Phase 6: User Interface Development

AI-Enabled Hospital & Pharmacy Management System

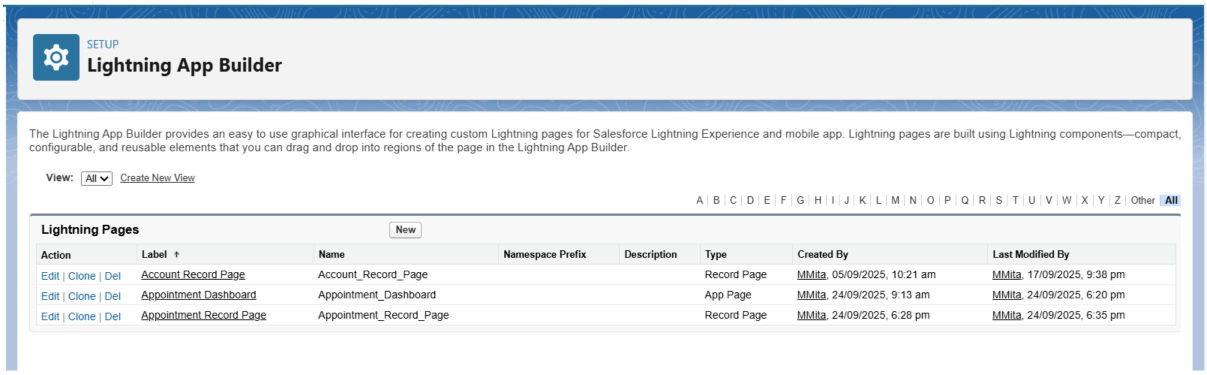
Goal: The goal of this phase was to enhance the Salesforce application's user interface (UI) using Lightning features, tabs, dashboards, record pages, and Lightning Web Components (LWC). These improvements ensure that doctors, patients, and administrators can easily navigate, view, and interact with healthcare records in an intuitive way.

Tasks in Phase 6:

- Lightning App Builder
- Record Pages
- Tabs
- Home Page Layouts
- Utility Bar
- LWC (Lightning Web Components)
- Apex with LWC
- Events in LWC
- Wire Adapters
- Imperative Apex Call

Lightning App Builder

- Used Lightning App Builder to customize the CareTrack app pages.
- Created new App Pages and Record Pages (Appointment Dashboard, Patient Record Page) to provide a structured UI for appointments, patients, and pharmacy inventory.
- Added components like list views, reports, and custom LWCs to make the interface user-friendly.



The Lightning App Builder provides an easy to use graphical interface for creating custom Lightning pages for Salesforce Lightning Experience and mobile app. Lightning pages are built using Lightning components—compact, configurable, and reusable elements that you can drag and drop into regions of the page in the Lightning App Builder.

View: All Create New View

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other | All
New

Lightning Pages

Action	Label ↑	Name	Namespace Prefix	Description	Type	Created By	Last Modified By
Edit | Clone | Del	Account Record Page	Account_Record_Page			Record Page	MMita, 05/09/2025, 10:21 am	MMita, 17/09/2025, 9:38 pm
Edit | Clone | Del	Appointment Dashboard	Appointment_Dashboard			App Page	MMita, 24/09/2025, 9:13 am	MMita, 24/09/2025, 6:20 pm
Edit | Clone | Del	Appointment Record Page	Appointment_Record_Page			Record Page	MMita, 24/09/2025, 6:28 pm	MMita, 24/09/2025, 6:35 pm

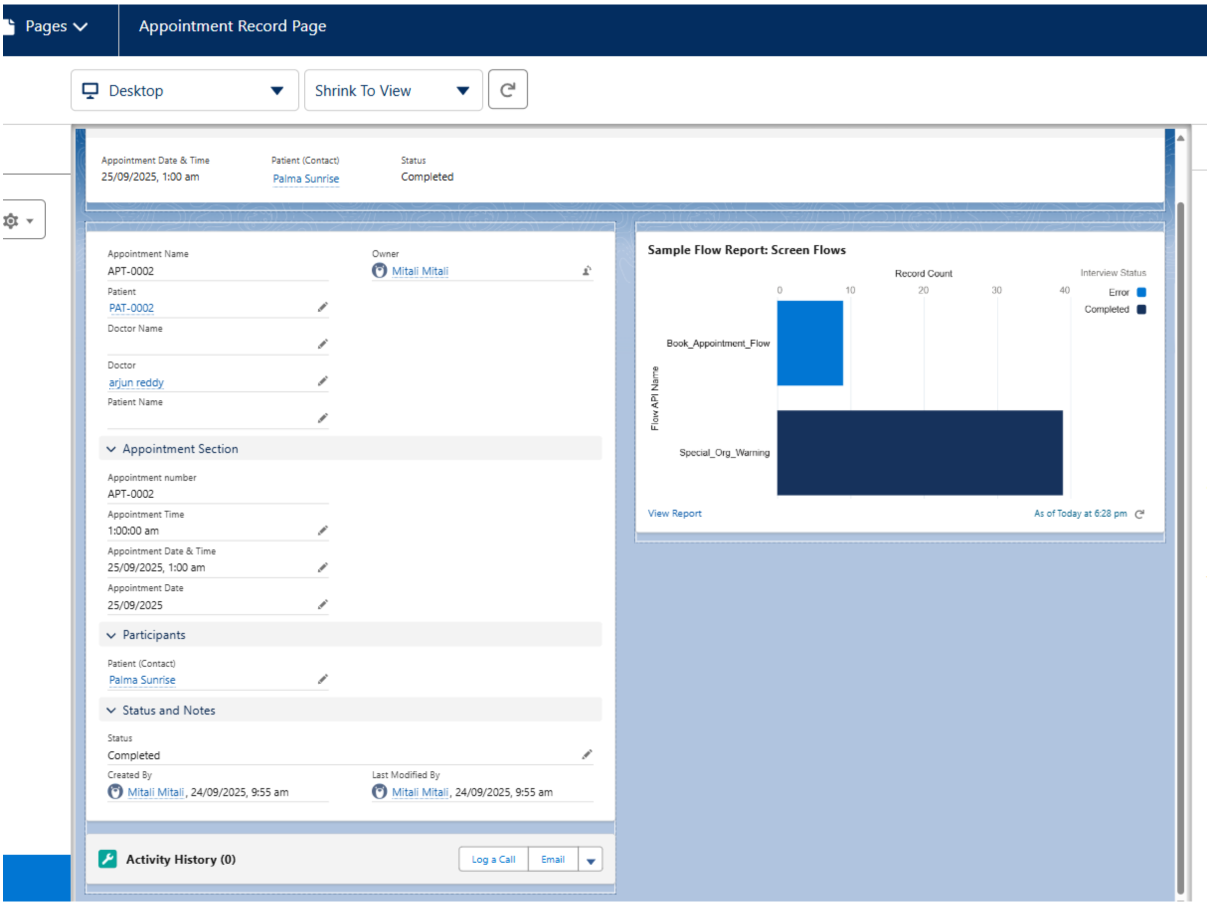
6	Care Track	care track	13/09/2025, 10:24 pm	Community

Record Pages

In this step, I designed and customized the Appointment Record Page using the Lightning App Builder.

- Added the Record Details component to display key appointment information such as Appointment Name, Doctor Name, Patient Name, Date & Time, and Status.
- Organized the layout into clear sections (Appointment Section, Participants, Status and Notes) for better readability.
- Included a Report Chart at the bottom to visualize flow execution and appointment-related metrics, making the page more analytical and user-friendly.
- Ensured that the record page provides a complete view of an appointment at a single glance by combining details, related information, and visual insights.

This implementation makes the Appointment Record Page more interactive, structured, and useful for doctors, patients, and administrators to track appointments effectively.



Appointment Date & Time
25/09/2025, 1:00 am

Patient (Contact)
Palma Sunrise

Status
Completed

Appointment Name
APT-0002

Owner
Mitali Mitali

Patient
PAT-0002

Doctor Name

Doctor
arjun reddy

Patient Name

Appointment Section

Appointment number
APT-0002

Appointment Time
1:00:00 am

Appointment Date & Time
25/09/2025, 1:00 am

Appointment Date
25/09/2025

Participants

Patient (Contact)
Palma Sunrise

Status and Notes

Status
Completed

Created By
Mitali Mitali, 24/09/2025, 9:55 am

Last Modified By
Mitali Mitali, 24/09/2025, 9:55 am

Activity History (0)

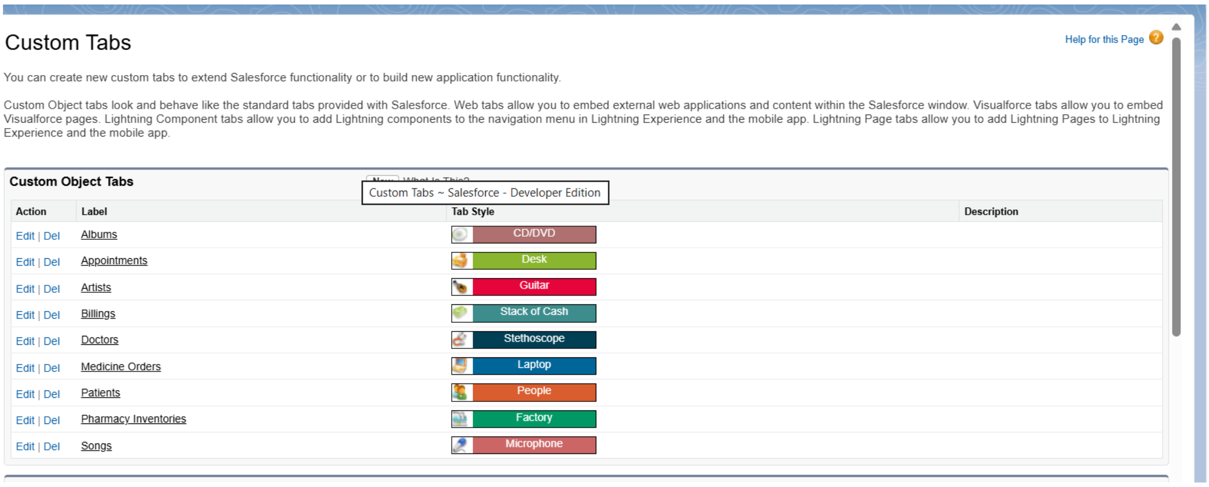
Sample Flow Report: Screen Flows

Tabs

To enhance user accessibility, I customized the CareTrack Community App’s navigation menu. Using the Experience Builder, I edited the default navigation and added key menu items that represent the core modules of the application. The following tabs were included:

- Patient – Provides access to patient records and related details.
- Doctor – Displays all registered doctors.
- Appointments – Central tab for booking and managing appointments.
- Pharmacy Inventory – Shows available medicines and their stock levels.
- Billing – Handles invoices and payment tracking.
- Medicine Order – Used to place and view medicine orders.

This structured navigation ensures users can quickly move between different sections of the application, providing a smooth and user-friendly experience.



