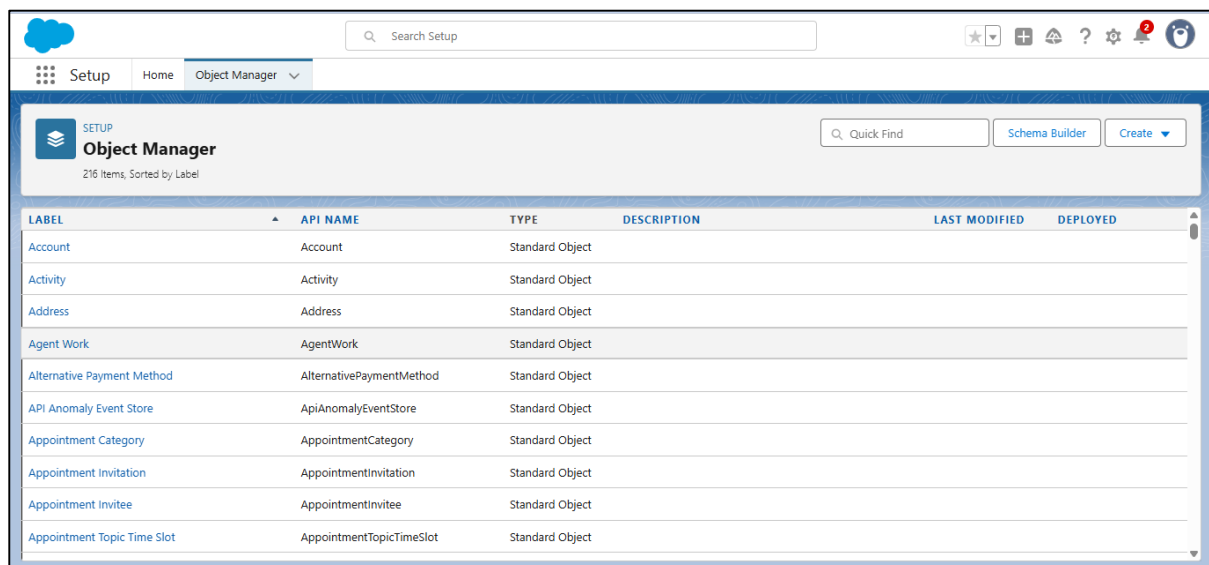


Phase 3: Data Modeling & Relationships

Step 1 — Standard & Custom Objects

1. Go to Setup → Object Manager → Create → Custom Object.
2. Create these objects:
 - Request → for disaster relief requests.
 - Volunteer → for volunteers.
 - Resource → for supplies/resources.
 - Location → for geographical areas.
 - Assignment → junction object between Request, Volunteer, Resource.
3. The **Standard Objects** I have used: User, Contact, Report, etc.



The screenshot shows the Salesforce Object Manager interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager' (selected). Below this, the 'Object Manager' header includes a search bar, 'Quick Find', 'Schema Builder', and 'Create' buttons. The main content area displays a table of standard objects. The table has columns for LABEL, API NAME, TYPE, DESCRIPTION, LAST MODIFIED, and DEPLOYED. The objects listed are Account, Activity, Address, Agent Work, Alternative Payment Method, API Anomaly Event Store, Appointment Category, Appointment Invitation, Appointment Invitee, and Appointment Topic Time Slot, all of which are 'Standard Object' types.

