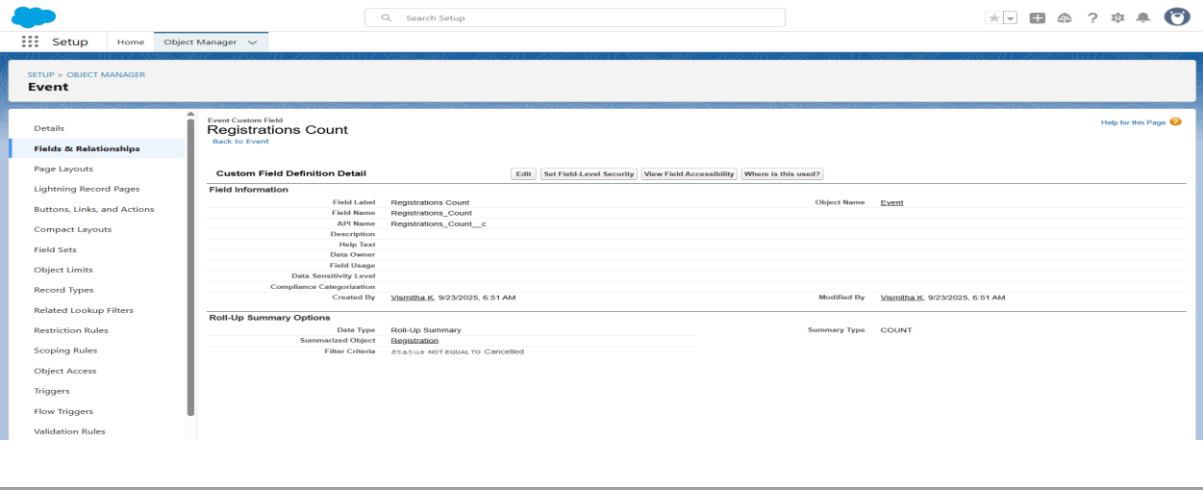


# PHASE 3 – DATA MODELING & RELATIONSHIPS

## 1. Roll-Up Summary Fields

- On Event\_\_c:
  - **Registrations Count** → Counts all child Registrations.
  - Used for capacity validation and reporting.



## 2. Validation Rules

- **End Date Validation (Event\_\_c):**

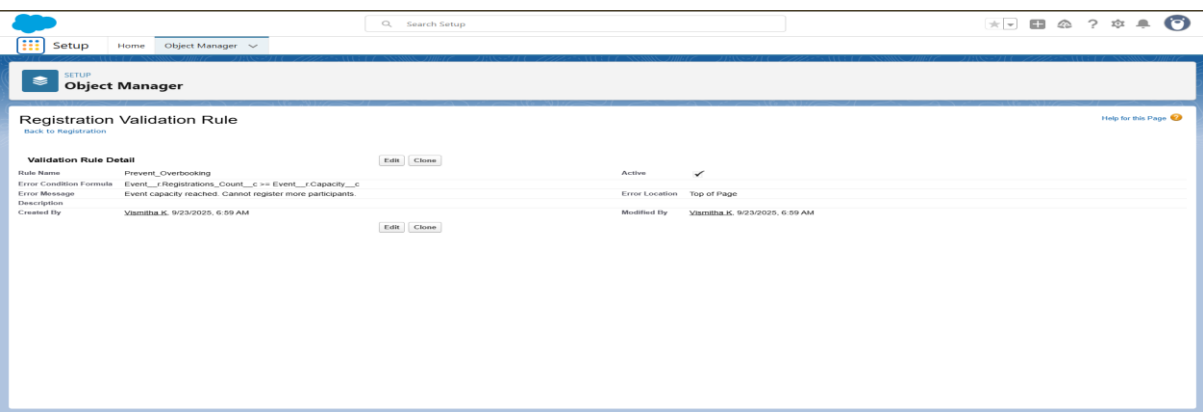
Ensures the event end date cannot be earlier than the start date.

- **Prevent Overbooking (Registration\_\_c):**

- **Approach 1 – Validation Rule:**

Simple rule that checks if `Registrations_Count__c >= Capacity__c` and blocks new registrations.

