

## Phase 3: Data Modeling's Relationships

### Deepfake CRM: Intelligent Salesforce Integration Project

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#### ◆ Standard & Custom Objects

##### Standard Objects:

- **User** → Analysts, Admins, Clients.
- **Case** → For managing flagged deepfake incidents.

##### Custom Objects:

1. **Video\_c** → Stores uploaded video details.

The screenshot shows the Salesforce Object Manager page. At the top, there is a navigation bar with a 'SETUP' icon, a search bar containing the text 'vide', and buttons for 'Schema Builder' and 'Create'. Below the header, a message says '1 Items, Sorted by Label'. The main area is a table listing objects. The columns are labeled 'LABEL', 'API NAME', 'TYPE', 'DESCRIPTION', 'LAST MODIFIED', and 'DEPLOYED'. There is one row visible, showing 'Video' as the label, 'Video\_c' as the API name, 'Custom Object' as the type, an empty description field, the date '9/23/2025' as the last modified date, and a checked checkbox under 'DEPLOYED'.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Video	Video_c	Custom Object		9/23/2025	✓

2. **Detection\_Report\_c** → AI analysis reports of videos.

The screenshot shows the Salesforce Object Manager. At the top, there is a search bar with the text "detec" and a dropdown menu also showing "detec". Below the header, it says "1 Items, Sorted by Label". The main table has columns: LABEL, API NAME, TYPE, DESCRIPTION, LAST MODIFIED, and DEPLOYED. One item is listed: "Detection Report" with API name "Detection\_Report\_c", type "Custom Object", description "", last modified "9/23/2025", and a checked deployment status.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Detection Report	Detection_Report_c	Custom Object		9/23/2025	✓

3. **Alert\_c** → Notifications for deepfake detection.

The screenshot shows the Salesforce Object Manager. At the top, there is a search bar with the text "alert" and a dropdown menu also showing "alert". Below the header, it says "1 Items, Sorted by Label". The main table has columns: LABEL, API NAME, TYPE, DESCRIPTION, LAST MODIFIED, and DEPLOYED. One item is listed: "Alert" with API name "Alert\_c", type "Custom Object", description "", last modified "9/23/2025", and a checked deployment status.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Alert	Alert_c	Custom Object		9/23/2025	✓

4. **Client\_c** → Enterprise/individual client details.

The screenshot shows the Salesforce Object Manager interface. At the top left is the 'Object Manager' icon and the word 'Object Manager'. To its right are 'SETUP', a search bar containing 'cli', 'Schema Builder', and a 'Create' button with a dropdown arrow. Below this is a message '1 Items, Sorted by Label'. The main area is a table with the following data:

LABEL ▲	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Client	Client_c	Custom Object		9/23/2025	✓

## ◆ Fields

### Video\_c

1. Video ID
2. Uploaded By
3. Title
4. Status
5. Video Name

The screenshot shows the Salesforce Object Manager interface for the 'Video' object. The top navigation bar displays 'SETUP > OBJECT MANAGER'. Below it, the object name 'Video' is centered. On the left, a sidebar lists various configuration options under 'Fields & Relationships': Details, 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 area is titled 'Fields & Relationships' and contains a table of fields. The table has three columns: Name, Type, and Description. The fields listed are:

Name	Type	Description
Owner	OwnerId	Lookup(User,Group)
Source URL	Source_URL_c	URL(255)
Status	Status_del_c	Picklist
Title	Title_c	Text(10)
Uploaded By	Uploaded_By_c	Lookup(User)
Video ID	Video_ID_c	Auto Number
Video Name	Name	Text(80)

## **Detection\_Report\_\_c**

1. Video
2. Report ID
3. Findings
4. Detection Report Name
5. AI Model

The screenshot shows the Salesforce Object Manager interface. The top navigation bar displays "SETUP > OBJECT MANAGER". Below it, the page title is "Detection Report". On the left, a sidebar menu lists various setup options: Details, Fields & Relationships (which is currently selected and highlighted in blue), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, and Scoping Rules. The main content area is titled "Fields & Relationships" and indicates "8 Items, Sorted by Field Label". A table lists the fields with their corresponding field names and data types. The table has three columns: FIELD LABEL, FIELD NAME, and DATA TYPE. The data is as follows:

FIELD LABEL	FIELD NAME	DATA TYPE
AI Model	AI_Model__c	Picklist
Created By	CreatedBy	Lookup(User)
Detection Report Name	Name	Text(80)
Findings	Findings__c	Long Text Area(32768)
Last Modified By	LastModifiedBy	Lookup(User)
Owner	OwnerId	Lookup(User,Group)
Report ID	Report_ID__c	Auto Number
Video	Video__c	Lookup(Detection Report)

