

Phase 3: Data Modeling's Relationships

Deepfake CRM: Intelligent Salesforce Integration Project

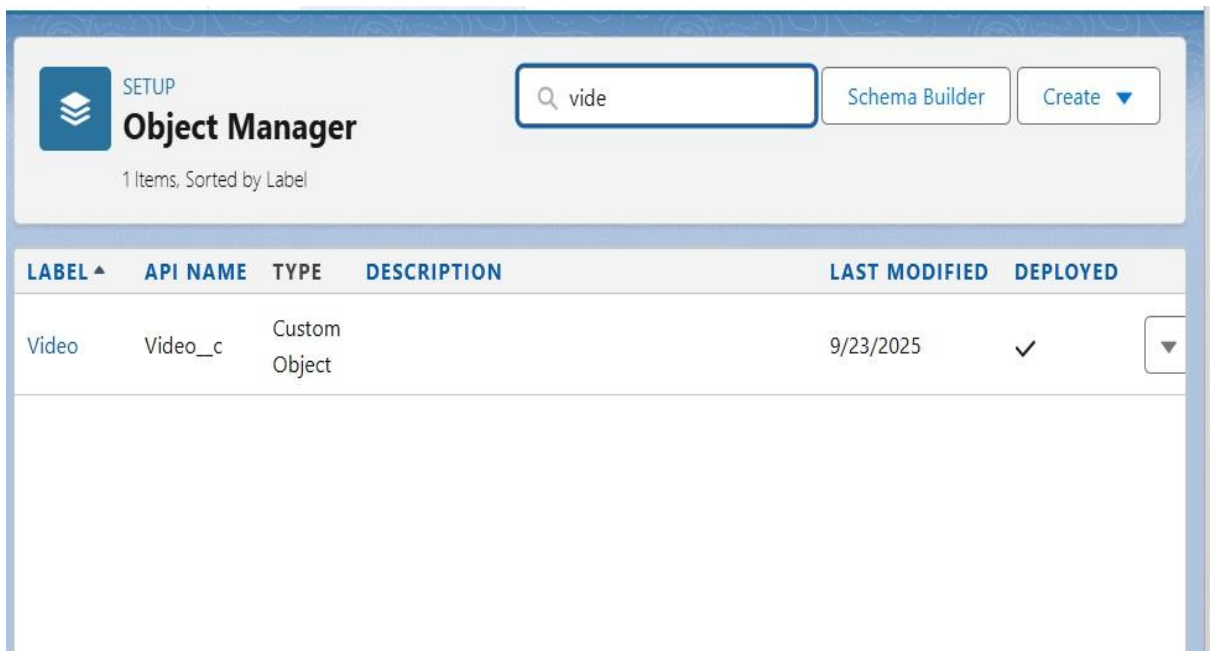
◆ Standard s Custom Objects

Standard Objects:

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

Custom Objects:


1. **Video__c** → Stores uploaded video details.



The screenshot displays the Salesforce Object Manager interface. At the top, there is a header bar with the 'SETUP' icon, the text 'Object Manager', and a search bar containing 'vide'. To the right of the search bar are buttons for 'Schema Builder' and 'Create'. Below the header, a table lists the objects. The table has columns for 'LABEL', 'API NAME', 'TYPE', 'DESCRIPTION', 'LAST MODIFIED', and 'DEPLOYED'. One object is listed: 'Video' with API name 'Video__c', type 'Custom Object', last modified '9/23/2025', and deployed status '✓'.

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.


 **Object Manager**
1 Items, Sorted by Label

detec

[Schema Builder](#)[Create](#)

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


3. **Alert__c** → Notifications for deepfake detection.

 **Object Manager**
1 Items, Sorted by Label

[Schema Builder](#)[Create](#)

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

4. **Client__c** → Enterprise/individual client details.