Error: “*Event capacity reached. Cannot register more participants.*”



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Object Manager

**Object Manager**

Event Validation Rule
[Back to Event](#)
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**Validation Rule Detail**
[Edit](#)
[Clone](#)

Rule Name	End_After_Start	Active	<input checked="" type="checkbox"/>
Error Condition Formula	NOT(ISBLANK(Start_Date__c)) && NOT(ISBLANK(End_Date__c)) && End_Date__c < Start_Date__c		
Error Message	End Date must be same or after Start Date.	Error Location	Top of Page
Description			
Created By	Vismitha_K_ 9/23/2025, 7:03 AM	Modified By	Vismitha_K_ 9/23/2025, 7:03 AM

[Edit](#)
[Clone](#)

### 3. Page Layouts & Record Types

- **Event Page Layout:** shows Event details + related Registrations and record types.
- **Registration Page Layout:** shows Participant, Event, Status and record types.

Setup
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**Object Manager**

Event
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Save
Quick Save
Preview As...
Cancel
Undo
Redo
Layout Properties

Fields
Buttons
Quick Actions
Mobile & Lightning Actions
Expanded Lookups
Related Lists
Recent Chatter

Quick Find
Field Name

Capacity	Last Modified By	Start Date
End Date	Organizer	Status
Event Name	Owner	Version
Created By	Event Type	Registrations Count

**Event Detail**
[Edit](#)
[Delete](#)
[Clone](#)
[Change Owner](#)
[Change Record Type](#)
[Printable View](#)
[Sharing](#)
[Sharing Hierarchy](#)
[Edit Labels](#)

**Information**
(Header visible on edit only)

Event Name	Sample Text
Event Type	Sample Text
Start Date	9/23/2025
End Date	9/23/2025
Version	Sample Text
Registrations Count	21,039

**Capacity & Status**

Capacity	708	Status	Sample Text
----------	-----	--------	-------------

**Organizer Information**

Organizer	Sample Text
-----------	-------------

**System Information**
(Header visible on edit only)

Created By	Sample Text	Last Modified By	Sample Text
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**Custom Links**
(Header visible on edit only)

Setup
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**Object Manager**

Event
[Help for this Page](#)

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
Scoping Rules
Object Access
Triggers
Flow Triggers
Validation Rules

Record Type Edit
**Event Type**

General Properties

Field Label	Event Type
Record Type	Conference Event

**Picklist Values**

Select an item from the Available Values list and add it to the Selected Values list to include it as a picklist value for this Record Type. Note that removing an item from the picklist does not remove it from any existing records. Finally, select a default picklist value for this Record Type.

**Available Values**

--None--

Add
Remove

**Selected Values**

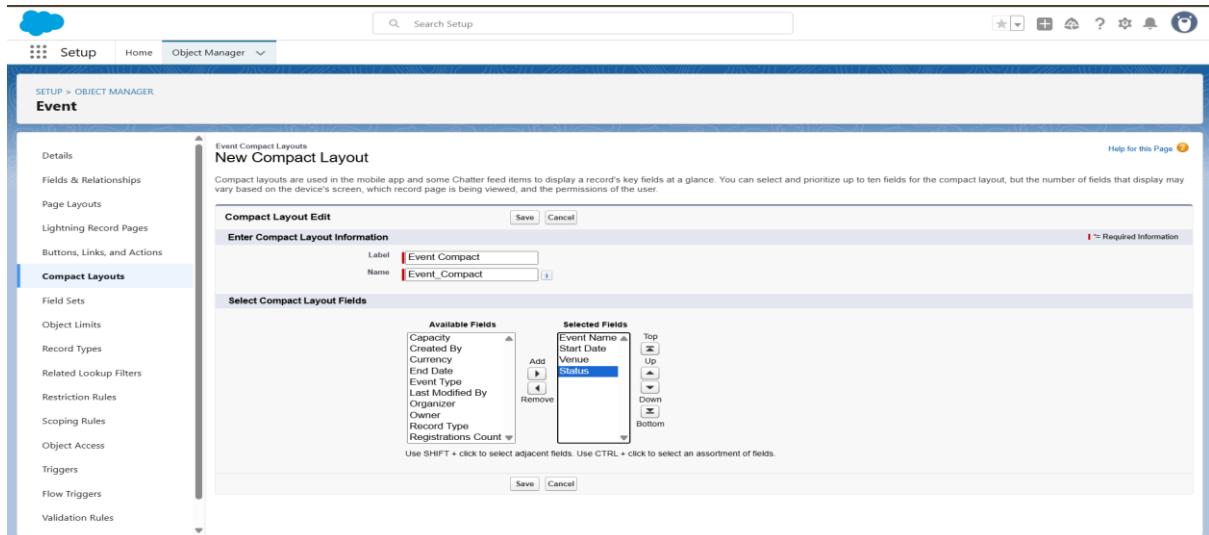
Seminar
Workshop
Conference

Default
--None--

[Save](#)
[Cancel](#)

