UX Case Study: Digital Clinic Application

📌 Problem Statement

Many clinics lack a comprehensive online management system, leading to inefficiencies in handling patient appointments, medical records, and lab reports. The current workflow involves multiple manual steps that can be streamlined through a digital solution.

🎯 Objectives

- Develop a seamless digital clinic management system.
- Enhance patient experience with faster and more efficient processes.
- Ensure doctors have quick access to patient history for better diagnosis and treatment.
- Enable a structured workflow for receptionists, nurses, doctors, and lab technicians.
- Provide Super Admin (Clinic Owner) with a comprehensive overview of all clinic activities.

👥 User Personas

1. 🛎️ Receptionist

- Books patient appointments.
- Collects payments.
- Maintains patient records.

2. 🧑‍⚕️ Patient

- Visits the clinic for consultation.
- Make payments.
- Can access medical history and reports online.

3. 💉 Nurse

- Records vitals and medical details.
- Sends information to the doctor.

4. 👨‍⚕️ Doctor

- Views patient history and vitals.
- Writes clinical notes and prescriptions.
- Orders lab tests.
- Reviews lab reports and diagnoses the patient.

- Provides advice and schedules follow-ups.

5. 🧪 Lab Technician

- Receives lab orders.
- Uploads test reports.
- Notifies doctors of results.

6. 🏢 Super Admin (Clinic Owner)

- Views all clinic information, including patient records, doctor activities, appointments, and payments.
- Manages financial transactions and clinic revenue.
- Oversees staff performance and clinic operations.

🔍 UX Research

⚠️ Pain Points Identified

1. Manual processes lead to longer patient wait times.
2. Doctors struggle with accessing past patient records.
3. Lab reports are not easily accessible to patients and doctors.
4. Paper-based prescriptions and diagnoses can be lost or misinterpreted.
5. Clinic owners lack a centralized dashboard for monitoring operations.

🎨 Design Solution

🔄 User Flow

1. **Patient Registration & Appointment Booking**
    - The receptionist registers the patient and schedules an appointment.
    - Payment is processed.
2. **Vitals & Initial Assessment**
    - The nurse records vitals and medical history.
    - Data is uploaded to the doctor’s dashboard.
3. **Doctor Consultation**
    - The doctor reviews patient data on the system.
    - Clinical notes and prescriptions are recorded digitally.
    - If lab tests are required, the doctor places an order.
4. **Lab Workflow**
    - Lab technicians receive test orders and conduct tests.
    - Test results are uploaded to the system.

    - The doctor reviews reports and updates diagnosis.
5. **Follow-up & Prescription**
    - The doctor provides treatment plans and medicine prescriptions.
    - Follow-up visits are scheduled.
    - The patient can access all records online.
6. **Super Admin Dashboard**
    - Overview of clinic performance, including patient visits, staff activities, and financial reports.
    - Tracks all appointments and payments.
    - Access to patient records and operational insights.

🖥️ Wireframes & Prototyping

🛎️ Receptionist Dashboard

- Appointment booking interface.
- Payment processing integration.

👨‍⚕️ Doctor’s Dashboard

- Patient list with search and filter options.
- Detailed patient history view.
- Clinical notes and prescription section.

💉 Nurse’s Interface

- Enter vitals and medical details.
- Send data to the doctor.

🧪 Lab Module

- Test request management.
- Report upload functionality.

📜 Patient Portal

- View appointments, prescriptions, and medical history.
- Secure access to test reports.

🏢 Super Admin Dashboard

- Real-time clinic performance metrics.
- Staff and appointment management.
- Financial transactions and revenue tracking.

🎯 Key UX Considerations

- 🎨 **User-Friendly Interface**: A minimal, intuitive design for quick adoption.
- 🔄 **Seamless Data Flow**: Ensure smooth transition of information between different roles.
- 📱 **Mobile Accessibility**: Responsive design for doctors and patients on the go.
- 🔐 **Security & Privacy**: HIPAA-compliant data protection for medical records.