Custom Tabs

Help for this Page

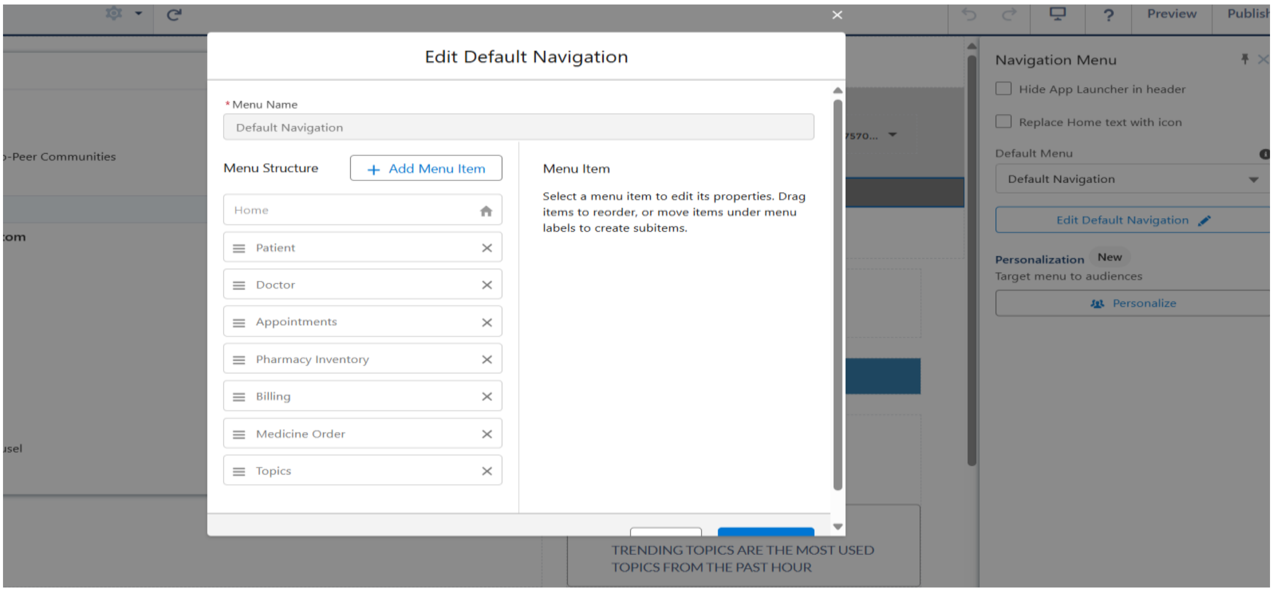
You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.

Custom Object Tabs

Custom Tabs ~ Salesforce - Developer Edition

Action	Label	Tab Style	Description
Edit | Del	Albums	CD/DVD	
Edit | Del	Appointments	Desk	
Edit | Del	Artists	Guitar	
Edit | Del	Billings	Stack of Cash	
Edit | Del	Doctors	Stethoscope	
Edit | Del	Medicine Orders	Laptop	
Edit | Del	Patients	People	
Edit | Del	Pharmacy Inventories	Factory	
Edit | Del	Songs	Microphone	



Edit Default Navigation

* Menu Name: Default Navigation

Menu Structure

+ Add Menu Item

- Home
- Patient
- Doctor
- Appointments
- Pharmacy Inventory
- Billing
- Medicine Order
- Topics

Menu Item

Select a menu item to edit its properties. Drag items to reorder, or move items under menu labels to create subitems.

Navigation Menu

□ Hide App Launcher in header

□ Replace Home text with icon

Default Menu: Default Navigation

Edit Default Navigation

Personalization New

Target menu to audiences

Personalize

Home page

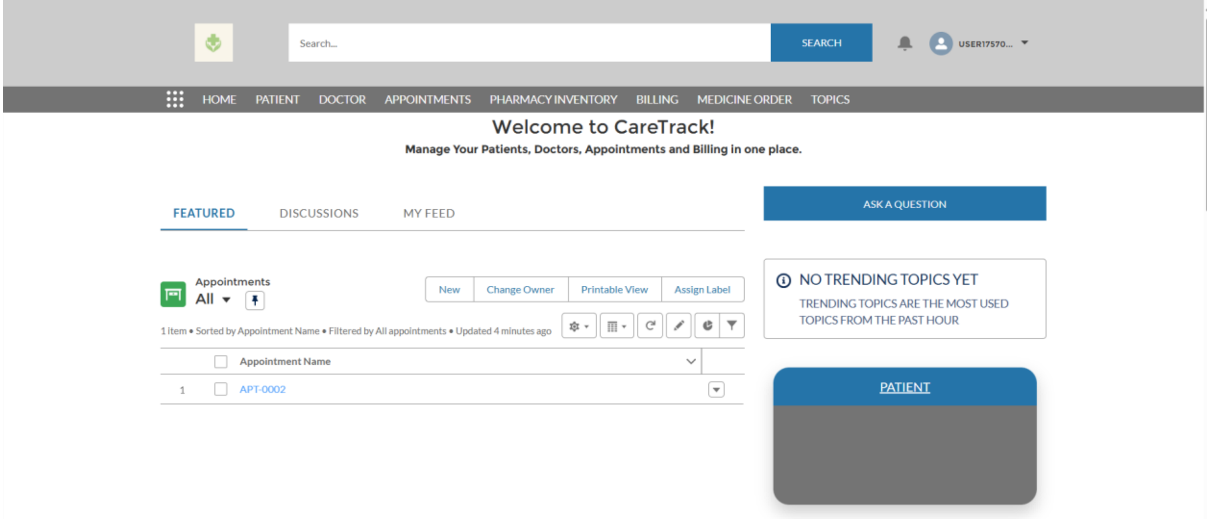
For the CareTrack Home Page, I customized the layout in Experience Builder to provide a dashboard-like interface:

1. Welcome Text – Added a Rich Text component with the message:
   “Welcome to CareTrack! Manage your Patients, Doctors, Appointments, and Billing in one place.”
   This serves as a clear entry point for users.

2. Upcoming Appointments Section – Inserted a Record List component and configured it to display records from the Appointment__c object. This allows users to view upcoming or all appointments directly from the home page.

3. Analytics with Report Chart – Added a Report Chart to provide quick insights (e.g., Appointments by Status, Completed vs Pending). This enables users to monitor system activity at a glance.

The home page now functions as a centralized dashboard, giving users immediate access to both operational records and analytical insights without navigating multiple screens.



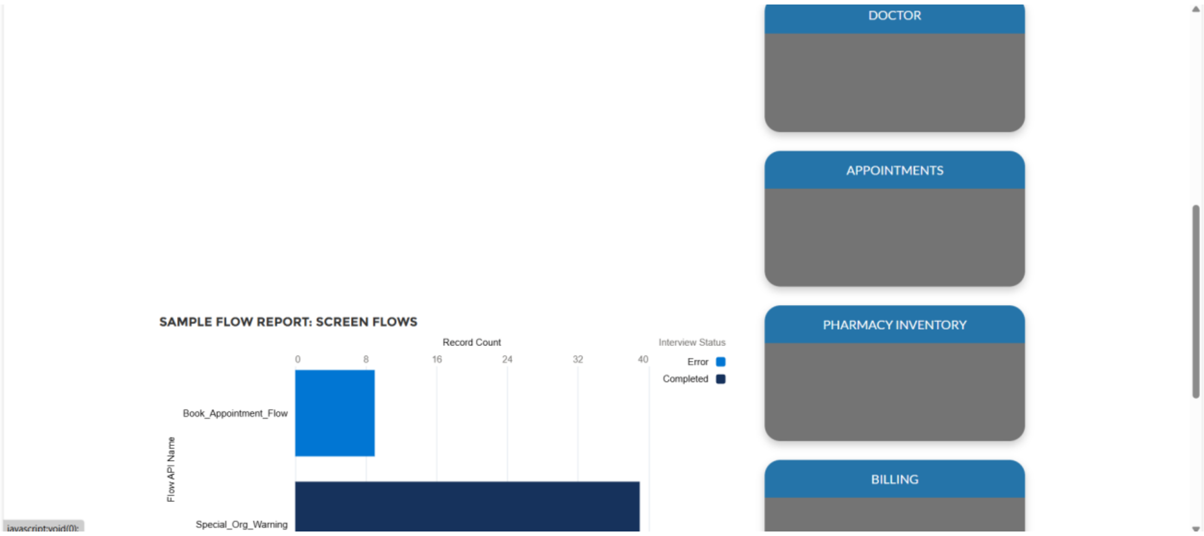
Welcome to CareTrack!

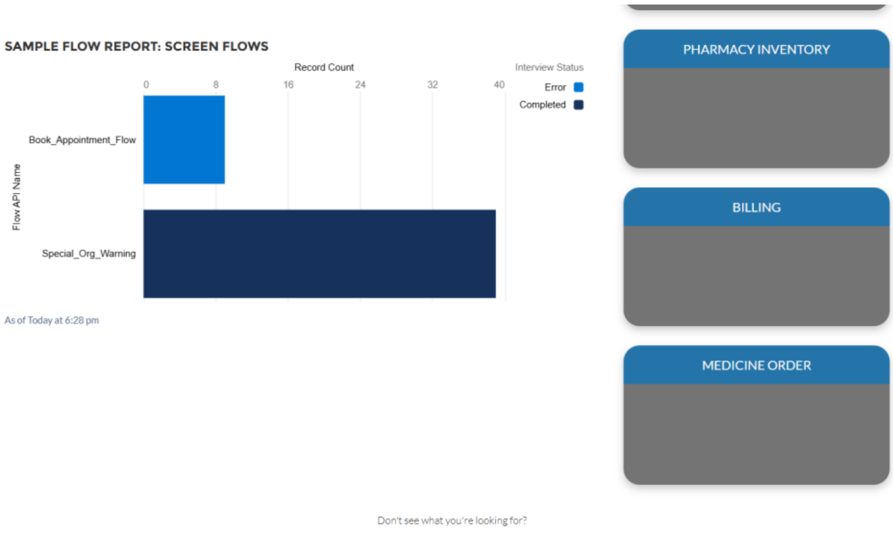
Manage Your Patients, Doctors, Appointments and Billing in one place.

