Phase 3: Data Modeling & Relationships

Step 1: Standard and Custom Objects

Salesforce provides both standard and custom objects to structure application data effectively.

Standard Objects

Standard objects such as **User**, **Profile**, and **Role** were utilized to manage:

- Support agents
- Managers
- Administrative users

These objects help control access, responsibilities, and hierarchy within the support system.

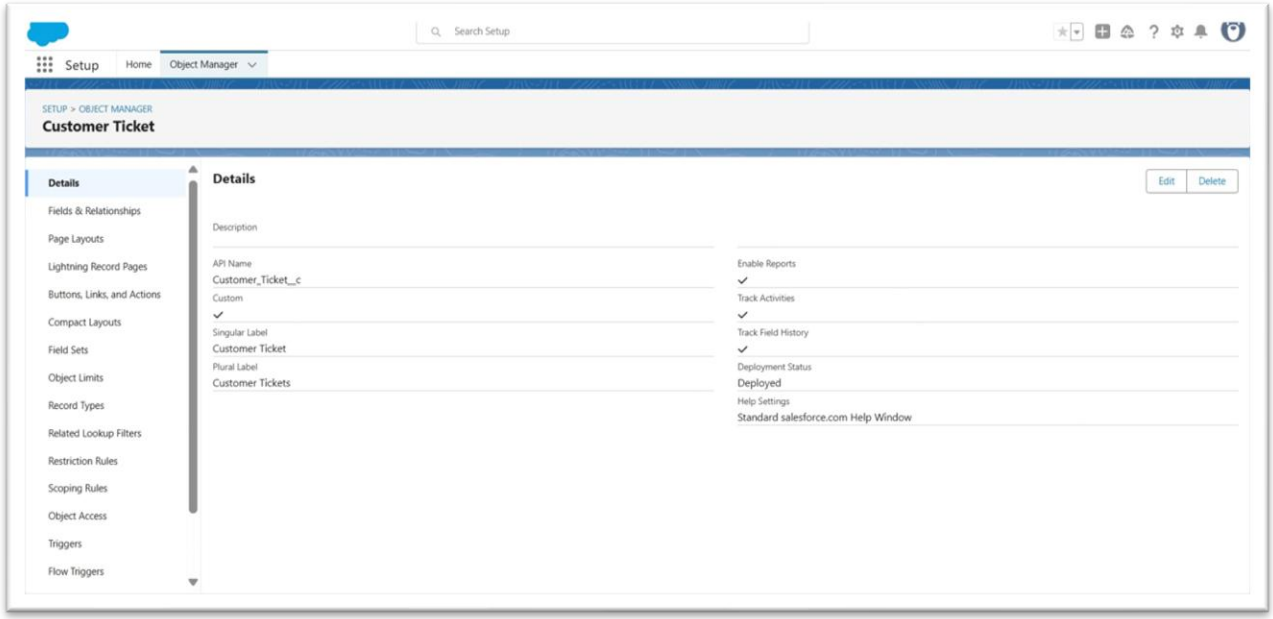
Custom Objects

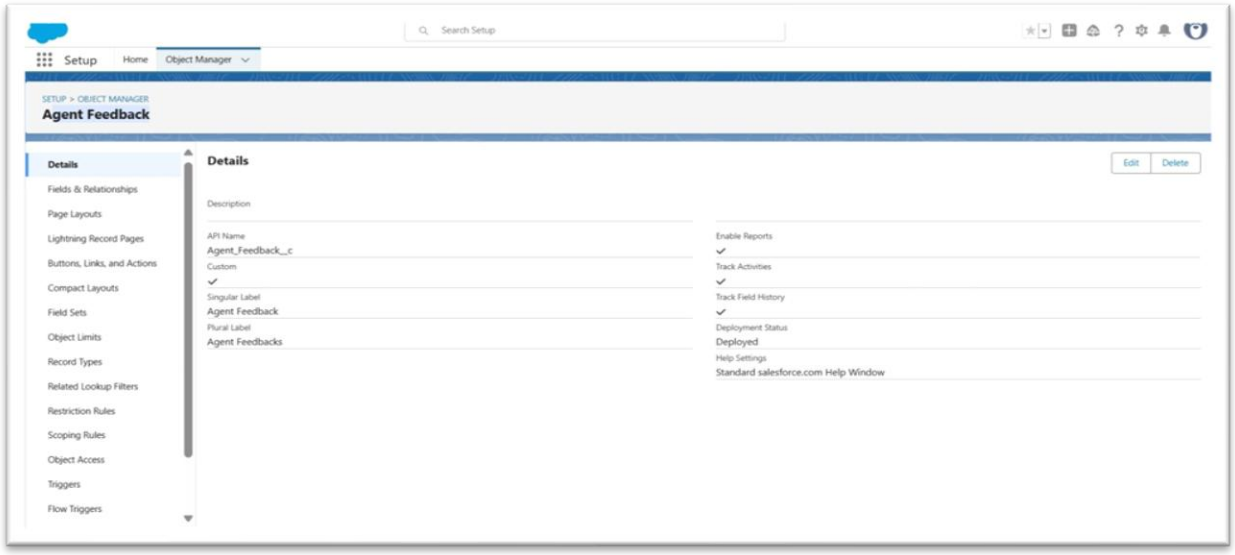
To meet the specific requirements of the Customer Support Ticketing System, the following custom objects were created:

- **Customer Ticket** – Represents individual customer issues or requests.
- **Agent Feedback** – Captures customer feedback after ticket resolution.

