

NIRF-2024 Engineering Rank Band (151-200) Pharmacy Rank - 77 Innovation Rank Band (11-50)











Mini Project (ID102B)

Even semester(2024-2025)

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Healthcare Service Provider System

Project Supervisor:

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Introduction

- This system aims to streamline healthcare services, improve patient care, and enhance communication between doctors, patients.
- Built with a **user-centric approach**, the platform integrates features such as patient registration, appointment scheduling, diagnostics, and treatment planning into a single, unified system.
- Store and organize patient information, including medical history, diagnoses, and treatment plans, in one secure place.
- Schedule Appointments: Allow patients to book, reschedule, or cancel appointments easily, while doctors can view and manage their schedules.

Existing Systems and Challenge

Existing Systems

- Existing Systems Healthcare management systems have evolved significantly over the past decade. Some of the widely used systems include:
- Electronic Health Records (EHRs): Systems like Epic and Cerner are used to store and manage patient data digitally.
- Telemedicine Platforms: Applications like Teladoc and Amwell enable remote consultations between doctors and patients.

Challenges in Current Systems Despite their widespread adoption, existing systems face several challenges:

- Fragmented Data: Patient data is often scattered across multiple systems, making it difficult to access a complete medical history.
- Lack of Interoperability: Systems from different providers often cannot communicate with each other, leading to inefficiencies.
- Manual Processes: Many tasks, such as appointment scheduling and record-keeping, are still done manually, increasing the risk of errors.
- User Experience: Many systems have complex interfaces that are not user-friendly for doctors or patients.
- Security Concerns: Data breaches and unauthorized access to patient records remain significant issues.

Proposed Solution

we propose a Healthcare Service Provider. This system will:

- Integrate All Services: Provide a unified platform for patient management, appointments, diagnostics, and treatment plans.
- Enable Real-Time Access: Use cloud-based technologies to ensure real-time data access and updates.
- Focus on User Experience: Design intuitive interfaces for doctors, patients, and administrators.



Objective of the Project

Develop a healthcare services provider system that provides a unified platform for patient care.

Enable real-time data access and analytics to empower healthcare providers with timely insights.

Hardware Requirements

Development Environment

Processor: Minimum Intel i5 or equivalent.

RAM: At least 8GB (16GB recommended for smoother

multitasking).

Storage: Minimum 250GB SSD for faster performance.

Server Requirements

Processor: Minimum 2 CPU cores.

RAM: 4GB (8GB or more for handling higher traffic).

Client Requirements

Devices with internet access (smartphones, tablets, PCs) for accessing the healthcare services platform.

Software Requirements

Frontend

HTML, CSS, JavaScript for building interactive and responsive user interfaces.

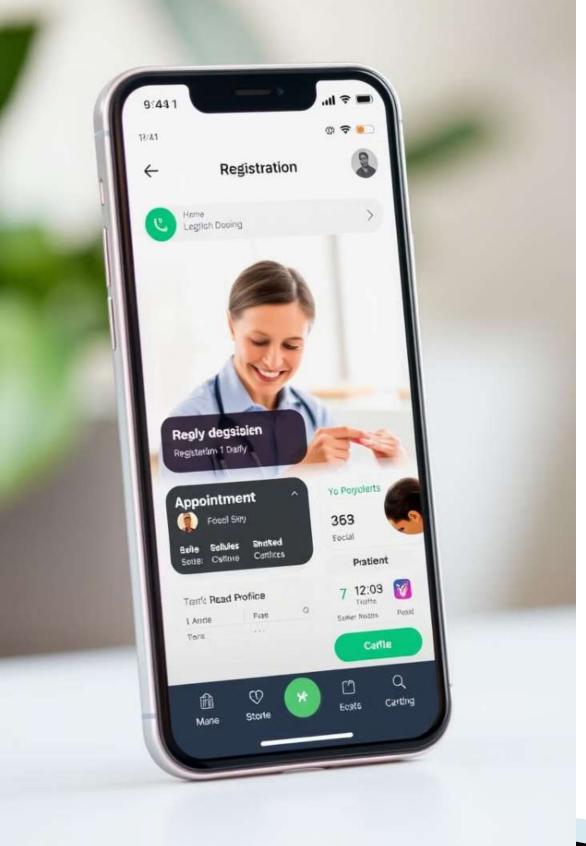
Backend

Java servlet.

Database

MySQL for storing and managing patient data, appointments, and other system information.





Patient Module

1

Registration

Patients can register for an account, providing basic information and creating a secure profile.

Login

Patients can securely log in to their accounts to access their healthcare information and services.

3

Profile Management

Patients can manage their personal information, including contact details, medical history, and insurance information.

4

Appointment Booking

Patients can easily schedule appointments with healthcare providers, view available time slots, and manage their appointment history.

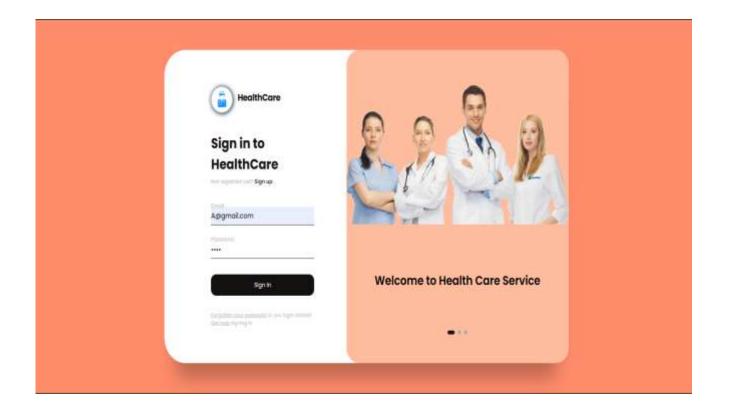
Admin Login Page



Customer Sign Up Page

Customer Sign In Page





Home Page:-



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Book Appointment

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Select Department	~
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Appointment successfu	y booked!

Doctor Module

Patient Records

Doctors can access and update patient medical history, diagnoses, and treatment plans.

Treatment Plans

Doctors can create personalized treatment plans, prescribe medications, and track patient progress.

Diagnoses

Doctors can input diagnoses, record symptoms, and generate reports for patient records.

Doctor Qualifications

The module displays doctor credentials, experience, and specialization for patient trust.

References

- HTML, CSS, JavaScript Basics
 - MDN Web Docs Comprehensive and beginner-friendly.
 - <u>W3Schools</u> Good for quick examples and reference.
- Modern JS Practices
 - JavaScript.info
 - Eloquent JavaScript (free book)
- ▶ ★ Backend (Java Servlets)
- Java Servlet Basics
 - Oracle Java Servlet Documentation
 - <u>Java Brains Servlet Tutorial (YouTube)</u> Practical, video-based learning.
 - TutorialsPoint Servlets

Servlet Deployment with Apache Tomcat

- Tomcat Installation Guide
- Servlet Example on Tomcat (JournalDev)
- Database (MySQL)
- MySQL Setup and Basics
 - MySQL Official Docs
 - W3Schools MySQL Tutorial
- Connecting Java Servlet to MySQL
 - JDBC Tutorial Baeldung
 - JDBC + Servlet + MySQL Example Real code example with connection and query.

Thank You