

# Phase 3 Report

## Data Modelling & Relationships

**Project:** Smart Healthcare Appointment & Compliance Hub

**Batch:** 4

**Program:** TCS Last Mile SmartBridge

**Prepared by:** Palla Bhugarbha

## 1. Introduction

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This phase focuses on designing and implementing the data model for the Smart Healthcare Appointment & Compliance Hub. It defines the standard and custom objects, fields, record types, and relationships needed to represent patients, appointments, compliance records, and hospitals. Page layouts, compact layouts, and schema builder are used to structure and visualize the data, ensuring that the system is user-friendly and supports the project's functional requirements.

## 2. Objectives

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- Create standard and custom objects to represent Patients, Appointments, Compliance records, and hospitals.
- Define fields, picklists, and record types to capture healthcare-specific data for different use cases.
- Design page layouts and compact layouts to provide role-appropriate and streamlined user interfaces.
- Establish lookup relationships to connect Patients, Appointments, Compliance, and Hospitals.
- Test the data model with sample records to validate relationships and confirm correct visibility for different profiles.

## 3. Steps Performed

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### 3.1 Standard & Custom Objects

- Created the three core custom objects: Appointment\_\_c, Compliance\_\_c, and Hospital\_\_c, establishing the database tables.
- Confirmed the strategic use of standard objects, specifically utilizing **Contact** for both Patients and Clinical Staff.
- Ensured all objects were properly named and accessible within the Salesforce Object Manager

Click to go back, hold to see history

orgfarm-9c399a4996-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01gl000002K8Z/Details/view

Search Setup

Setup Home Object Manager

### Appointment

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Restriction Rules

Scoping Rules

Object Access

Triggers

Details

Description

API Name  
Appointment\_\_c

Custom

Singular Label  
Appointment

Plural Label  
Appointments

Enable Reports

Track Activities

Track Field History

Deployment Status  
Deployed

Help Settings  
Standard salesforce.com Help Window

Edit Delete

orgfarm-9c399a4996-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01gl000002K8cz/Details/view?source=alohaHeader

Search Setup

Setup Home Object Manager

### Compliance Document

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Restriction Rules

Scoping Rules

Object Access

Triggers

Details

Description

API Name  
Compliance\_Document\_\_c

Custom

Singular Label  
Compliance Document

Plural Label  
Compliance Documents

Enable Reports

Track Activities

Track Field History

Deployment Status  
Deployed

Help Settings  
Standard salesforce.com Help Window

Edit Delete

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Search Setup

Setup Home Object Manager

### Hospital

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Restriction Rules

Scoping Rules

Object Access

Details

Description

API Name  
Hospital\_\_c

Custom

Singular Label  
Hospital

Plural Label  
Hospitals

Enable Reports

Track Activities

Track Field History

Deployment Status  
Deployed

Help Settings  
Standard salesforce.com Help Window

Edit Delete

## 3.2 Fields

- Designed and added all required fields (e.g., Date/Time, Reason, Address) to the custom objects and to the standard **Contact** object.
- Implemented necessary picklist fields, such as **Status**, to control and standardize data entry across records.
- Created crucial **Lookup Relationship** fields on the Appointment and Compliance objects to link to Patients, Clinicians, and Hospitals.

The screenshot shows the Salesforce Setup interface for the 'Appointment' object. The 'Fields & Relationships' section is active, displaying a table of 8 fields. The table has columns for Field Label, Field Name, Data Type, Controlling Field, and Indexed. The fields listed are Appointment Date, Appointment Number, Created By, Doctor, Last Modified By, Owner, Patient, and Status.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment Date	Appointment_Date__c	Date/Time		
Appointment Number	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Doctor	Doctor__c	Lookup(User)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Patient	Patient__c	Lookup(Patient)		✓
Status	Status__c	Picklist		