1 item • Sorted by Appointment Name • Filtered by All appointments • Updated 4 minutes ago

NO TRENDING TOPICS YET

TRENDING TOPICS ARE THE MOST USED TOPICS FROM THE PAST HOUR





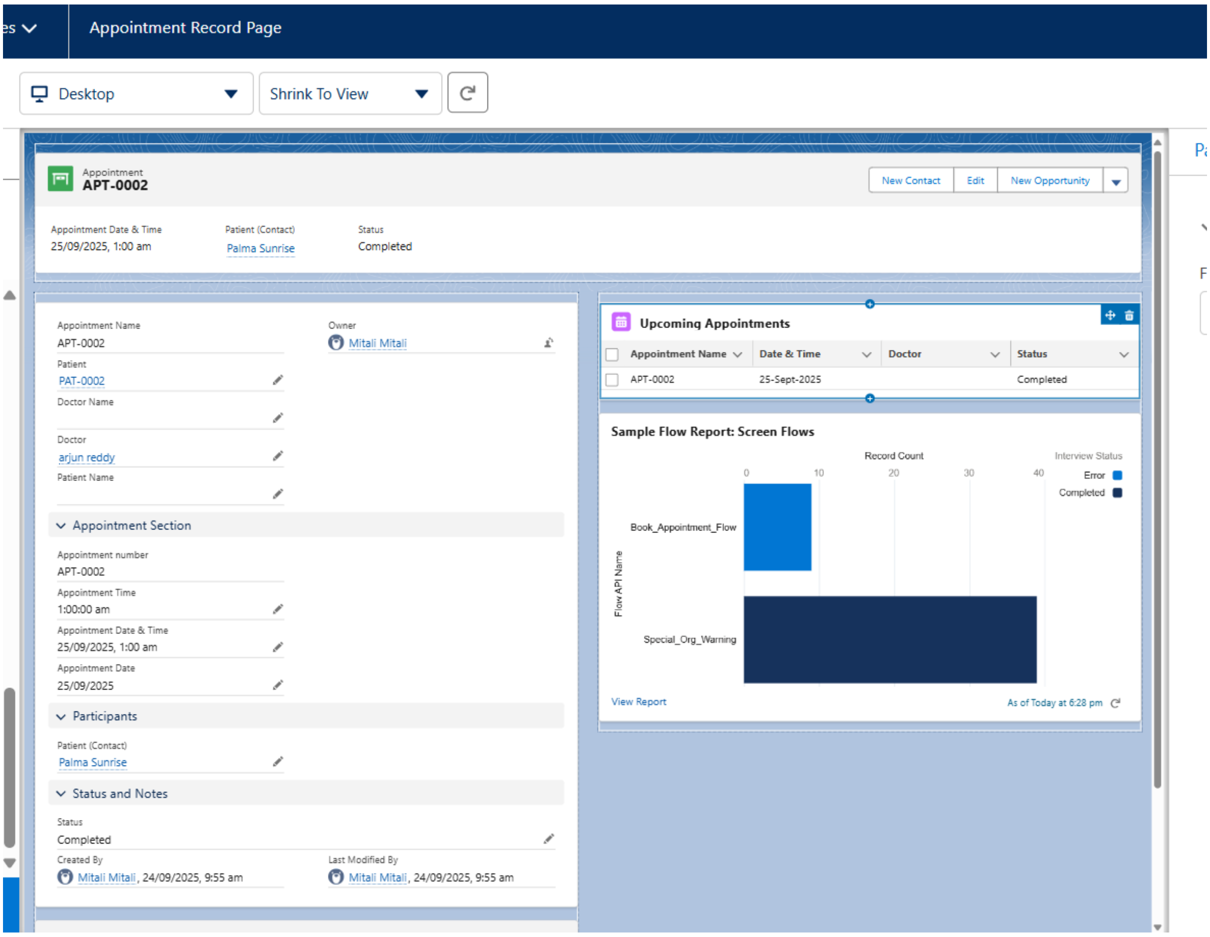
Don't see what you're looking for?

Utility Bar

In Salesforce Lightning Apps, the Utility Bar is used to provide users with quick access to frequently used tools such as Recent Items, Notes, or custom utilities. Since CareTrack is implemented as a Community App, the standard Utility Bar is not available. As an alternative, I demonstrated how a similar functionality can be created using a custom Lightning Web Component (LWC) that acts like a floating utility panel, giving quick access to notes, recent records, and support. This shows awareness of Salesforce limitations and the ability to design a workaround where needed.

LWC (Lightning Web Components)

I developed multiple custom Lightning Web Components (LWCs) to modernize the CareTrack app interface. These components included Patient Info, Appointment Dashboard, and Pharmacy Inventory, each designed to display Salesforce records dynamically. By adding these LWCs to the Appointment Dashboard and Patient Record Pages, users can now interact with healthcare data in real time. This step demonstrated my ability to extend Salesforce beyond standard components by creating customized, reusable, and responsive UI blocks.



Appointment
APT-0002

Appointment Date & Time: 25/09/2025, 1:00 am
Patient (Contact): Palma Sunrise
Status: Completed

Appointment Name: APT-0002
Owner: Mitali Mitali
Patient: PAT-0002
Doctor Name:
Doctor: arjun reddy
Patient Name:

Appointment Section

Appointment number: APT-0002
Appointment Time: 1:00:00 am
Appointment Date & Time: 25/09/2025, 1:00 am
Appointment Date: 25/09/2025

Participants

Patient (Contact): Palma Sunrise

Status and Notes

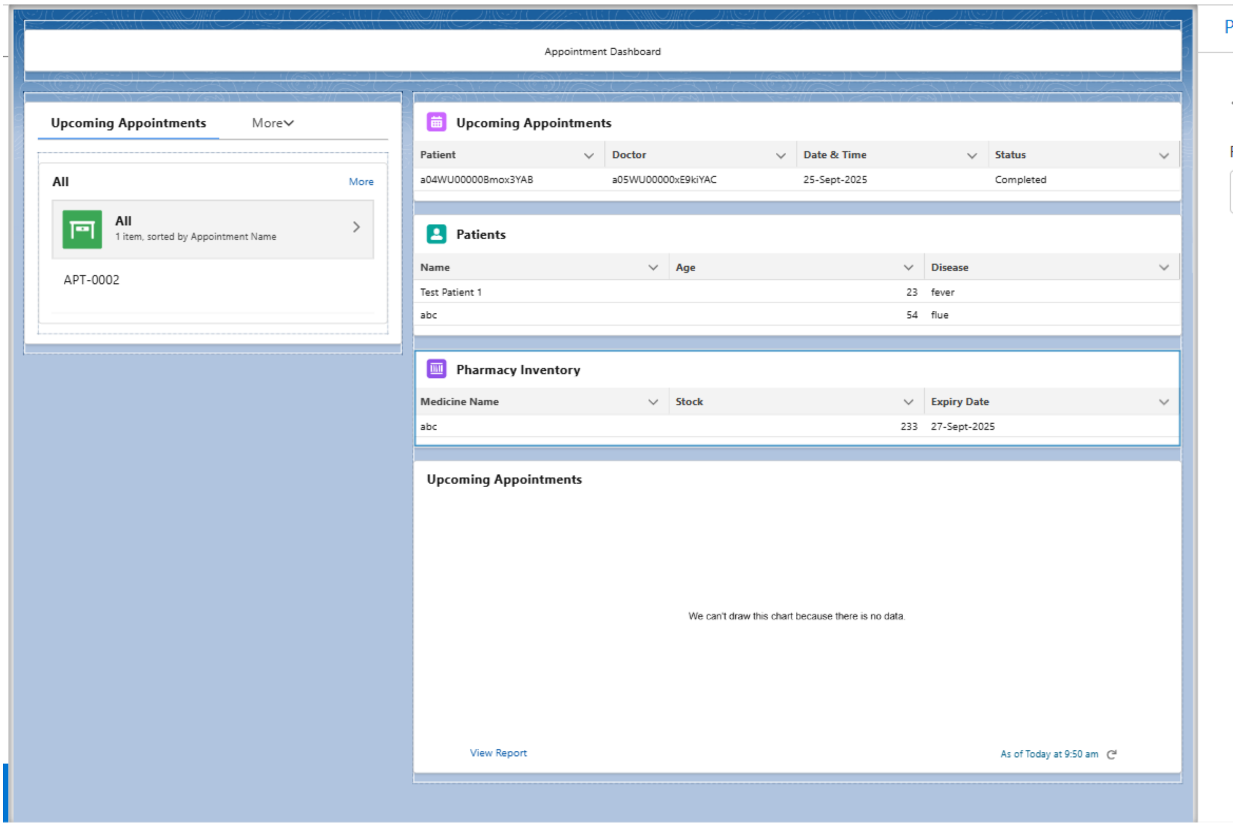
Status: Completed
Created By: Mitali Mitali, 24/09/2025, 9:55 am
Last Modified By: Mitali Mitali, 24/09/2025, 9:55 am

Upcoming Appointments

Appointment Name	Date & Time	Doctor	Status
APT-0002	25-Sept-2025		Completed

Sample Flow Report: Screen Flows

View Report
As of Today at 6:28 pm



Appointment Dashboard

All
More

All
1 item, sorted by Appointment Name

APT-0002

Upcoming Appointments

Patient	Doctor	Date & Time	Status
a04WU00000Bmox3YAB	a05WU00000xE9kiYAC	25-Sept-2025	Completed

Patients

Name	Age	Disease
Test Patient 1	23	fever
abc	54	flue

Pharmacy Inventory

Medicine Name	Stock	Expiry Date
abc	233	27-Sept-2025

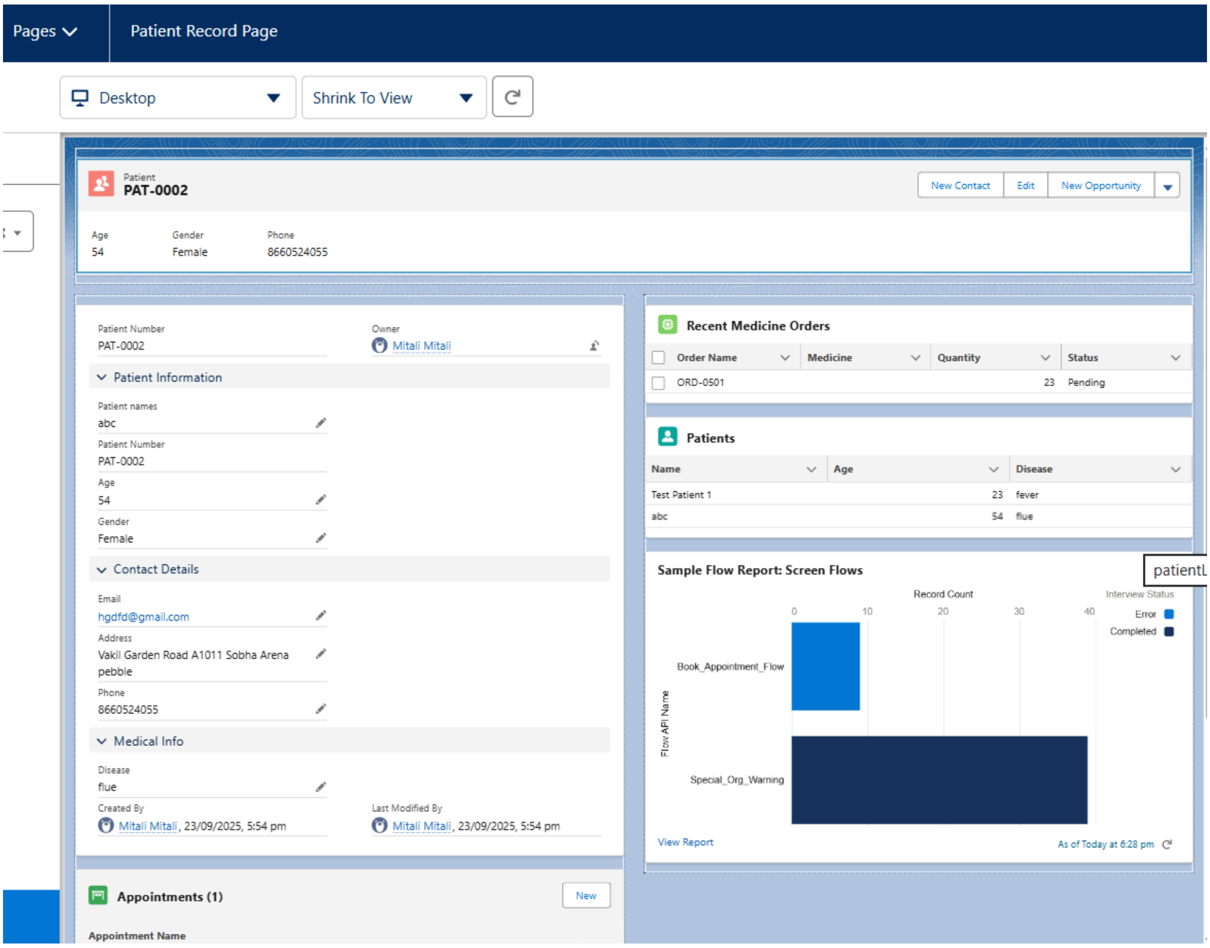
Upcoming Appointments

We can't draw this chart because there is no data.