Creation Process:

- Navigated to **Setup → Object Manager → Create → Custom Object**.
- Defined object labels, API names, and enabled reporting and search features.
- Saved the objects and created corresponding tabs for easy navigation.



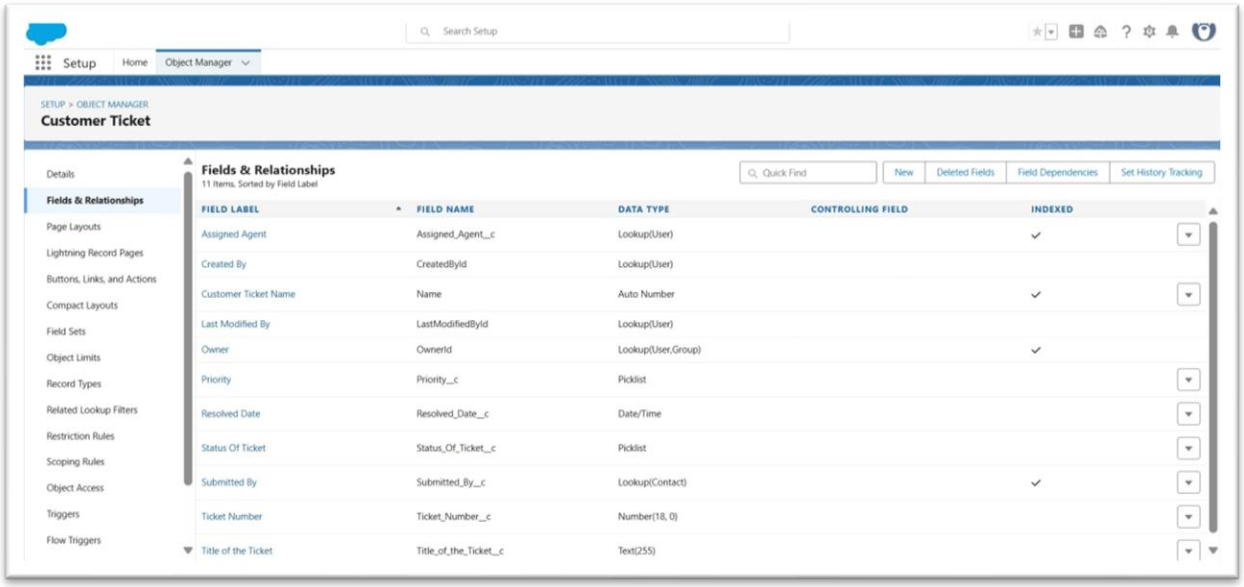


Step 2: Fields and Relationships

Customer Ticket – Key Fields

- **Title** – Text (255 characters)
- **Priority** – Picklist (Low, Medium, High, Critical)
- **Status** – Picklist (New, Pending, Resolved, Closed)
- **Assigned Agent** – Lookup Relationship (Related to User)
- **Submitted By** – Lookup Relationship (Related to Contact)
- **Resolved Date** – Date/Time

These fields capture essential information required to track and manage the complete lifecycle of a support ticket.



