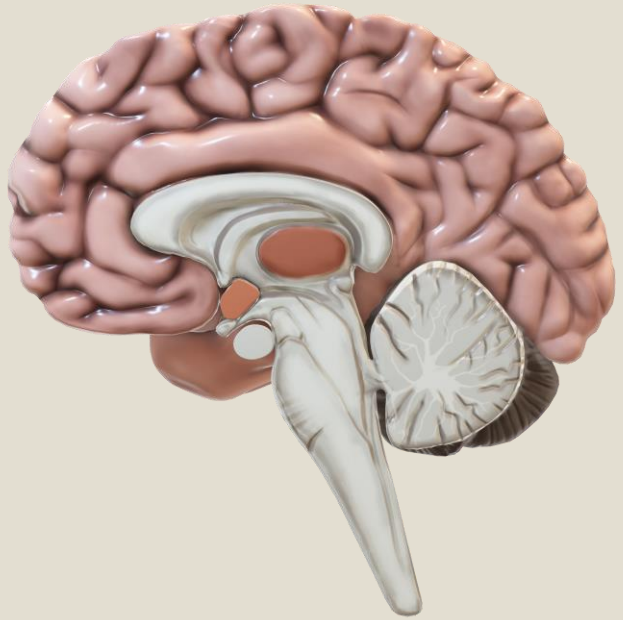
Intel Pentium-III Processor

10 GB HDD

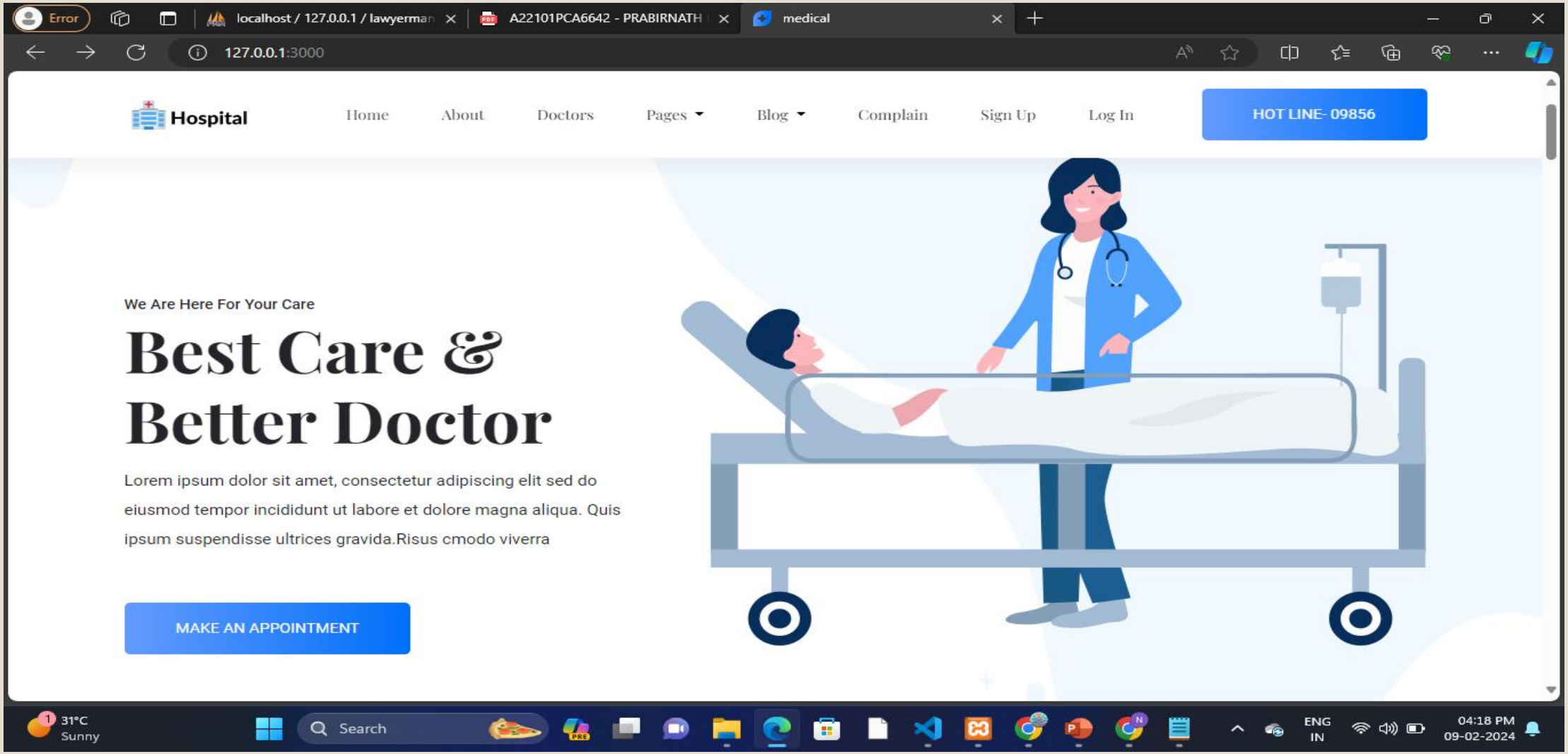
128 MB RAM

FLOW CHART:

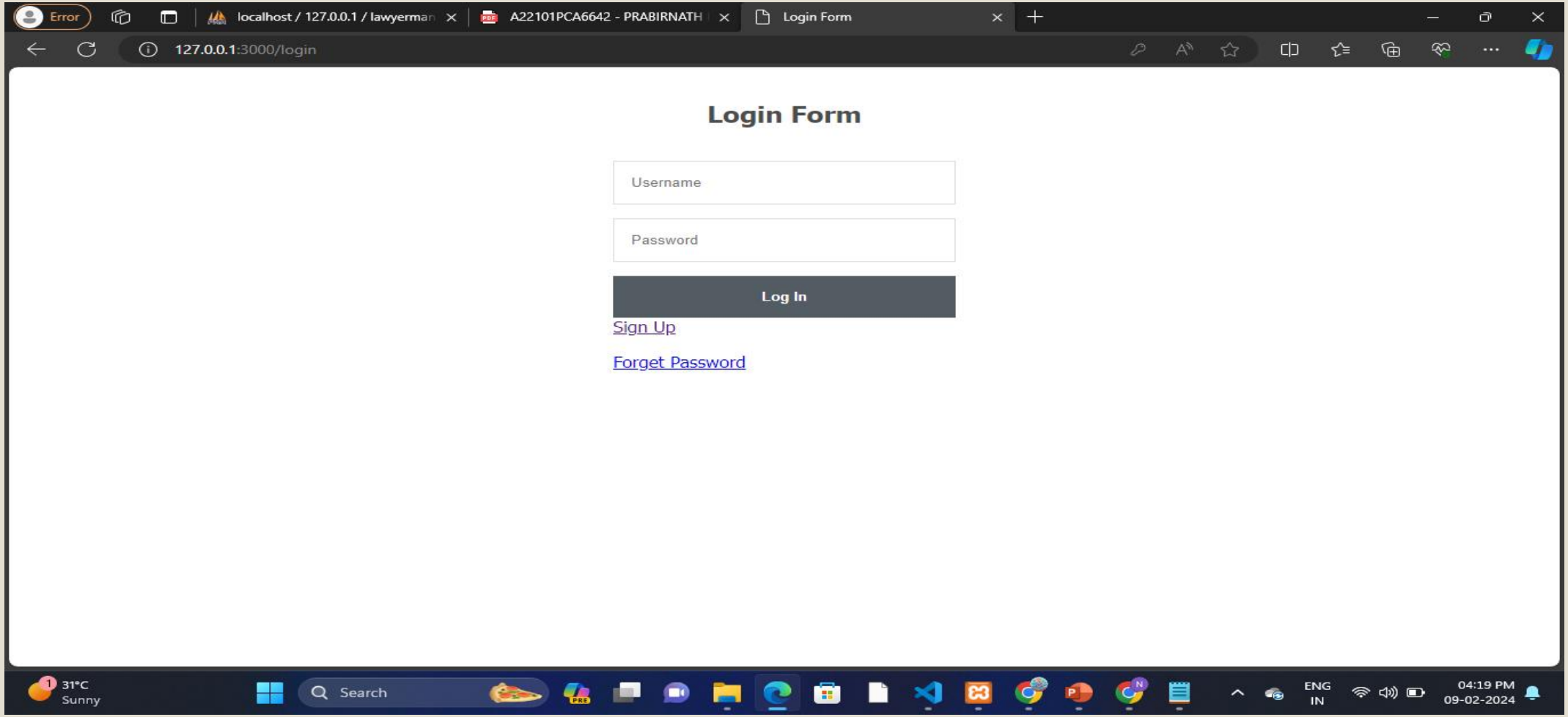

HOME PAGE
REGISTER
ADMIN
LOGIN
ADD APPOINTMENTS
ADD DOCTORS
VIEW
ADD DEPARTMENTS
BILL
ADD MEDICINE
MANAGE BILL
STOP
LOG OUT
MULTIPLE RECORDS



