

Phase 3: Data Modeling & Relationships

Step 1: Standard & Custom Objects

Six custom objects were created to store business-critical data:

- Patient – Stores patient details such as name, age, gender, and medical history.
- Doctor – Stores doctor information such as specialization, availability, and contact details.
- Appointment – Stores appointment details including patient, doctor, date, time, and status.
- Prescription – Stores prescribed medicines, dosage, and instructions linked to patients.
- Billing – Tracks payment details, amount, and billing status for appointments.
- Medical Record – Stores treatment history, lab reports, and diagnostic notes.

Steps followed:

- Navigated to Setup → Object Manager → Create → Custom Object
- Provided label, name, and enabled reports/search
- Saved and created Tabs for each object

The screenshot displays the Salesforce Setup interface. The top navigation bar includes the Salesforce logo, a search bar, and various utility icons. The left sidebar shows the 'Setup' menu with options like 'Setup Home', 'Salesforce Go', 'Service Setup Assistant', 'Commerce Setup Assistant', 'Field Service Setup Home (Beta)', 'Hyperforce Assistant', 'Release Updates', 'Salesforce Mobile App', 'Lightning Usage Optimizer', 'Sales Cloud Everywhere', and 'ADMINISTRATION'. The main content area is titled 'New Custom Object Tab' and contains the following fields:

- Select an existing custom object or create a new custom object now:**
 - Object:** A dropdown menu with 'Patient' selected.
 - Tab Style:** A color selection bar with a magnifying glass icon.
- (Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab:**
 - Splash Page Custom Link:** A dropdown menu with '--None--' selected.
- Enter a short description:**
 - Description:** A large text area for entering the description.

Step 2: Fields

Patient

- Patient Name (Text, 80)
- Age (Number, 3)
- Gender (Picklist: Male, Female, Other)
- Email (Email)
- Phone (Phone)
- Medical History (Long Text)
- Owner (Lookup → User/Group)

The screenshot shows the Salesforce Setup interface for creating a new custom field for the 'Patient' object. The browser address bar indicates the URL: `orgfarm-13d2bab869-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01gL000002HUmV/FieldsAndRelationships/new`.

Setup > OBJECT MANAGER
Patient

Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters

New Custom Field

Step 1. Choose the field type (Step 1 of 4)

Specify the type of information that the custom field will contain.

Data Type

☒ None Selected Select one of the data types below.

☐ Auto Number A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.

☐ Formula A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.

☐ Roll-Up Summary A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.

Step 4. Add to page layouts (Step 4 of 4)

Previous Save & New Save Cancel

Field Label	Patient Name
Data Type	Text
Field Name	Patient
Description	Full legal name of the patient

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

Add Field Page Layout Name

☒ Patient Layout

When finished, click Save & New to create more custom fields, or click Save if you are done.

- Created By (Lookup → User)
- Last Modified By (Lookup → User)

The screenshot shows the Salesforce Setup interface for the 'Patient' object. The left sidebar contains a navigation menu with options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, and Record Types. The main content area is titled 'Details' and includes a description: 'Stores patient details such as name, age, gender, and contact information.' Below the description, there are fields for API Name (Patient_c), Custom (checked), Singular Label (Patient), and Plural Label (Patients). On the right side, there are checkboxes for Enable Reports (checked), Track Activities (checked), and Track Field History (checked). At the bottom, the Deployment Status is 'Deployed' and the Help Settings link is provided.

Doctor

- Doctor Name (Text, 80)
- Specialization (Text)
- Availability (Picklist: Available, Not Available)
- Phone (Phone)
- Email (Email)
- Owner (Lookup → User/Group)
- Created By (Lookup → User)
- Last Modified By (Lookup → User)

The screenshot shows the Salesforce Setup interface for the 'Doctor' object. The left sidebar contains a navigation menu with options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, and Related Lookup Filters. The main content area is titled 'Details' and includes a description: 'Stores patient details such as name, age, gender, and contact information.' Below the description, there are fields for API Name (Doctor_c), Custom (checked), Singular Label (Doctor), and Plural Label (Doctors). On the right side, there are checkboxes for Enable Reports (checked), Track Activities (checked), and Track Field History (checked). At the bottom, the Deployment Status is 'Deployed' and the Help Settings link is provided.

SETUP > OBJECT MANAGER

Doctor

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Doctor

New Custom Field

Help for this Page

Step 3. Establish field-level security Step 3 of 4

Previous Next Cancel

Field Label	Doctor Name
Data Type	Text
Field Name	Doctor_Name
Description	

Select the profiles to which you want to grant edit access to this field via field-level security. The field will be hidden from all profiles if you do not add it to field-level security.