 **Object Manager**

1 Items, Sorted by Label

Schema Builder

Create ▼

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

SETUP > OBJECT MANAGER

Video

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

NewDeleted FieldsField Dependencies

9 items, sorted by field label

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

SETUP > OBJECT MANAGER

Detection Report

Details	<div>Fields & Relationships</div> <div>8 Items, Sorted by Field Label</div> <div>Quick Find</div>		
Fields & Relationships	FIELD LABEL	FIELD NAME	DATA TYPE
Page Layouts	AI Model	AI_Model__c	Picklist
Lightning Record Pages	Created By	CreatedById	Lookup(User)
Buttons, Links, and Actions	Detection Report Name	Name	Text(80)
Compact Layouts	Findings	Findings__c	Long Text Area(32768)
Field Sets	Last Modified By	LastModifiedById	Lookup(User)
Object Limits	Owner	OwnerId	Lookup(User,Group)
Record Types	Report ID	Report_ID__c	Auto Number
Related Lookup Filters	Video	Video__c	Lookup(Detection Report)
Restriction Rules			
Scoping Rules			

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

New Deleted Fields Field Dependencies

0 items, sorted by Field Label

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

Client		
8 items, sorted by Field Label		
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	CreatedById	Lookup(User)
Industry	Industry__c	Picklist
Last Modified By	LastModifiedById	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).

◆ 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 s 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

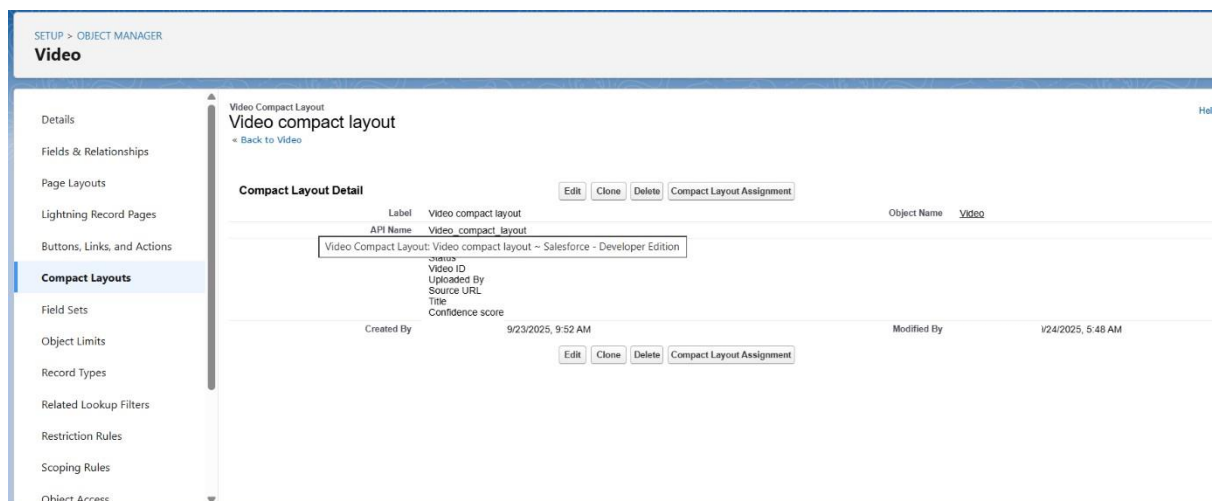
- Section: Alert Info → Alert_ID, Video (lookup), Alert_Type, Severity, Alert_Date
- Section: Notification History → Notified_To, Notification Status, Delivery Log

Client Layout

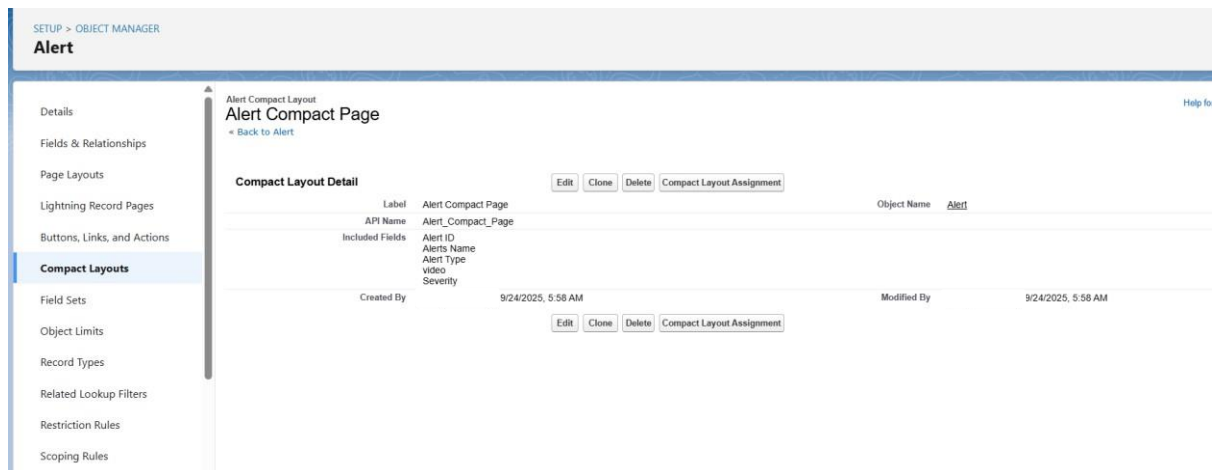
- Section: Client Info → Client_ID, Company_Name, Industry, Contact_Person, Contact_Email, Onboarded_On
- Section: Integration → API_Key (masked), Integration Notes, Assigned Account Manager

