Phase 3: Data Modeling & Relationships

Objective: Define Salesforce data model by customizing standard and custom objects, fields, and relationships to support omnichannel case management.

1. Standard & Custom Objects

- **Standard Objects Used:**

  - **Case** → Central object for all customer queries.

  - **Contact** → Stores customer details.

  - **Account** → Links customers to their organization (if B2B).

  - **User** → Represents support agents/managers.

- **Custom Objects Created:**

  - **Channel Interaction** → To log details of incoming queries (WhatsApp, Email, Social, Chat).

  - **Sentiment Log** → To capture sentiment score (Positive, Neutral, Negative).

  - **SLA Tracker** → To monitor SLA milestones for each case.

Outcome: Organizes customer support data into a structured model that supports multi-channel tracking and analysis.

2. Fields

- **Case Object Custom Fields:**

  - *Channel* (Picklist: Email, WhatsApp, Chat, Social).

  - *Priority Score* (Formula: Based on sentiment + SLA + customer type).

  - *Resolution SLA Time* (Date/Time).

- **Channel Interaction Object Fields:**

  - *Channel Type* (Picklist).

  - *Message Content* (Long Text).

  - *Interaction Timestamp* (Date/Time).

- **Sentiment Log Object Fields:**

  - *Sentiment Score* (Number, -1 to +1).

  - *Category* (Picklist: Negative, Neutral, Positive).

Outcome: Adds intelligence to cases (e.g., which channel came from, urgency, sentiment).

3. Record Types

- **Case Record Types:**
  - *Email Case*
  - *WhatsApp Case*
  - *Chat Case*
  - *Social Case*

Outcome: Each record type can have its own **page layout** and process flow (e.g., WhatsApp cases need different handling than Email).

4. Page Layouts

- **Agent Layout:** Simplified, with quick access to **Channel, Priority Score, SLA, Sentiment**.
- **Manager Layout:** Includes performance tracking fields (Case Age, Agent Assigned, SLA Breach Flag).

**Outcome:** Ensures each user role only sees relevant fields.

5. Compact Layouts

- For Case Object → Display: *Case Number, Contact Name, Channel, Priority Score, Status*.
- **Outcome:** Quick mobile-friendly summary for agents on Salesforce Mobile App.

6. Schema Builder

- **Action:** Use Schema Builder to visually design object relationships:
  - Contact ↔ Case (Lookup).
  - Case ↔ Channel Interaction (Master-Detail).
  - Case ↔ Sentiment Log (Lookup).
  - Case ↔ SLA Tracker (Master-Detail).

Outcome: Clear visualization of how multi-channel cases connect with interactions, SLA, and sentiment.
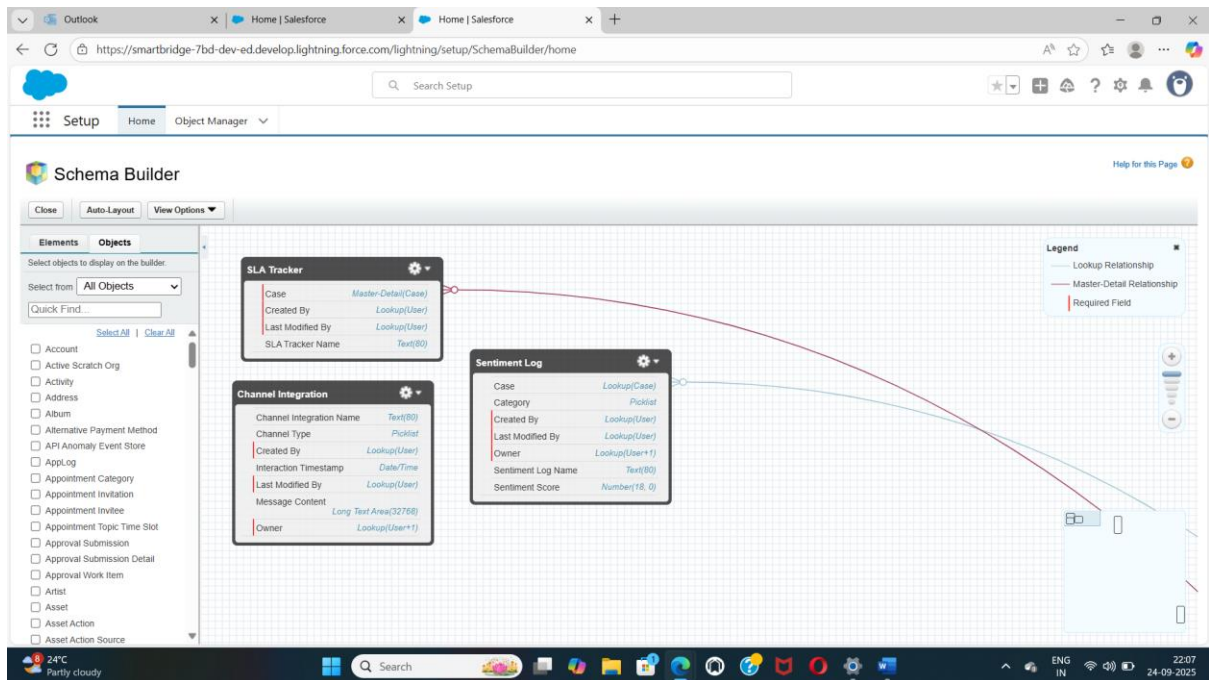
7. Relationships

- **Lookup Relationships:**

    o   Case → Contact (Customer details).

    o   Case → Sentiment Log (Store analysis results).

- **Master-Detail Relationships:**

    o   Case → Channel Interaction (One Case can have many channel messages).

    o   Case → SLA Tracker (One Case has one SLA record tied to it).

- **Hierarchical Relationship:**

    o   Used between **Users** for escalation (Agent → Manager).

Outcome: Provides a scalable relational structure to handle real-world case scenarios.

8. Junction Objects

- **Interaction Assignment** (Junction between Case and User).

    o   Allows tracking if multiple agents collaborate on the same case.

Outcome: Supports **collaborative case resolution** without data duplication.

9. External Objects

- Example: **WhatsApp Message Logs (via Twilio)** stored in an external system.

- Use **Salesforce Connect** to display these in Salesforce without storing them locally.

Outcome: Integrates external channel data into Salesforce seamlessly.

=> **Practical Implementation:**

- **Option 1 (Real External Object):**

  o Connect Twilio using Salesforce Connect (OData endpoint)

  o Sync WhatsApp messages as External Object

  o Create Lookup to Case

  o Automate Case creation, Channel Interaction, Sentiment, SLA tracking

- **Option 2 (Simulated for Demo):**

  o Create custom object WhatsApp_Message_Log

  o Fields: Message_Content, Timestamp, Contact

  o Lookup to Case

  o Use Flows to auto-create Cases and log interactions

 Outcome:

- When a customer sends a WhatsApp message:

  o Case auto-created

  o Channel Interaction logs message

  o Sentiment Log calculates priority

  o SLA Tracker sets response deadline

- Agents and managers see all information in one screen for faster resolution.