📌 Wireframe Designs

1. Receptionist Dashboard

- Easy-to-use appointment booking form.
- Integrated payment options.
- Patient records access.

2. Doctor's Dashboard

- Patient history overview.
- Clinical notes & prescription entry.
- Lab order request & review.

3. Nurse's Interface

- Vitals input section.
- Quick submission to the doctor.

4. Lab Technician Panel

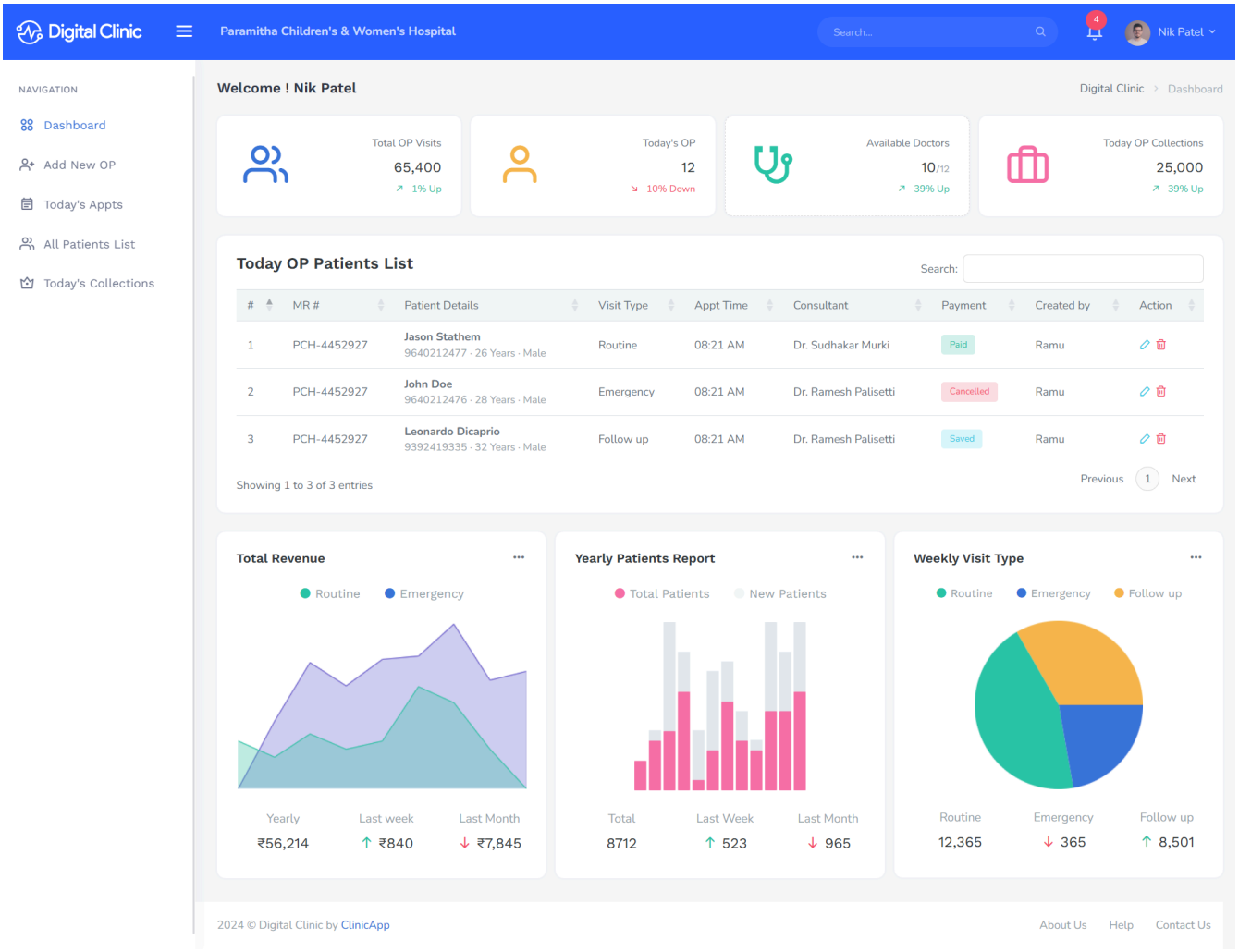
- Test order list.
- Upload results functionality.

