

# Full Stack Development with MERN

## Project Documentation

### 1. Introduction

Project Title: DocSpot - Seamless Appointment Booking for Health

Team Members:

- Shaik Shahul (Team Leader)
- Molabanti Jagadeesh Babu
- Gollaprolu Maruthi
- Buradagunta Raj Karun

### 2. Project Overview

Purpose: To eliminate manual hospital booking by providing a real-time online appointment system.

Features: Role-based login, doctor management, appointment scheduling, and admin controls.

### 3. Architecture

Frontend: Developed using React and Material UI.

Backend: Node.js with Express handles API and server-side logic.

Database: MongoDB stores all application data securely.

### 4. Setup Instructions

Prerequisites: Node.js, NPM, and MongoDB installed.

Installation: Clone the repository and run 'npm install' in both '/client' and '/server' directories.

### 5. Folder Structure

Client: Contains the complete React frontend source code.

Server: Contains the backend server implemented with Express.

### 6. Running the Application

To start the application:

Frontend: Run 'npm start' inside the client directory.

Backend: Run 'npm start' inside the server directory.

## **7. API Documentation**

POST /api/users/register - User registration

POST /api/users/login - User login

GET /api/users/doctors - Retrieve doctor list

POST /api/appointments - Book an appointment

## **8. Authentication**

Email and password-based login for Users, Doctors, and Admins.

Future enhancement may include JWT for enhanced security.

## **9. User Interface**

Screens provided in the system include:

- Login Page
- Doctor Listing Page
- Appointment Booking Page
- User Dashboard
- Doctor Dashboard
- Admin Approval Page

## **10. Testing**

Backend tested using Postman for API validation.

Frontend tested using Chrome DevTools.

## **11. Screenshots or Demo**

Screenshots and demo videos are provided separately in the project folder.