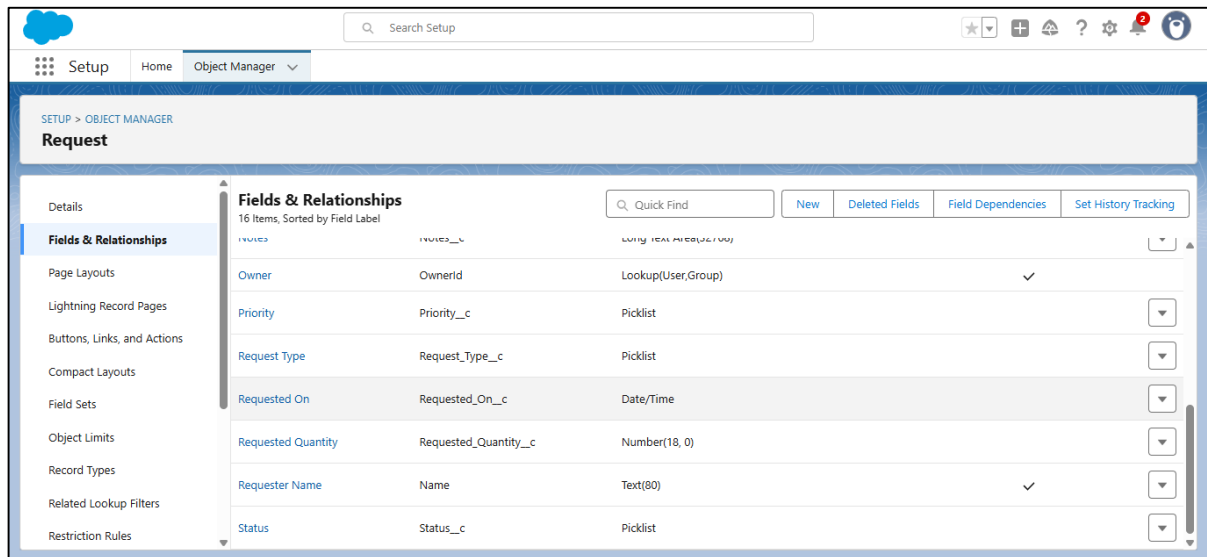
LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Account	Account	Standard Object			
Activity	Activity	Standard Object			
Address	Address	Standard Object			
Agent Work	AgentWork	Standard Object			
Alternative Payment Method	AlternativePaymentMethod	Standard Object			
API Anomaly Event Store	ApiAnomalyEventStore	Standard Object			
Appointment Category	AppointmentCategory	Standard Object			
Appointment Invitation	AppointmentInvitation	Standard Object			
Appointment Invitee	AppointmentInvitee	Standard Object			
Appointment Topic Time Slot	AppointmentTopicTimeSlot	Standard Object			

Step 2 — Fields

For each object, added fields:

- **Request**
 - Requester Name (Text)
 - Phone (Phone)
 - Email (Email)
 - Request Type (Picklist: Food, Water, Medicine, Shelter, Other)
 - Priority (Picklist: High, Medium, Low)
 - Status (Picklist: Submitted, Assigned, In Progress, Fulfilled, Closed)
 - Location (Lookup → Location)
 - Assigned Volunteer (Lookup → Volunteer)

- Assigned Resource (Lookup → Resource)
- Requested On (Date/Time)
- Notes (Long Text Area)