## **Alert\_c**

1. Alert ID
2. Alert Type
3. Alert Name
4. Severity

SETUP > OBJECT MANAGER

### Alert

Details

Fields & Relationships

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

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING
Alert ID	Alert_ID_c	Auto Number	
Alert Type	Alert_Type_c	Picklist	
Alerts Name	Name	Text(80)	
Created By	CreatedById	Lookup(User)	
Last Modified By	LastModifiedById	Lookup(User)	
Owner	OwnerId	Lookup(User,Group)	
Severity	Severity_c	Picklist	

## **Client\_c**

1. Client ID
2. Client Name
3. Company Name
4. Contact Person
5. Industry

The screenshot shows the Salesforce Object Manager interface for the 'Client' object. The top navigation bar displays 'SETUP > OBJECT MANAGER'. Below it, the object name 'Client' is shown. On the left, a sidebar lists various configuration options: Details, Fields & Relationships (which is currently 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 area contains a table of fields:

	Field Label	Type
Client ID	Client_ID_c	Auto Number
Client Name	Name	Text(80)
Company Name	Company_Name_c	Text(32)
Contact Person	Contact_Person_c	Text(10)
Created By	CreatedBy	Lookup(User)
Industry	Industry_c	Picklist
Last Modified By	LastModifiedBy	Lookup(User)
Owner	OwnerId	Lookup(User,Group)

## ◆ Relationships

- **Detection\_Report\_c → Video\_c → Master-Detail** (Each report belongs to one video; delete parent deletes reports).
- **Alert\_c → Video\_c → Master-Detail** (Alerts are tightly linked to videos).
- **Video\_c → Client\_c → Lookup** (If video uploaded by an enterprise client; public uploads may have blank lookup).
- **Case (Standard) → Lookup or Related to Video\_c** (Used for incident tracking and remediation workflows).
- **User → Video\_c** (Uploaded\_By lookup links to the user who uploaded/triggered the scan).

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## ◆ Record Types

- **Video\_c:**
    - **Public Scan** — for individual/public uploads.
    - **Enterprise Scan** — for client uploads with SLA/metadata.
    - **API Upload** — for programmatic uploads via REST.
  - **Detection\_Report\_c:**
    - **Quick Scan** — lightweight, fast analysis.
    - **Forensic Report** — detailed frame-level / audio analysis and XAI outputs.
  - **Alert\_c:**
    - **General Alert** — informational/low severity.
    - **Critical Alert** — high-severity incidents that require immediate action.
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## ◆ Page Layouts (Suggested Sections & Fields)

### Video Layout (Video Detailed Layout)

- Section: Video Information → Video\_ID, Title, Source\_URL, Uploaded\_By, Upload\_Date, Duration, File\_Size\_MB
- Section: AI Results → Status, Confidence\_Score, Processing\_Time\_sec, Primary\_AI\_Model
- Section: Related Records → Related list of Detection Reports, Related list of Alerts, Related Cases
- Section: Actions → Buttons for “Re-scan”, “Create Case”, “Download Evidence”

### Detection Report Layout

- Section: Report Information → Report\_ID, Video (lookup), Report\_Generated\_On, AI\_Model\_c, Confidence\_Score\_c
- Section: Findings → Findings\_c, Key\_Frames\_c, Evidence\_File\_c
- Section: Analyst Notes → Internal comments, remediation suggestions

## Alert Layout

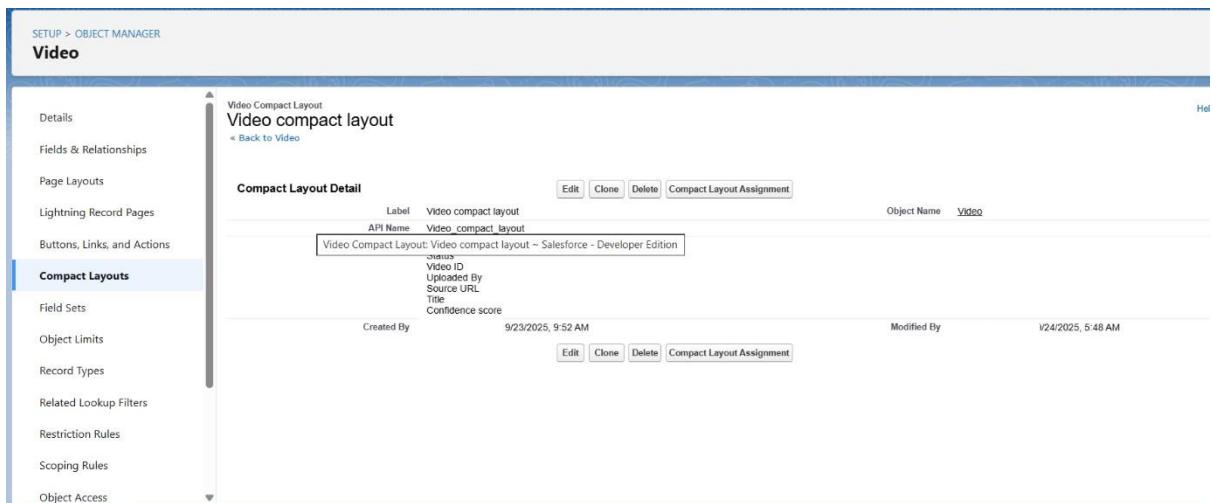
- Section: Alert Info → Alert\_ID, Video (lookup), Alert\_Type, Severity, Alert\_Date
- Section: Notification History → Notified\_To, Notification Status, Delivery Log