◆ 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

◆ Validation s 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 \geq threshold (flow or trigger enforcement).
- **API_Key** stored as encrypted and not visible to profiles without permission set.

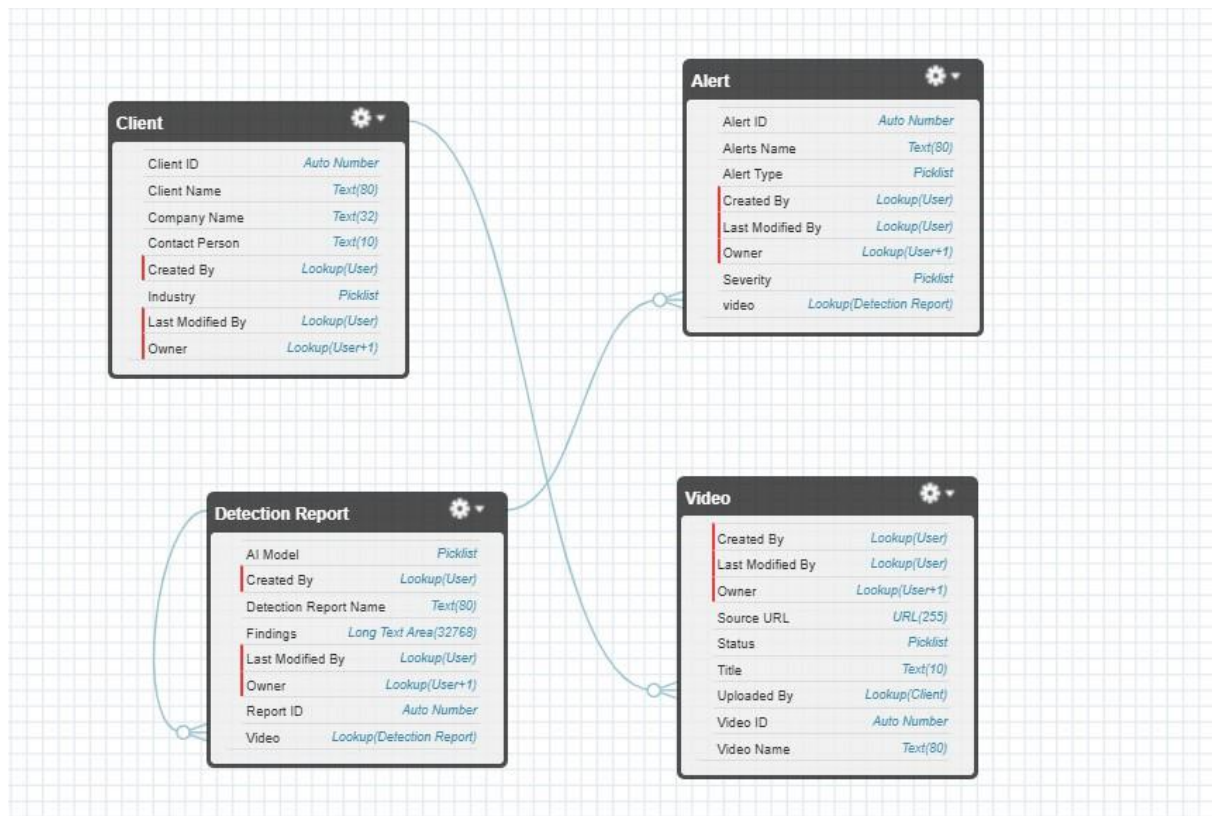
◆ Indexing s Performance Tips

- 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**.

◆ 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 s 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.