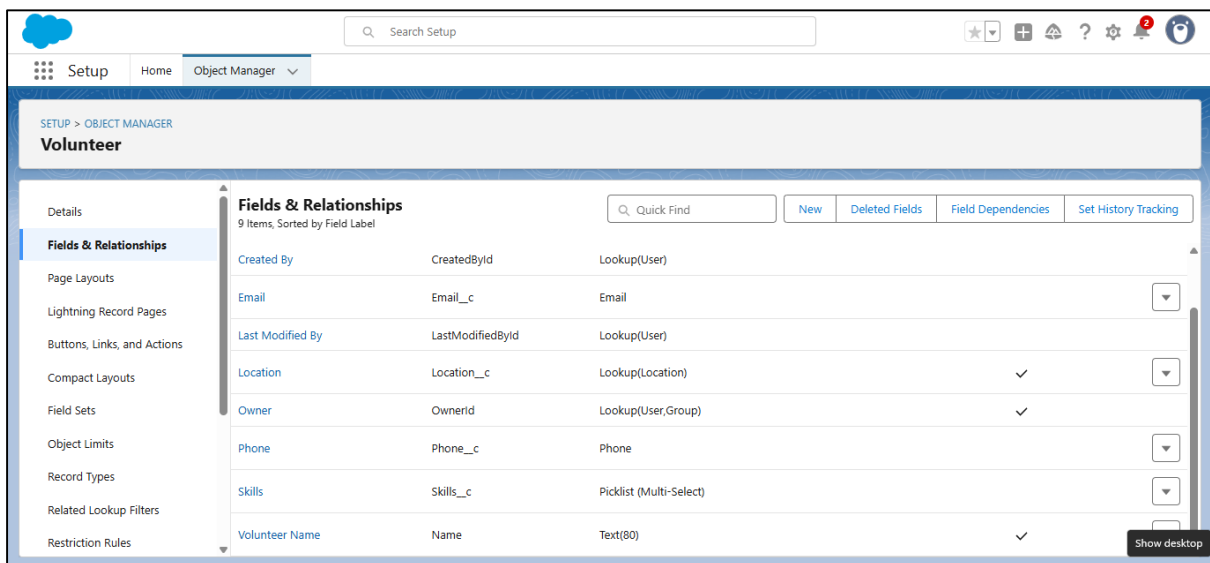


The screenshot shows the Salesforce Setup interface for the 'Request' object. The left sidebar contains a navigation menu with options: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Restriction Rules. The main content area is titled 'Request' and 'Fields & Relationships'. It displays a table of 16 fields, sorted by Field Label. The fields are: Owner (Ownerid, Lookup(User,Group)), Priority (Priority__c, Picklist), Request Type (Request_Type__c, Picklist), Requested On (Requested_On__c, Date/Time), Requested Quantity (Requested_Quantity__c, Number(18, 0)), Requester Name (Name, Text(80)), and Status (Status__c, Picklist). Each row has a 'Quick Find' search bar and buttons for 'New', 'Deleted Fields', 'Field Dependencies', and 'Set History Tracking'.

Field Label	Field Name	Field Type	Field Format
Owner	Ownerid	Lookup(User,Group)	✓
Priority	Priority__c	Picklist	
Request Type	Request_Type__c	Picklist	
Requested On	Requested_On__c	Date/Time	
Requested Quantity	Requested_Quantity__c	Number(18, 0)	
Requester Name	Name	Text(80)	✓
Status	Status__c	Picklist	

• Volunteer

- Phone (Phone)
- Email (Email)
- Skills (Multi-picklist: Medical, Logistics, Transport, Food Distribution)
- Availability (Picklist: Available, Busy, Inactive)
- Location (Lookup → Location)