## Client Layout

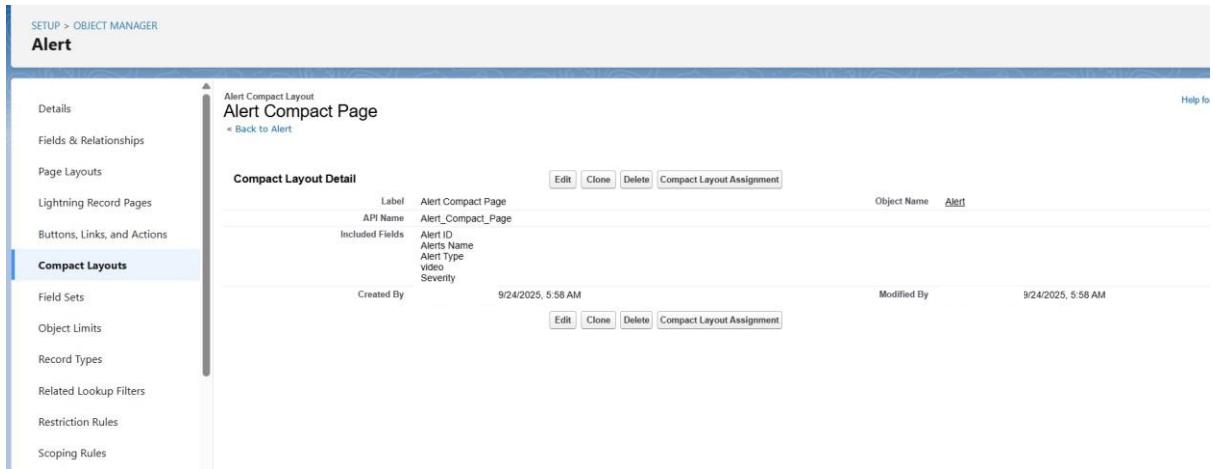
- Section: Client Info → Client\_ID, Company\_Name, Industry, Contact\_Person, Contact\_Email, Onboarded\_On
- Section: Integration → API\_Key (masked), Integration Notes, Assigned Account Manager

## ◆ Compact Layouts (Highlight Panel Fields)

- **Video (Compact):** Video\_ID | Title | Status\_c | Confidence\_Score\_c | Uploaded\_By



- **Detection Report (Compact):** Video | Report ID | Findings | Detection Report Name | AI Model
- **Alert (Compact):** Alert\_ID | Severity\_c | Alert\_Type\_c | Alert Name | Video



- **Client (Compact):** Client\_ID | Company\_Name | Industry | Contact\_Person
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### ◆ Validation & Field-Level Rules (Examples)

