DOCTOR APPOINTMENT BOOKING SYSTEM

Abstract

The **Doctor Appointment Booking System (DABS)** is an advanced web-based platform designed to streamline and modernize the scheduling of patient–doctor consultations. This system addresses common obstacles faced in traditional appointment processes—such as long phone wait times, limited transparency of doctor availability, and frequent scheduling conflicts—by enabling efficient digital coordination among patients, doctors, and administrative staff.

Built on a secure, scalable database foundation with intuitive user interfaces, DABS provides real-time availability of doctors and comprehensive search filters including specialty and location. Patients can register securely, select preferred time slots, and manage appointments via cancellation or rescheduling. Doctors are empowered to configure their schedules and review bookings through a dedicated panel, while administrators maintain full oversight through a centralized admin dashboard to manage user and doctor data, as well as generate operational reports.

The system also integrates automated SMS/email reminders to reduce no-show rates and improve appointment adherence. By accelerating scheduling workflows and reducing manual errors, the platform aims to decrease patient waiting times, improve clinician time utilization, and elevate overall patient satisfaction and engagement.

Developed using a modern web stack—including HTML, CSS, JavaScript (React.js or Vue.js) on the front end and Python (Django)on the back end—alongside a relational database like PostgreSQL or MySQL, the system is architected for modular, agile development. Iterative prototyping ensures continuous refinement based on stakeholder feedback and empirical testing.

In sum, the Doctor Appointment Booking System serves as a versatile tool for healthcare providers seeking to upgrade manual scheduling protocols with a streamlined, secure, and user-friendly solution—supporting patient-centered care, reducing administrative overhead, and enhancing operational efficiency in outpatient settings.