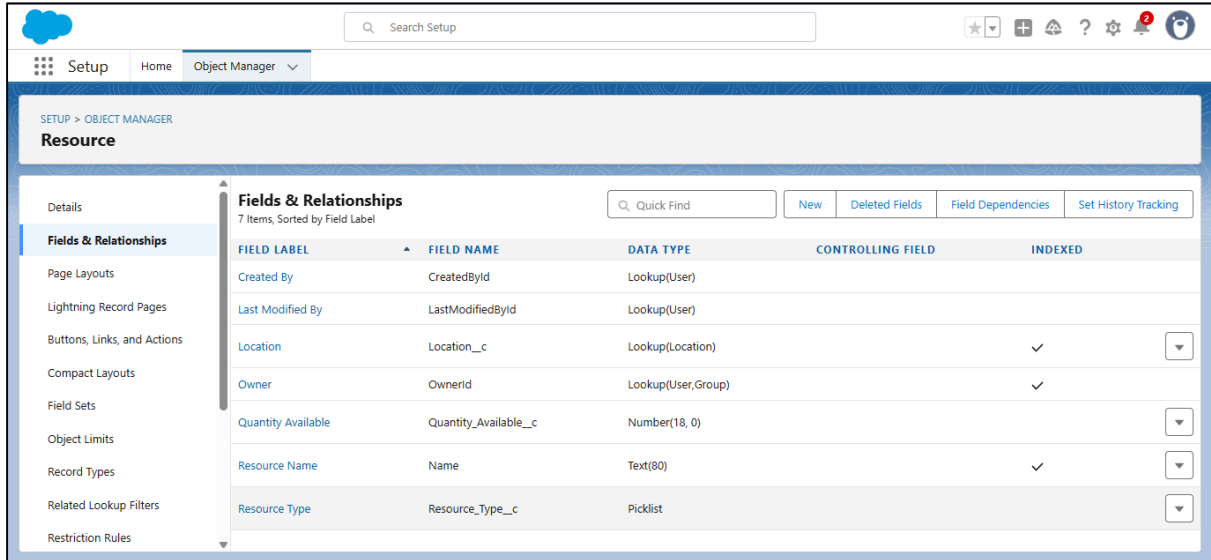


The screenshot shows the Salesforce Setup interface for the 'Volunteer' object. The left sidebar contains a navigation menu with options: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Restriction Rules. The main content area is titled 'Volunteer' and 'Fields & Relationships'. It displays a table of 9 fields, sorted by Field Label. The fields are: Created By (CreatedByid, Lookup(User)), Email (Email__c, Email), Last Modified By (LastModifiedByid, Lookup(User)), Location (Location__c, Lookup(Location)), Owner (Ownerid, Lookup(User,Group)), Phone (Phone__c, Phone), Skills (Skills__c, Picklist (Multi-Select)), and Volunteer Name (Name, Text(80)). Each row has a 'Quick Find' search bar and buttons for 'New', 'Deleted Fields', 'Field Dependencies', and 'Set History Tracking'.

Field Label	Field Name	Field Type	Field Format
Created By	CreatedByid	Lookup(User)	
Email	Email__c	Email	
Last Modified By	LastModifiedByid	Lookup(User)	
Location	Location__c	Lookup(Location)	✓
Owner	Ownerid	Lookup(User,Group)	✓
Phone	Phone__c	Phone	
Skills	Skills__c	Picklist (Multi-Select)	
Volunteer Name	Name	Text(80)	✓

- **Resource**

- Resource Type (Picklist: Medicine, Food, Shelter Material, Clothing)
- Quantity Available (Number)
- Location (Lookup → Location)



SETUP > OBJECT MANAGER
Resource

Details

Fields & Relationships
7 Items, Sorted by Field Label

Q Quick Find

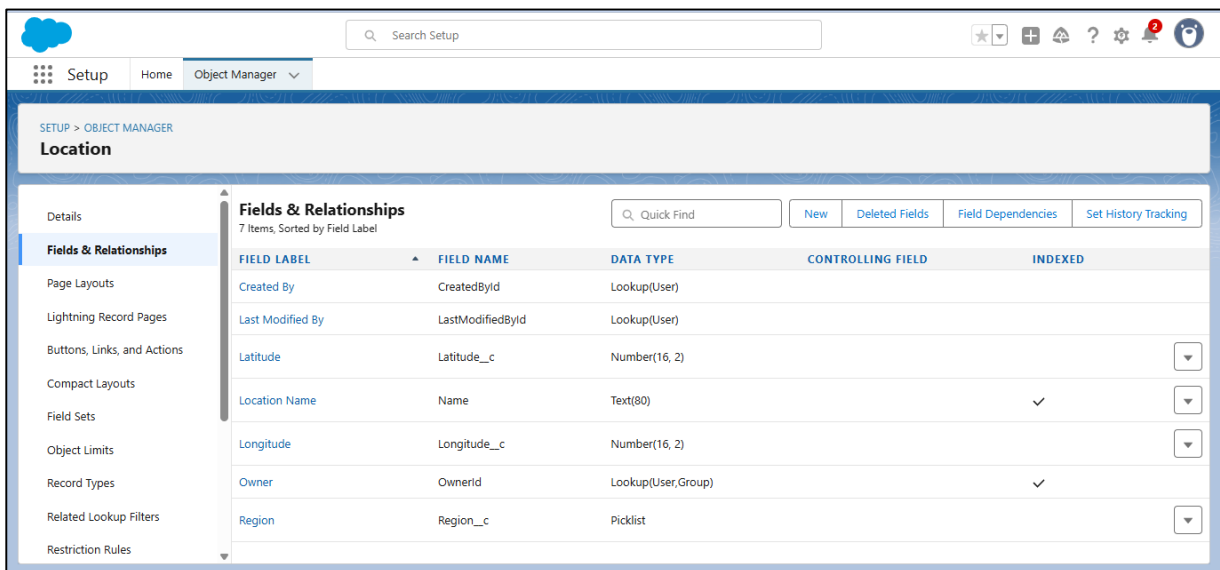
New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Location	Location__c	Lookup(Location)		✓
Owner	OwnerId	Lookup(User,Group)		✓
Quantity Available	Quantity_Available__c	Number(18, 0)		
Resource Name	Name	Text(80)		✓
Resource Type	Resource_Type__c	Picklist		

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

Location

- Region (Picklist: North, South, East, West)
- Latitude (Number, 2 decimal places)
- Longitude (Number, 2 decimal places)



