# Phase 3: Data Modeling & Relationships

## 1. Standard & Custom Objects

* **Standard Objects**: Predefined by Salesforce and reused in the project.
  + **Account** – Represents customers or organizations applying for loans.
  + **Contact** – Represents individual applicants linked to Accounts.
  + **User** – Represents employees such as Loan Officers, Underwriters, and Managers.
* **Custom Objects**: Created for project-specific needs.
  + **Loan Application** – Stores loan request and approval details.
  + **Collateral** – Stores assets pledged as security against a loan.
  + **Loan Payment** – Stores repayment schedules and amounts for loans.

## 2. Fields

Each object contains fields to capture loan-related details. Fields include Text, Picklist, Number, Currency, Lookup, and Formula types.

* **Loan Application**
  + Loan Amount (Currency, Required)
  + Requested Term (Months) (Number, Required)
  + Annual Interest Rate (%) (Number, Required)
  + Loan Type (Picklist: Home, Auto, Personal, Education, SME)
  + Application Status (Picklist: Draft, Submitted, Underwriting, Approved, Rejected, Disbursed, Closed)
  + Applicant Account (Lookup → Account)
  + Primary Applicant (Lookup → Contact)
  + Underwriter (Lookup → User)
  + Collateral (Lookup → Collateral)
  + Credit Score (Number)
  + Approved Amount (Currency)
  + Approval Date (Date)
  + Purpose (Text)
  + Monthly Repayment (Formula, Currency → calculates EMI automatically)
* **Collateral**
  + Collateral Type (Picklist: Property, Vehicle, Deposit, Others)
  + Market Value (Currency)
  + Serial Number (Text)
  + Location (Text)
  + Related Loan (Lookup → Loan Application)
* **Loan Payment**
  + EMI Number (Number)
  + Payment Date (Date)
  + Amount (Currency)
  + Outstanding Balance (Currency)
  + Status (Picklist: Scheduled, Paid, Missed)
  + Payment Method (Picklist: Cash, Online, Cheque, UPI, Card)
  + Loan Application (Master-Detail → Loan Application)

## 3. Relationships

Relationships define how objects connect with each other:

* **Loan Application ↔ Account** (Lookup) → Links a loan to a customer.
* **Loan Application ↔ Contact** (Lookup) → Identifies the primary applicant.
* **Loan Application ↔ User** (Lookup) → Tracks the assigned underwriter.
* **Loan Application ↔ Collateral** (Lookup) → Links collateral assets.
* **Loan Application ↔ Loan Payment** (Master-Detail) → Allows roll-up summaries for payments.

## 4. Record Types

Record Types allow multiple processes within the same object.

* **Loan Application**
  + *Retail Loan* – for individual customers (Home, Auto, Personal).
  + *Business Loan* – for SME or Corporate loans.

Each record type has its own page layout and process.

## 5. Page Layouts

Page layouts control how fields and related lists are displayed.

* **Loan Application Layout**
  + Top fields: Loan Amount, Term, Interest Rate, Status, EMI, Underwriter.
  + Related Lists: Loan Payments, Collaterals, Files.
* **Collateral Layout**
  + Fields: Type, Value, Serial Number, Location, Related Loan.
* **Loan Payment Layout**
  + Fields: EMI Number, Payment Date, Amount, Status, Payment Method.

## 6. Compact Layouts

Compact layouts define the fields shown in the highlights panel at the top of a record page.

* **Loan Application** → Loan Amount, Status, Applicant Account.
* **Collateral** → Collateral Type, Market Value.
* **Loan Payment** → EMI Number, Payment Date, Amount, Status.

## 7. Roll-Up Summary Fields

Created on the **Loan Application** object using its Master-Detail with Loan Payment:

* **Total Paid** – SUM of Loan Payment Amount where Status = Paid.
* **Total Scheduled Amount** – SUM of Loan Payment Amount where Status = Scheduled.
* **Number of Payments** – COUNT of Loan Payments.

## 8. Schema Builder

Schema Builder provides a visual representation of objects and relationships.