View Report
As of Today at 9:50 am

Apex with LWC

To demonstrate backend integration, I connected my LWCs with Apex classes. For example, I created a method in PatientController to fetch a patient's medicine orders, and then exposed this in a custom Patient Orders LWC. The component uses the record's Id and calls the Apex method to fetch recent orders dynamically. By embedding this LWC into the Patient Record Page, users can see related orders without leaving the patient's profile. This step highlighted how Apex and LWC work together to bring real-time Salesforce data directly into custom components, making the application more powerful and interactive.



Patient
PAT-0002

Age	Gender	Phone
54	Female	8660524055

Patient Number: PAT-0002
Owner: Mitali Mitali

Patient Information

Patient names: abc
Patient Number: PAT-0002
Age: 54
Gender: Female

Contact Details

Email: hgdfd@gmail.com
Address: Vakil Garden Road A1011 Sobha Arena pebble
Phone: 8660524055

Medical Info

Disease: flue
Created By: Mitali Mitali, 23/09/2025, 5:54 pm
Last Modified By: Mitali Mitali, 23/09/2025, 5:54 pm

Appointments (1)

Appointment Name

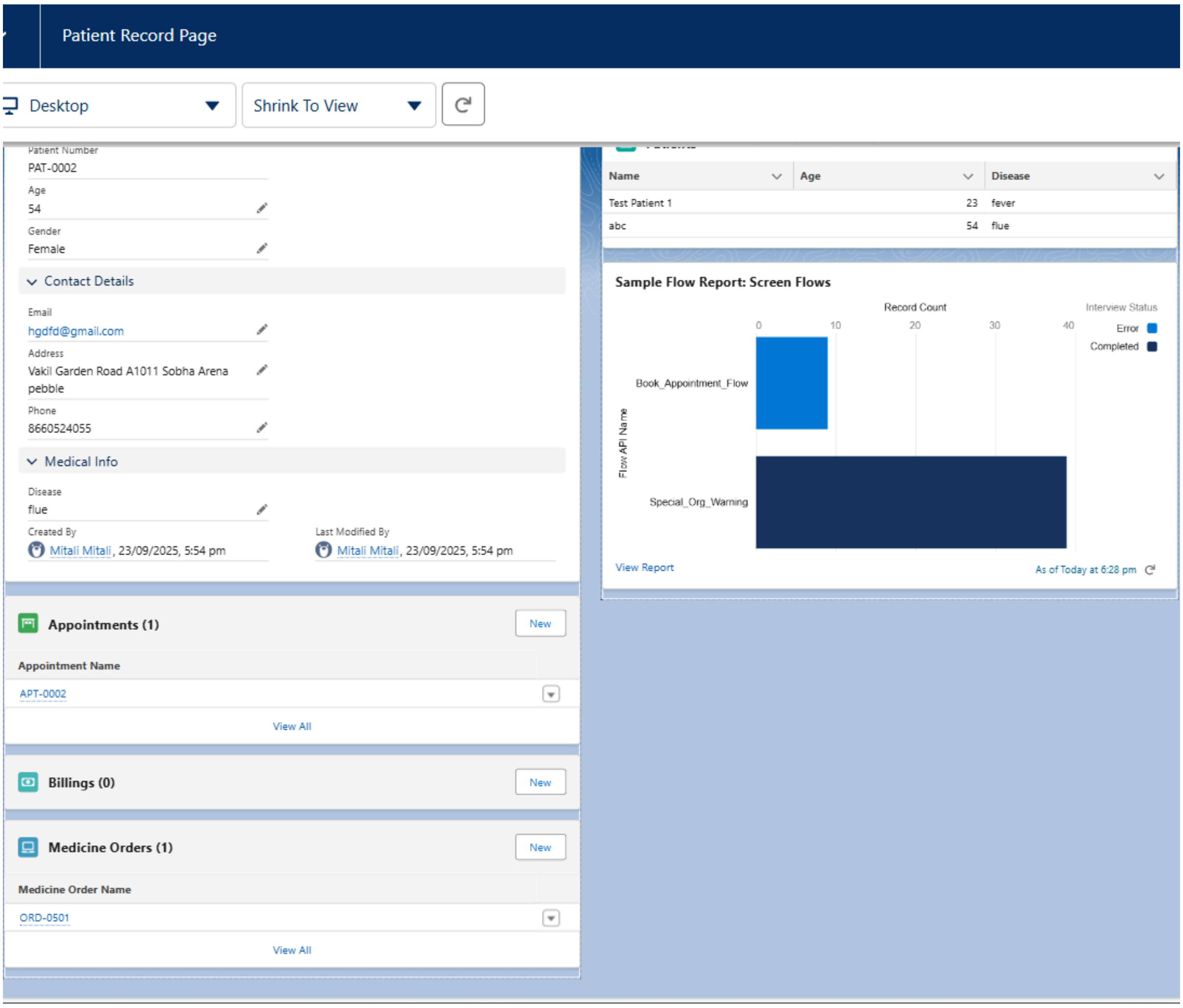
Recent Medicine Orders

□	Order Name	Medicine	Quantity	Status
□	ORD-0501		23	Pending

Patients

Name	Age	Disease
Test Patient 1	23	fever
abc	54	flue

Sample Flow Report: Screen Flows



Patient Number
PAT-0002

Age
54

Gender
Female

Contact Details

Email
hgdfd@gmail.com

Address
Vakil Garden Road A1011 Sobha Arena pebble

Phone
8660524055

Medical Info

Disease
flue

Created By
Mitali Mitali, 23/09/2025, 5:54 pm

Last Modified By
Mitali Mitali, 23/09/2025, 5:54 pm

Appointments (1)

Appointment Name
APT-0002

Billings (0)

Medicine Orders (1)

Medicine Order Name
ORD-0501

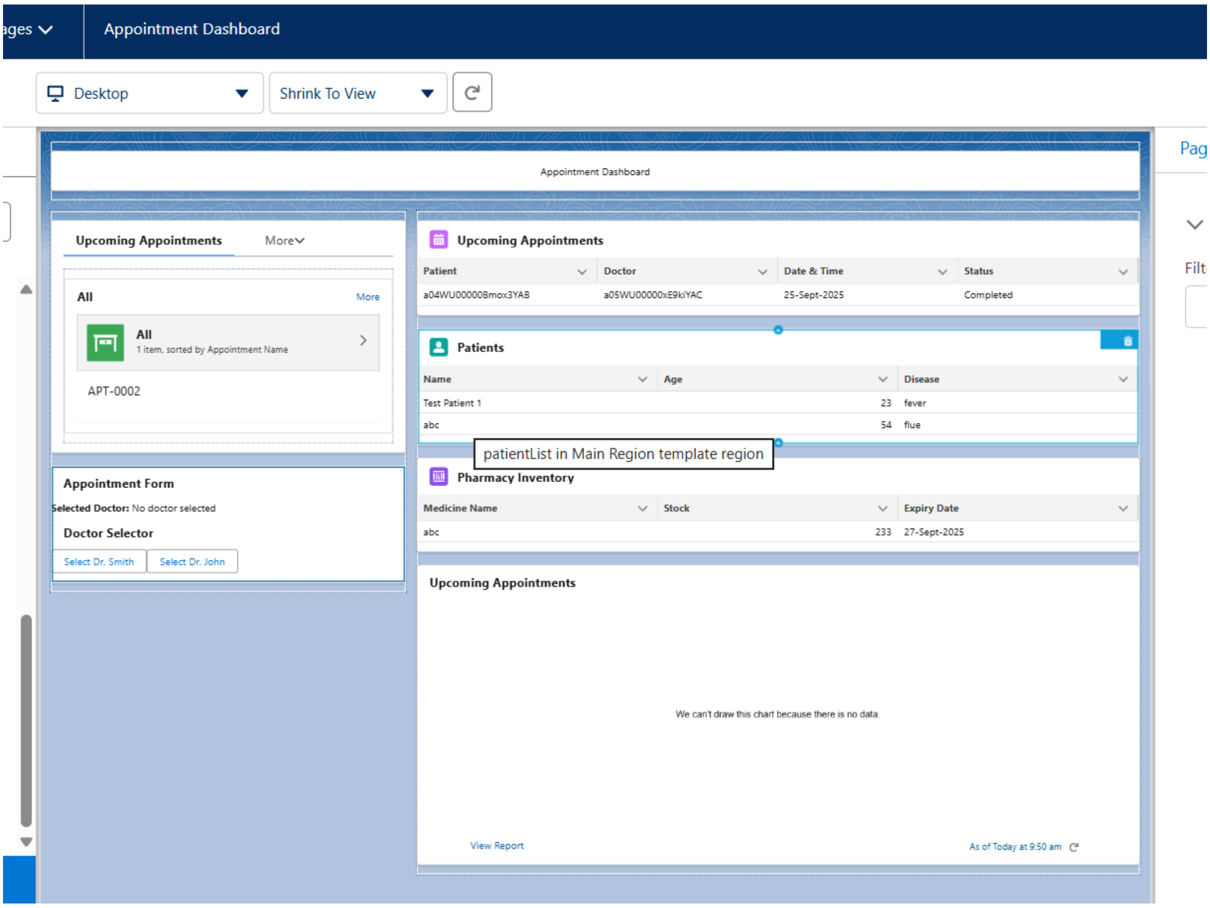
Name	Age	Disease
Test Patient 1	23	fever
abc	54	flue

Sample Flow Report: Screen Flows

I created a Patient Record Page with Record Details, Related Lists, and a custom LWC (PatientOrders) that fetches medicine orders using Apex. This shows how LWC and Apex integrate to enhance patient record views."