SETUP > OBJECT MANAGER
Location

Details

Fields & Relationships
7 Items, Sorted by Field Label

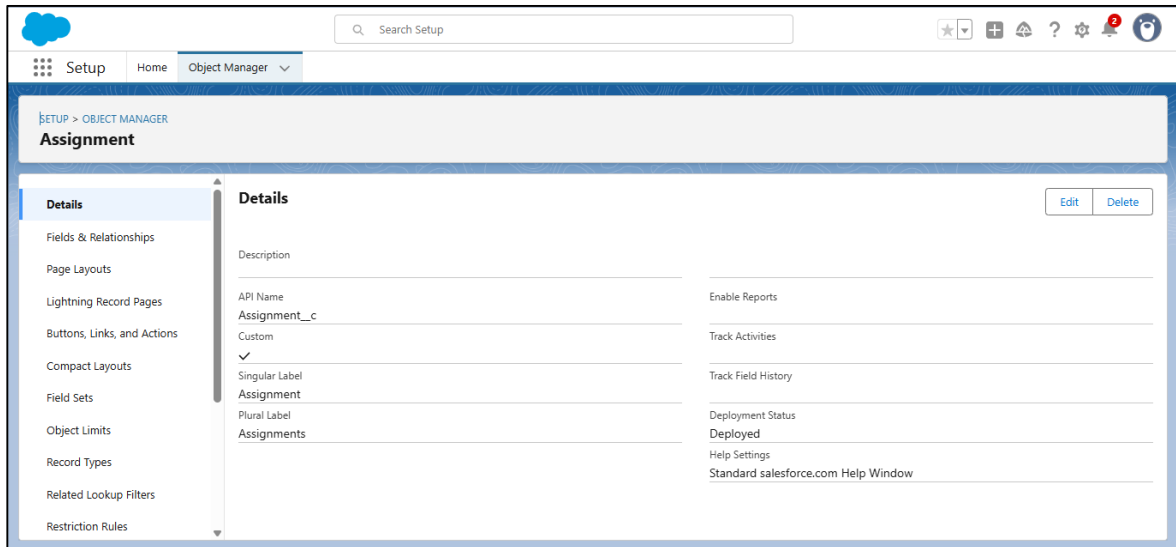
Q Quick Find

New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Latitude	Latitude__c	Number(16, 2)		
Location Name	Name	Text(80)		✓
Longitude	Longitude__c	Number(16, 2)		
Owner	OwnerId	Lookup(User,Group)		✓
Region	Region__c	Picklist		

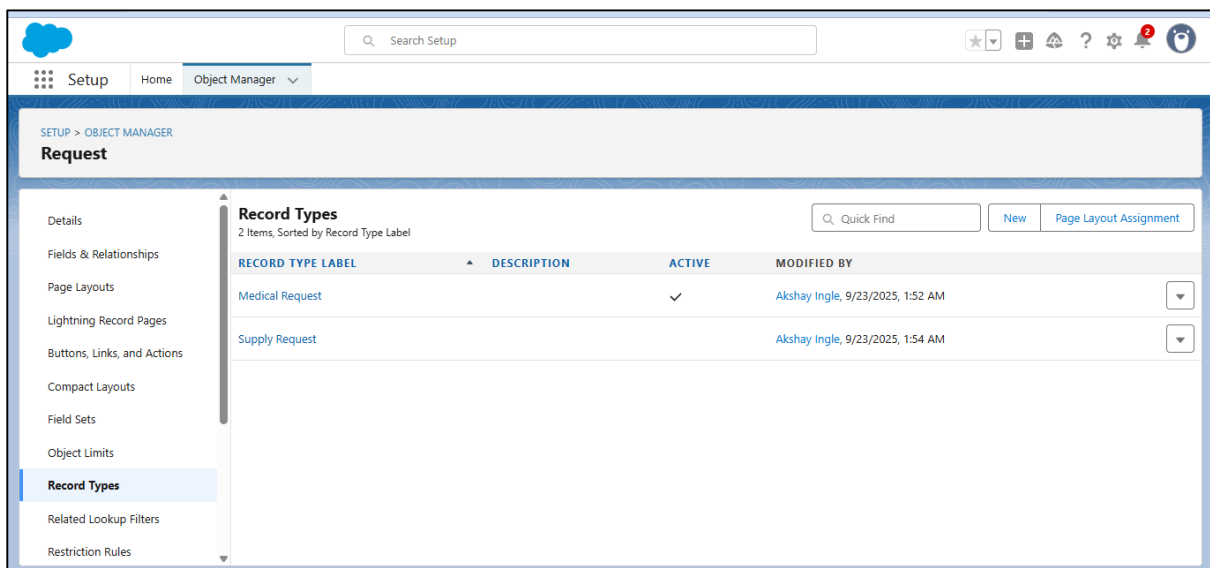
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Restriction Rules