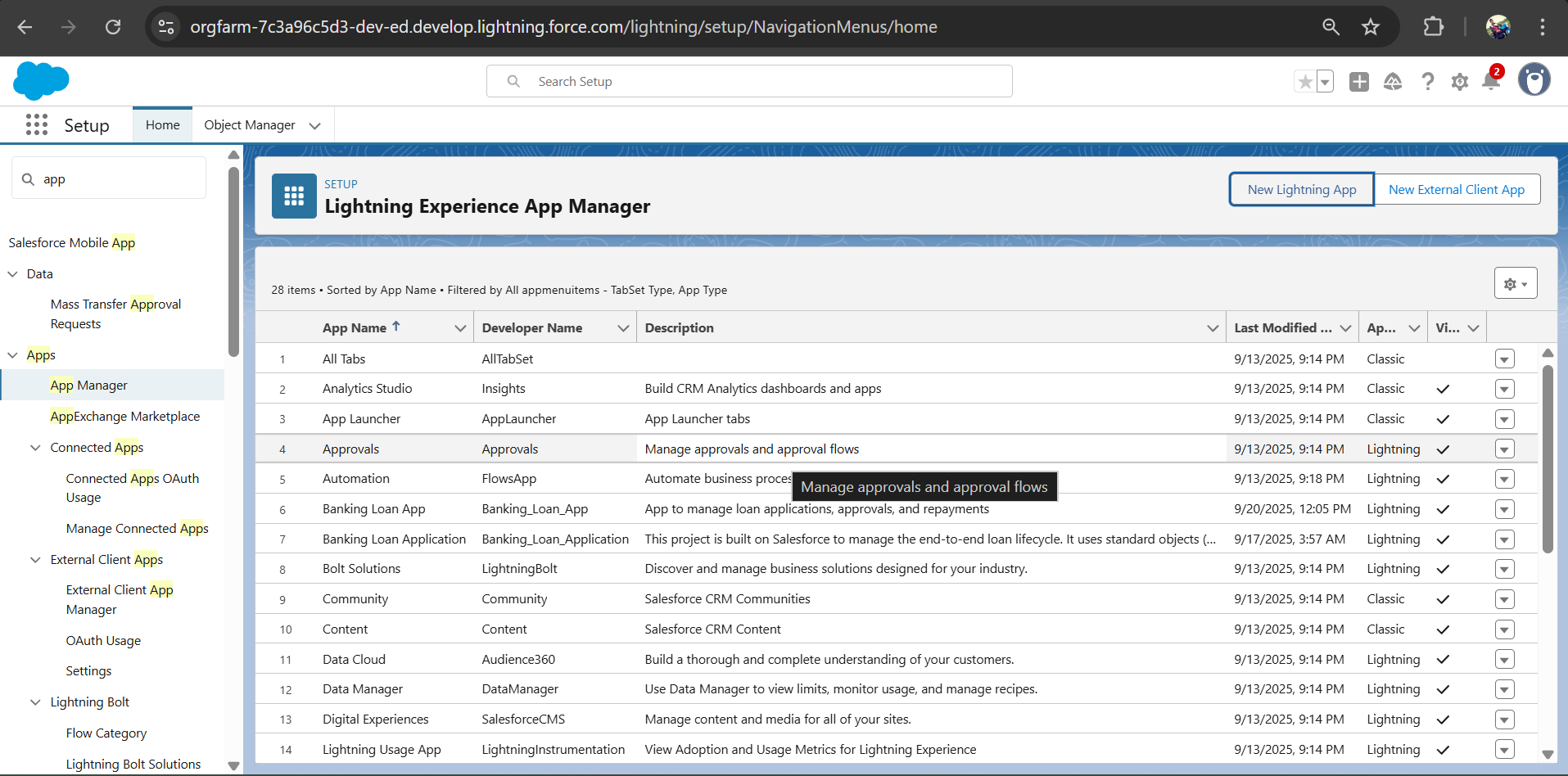
In this project:

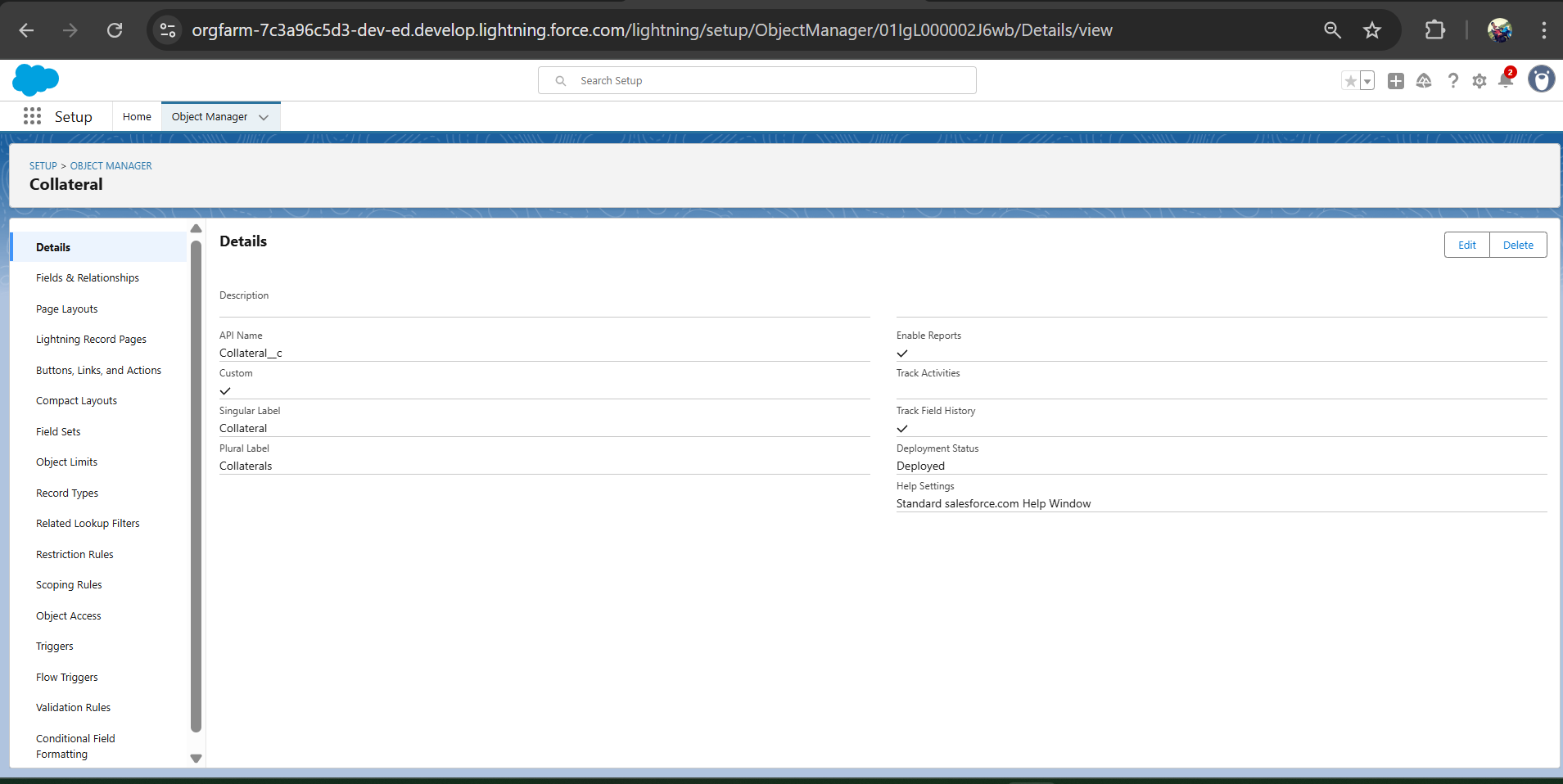
* Loan Application is the central object.
* Collateral and Loan Payments are linked as child objects.
* Accounts, Contacts, and Users connect through lookups.

## 9. Lookup vs Master-Detail

* **Lookup Relationship**: Child can exist independently.
  + Example: Loan Application → Account.
* **Master-Detail Relationship**: Child depends on parent, roll-up possible.
  + Example: Loan Payment → Loan Application.

# Screenshots





A screenshot of a computer

AI-generated content may be incorrect.