- **Confidence\_Score\_c** must be between 0 and 100 (validation rule).
  - **Status\_c** cannot be set to "Deepfake" unless there is at least one Detection\_Report\_c with Confidence\_Score\_c ≥ threshold (flow or trigger enforcement).
  - **API\_Key** stored as encrypted and not visible to profiles without permission set.
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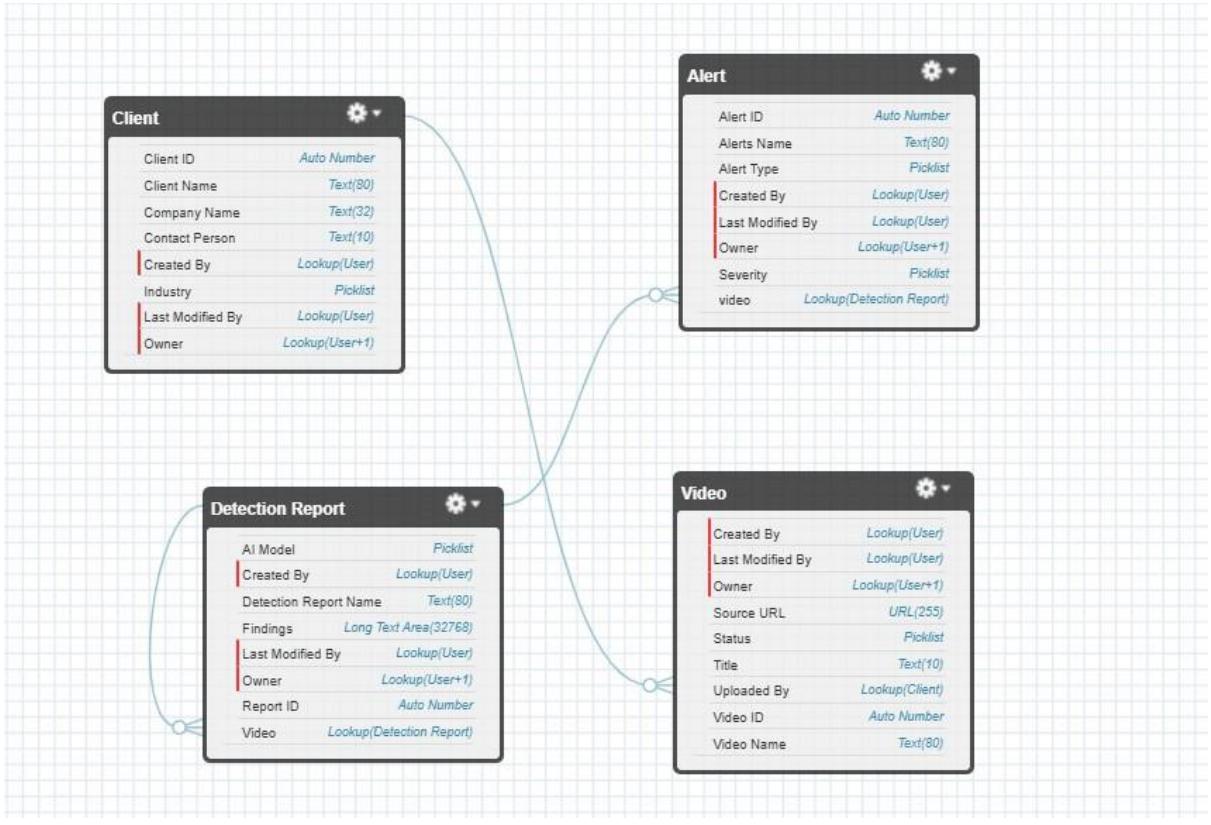
### ◆ Indexing & Performance Tips

- Index commonly queried fields: **Video\_ID**, **Status\_c**, **Confidence\_Score\_c**, **Uploaded\_By** (external ID where appropriate).
  - Use skinny tables / selective filters for reports if data volume is large (videos can be heavy).
  - Store media files externally (AWS S3) and keep only references/URLs inside **Video\_c**.
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### ◆ Schema Builder Guidance (Where to place objects visually)

- Place **Video\_c** at the center. Draw **Master-Detail** links to **Detection\_Report\_c** and **Alert\_c** (1-to-many).
- Draw **Lookup** from **Video\_c** to **Client\_c** (optional link for enterprise uploads).

- Make sure each Master-Detail shows roll-up summary opportunities (e.g., Video → roll up count of Reports, highest Severity of Alerts).



## ◆ Example Use Scenarios & Data Flow

- **Public upload:** User uploads video → Video\_c record created (Status=Pending) → Asynchronous ML call runs → Detection\_Report\_c created → If Confidence ≥ threshold, Video Status updated to Deepfake and Alert\_c created → Case created for analyst review.
- **Enterprise upload via API:** External system posts video with Client reference → Video\_c (Enterprise Scan) created with Client\_c lookup → Priority queue processing → Forensic Report generated and delivered to client via webhook + Salesforce Case for SLA tracking.

## ◆ Deliverables for Phase 3 (What to implement)

- Create custom objects: **Video\_c**, **Detection\_Report\_c**, **Alert\_c**, **Client\_c**.
- Define fields as described above and set appropriate data types.
- Implement Master-Detail relationships: Video → Detection Report, Video → Alert.

- Implement Lookup: Video → Client.
- Create Record Types and Page Layouts per user role (Analyst, Client, Admin).
- Configure Compact Layouts and assign to profiles.
- Build Schema Builder diagram and include as documentation screenshot.
- Add validation rules and permission sets for API\_Key security.