- **Assignment** (junction object)
 - Request (Master-Detail → Request)
 - Volunteer (Lookup → Volunteer)
 - Resource (Lookup → Resource)
 - Status (Picklist: Assigned, In Progress, Completed)
 - Assigned On (Date/Time)



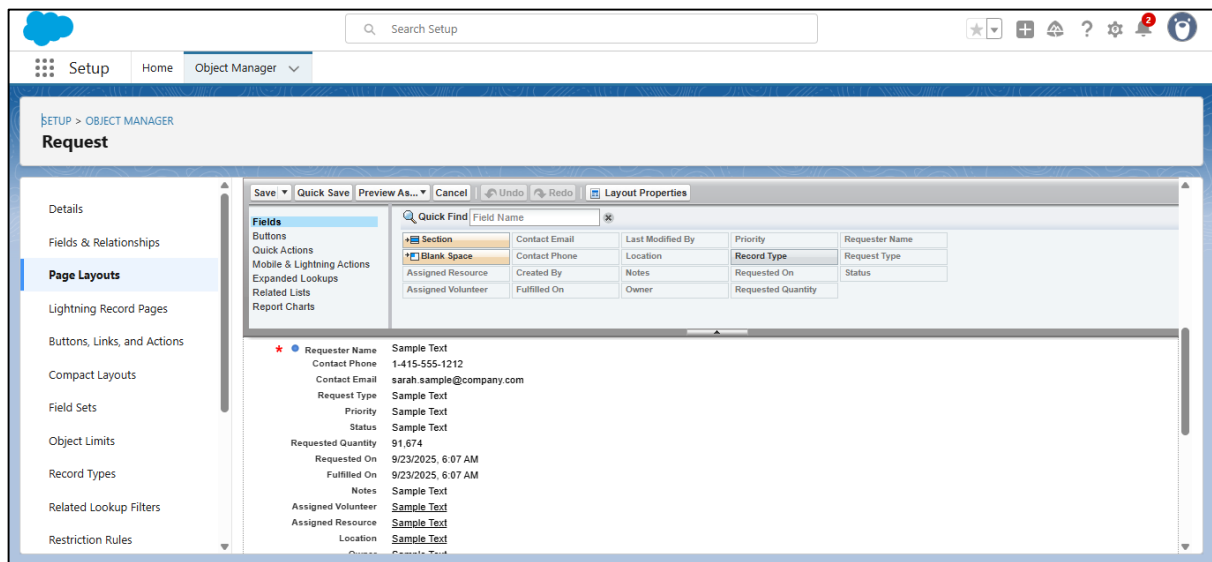
Step 3 — Record Types

- Go to **Object Manager** → **Request** → **Record Types** → **New**.
- Create record types for **Medical Request** and **Supply Request**.
- Assign different **picklist values** and **page layouts**.