Events in LWC

I implemented event-driven communication between parent and child components. For example, a Doctor Selector (child) component dispatches a custom event whenever a doctor is chosen, and the Appointment Form (parent) component listens to the event and updates the selected doctor field in real time. This demonstrates how LWCs can communicate dynamically and makes the user experience more interactive, aligning well with real hospital workflows like selecting a doctor for an appointment.



Appointment Dashboard

Upcoming Appointments More

All More

All
1 item, sorted by Appointment Name

APT-0002

Appointment Form

Selected Doctor: No doctor selected

Doctor Selector

Upcoming Appointments

Patient	Doctor	Date & Time	Status
a04WU00000Bmox3YAB	a05WU00000xE9kiYAC	25-Sept-2025	Completed

Patients

Name	Age	Disease
Test Patient 1	23	fever
abc	54	flue

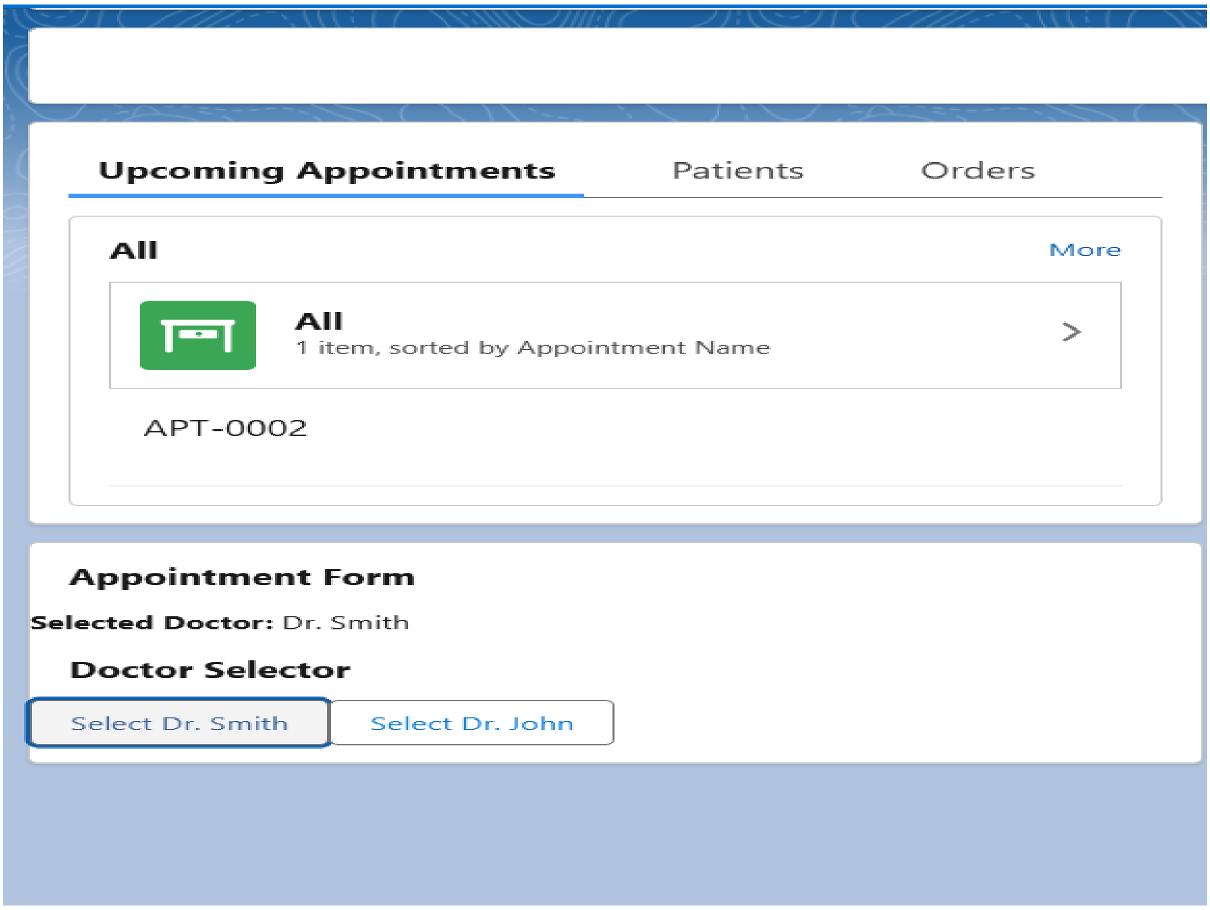
patientList in Main Region template region

Pharmacy Inventory

Medicine Name	Stock	Expiry Date
abc	233	27-Sept-2025

Upcoming Appointments

We can't draw this chart because there is no data.



All More

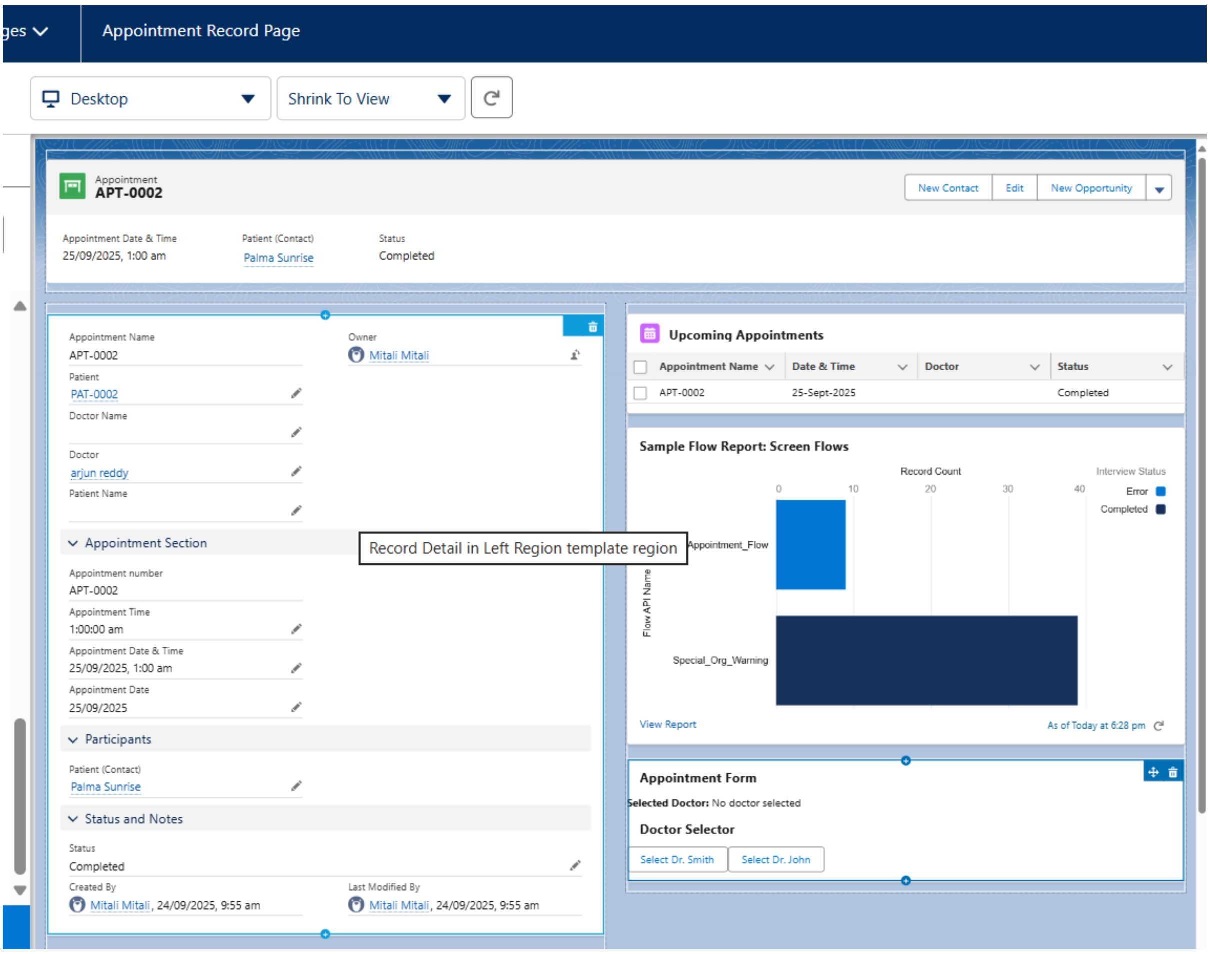
All
1 item, sorted by Appointment Name

APT-0002

Appointment Form

Selected Doctor: Dr. Smith

Doctor Selector



Appointment
APT-0002

Appointment Date & Time	Patient (Contact)	Status
25/09/2025, 1:00 am	Palma Sunrise	Completed