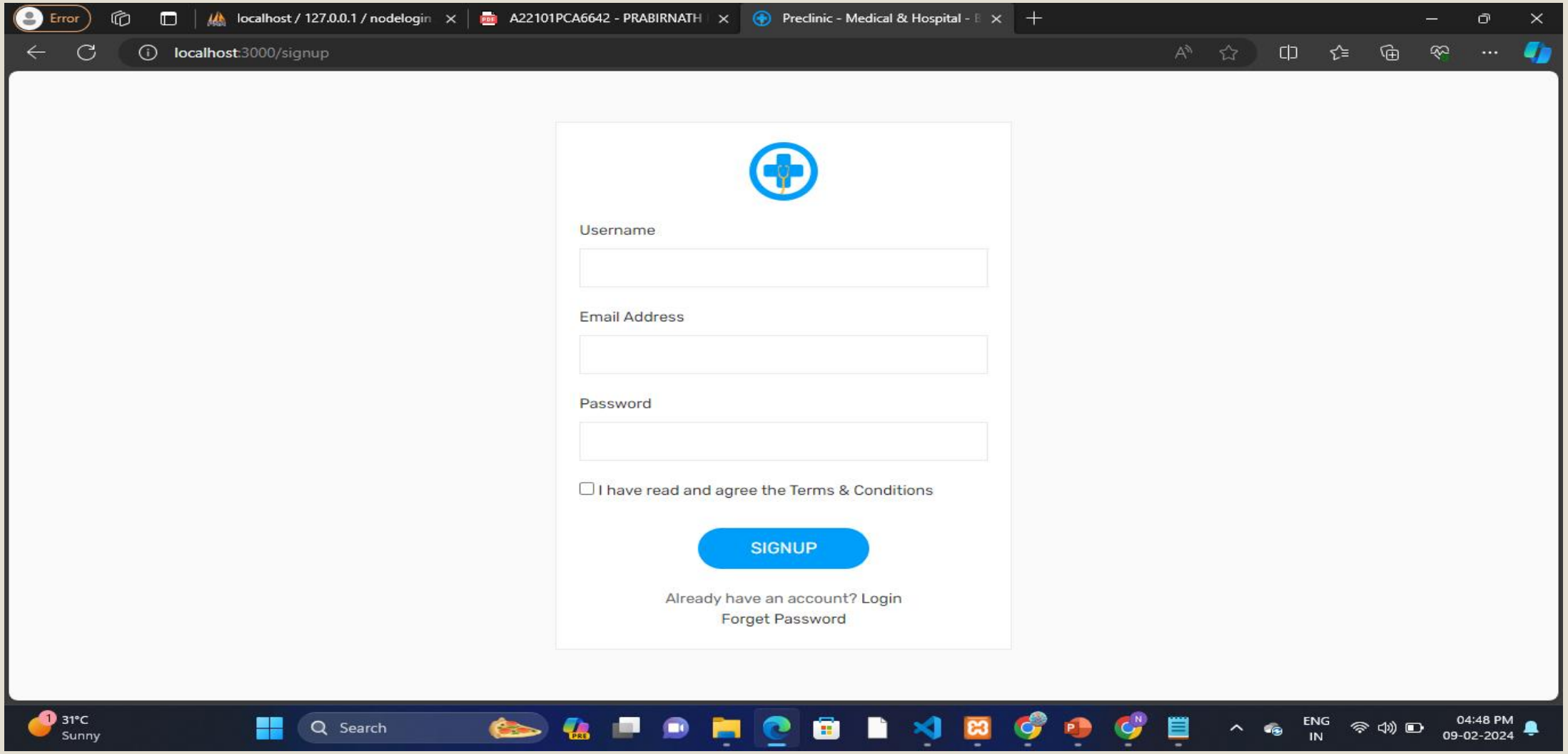
SCREEN SHOT 1:
HOME PAGE



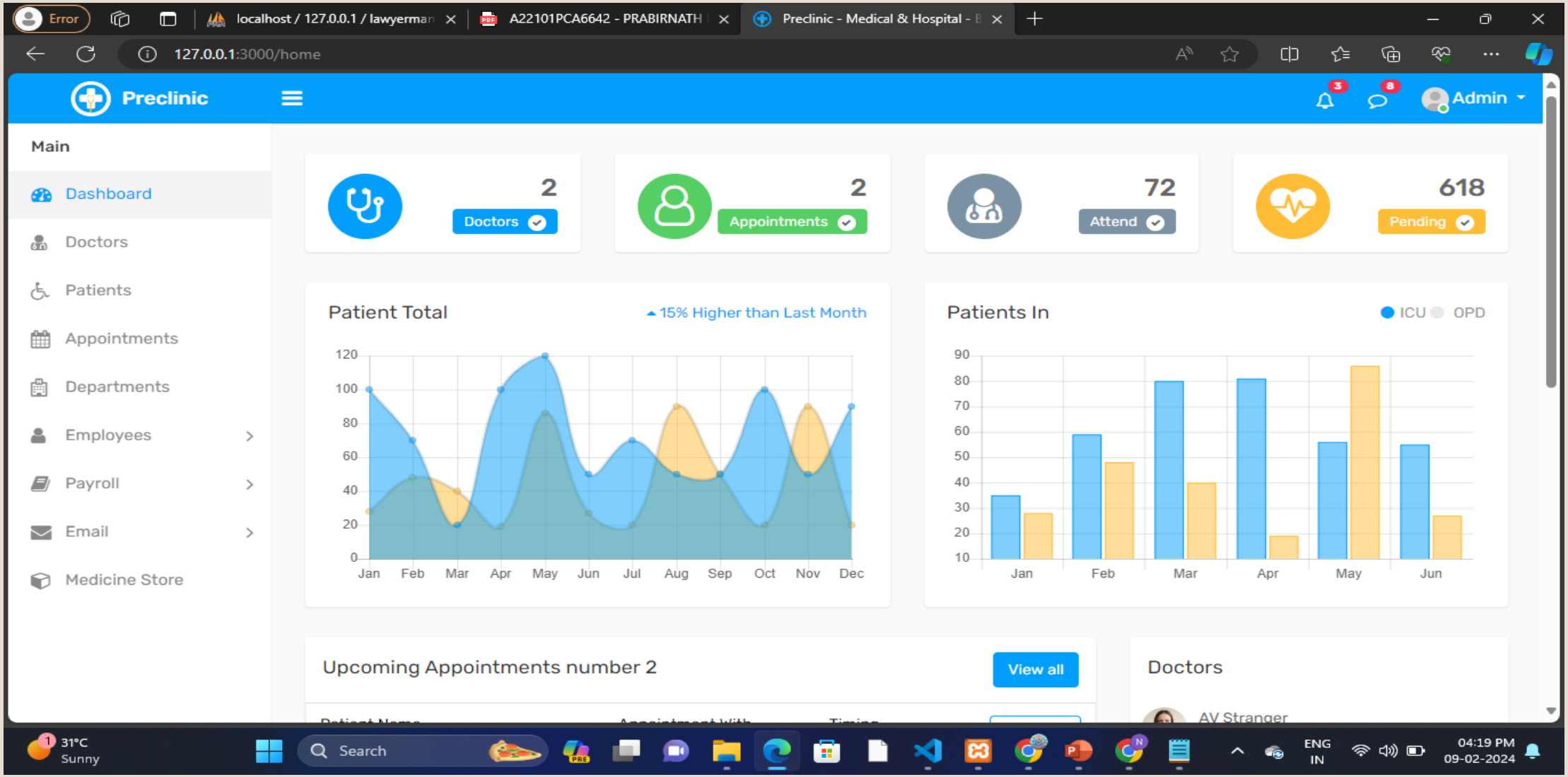
SCREEN SHOT 2:
LOGIN PAGE



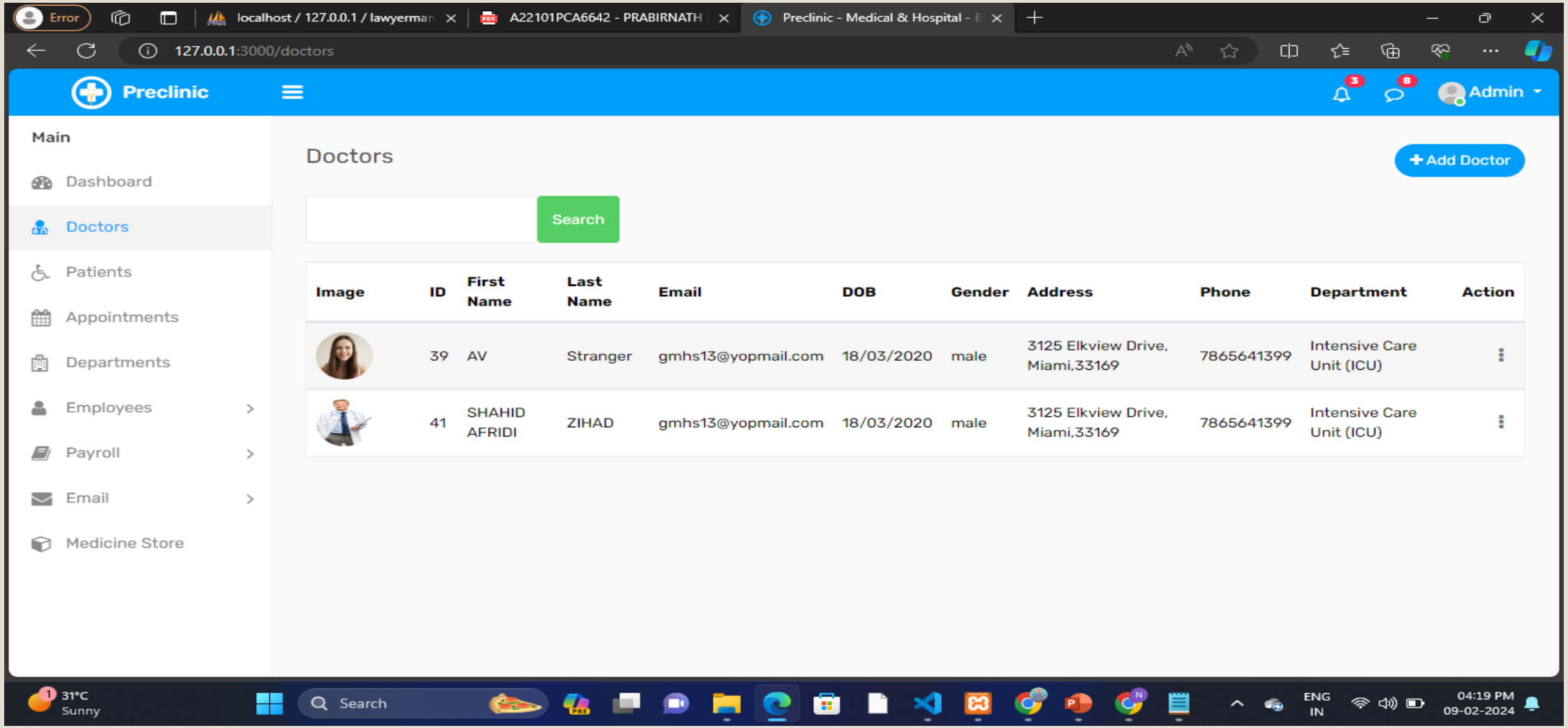
SCREEN SHOT 3:
REGISTRATION PAGE



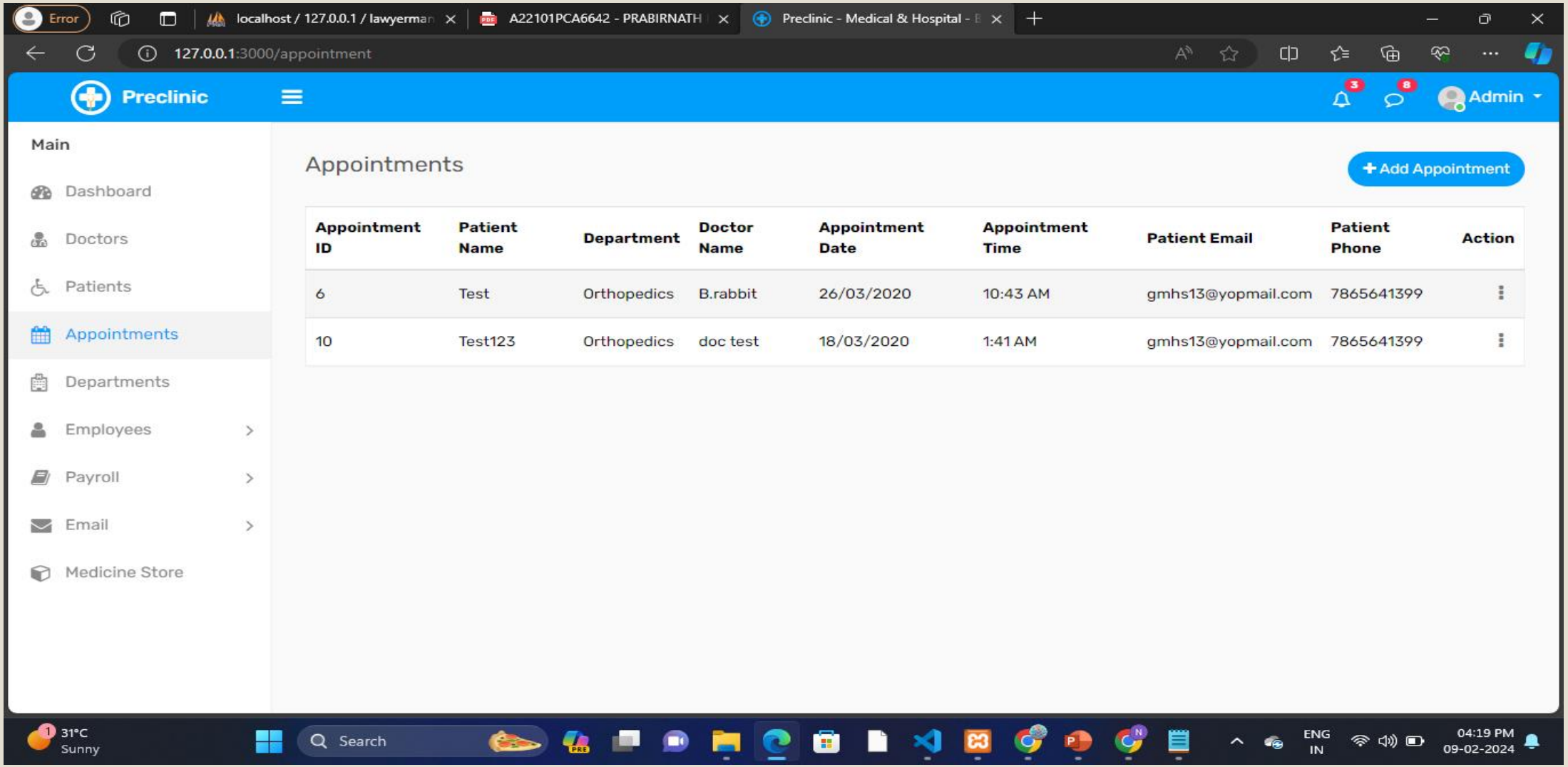
SCREEN SHOT 4:
ADMIN DASHBOARD



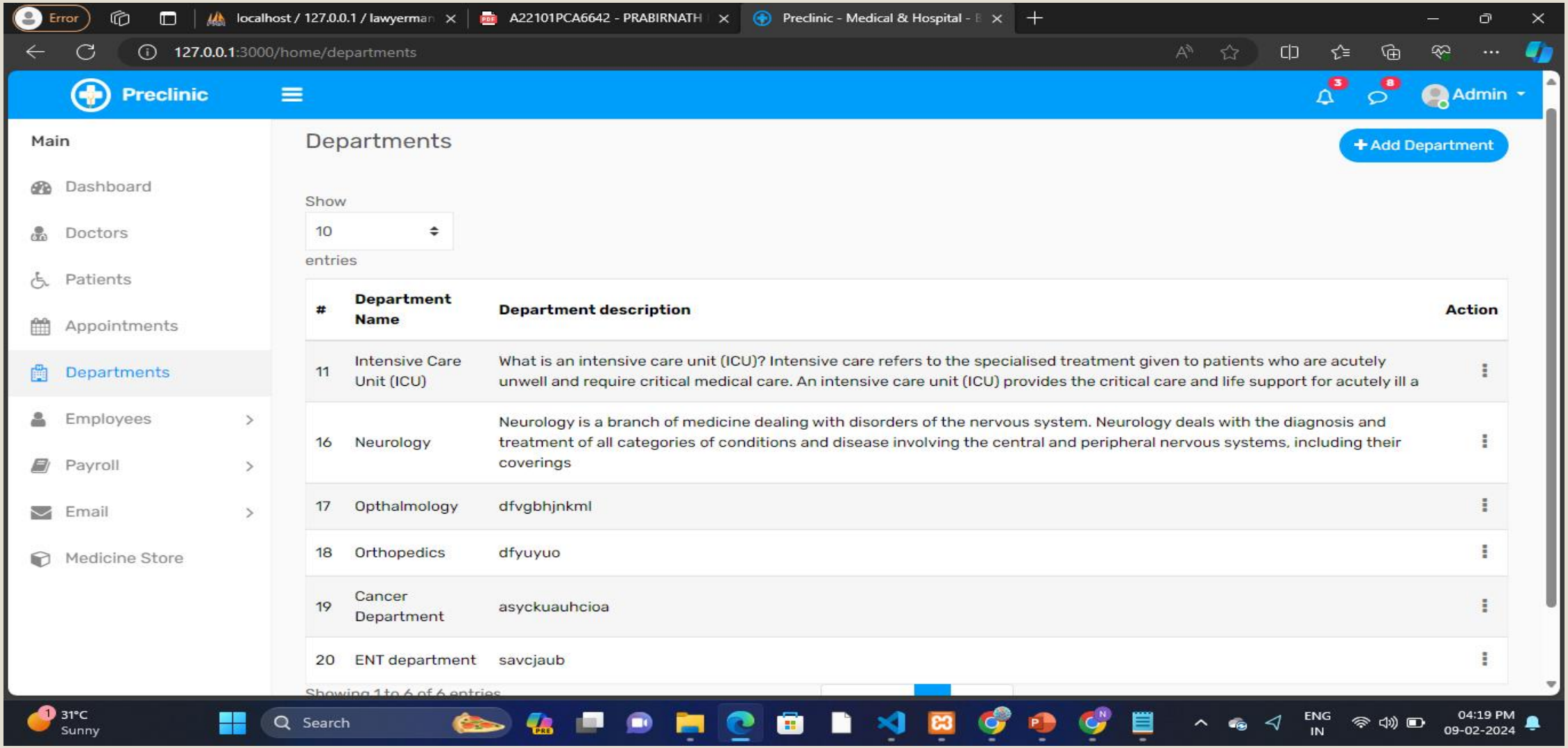