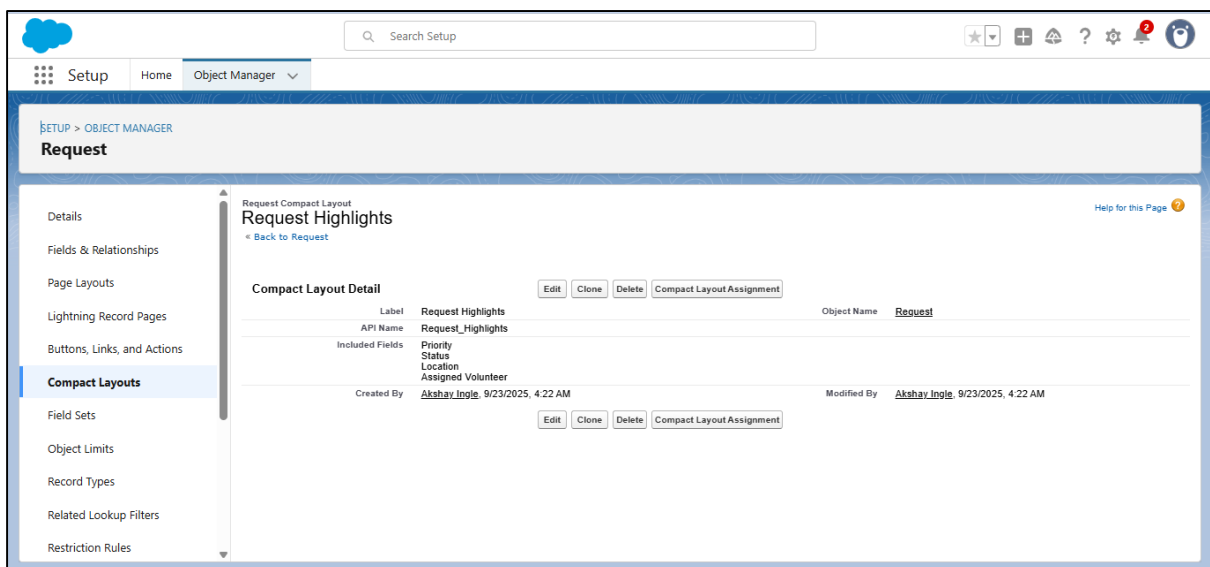
Step 4 — Page Layouts

- Edit **Request Page Layout**: show Requester details, Priority, Status, Assigned Volunteer.
- Edit **Volunteer Page Layout**: show Skills, Availability, Location.
- Different layouts for **Coordinator vs Volunteer** (assign via Profiles).



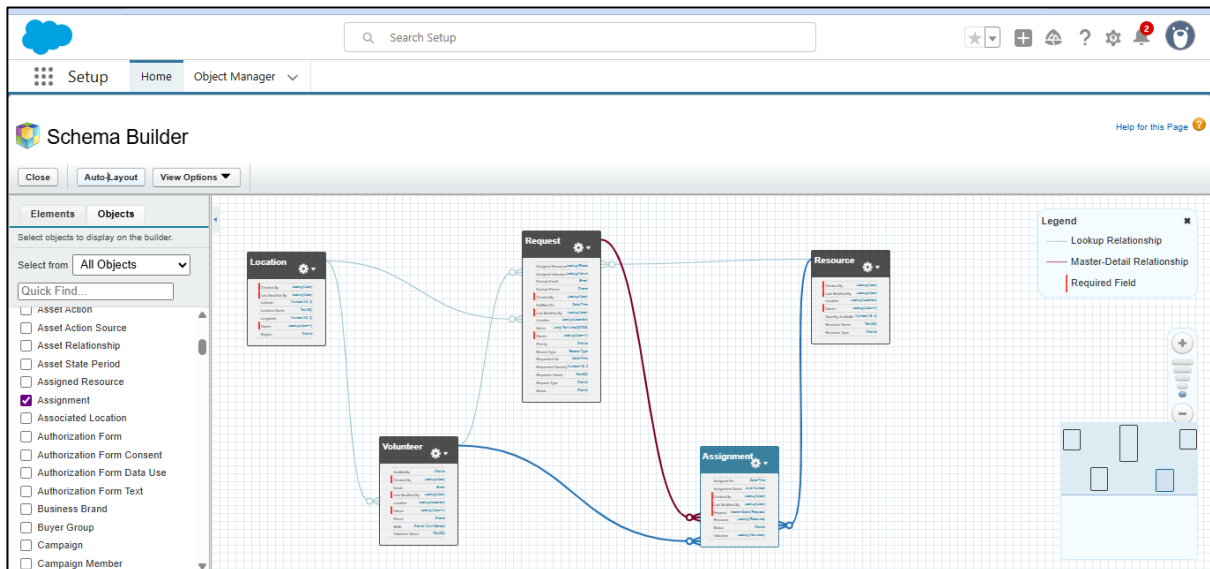
Step 5 — Compact Layouts

- Go to **Object Manager** → **Request** → **Compact Layouts** → **New**.
- Fields to show: Priority, Status, Location, Assigned Volunteer.
- Set as **Primary Compact Layout**.