5. Patient Portal

- View test reports, prescriptions, and appointment history.
- Secure authentication for privacy.

6. Super Admin Dashboard

- Monitor clinic operations, payments, and staff activities.
- Manage appointments and oversee patient flow.
- Review financial reports and clinic revenue.


Digital Clinic
Paramitha Children's & Women's Hospital
Search...
4
Nik Patel
NAVIGATION
Dashboard
Add New OP
Today's Appts
All Patients List
Today's Collections
Welcome ! Nik Patel
Digital Clinic › Dashboard
Total OP Visits
65,400
1% Up
Today's OP
12
10% Down
Available Doctors
10/12
39% Up
Today OP Collections
25,000
39% Up
Today OP Patients List
Search:
MR # Patient Details Visit Type Appt Time Consultant Payment Created by Action
1 PCH-4452927 Jason Stathem 9640212477 · 26 Years · Male Routine 08:21 AM Dr. Sudhakar Murki Paid Ramu
2 PCH-4452927 John Doe 9640212476 · 28 Years · Male Emergency 08:21 AM Dr. Ramesh Palisetti Cancelled Ramu
3 PCH-4452927 Leonardo Dicaprio 9392419335 · 32 Years · Male Follow up 08:21 AM Dr. Ramesh Palisetti Saved Ramu
Showing 1 to 3 of 3 entries
Previous 1 Next
Total Revenue
Routine Emergency
Yearly ₹56,214
Last week ↑ ₹840
Last Month ↓ ₹7,845
Yearly Patients Report
Total Patients New Patients
Total 8712
Last Week ↑ 523
Last Month ↓ 965
Weekly Visit Type
Routine Emergency Follow up
Routine 12,365
Emergency ↓ 365
Follow up ↑ 8,501
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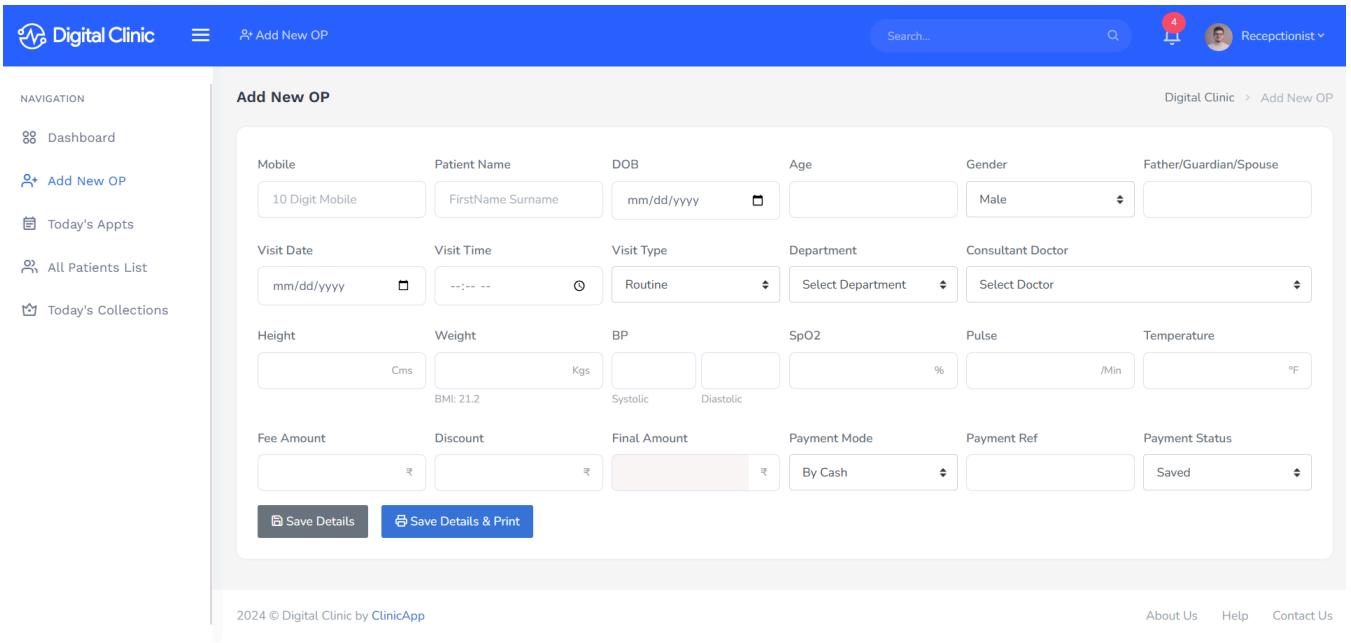
Digital Clinic
Add New OP
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NAVIGATION
Dashboard
Add New OP