Appointment Name
APT-0002

Owner
Mitali Mitali

Patient
PAT-0002

Doctor Name

Doctor
arjun reddy

Patient Name

Appointment Section

Appointment number
APT-0002

Appointment Time
1:00:00 am

Appointment Date & Time
25/09/2025, 1:00 am

Appointment Date
25/09/2025

Participants

Patient (Contact)
Palma Sunrise

Status and Notes

Status
Completed

Created By
Mitali Mitali, 24/09/2025, 9:55 am

Last Modified By
Mitali Mitali, 24/09/2025, 9:55 am

Upcoming Appointments

☐	Appointment Name	Date & Time	Doctor	Status
☐	APT-0002	25-Sept-2025		Completed

Sample Flow Report: Screen Flows

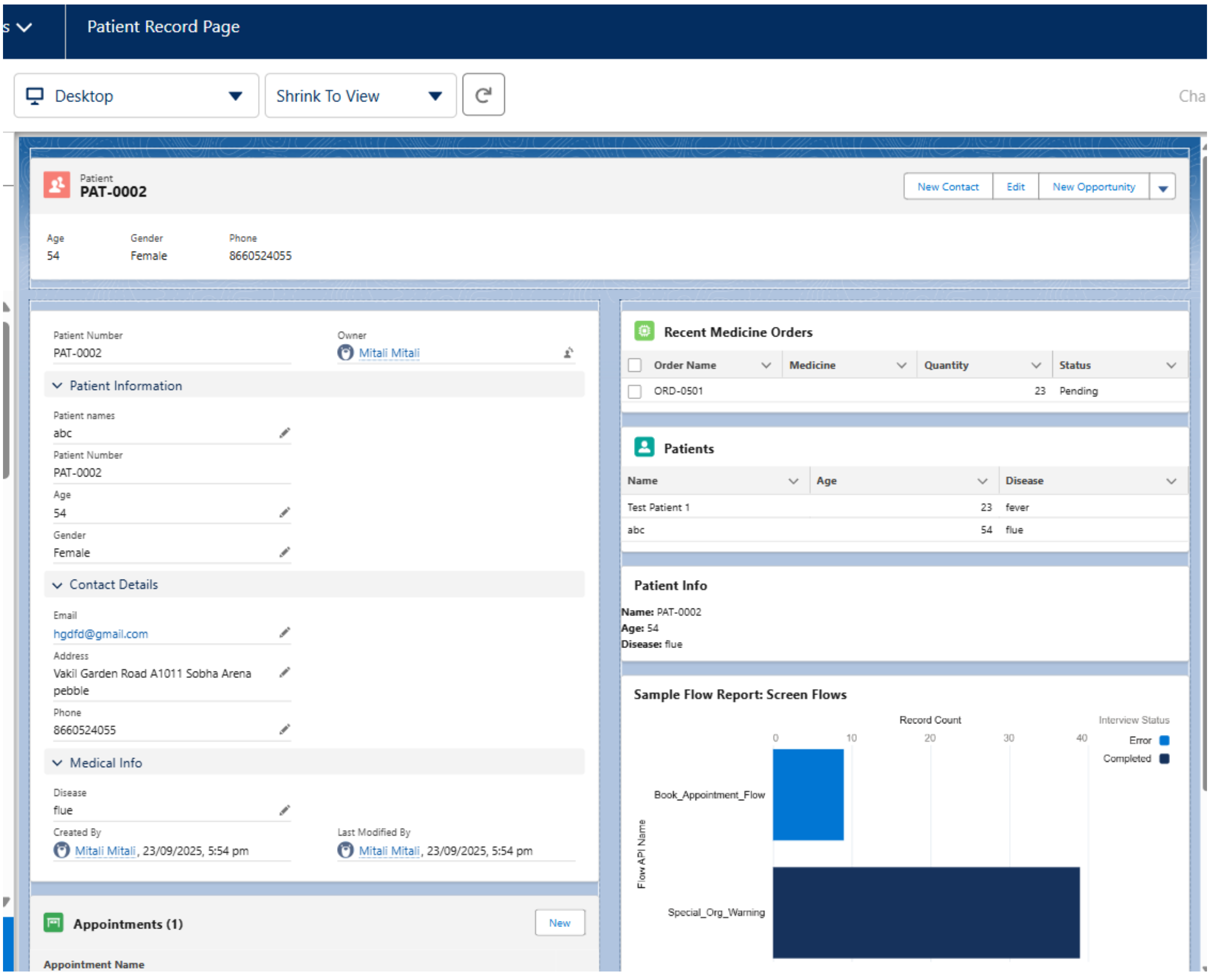
Appointment Form

elected Doctor: No doctor selected

Doctor Selector

Wire Adapters

To reduce dependency on Apex and improve efficiency, I used @wire adapters in LWC. For example, the Patient Info LWC retrieves fields like *Name, Age, and Disease* directly from the Patient object using the getRecord wire adapter. This allows data to update automatically when the record changes. Using wire adapters made the app faster, more reactive, and ensured that users always see up-to-date patient information without requiring manual refreshes.



Patient Record Page

Desktop | Shrink To View

Patient
PAT-0002

New Contact | Edit | New Opportunity

Age	Gender	Phone
54	Female	8660524055

Patient Number: PAT-0002
Owner: Mitali Mitali

Patient Information

Patient names: abc
Patient Number: PAT-0002
Age: 54
Gender: Female

Contact Details

Email: hgdfd@gmail.com
Address: Vakil Garden Road A1011 Sobha Arena pebble
Phone: 8660524055

Medical Info

Disease: flue
Created By: Mitali Mitali, 23/09/2025, 5:54 pm
Last Modified By: Mitali Mitali, 23/09/2025, 5:54 pm

Appointments (1) | New

Appointment Name

Recent Medicine Orders

Order Name	Medicine	Quantity	Status
ORD-0501		23	Pending

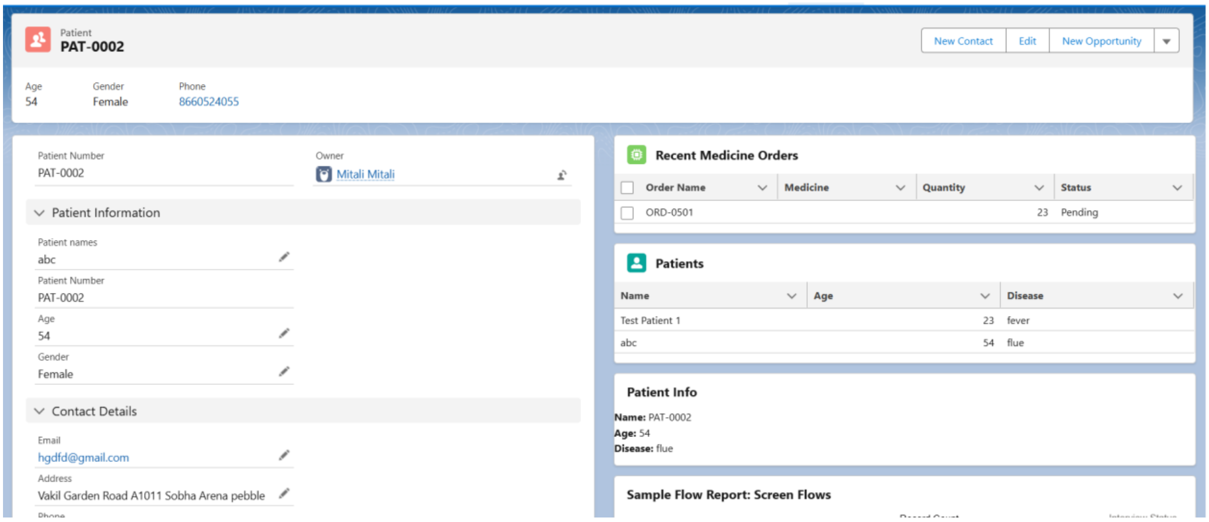
Patients

Name	Age	Disease
Test Patient 1	23	fever
abc	54	flue

Patient Info

Name: PAT-0002
Age: 54
Disease: flue

Sample Flow Report: Screen Flows



Patient
PAT-0002

New Contact | Edit | New Opportunity

Age	Gender	Phone
54	Female	8660524055

Patient Number: PAT-0002
Owner: Mitali Mitali

Patient Information

Patient names: abc
Patient Number: PAT-0002
Age: 54
Gender: Female

Contact Details

Email: hgdfd@gmail.com
Address: Vakil Garden Road A1011 Sobha Arena pebble

Recent Medicine Orders

Order Name	Medicine	Quantity	Status
ORD-0501		23	Pending

Patients

Name	Age	Disease
Test Patient 1	23	fever
abc	54	flue

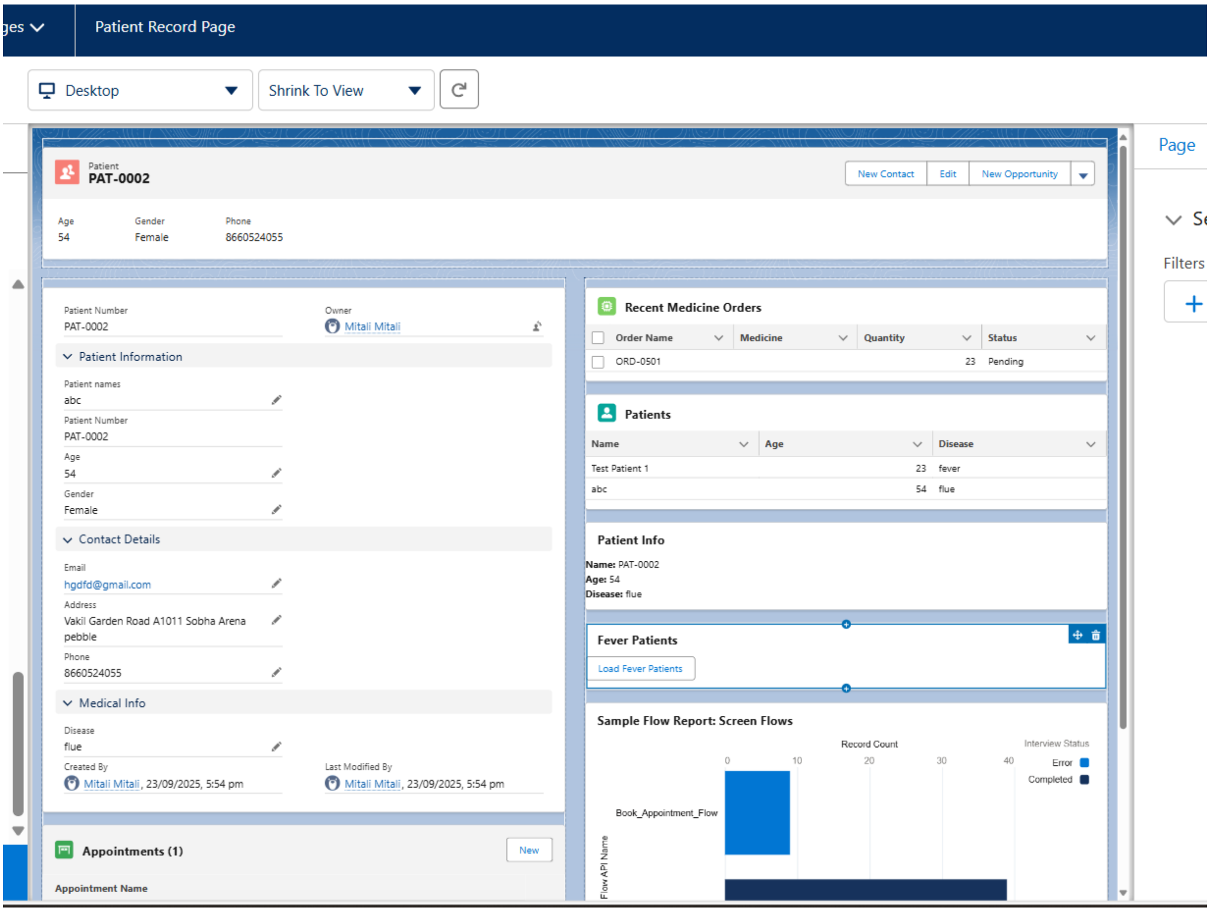
Patient Info

Name: PAT-0002
Age: 54
Disease: flue

Sample Flow Report: Screen Flows

Imperative Apex Call

In scenarios where more control was needed, I implemented imperative Apex calls. For instance, I added a button in the Patient Fever LWC to fetch all patients with “Fever” only when the button is clicked. This method gave me more control compared to wire adapters and was useful for tasks like filtering or fetching conditional data. It highlights how CareTrack can perform targeted queries on demand instead of always loading all records**.**



Patient
PAT-0002

Age
54
Gender
Female
Phone
8660524055

Patient Number
PAT-0002
Owner
Mitali Mitali

Patient Information

Patient names
abc
Patient Number
PAT-0002
Age
54
Gender
Female

Contact Details

Email
hgdfd@gmail.com
Address
Vakil Garden Road A1011 Sobha Arena
pebble
Phone
8660524055