Step 6 — Schema Builder

- Setup → Quick Find → **Schema Builder**.
- Drag objects: Request, Volunteer, Resource, Location, Assignment.
- Relationships will appear visually (lookups & master-detail).



Step 7 — Lookup vs Master-Detail vs Hierarchical Relationships

• Master-Detail (Request – Assignment)

- Reason: An Assignment cannot exist without a Request. If the Request is deleted, all related Assignments should also be deleted.
- Example: If Request #101 (Food Needed in Nagpur) is removed, its related volunteer/resource assignments are also removed.

• Lookup (Assignment – Volunteer, Assignment – Resource)

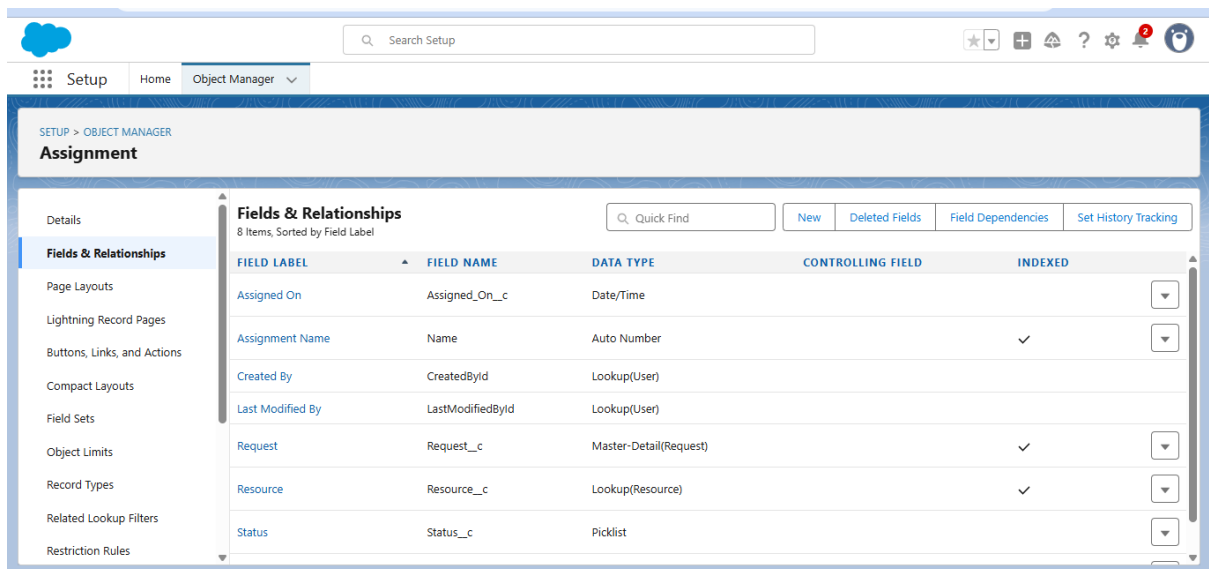
- Reason: A Volunteer or Resource can exist independently, even if they're not currently assigned.
- Example: Volunteer "John Doe" may be free (no assignments) but still exists in the system.

• Lookup (Request – Location, Volunteer – Location, Resource – Location)

- Reason: Requests, Volunteers, and Resources are linked to a region (Location), but Locations can exist without them.
- Hierarchical (**Not used here**)

Step 8 — Junction Objects

- Assignment is the **junction object**.
- Links many Volunteers & Resources to many Requests.
- Demonstrate a record where 1 Request is assigned to multiple Volunteers.



The screenshot shows 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 Home, Object Manager, and a search bar. The main content area is titled 'Assignment' and displays the 'Fields & Relationships' section. This section lists 8 items, sorted by Field Label, and includes a table with columns for Field Label, Field Name, Data Type, Controlling Field, and Indexed. The table lists fields such as Assigned On, Assignment Name, Created By, Last Modified By, Request, Resource, and Status.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Assigned On	Assigned_On__c	Date/Time		
Assignment Name	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Request	Request__c	Master-Detail(Request)		✓
Resource	Resource__c	Lookup(Resource)		✓
Status	Status__c	Picklist		