Today's Appts
All Patients List
Today's Collections
Add New OP
Digital Clinic › Add New OP
Mobile
10 Digit Mobile
Patient Name
FirstName Surname
DOB
mm/dd/yyyy
Age
Gender
Male
Father/Guardian/Spouse
Visit Date
mm/dd/yyyy
Visit Time
--:-- --
Visit Type
Routine
Department
Select Department
Consultant Doctor
Select Doctor
Height
Cms
Weight
Kgs
BMI: 21.2
BP
Systolic
Diastolic
SpO2
%
Pulse
/Min
Temperature
°F
Fee Amount
₹
Discount
₹
Final Amount
₹
Payment Mode
By Cash
Payment Ref
Payment Status
Saved
Save Details
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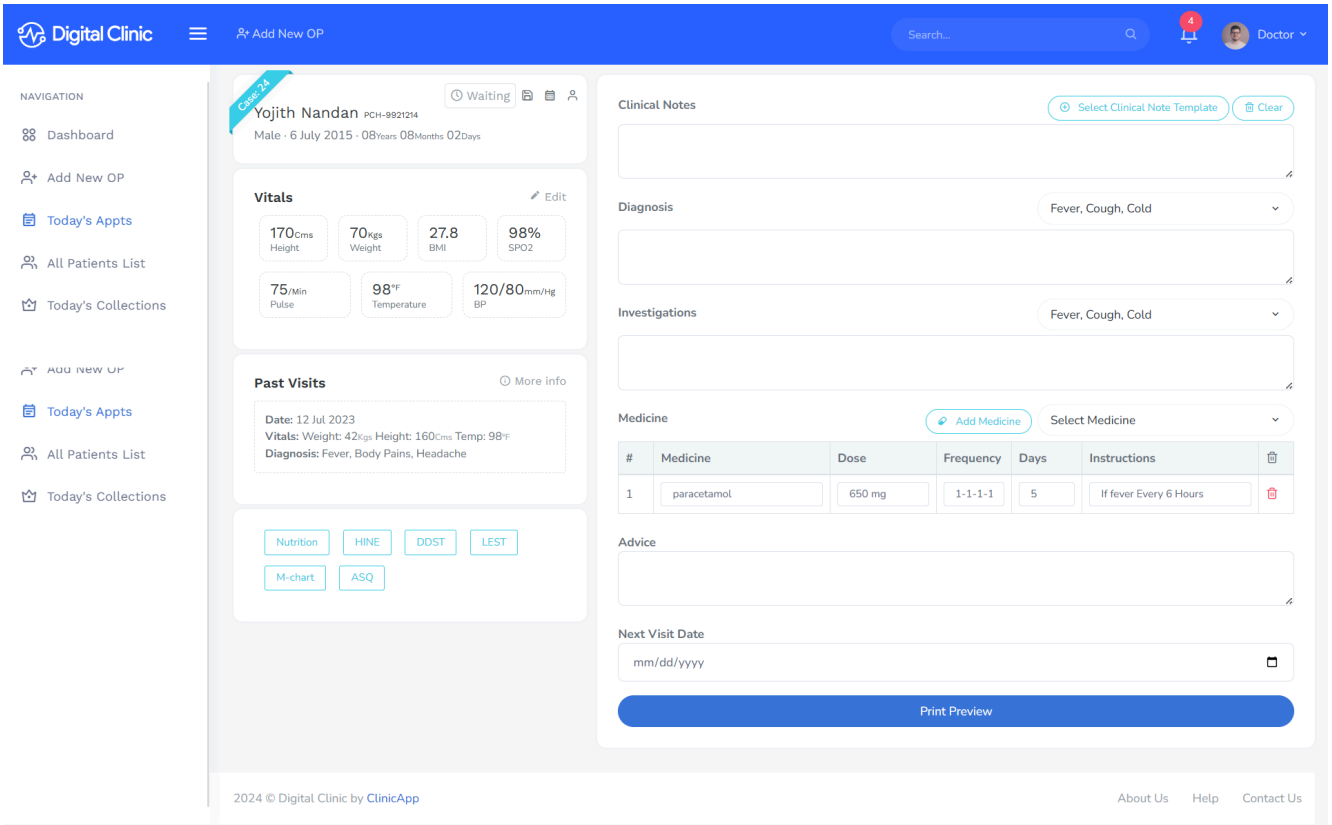
Digital Clinic
Add New OP
Search...
4
Doctor
NAVIGATION
Dashboard
Add New OP
Today's Appts
All Patients List
Today's Collections
Case 24
Yojith Nandan PCH-9921214