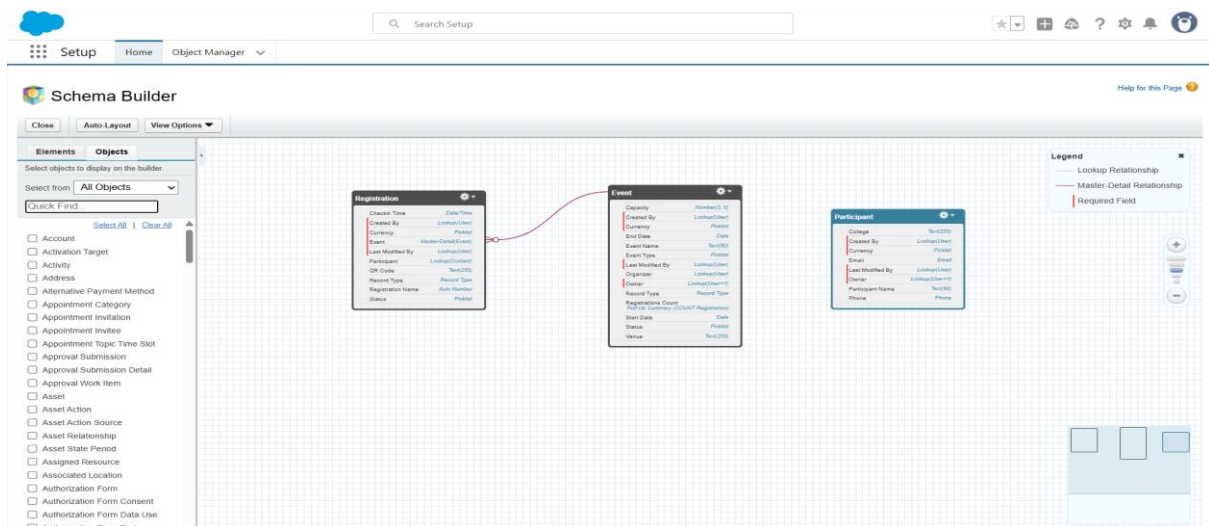
## 4. Compact Layouts (Mobile)

- **Event Compact Layout:** Event Name, Start Date, Venue, Status and selected this as primary in edit assignment.
- **Registration Compact Layout:** Registration ID, Participant, Status.



## 5. Schema Builder Visualization

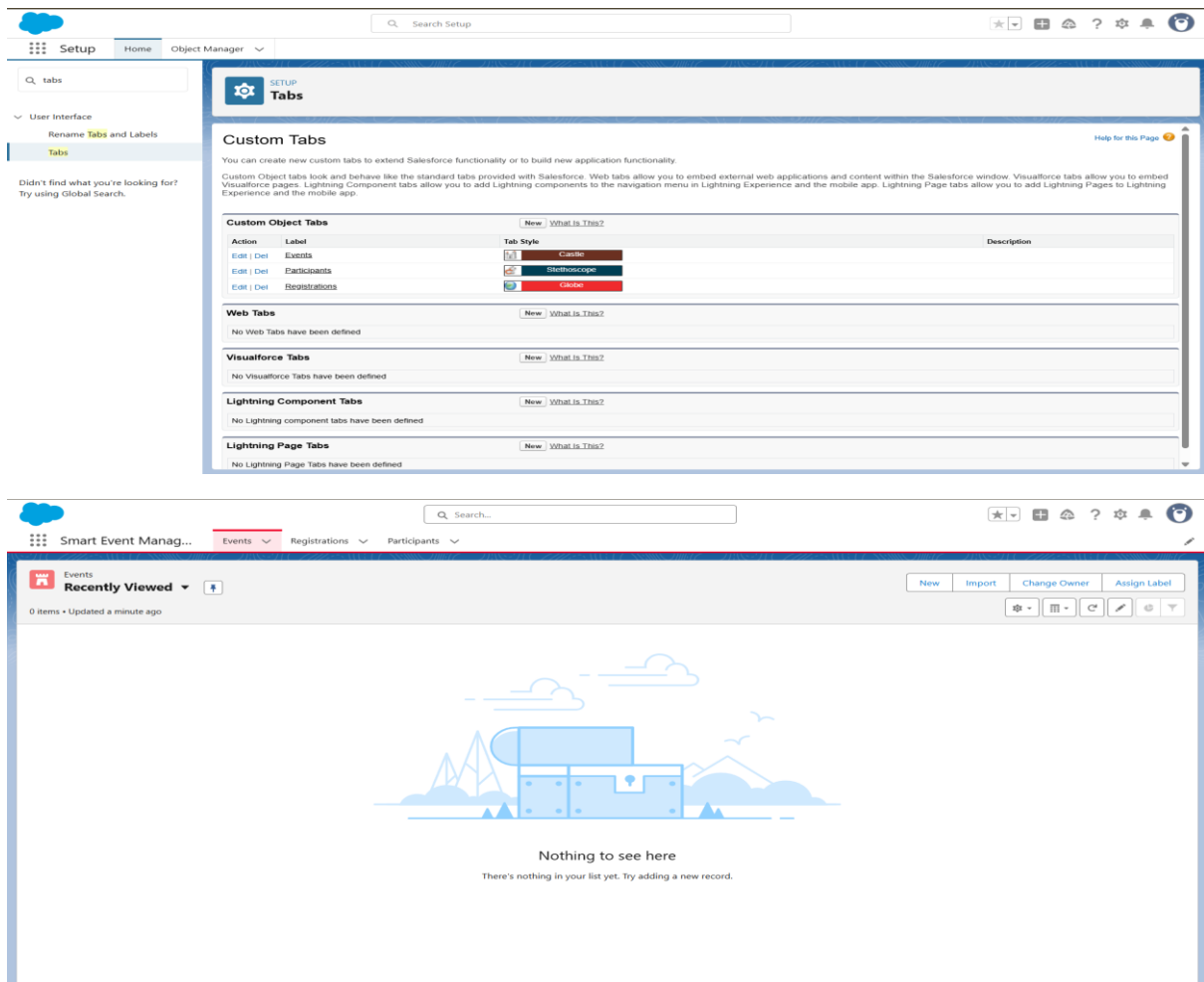
- Created ER diagram of Event–Registration–Participant–Session.
- Ensures clarity of relationships for both admins and developers.