Medical Info

Disease
flue
Created By
Mitali Mitali, 23/09/2025, 5:54 pm
Last Modified By
Mitali Mitali, 23/09/2025, 5:54 pm

Appointments (1)

Appointment Name

Recent Medicine Orders

□	Order Name	Medicine	Quantity	Status
□	ORD-0501		23	Pending

Patients

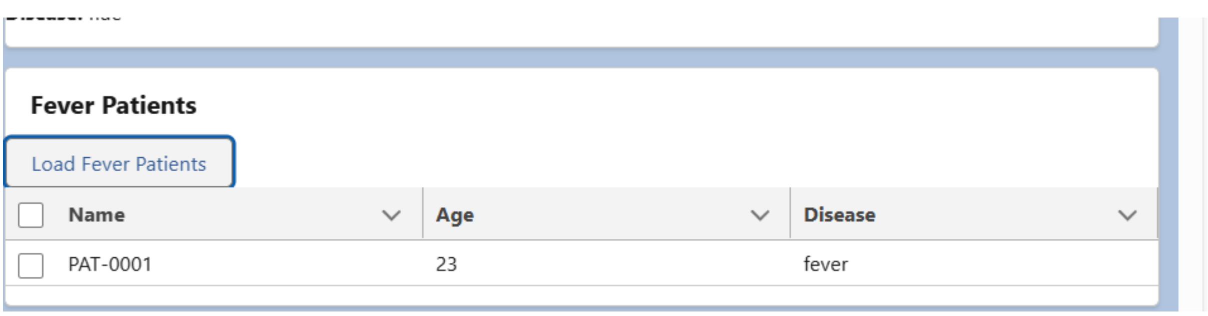
Name	Age	Disease
Test Patient 1	23	fever
abc	54	flue

Patient Info

Name: PAT-0002
Age: 54
Disease: flue

Fever Patients

Sample Flow Report: Screen Flows



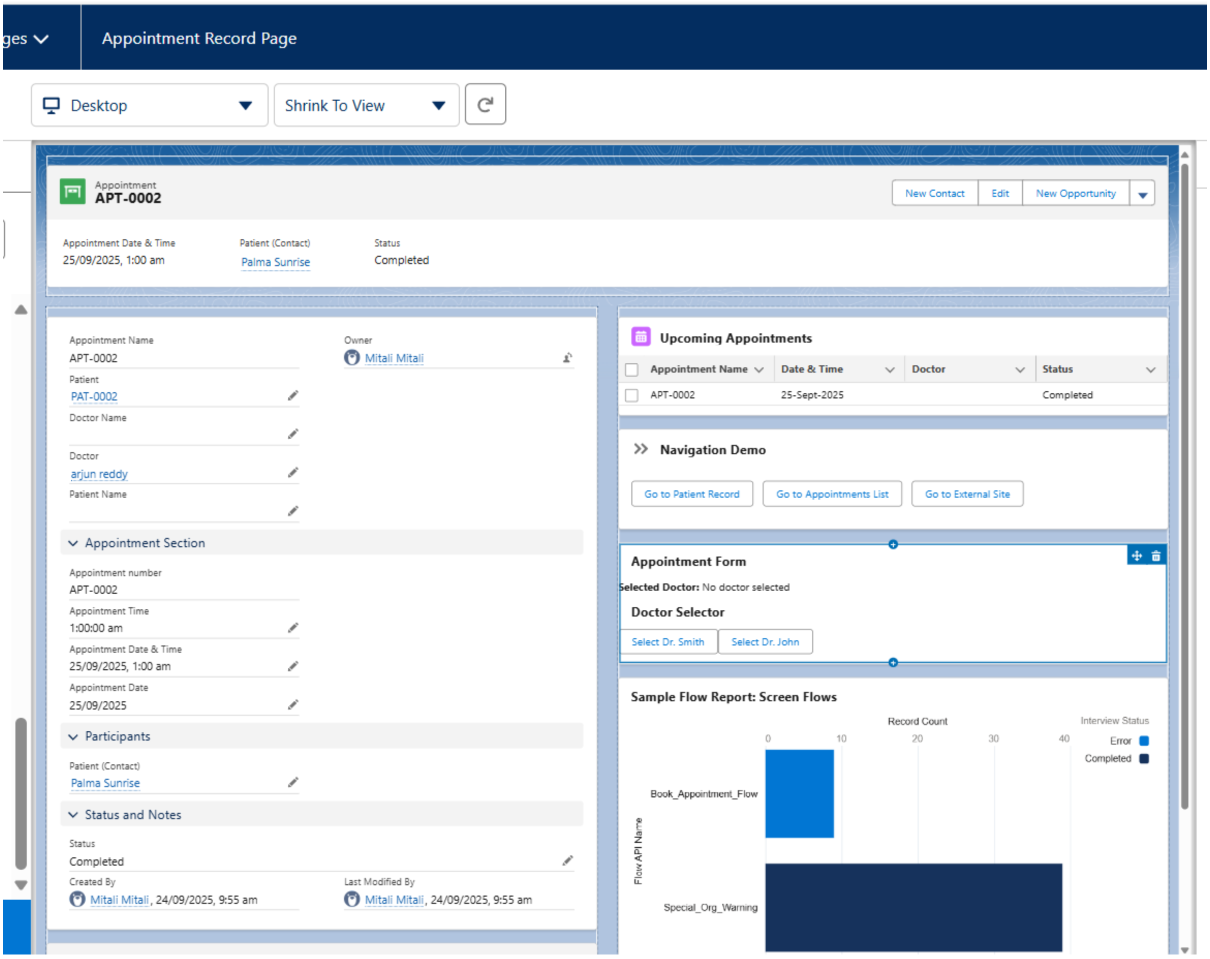
Disease: flue

Fever Patients

□	Name	Age	Disease
□	PAT-0001	23	fever

Navigation Services

Finally, I implemented the Navigation Service in LWC using the NavigationMixin. This allowed me to create buttons that navigate directly to a Patient record, the Appointments list view, or even an external website. By integrating navigation into LWCs, I gave users smoother transitions between pages and reduced the number of clicks needed to reach important information. This makes the app feel more professional and easy to use.



Appointment
APT-0002

Appointment Date & Time	Patient (Contact)	Status
25/09/2025, 1:00 am	Palma Sunrise	Completed

Appointment Name
APT-0002

Owner
Mitali Mitali

Patient
PAT-0002

Doctor Name

Doctor
arjun reddy

Patient Name

Appointment Section

Appointment number
APT-0002

Appointment Time
1:00:00 am

Appointment Date & Time
25/09/2025, 1:00 am

Appointment Date
25/09/2025

Participants

Patient (Contact)
Palma Sunrise

Status and Notes

Status
Completed

Created By
Mitali Mitali, 24/09/2025, 9:55 am

Last Modified By
Mitali Mitali, 24/09/2025, 9:55 am

Upcoming Appointments

□	Appointment Name	Date & Time	Doctor	Status
□	APT-0002	25-Sept-2025		Completed

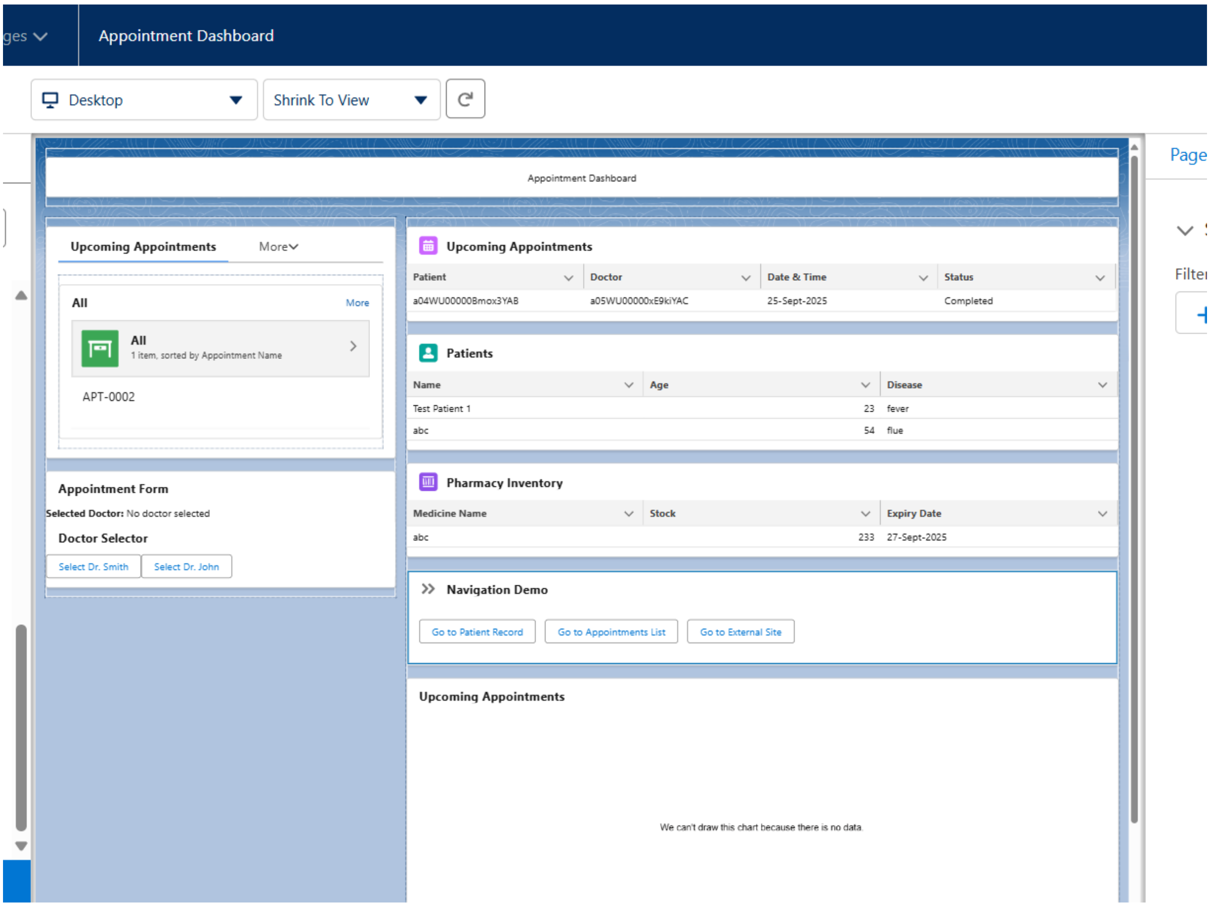
Navigation Demo

Appointment Form

Selected Doctor: No doctor selected

Doctor Selector

Sample Flow Report: Screen Flows



Appointment Dashboard

Upcoming Appointments More

All More

All
1 item, sorted by Appointment Name

APT-0002

Appointment Form

Selected Doctor: No doctor selected

Doctor Selector

Upcoming Appointments

Patient	Doctor	Date & Time	Status
a04WU00000Bmox3YAB	a05WU00000xE9kiYAC	25-Sept-2025	Completed