Field-Level Security for Profile	Visible	Read-Only
Analytics Cloud Integration User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Analytics Cloud Security User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Anypoint Integration	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETUP > OBJECT MANAGER

Doctor

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Doctor

New Custom Field

Help for this Page

Step 4. Add to page layouts Step 4 of 4


Previous Save & New Save Cancel

Field Label	Doctor ID
Data Type	Auto Number
Field Name	Doctor_ID
Description	








Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Doctor Layout



Search Setup



SetupHomeObject Manager

SETUP > OBJECT MANAGER

Doctor

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Doctor

New Custom Field

Help for this Page

Step 4. Add to page layouts

Step 4 of 4


PreviousSave & NewSaveCancel

Field Label	Specialization
Data Type	Picklist
Field Name	Specialization
Description	








Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

<input checked="" type="checkbox"/> Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Doctor Layout



Search Setup



SetupHomeObject Manager

SETUP > OBJECT MANAGER

Doctor

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Doctor

New Custom Field

Help for this Page

Step 4. Add to page layouts

Step 4 of 4


PreviousSave & NewSaveCancel

Field Label	Contact Number
Data Type	Phone
Field Name	Contact_Number
Description	








Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

<input checked="" type="checkbox"/> Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Doctor Layout



Search Setup



SetupHomeObject Manager

SETUP > OBJECT MANAGER

Doctor

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Doctor

New Custom Field

Help for this Page

Step 4. Add to page layouts

Step 4 of 4


PreviousSave & NewSaveCancel

Field Label	Email
Data Type	Email
Field Name	Email
Description	








Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

<input checked="" type="checkbox"/> Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Doctor Layout



Search Setup



SetupHomeObject Manager

SETUP > OBJECT MANAGER

Doctor

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Doctor

New Custom Field

Help for this Page

Step 4. Add to page layouts

Step 4 of 4


PreviousSave & NewSaveCancel

Field Label	Availability Status
Data Type	Picklist
Field Name	Availability_Status
Description	








Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

<input checked="" type="checkbox"/> Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Doctor Layout



Search Setup



SetupHomeObject Manager

SETUP > OBJECT MANAGER

Doctor

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Doctor

New Custom Field

Help for this Page

Step 4. Add to page layouts

Step 4 of 4


PreviousSave & NewSaveCancel

Field Label	Experience (Years)
Data Type	Number
Field Name	Experience_Years
Description	








Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

<input checked="" type="checkbox"/> Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Doctor Layout



Search Setup



SetupHomeObject Manager

SETUP > OBJECT MANAGER

Doctor

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Doctor

New Custom Field

Help for this Page

Step 4. Add to page layouts

Step 4 of 4

PreviousSave & NewSaveCancel

Field Label	Clinic Location
Data Type	Text
Field Name	Clinic_Location
Description	

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

<input checked="" type="checkbox"/> Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Doctor Layout

Appointment

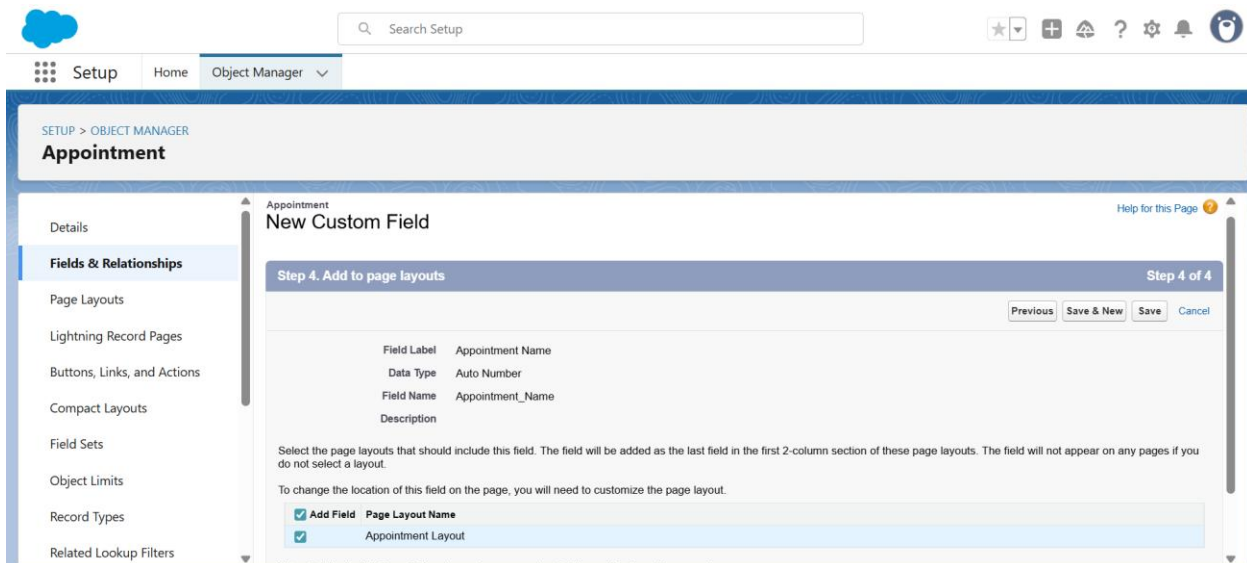
- Patient (Lookup → Patient)
- Doctor (Lookup → Doctor)
- Appointment Date (Date/Time)
- Appointment Status (Picklist: Scheduled, Completed, Cancelled)
- Notes (Long Text)