## 3.3 Record Types

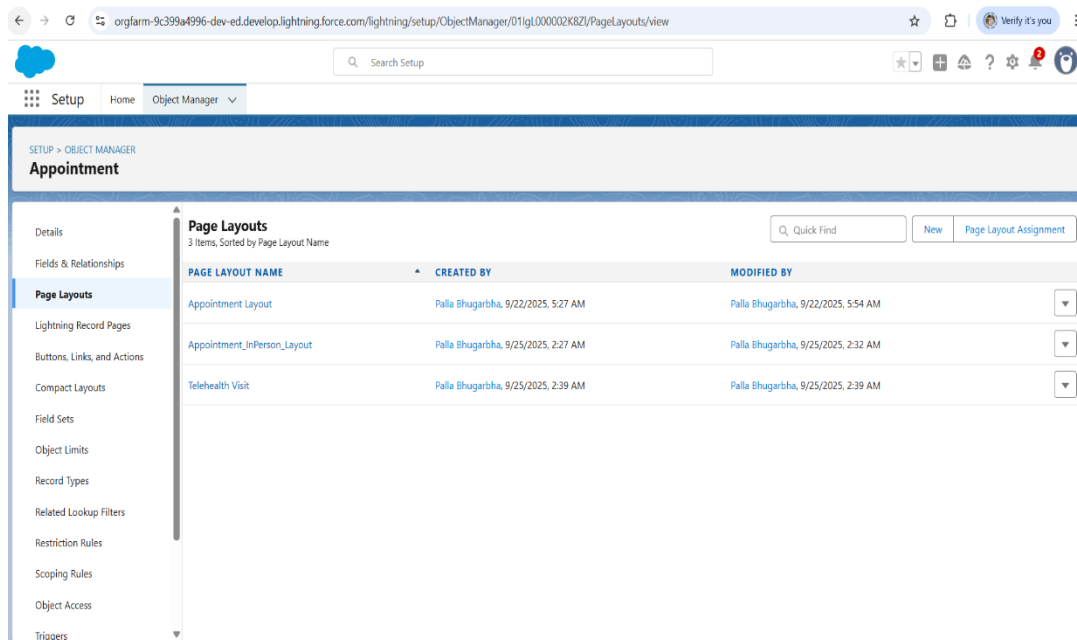
- Implemented **Record Types** on the Appointment object to separate and manage processes for In-Person and Telehealth visits.
- Created distinct Record Types on the Compliance object to differentiate between Patient and Staff compliance records.
- Assigned unique picklist values to each Record Type, simplifying data entry for users based on the record context.

The screenshot shows the Salesforce Setup interface for the 'Compliance Document' object. The 'Record Types' section is active, displaying details for the 'Patient Compliance' record type. The page includes an 'Edit' button and a table with fields for Record Type Label, Record Type Name, Namespace Prefix, Description, Created By, and Modified By.

Record Type Label	Patient Compliance	Active	✓
Record Type Name	Patient_Compliance		
Namespace Prefix			
Description	Consent forms, insurance, or other patient documents.		
Created By	Palla Bhugabha	9/24/2025, 7:09 AM	
Modified By	Palla Bhugabha	9/24/2025, 7:09 AM	

## 3.4 Page Layouts

- Designed and customized **Page Layouts** for Appointment object to optimize the visual arrangement of fields for each specific Record Type.
- Ensured that layouts were assigned to the appropriate user **Profiles** (e.g., Clinician, Patient) for a role-specific UI.
- Removed or relocated unnecessary fields based on the context of the layout (e.g., removing a "Room Number" field from the Telehealth layout).



## 3.5 Compact Layouts

- Configured the **Compact Layouts** for each custom object to control the fields displayed in the record's highlights panel.
- Selected the most vital fields (e.g., Date, Status, Patient Name) to appear, ensuring key information is instantly visible.
- Assigned the newly created Compact Layouts to make the user interface more informative at a glance.

The screenshot shows the Salesforce Setup interface for the 'Appointment' object. The left sidebar contains a navigation menu with options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts (selected), Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, Object Access, and Triggers. The main content area is titled 'Appointment' and 'Compact Layouts', showing 3 items sorted by Label. A table lists the compact layouts:

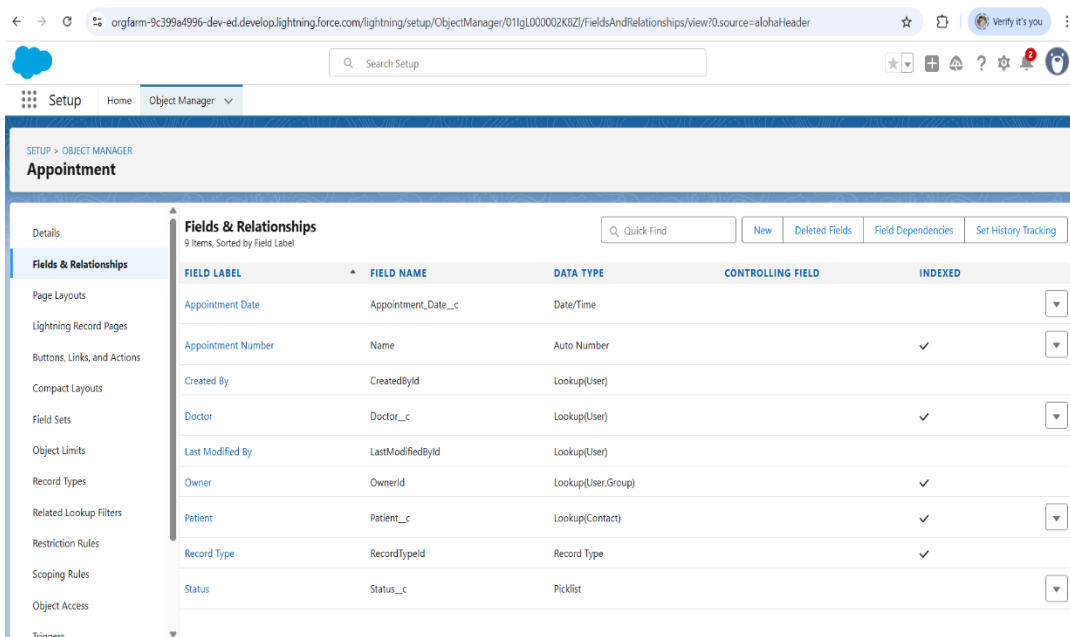
LABEL	API NAME	PRIMARY	MODIFIED BY	LAST MODIFIED
Appointment Highlights	Appointment_Highlights		Palla Bhugabha	9/25/2025, 3:03 AM
Primary	Primary	✓	Palla Bhugabha	9/25/2025, 2:51 AM
System Default	SYSTEM			

The screenshot shows the 'Appointment Compact Layout Assignment' page. The left sidebar is the same as the previous screenshot. The main content area is titled 'Appointment Compact Layouts' and 'Compact Layout Assignment'. It includes a 'Primary Compact Layout' section with a dropdown menu set to 'Primary'. Below this is a 'Record Type Overrides' section with a table showing compact layout assignments for different record types:

Record Types	Compact Layouts
In-Person Visit	Primary
Telehealth Visit	Primary

### 3.6 Relationships

- Established **Lookup Relationships** connecting Appointment and Compliance records to the Patient (Contact) and Clinician (User).
- Utilized Lookups to prioritize data flexibility and prevent the unintended deletion of child records (like appointments) if a parent is deleted.
- Visualized the entire interconnected data model by reviewing the new relationships within the **Schema Builder**.



orgfarm-9c399a4996-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/011gL000002K8Z/FieldsAndRelationships/view?0.source=alohaHeader

Setup Home Object Manager

SETUP > OBJECT MANAGER  
**Appointment**

Details

**Fields & Relationships**  
9 Items, Sorted by Field Label

Q Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment Date	Appointment_Date_c	Date/Time		
Appointment Number	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Doctor	Doctor_c	Lookup(User)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User, Group)		✓
Patient	Patient_c	Lookup(Contact)		✓
Record Type	RecordTypeId	Record Type		✓
Status	Status_c	Picklist		

Page Layouts  
Lightning Record Pages  
Buttons, Links, and Actions  
Compact Layouts  
Field Sets  
Object Limits  
Record Types  
Related Lookup Filters  
Restriction Rules  
Scoping Rules  
Object Access  
Triggers

### 3.7 Sample Data & Testing

- Creating sample patients (Contacts).
- Creating sample appointments (In-Person + Telehealth).
- Adding compliance records for patients.
- Linking appointments to patients and clinicians are performed in further phases

## 4. Expected Outcomes

- **Custom Data Model Established.** The core custom objects and all necessary fields are created and define the application's entire database structure.
- **Data Segmentation Enabled. Record Types** are implemented on key objects to support different business processes using unique picklist values and layouts.
- **User Interface Streamlined.** **Page Layouts** and **Compact Layouts** are configured and assigned by record type and profile, ensuring that users see only the relevant fields and that key information is instantly visible in the highlights panel.
- **Ready for Phase 4: Automation & UI/UX.** The validated data model, complete with sample records, is structurally sound and prepared for the final implementation of business logic and advanced user interface components.

## 5. Conclusion

Phase 3 successfully established the secure and logical **data architecture** for the Smart Healthcare Appointment & Compliance Hub. By creating custom objects, defining their fields, and building essential **Lookup Relationships**, the project moved beyond foundational security and created the system's core functional structure. The use of **Record Types** and **Layouts** ensures the user interface will be clean and efficient, while the validation with **Sample Data** confirms that the entire data model is robust and fully functional. This phase sets the final stage for implementing business process automation and developing the dedicated user experience.