Agent Feedback – Key Fields

- **Customer Rating** – Picklist (1 to 5)
- **Comments** – Long Text Area (3–5 visible lines)
- **Linked Ticket** – Lookup Relationship (Related to Customer Ticket)

This object allows customers to share feedback related to a specific resolved ticket.

Step 3: Record Types

- Record Types were not mandatory for the current implementation.
- They can be introduced in the future if different categories of tickets (e.g., Technical, Billing, Service Requests) are required.
- Record Types help control page layouts and business processes for different scenarios.

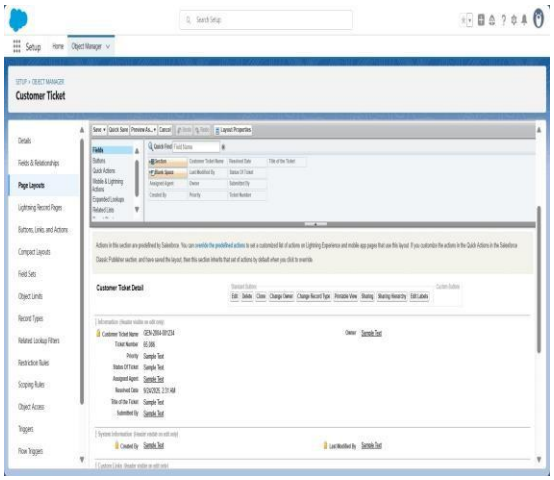
Step 4: Page Layouts

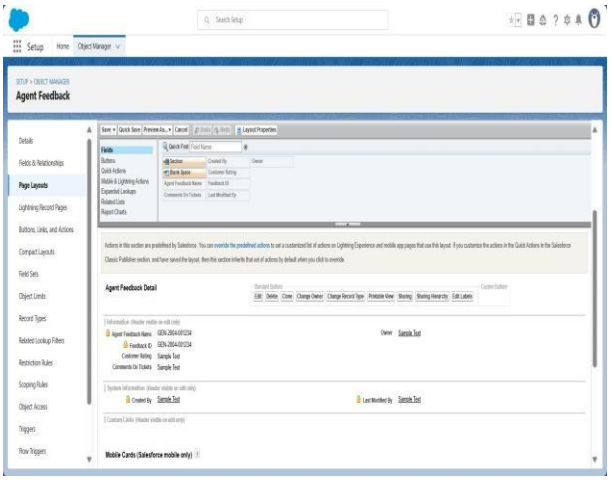
Custom page layouts were designed for each object to ensure users see only relevant information.

Examples:

- **Customer Ticket Layout:** Ticket Number, Title, Priority, Status, Assigned Agent
- **Agent Feedback Layout:** Customer Rating and Comments

This improves usability and reduces data clutter for end users.