Billing

- Appointment (Lookup → Appointment)
- Amount (Currency)
- Payment Status (Picklist: Pending, Paid, Refunded)
- Billing Date (Date)

Medical Record

- Patient (Lookup → Patient)
- Doctor (Lookup → Doctor)
- Record Type (Picklist: Diagnosis, Lab Report, Treatment)
- Record Details (Long Text)
- Record Date (Date)



The screenshot shows the Salesforce Setup interface for creating a new custom field for the Appointment object. The breadcrumb trail is: SETUP > OBJECT MANAGER > Appointment. The left sidebar shows the navigation menu with 'Fields & Relationships' selected. The main content area is titled 'Appointment New Custom Field' and shows 'Step 4. Add to page layouts' of a 4-step process. A table lists the field details: Field Label (Appointment Name), Data Type (Auto Number), Field Name (Appointment_Name), and Description. Below the table, there is a section to select page layouts to include the field. Two layouts are listed: 'Page Layout Name' and 'Appointment Layout', both with the 'Add Field' checkbox checked. Navigation buttons (Previous, Save & New, Save, Cancel) are at the top right of the step.

SETUP > 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

Appointment

New Custom Field

Step 4. Add to page layouts Step 4 of 4

Previous Save & New Save Cancel

Field Label	Appointment Name
Data Type	Auto Number
Field Name	Appointment_Name
Description	

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

<input checked="" type="checkbox"/> Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Appointment Layout

Setup

Home

Object Manager

Search Setup

Star

Plus

Shield

Help

Settings

Notifications

User

SETUP > 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

Step 4. Add to page layouts

Step 4 of 4

Previous

Save & New

Save

Cancel

Field Label	Date/Time
Data Type	Date/Time
Field Name	Date_Time
Description	
Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.	
To change the location of this field on the page, you will need to customize the page layout.	
Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Appointment Layout
When finished, click Save & New to create more custom fields, or click Save if you are done.	

Previous

Save & New

Save

Cancel

Setup

Home

Object Manager

Search Setup

Star

Plus

Shield

Help

Settings

Notifications

User

SETUP > 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

Appointment

New Custom Field

Help for this Page

Step 4. Add to page layouts

Step 4 of 4

Previous

Save & New

Save

Cancel

Field Label	Purpose / Reason
Data Type	Text Area
Field Name	Purpose_Reason
Description	
Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.	
To change the location of this field on the page, you will need to customize the page layout.	
Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Appointment Layout
When finished, click Save & New to create more custom fields, or click Save if you are done.	

Previous

Save & New

Save

Cancel

Setup

Home

Object Manager

Search Setup

Star

Plus

Shield

Help

Settings

Notifications

User

SETUP > 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

Details

Edit

Delete

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



Search Setup



Setup

Home

Object Manager

SETUP > 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

Appointment

New Custom Field

Help for this Page

Step 4. Add to page layouts

Step 4 of 4

PreviousSave & NewSaveCancel


Field Label	Status
Data Type	Picklist
Field Name	Status
Description	

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.








To change the location of this field on the page, you will need to customize the page layout.

☒ Add Field

Page Layout Name	
<input checked="" type="checkbox"/> Appointment Layout	



Search Setup



Setup

Home

Object Manager

SETUP > 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

Step 5. Add reference field to Page Layouts

Step 5 of 6

PreviousNextCancel

Field Label	Patient
Data Type	Lookup
Field Name	Patient
Description	

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

☒ Add Field

Page Layout Name	
<input checked="" type="checkbox"/> Appointment Layout	

PreviousNextCancel

SETUP > 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

Step 6. Add custom related lists

Step 6 of 6

PreviousSave & NewSaveCancel

Field Label	Patient
Data Type	Lookup
Field Name	Patient
Description	

Specify the title that the related list will have in all of the layouts associated with the parent.