Male · 6 July 2015 · 08Years 08Months 02Days
Waiting
Vitals
Edit
170Cms Height
70Kgs Weight
27.8 BMI
98% SPO2
75/Min Pulse
98°F Temperature
120/80mm/Hg BP
Past Visits
More info
Date: 12 Jul 2023
Vitals: Weight: 42Kgs Height: 160Cms Temp: 98°F
Diagnosis: Fever, Body Pains, Headache
Nutrition
HINE
DDST
LEST
M-chart
ASQ
Clinical Notes
Select Clinical Note Template
Clear
Diagnosis
Fever, Cough, Cold
Investigations
Fever, Cough, Cold
Medicine
Add Medicine
Select Medicine
Medicine Dose Frequency Days Instructions
1 paracetamol 650 mg 1-1-1-1 5 If fever Every 6 Hours
Advice
Next Visit Date
mm/dd/yyyy
Print Preview
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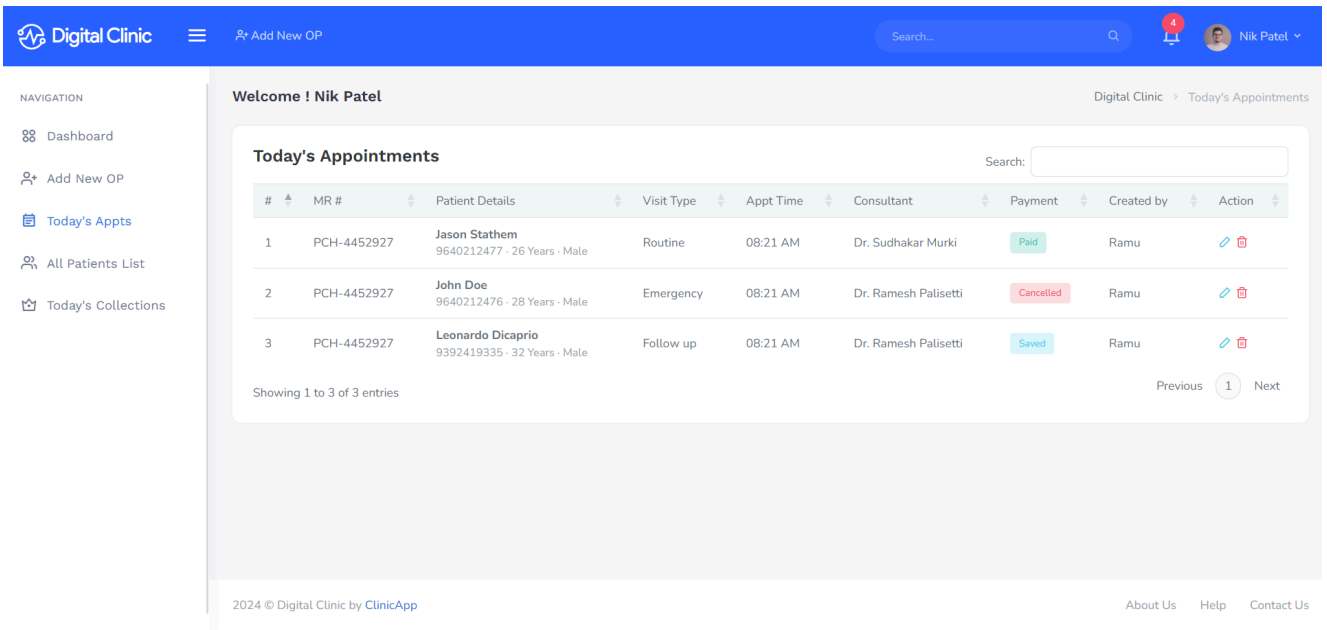
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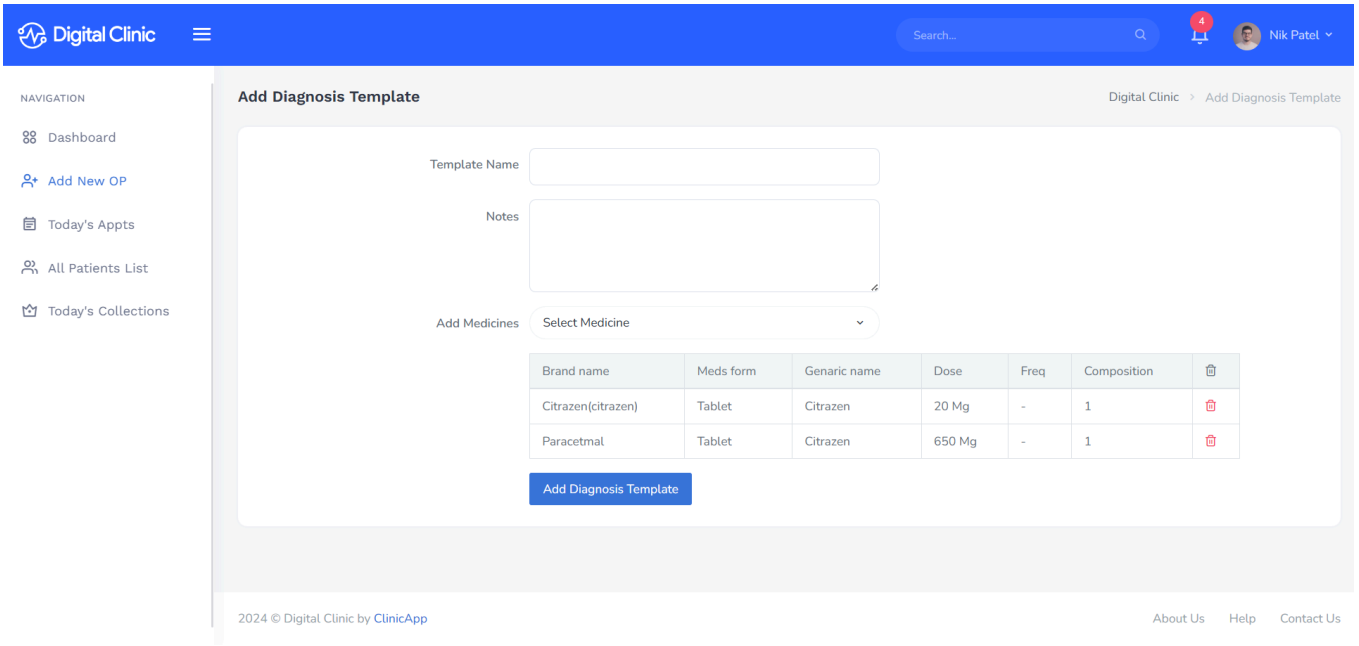