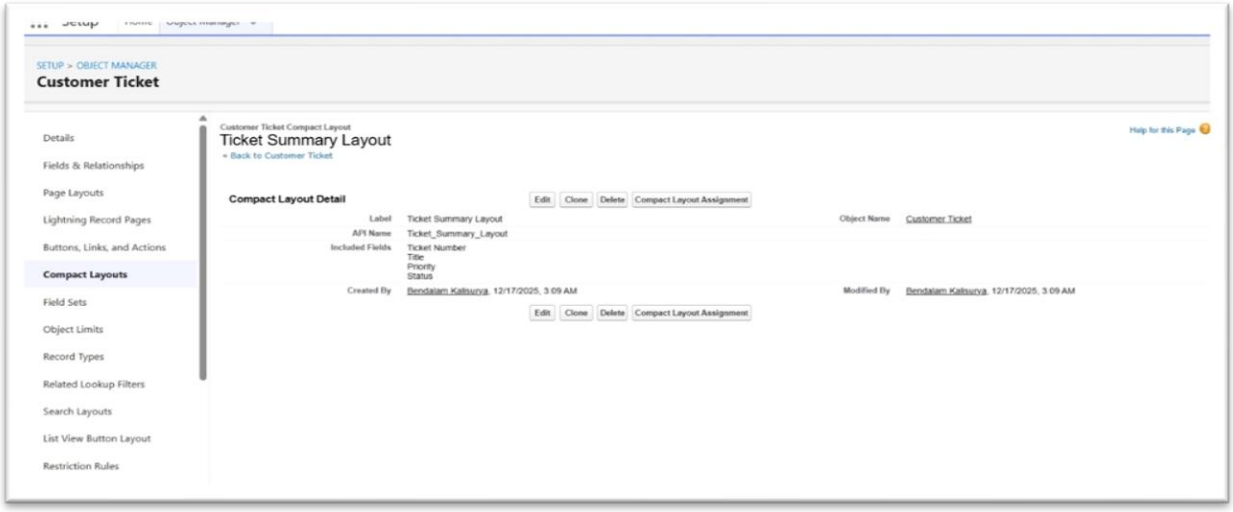


Step 5: Compact Layouts

Compact layouts were configured to display key information in record highlights, especially for mobile users.

Example:
The Customer Ticket compact layout displays:

- Ticket Number
- Title
- Priority
- Status

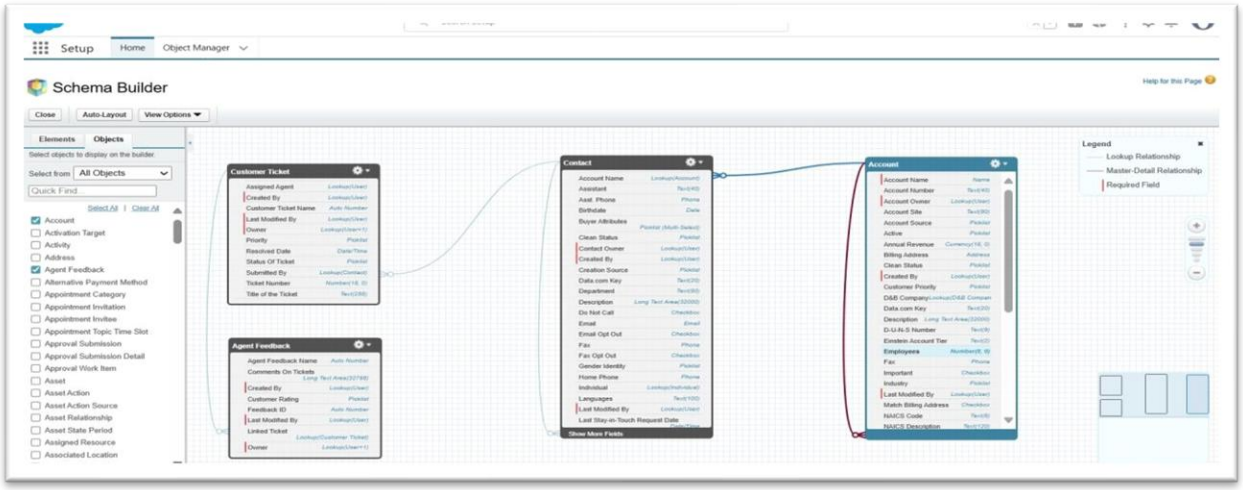


Step 6: Schema Builder

Schema Builder was used to visually represent the data model.

- Displays standard and custom objects in one view
- Shows field types and relationships
- Helps administrators and stakeholders understand data flow and object connections

This visual model improves clarity during design reviews and documentation.



Step 7: Relationship Types Used

Lookup Relationships

- **Customer Ticket → Contact** (Who raised the ticket)
- **Customer Ticket → User** (Assigned support agent)

Lookup relationships provide flexibility without enforcing ownership dependency.

Master-Detail Relationship

- **Account → Contact** (Standard Salesforce relationship)

This ensures data integrity and cascading behavior.

Hierarchical Relationships

- Not used in this project, as role hierarchy was sufficient for access control.

Step 8: Junction Objects (Future Enhancement)

Junction objects support many-to-many relationships.

Potential Enhancement Example:

- **Customer Ticket ↔ Knowledge Article**
    - A single ticket may reference multiple knowledge articles.
    - A knowledge article can be linked to multiple tickets.

This enhancement can improve self-service and resolution efficiency in future versions.