Related List Label


Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.








☒ Add Related List

Page Layout Name	
<input checked="" type="checkbox"/> Patient Layout	

☒ Append related list to users' existing personal customizations



Search Setup



SetupHomeObject Manager

SETUP > 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

Appointment

New Relationship

Help for this Page

Step 5. Add reference field to Page Layouts

Step 5 of 6

PreviousNextCancel

Field Label	Doctor
Data Type	Lookup
Field Name	Doctor
Description	


Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.








☒ Add Field

Page Layout Name

Appointment Layout



Search Setup



SetupHomeObject Manager

SETUP > 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

Appointment

New Relationship

Help for this Page

Step 6. Add custom related lists

Step 6 of 6

PreviousSave & NewSaveCancel

Field Label	Doctor
Data Type	Lookup
Field Name	Doctor
Description	

Specify the title that the related list will have in all of the layouts associated with the parent.

Related List Label

Appointments

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

SETUP > OBJECT MANAGER
Patient

Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters

Patient
New Relationship

Step 5. Add reference field to Page Layouts Step 5 of 6

Previous Next Cancel

Field Label	Doctor
Data Type	Lookup
Field Name	Doctor
Description	

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

☒ Add Field **Page Layout Name**

☒ Patient Layout

SETUP > OBJECT MANAGER
Patient

Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters

Patient
New Relationship

Step 6. Add custom related lists Step 6 of 6

Previous Save & New Save Cancel

Field Label	Doctor
Data Type	Lookup
Field Name	Doctor
Description	

Specify the title that the related list will have in all of the layouts associated with the parent.

Related List Label

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

Prescription

- Patient (Lookup → Patient)
- Doctor (Lookup → Doctor)
- Medicine Name (Text)
- Dosage (Text)
- Instructions (Long Text)

Step 3: Record Types

- Appointment → Record Types: Online Appointment, In-Clinic Appointment
- Medical Record → Record Types: Diagnosis Record, Treatment Record

Step 4: Page Layouts

- Patient layout shows: Patient Name, Age, Gender, Medical History.
- Doctor layout shows: Doctor Name, Specialization, Availability.

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, Field Sets, Object Limits, Record Types, and Related Lookup Filters. The main content area is titled 'Appointment' and includes a 'Details' section with the following fields: Description, API Name (Appointment__c), Custom (checked), Singular Label (Appointment), Plural Label (Appointments), Enable Reports (checked), Track Activities (checked), Track Field History (checked), Deployment Status (Deployed), Help Settings (Standard salesforce.com Help Window), and Edit/Delete buttons.

The screenshot shows the Salesforce Setup interface for the 'Doctor' object. The left sidebar contains a navigation menu with options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, and Related Lookup Filters. The main content area is titled 'Doctor' and includes a 'Details' section with the following fields: Description, API Name (Doctor__c), Custom (checked), Singular Label (Doctor), Plural Label (Doctors), Enable Reports (checked), Track Activities (checked), Track Field History (checked), Deployment Status (Deployed), Help Settings (Standard salesforce.com Help Window), and Edit/Delete buttons.

- Appointment layout shows: Patient, Doctor, Date, Status.
- Prescription layout shows: Medicines, Dosage, Instructions.

Step 5: Compact Layouts

- Patient Compact Layout: Name, Age, Gender, Phone.
- Doctor Compact Layout: Name, Specialization, Availability.
- Appointment Compact Layout: Patient, Doctor, Date, Status.

Step 6: Schema Builder

- Visualizes all objects and their relationships.
- Shows custom and standard objects, field types, and lookup/master-detail links.
- Helps stakeholders understand data flow and connections.

Step 7: Lookup vs Master-Detail vs Hierarchical Relationships

- Lookup Relationship: Simple connection between two objects.
Example: Appointment → Patient.
- Master-Detail Relationship: Strong dependency, parent controls child record.
Example: Prescription → Patient.
- Hierarchical Relationship: Special relationship for User object only.
Example: Manager → Employee (not used heavily here).

Step 8: Junction Objects

- Used for many-to-many relationships.
- Example: Patient ↔ Doctor.
A single patient can consult multiple doctors, and a doctor can treat multiple patients.