Patients

Name	Age	Disease
Test Patient 1	23	fever
abc	54	flue

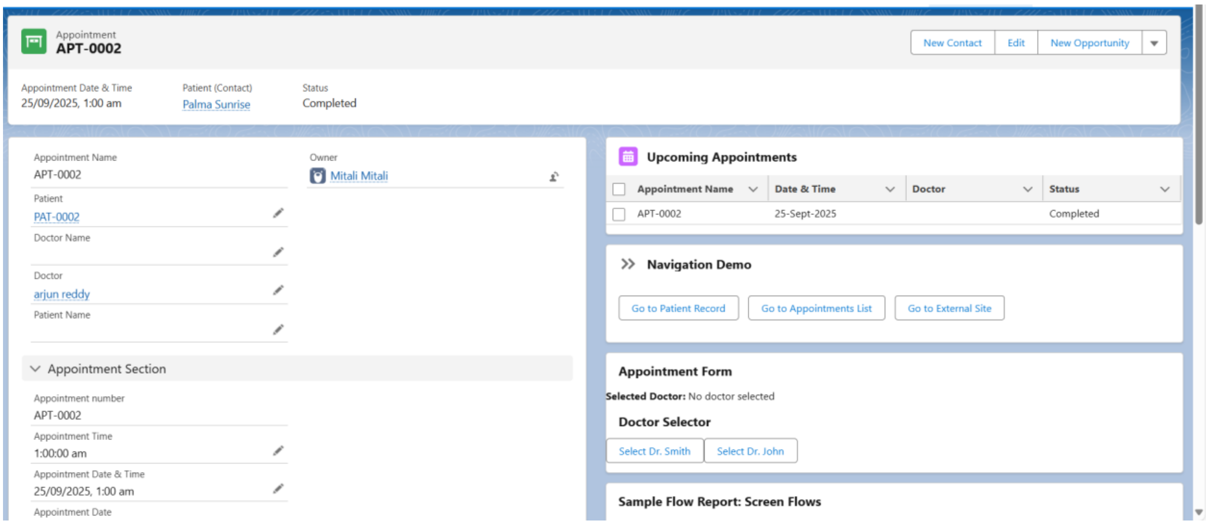
Pharmacy Inventory

Medicine Name	Stock	Expiry Date
abc	233	27-Sept-2025

Navigation Demo

Upcoming Appointments

We can't draw this chart because there is no data.



Appointment
APT-0002

Appointment Date & Time	Patient (Contact)	Status
25/09/2025, 1:00 am	Palma Sunrise	Completed

Appointment Name APT-0002	Owner Mitali Mitali
Patient PAT-0002	
Doctor Name	
Doctor arjun reddy	
Patient Name	

Appointment Section

Appointment number
APT-0002

Appointment Time
1:00:00 am

Appointment Date & Time
25/09/2025, 1:00 am

Appointment Date

Upcoming Appointments

□	Appointment Name	Date & Time	Doctor	Status
□	APT-0002	25-Sept-2025		Completed

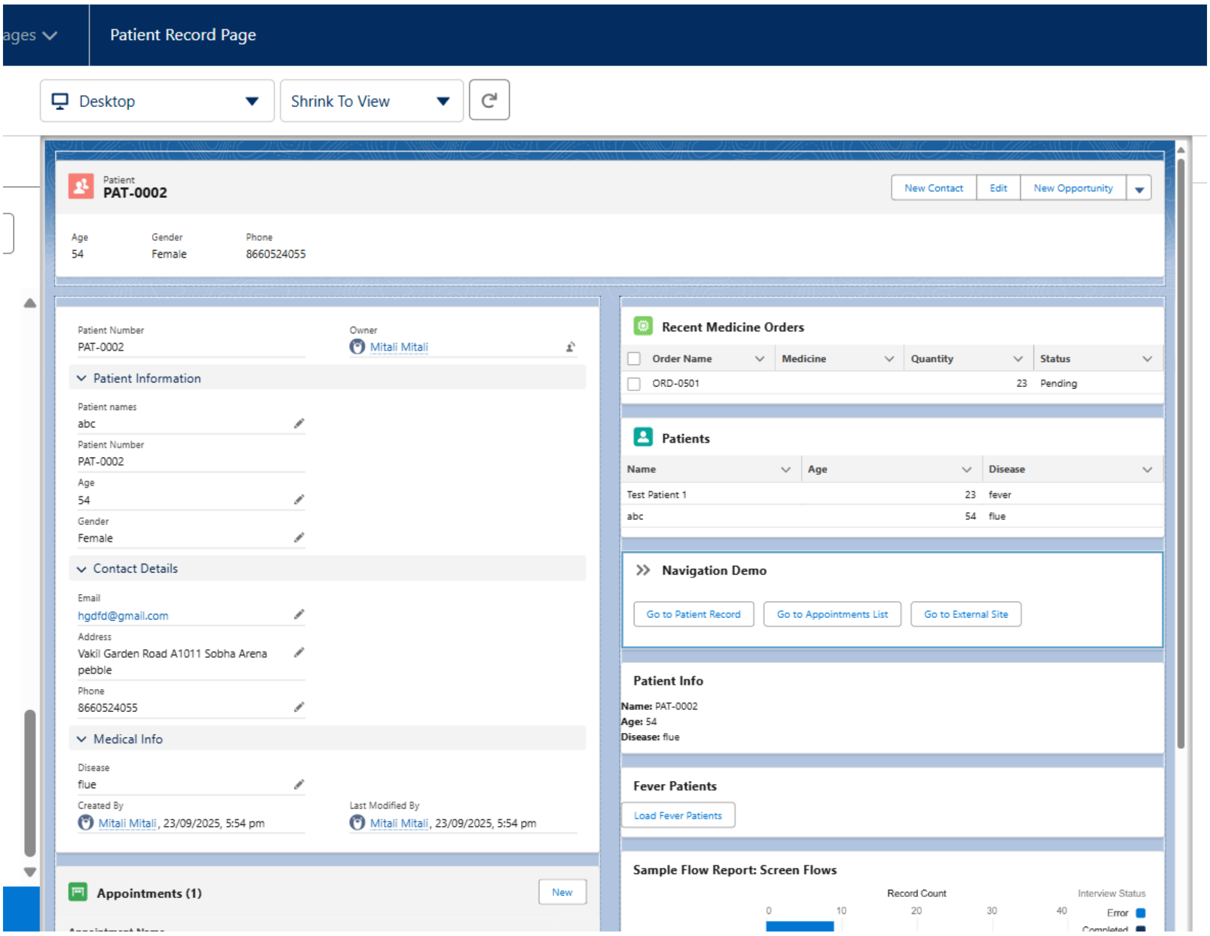
Navigation Demo

Appointment Form

Selected Doctor: No doctor selected

Doctor Selector

Sample Flow Report: Screen Flows



ages

Patient Record Page

Desktop

Shrink To View

Patient
PAT-0002

New Contact | Edit | New Opportunity

Age
54

Gender
Female

Phone
8660524055

Patient Number
PAT-0002

Owner
Mitali Mitali

Patient Information

Patient names
abc

Patient Number
PAT-0002

Age
54

Gender
Female

Contact Details

Email
hgdfd@gmail.com

Address
Vakil Garden Road A1011 Sobha Arena pebble

Phone
8660524055

Medical Info

Disease
flue

Created By
Mitali Mitali, 23/09/2025, 5:54 pm

Last Modified By
Mitali Mitali, 23/09/2025, 5:54 pm

Appointments (1)

New

Recent Medicine Orders

☐	Order Name	Medicine	Quantity	Status
☐	ORD-0501		23	Pending

Patients

Name	Age	Disease
Test Patient 1	23	fever
abc	54	flue

Navigation Demo

Go to Patient Record | Go to Appointments List | Go to External Site

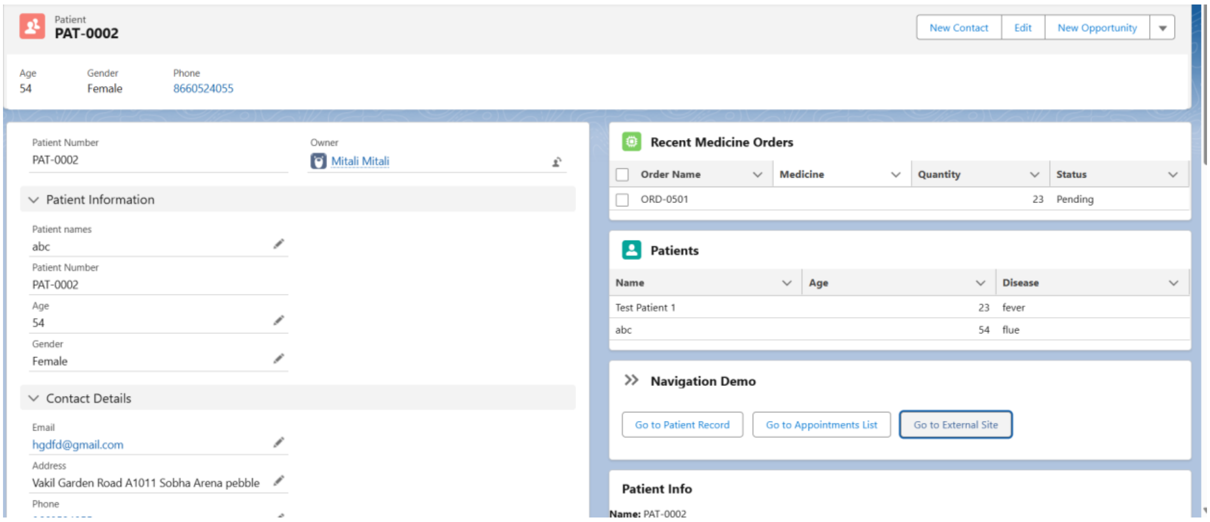
Patient Info

Name: PAT-0002
Age: 54
Disease: flue

Fever Patients

Load Fever Patients

Sample Flow Report: Screen Flows



Patient
PAT-0002

New Contact | Edit | New Opportunity

Age
54

Gender
Female

Phone
8660524055

Patient Number
PAT-0002

Owner
Mitali Mitali

Patient Information

Patient names
abc

Patient Number
PAT-0002

Age
54

Gender
Female

Contact Details

Email
hgdfd@gmail.com

Address
Vakil Garden Road A1011 Sobha Arena pebble

Phone

Recent Medicine Orders

☐	Order Name	Medicine	Quantity	Status
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Patient Info

Name: PAT-0002

Conclusion

Phase 6 transformed the CareTrack app into a modern, interactive, and user-friendly interface. By combining Lightning App Builder, Record Pages, Tabs, Dashboards, and LWCs with Apex, Events, Wire Adapters, Imperative Calls, and Navigation Service, the application became highly navigable and responsive. Users can now view dashboards, drill into records, interact with dynamic components, and navigate seamlessly across the system — making CareTrack feel like a complete, production-ready solution.