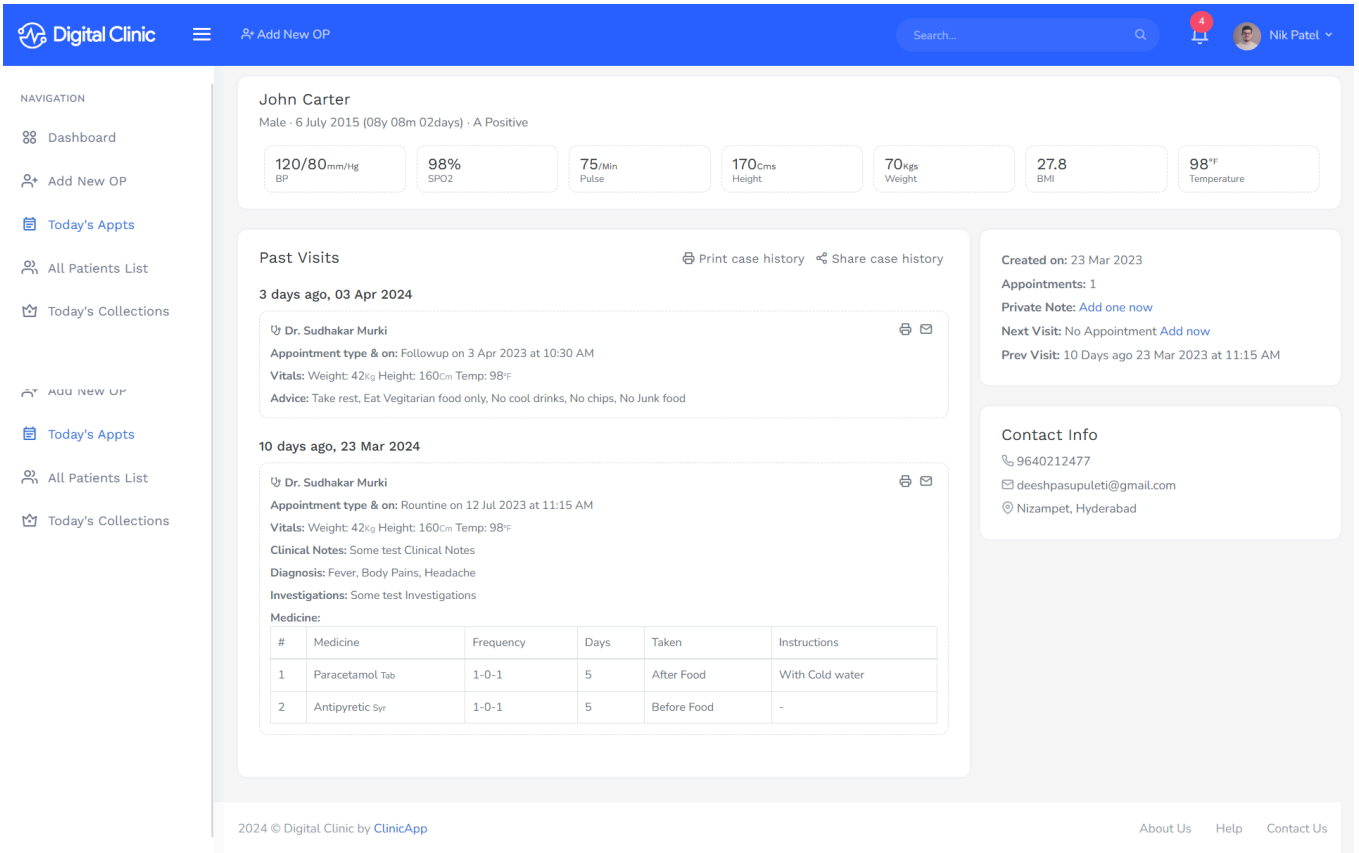

📌 Conclusion

This **Digital Clinic Application** aims to streamline clinic management by digitizing appointments, medical records, prescriptions, and lab results. By ensuring an efficient workflow and improving patient experience, this solution enhances overall healthcare management.

Designed with a UX-first approach to enhance user experience and optimize digital healthcare workflows.