SCREEN SHOT 5:
ADD/ VIEW DOCTORS



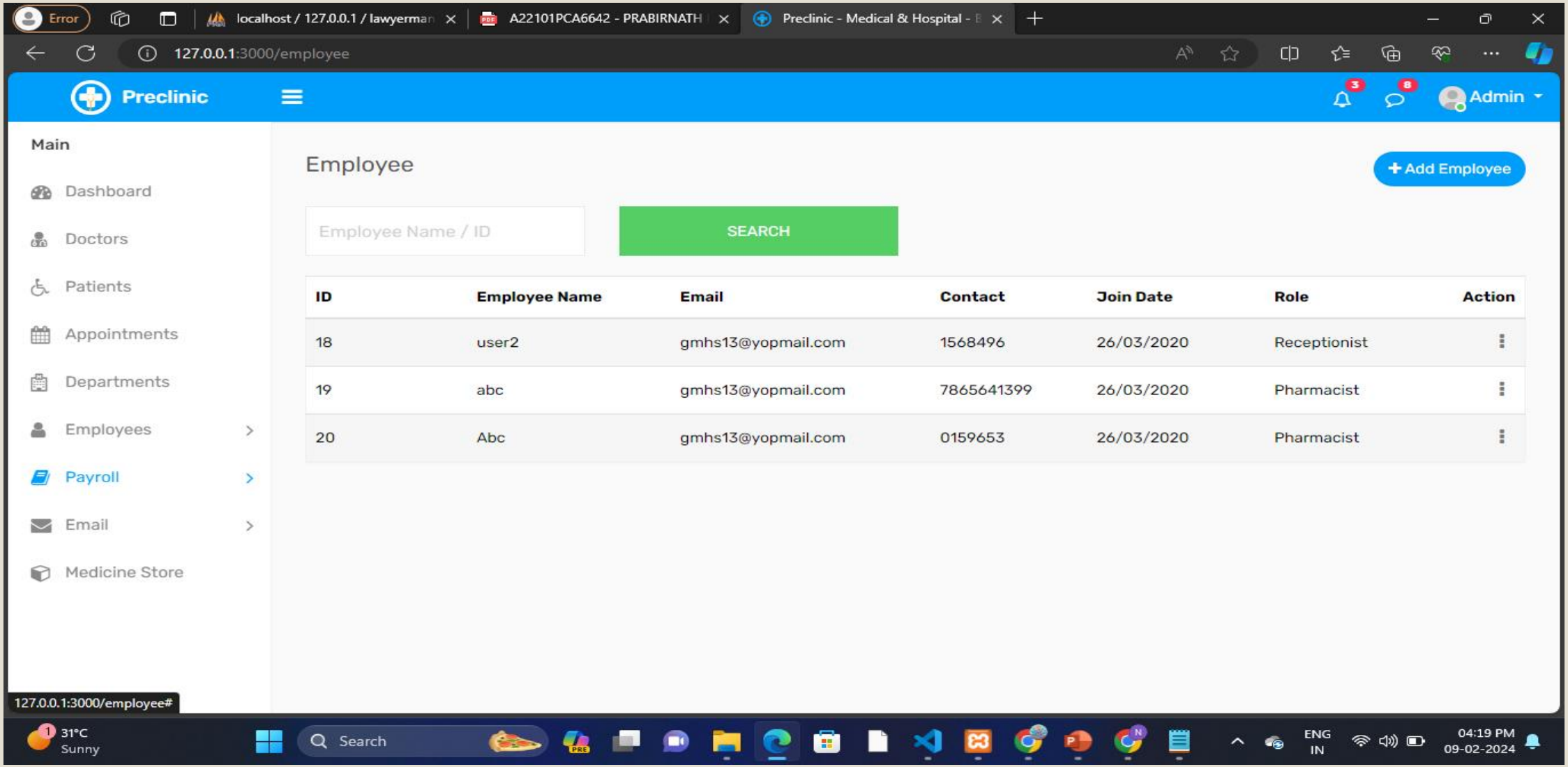
SCREEN SHOT 6:
ADD/VIEW APPOINTMENTS



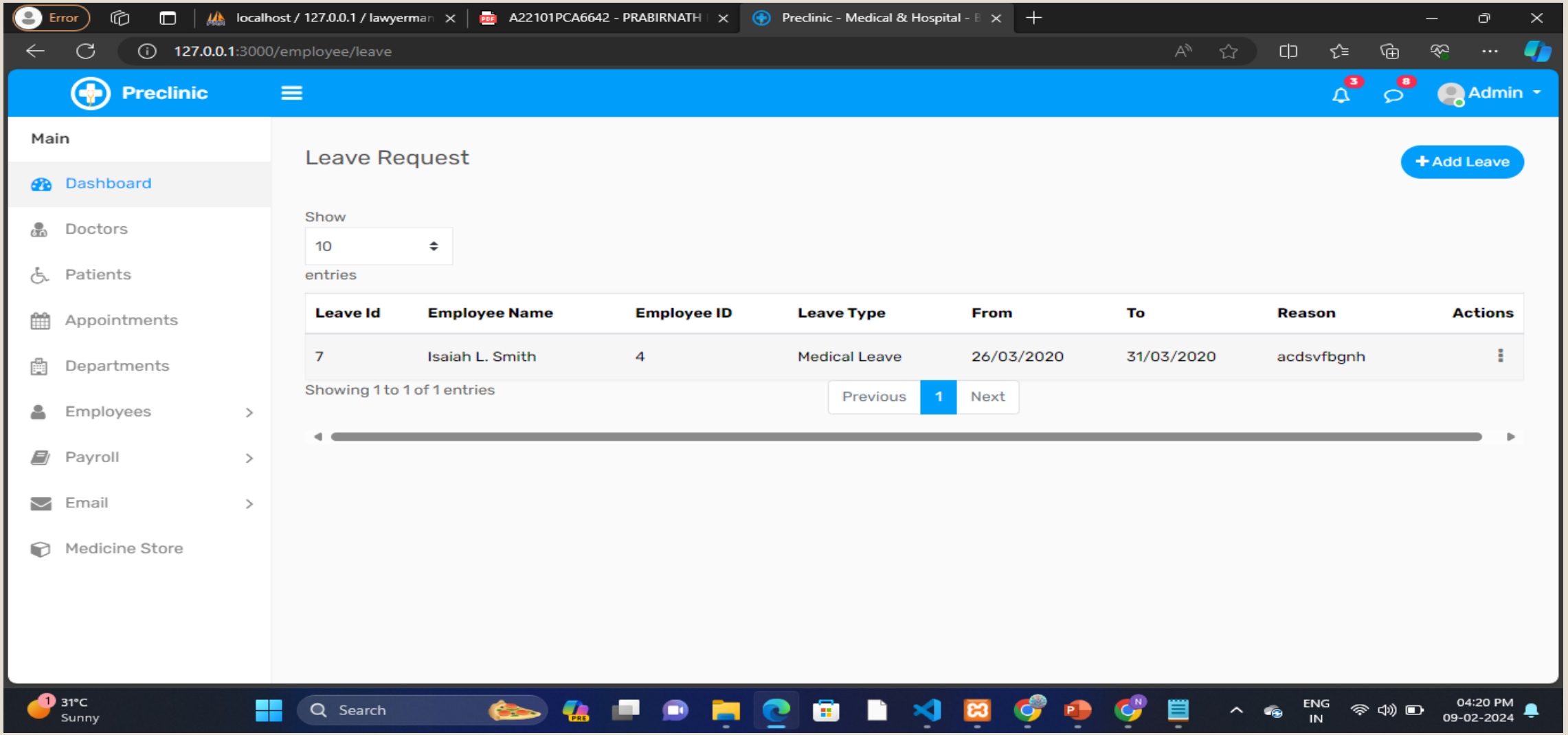
SCREEN SHOT 7:
ADD/ VIEW DEPARTMENTS



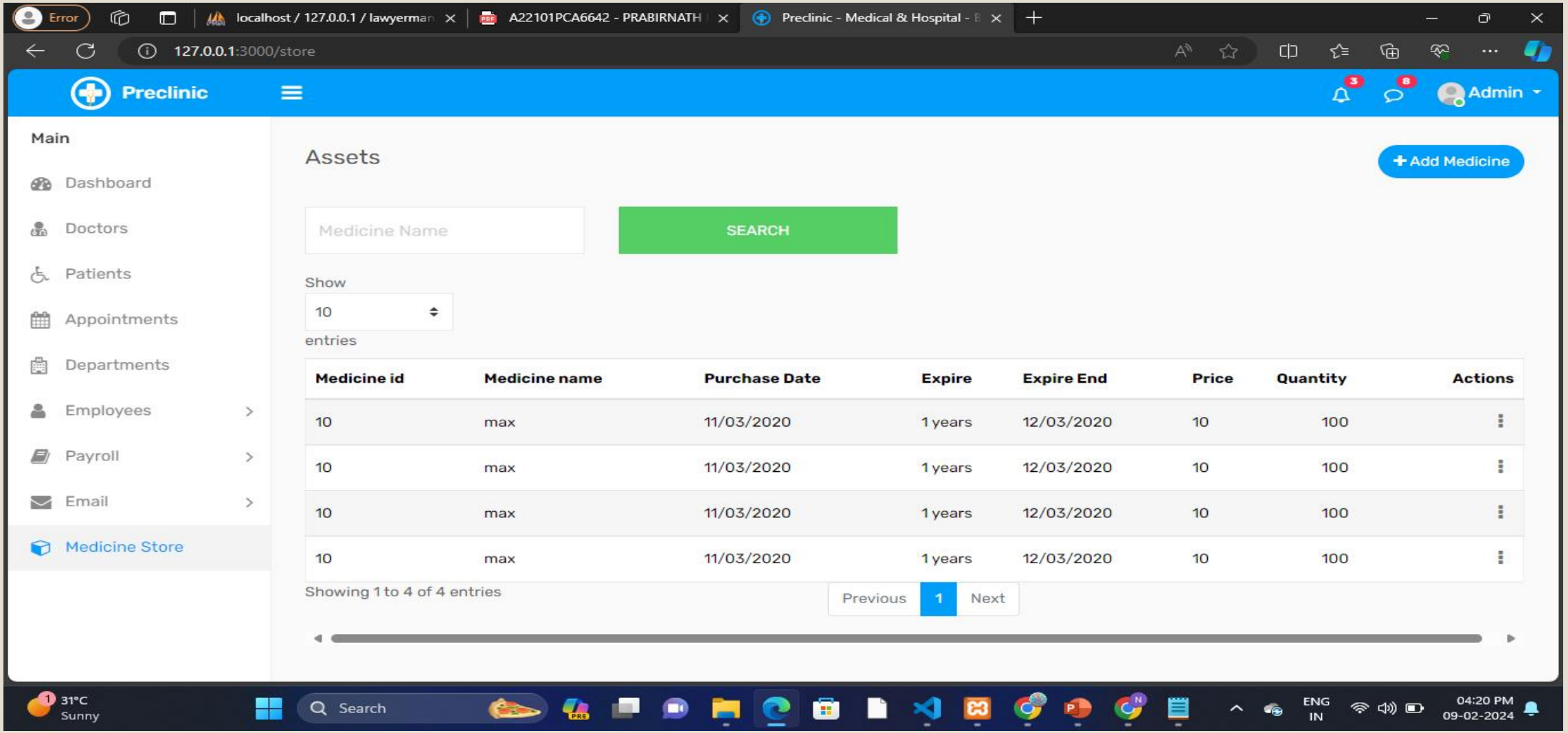
SCREEN SHOT 8:
ADD/ VIEW EMPLOYEES



SCREEN SHOT 9:
ADD/ VIEW LEAVE



SCREEN SHOT 10:
ADD/ VIEW MEDICINE DETAILS



FEATURES OF HEALTHCARE MANAGEMENT SYSTEM:

A Healthcare Management System encompasses various features to streamline operations, enhance patient care, and improve overall efficiency. Here are some common features found in such systems:

- ❑ Patient Information Management
- ❑ Appointment Scheduling
- ❑ Electronic Health Records (EHR)
- ❑ Pharmacy Management
- ❑ Laboratory Information System (LIS)
- ❑ Telemedicine Integration
- ❑ Reporting and Analytics

- Generation of reports on patient outcomes, financial performance, and operational efficiency.
- Data analytics for insights into healthcare trends and patterns.

These features collectively contribute to creating a comprehensive and effective Healthcare Management System that addresses the diverse needs of healthcare providers, administrators, and patients.

CONCLUSION:

- The Node MySQL Healthcare Management Project is a comprehensive solution for managing hospital operations efficiently.

- The system provides a user-friendly interface for managing patient records, appointments, prescriptions, billing, and user roles. The use of Node.js and MySQL ensures scalability, reliability, and performance of the system.

THANK YOU