## 6. Tabs & App Navigation

- Created **Custom Tabs** for Event, Registration, and Session objects.
- Added them to the **Smart Event Management App** via App Manager.

- This ensures users can access and navigate to these records directly from the App Launcher.



## 7. Data Dictionary

Prepared a **data dictionary** to clearly describe all custom objects, fields, and relationships:

	A	B	C	D	E
1	Object	Field Label	API Name	Type	Notes
2	Event	Event Name	Name	Text	Record Name
3	Event	Start Date	Start_Date__c	Date	Event start
4	Event	End Date	End_Date__c	Date	Must be after Start Date
5	Event	Venue	Venue__c	Text(255)	Location of event
6	Event	Capacity	Capacity__c	Number(3,0)	Max participants
7	Event	Registrations Count	Registrations_Count__c	Roll-Up (COUNT)	Number of registrations
8	Registration	Registration No.	Name	AutoNumber	REG-{0000}
9	Registration	Event	Event__c	Master-Detail(Event)	Parent event
10	Registration	Participant	Participant__c	Lookup(Contact)	Linked participant
11	Registration	Status	Status__c	Picklist	Registered, CheckedIn, Cancelled, Waitlisted
12	Registration	QR Code	QR_Code__c	Text(100)	For check-in
13	Registration	Check-in Time	Checkin_Time__c	DateTime	Attendance log
14					
15					
16					
17					

## 8. Sample Data Preparation

Created sample CSV files to test imports.

Imported using **Data Import Wizard** to verify data loading.

The screenshot displays the Salesforce Setup interface for Bulk Data Load Jobs. The left sidebar shows the navigation menu with 'Setup', 'Home', and 'Object Manager'. The main content area is titled 'Bulk Data Load Jobs' and shows the details of a specific job. Below the job details, there is a table of batches.

**Bulk Data Load Job Detail**

Field	Value	Field	Value	Field	Value
Job ID	750gK00000DyGs	Job Type	Bulk V1	Status	Closed
Submitted By	Vismitha K	Operation	Insert	Total Processing Time (ms)	0
Start Time	9/23/2025, 8:53 PM PST	Queued Batches	1	API Active Processing Time (ms)	0
End Time		In Progress Batches	0	Apex Processing Time (ms)	0
Time to Complete (hh:mm:ss)		Completed Batches	0		
Object	Participant	Failed Batches	0		
External ID Field		Progress	0%		
Content Type	CSV	Records Processed	0		
Concurrency Mode	Parallel	Records Failed	0		
API Version	64.0	Retries	0		

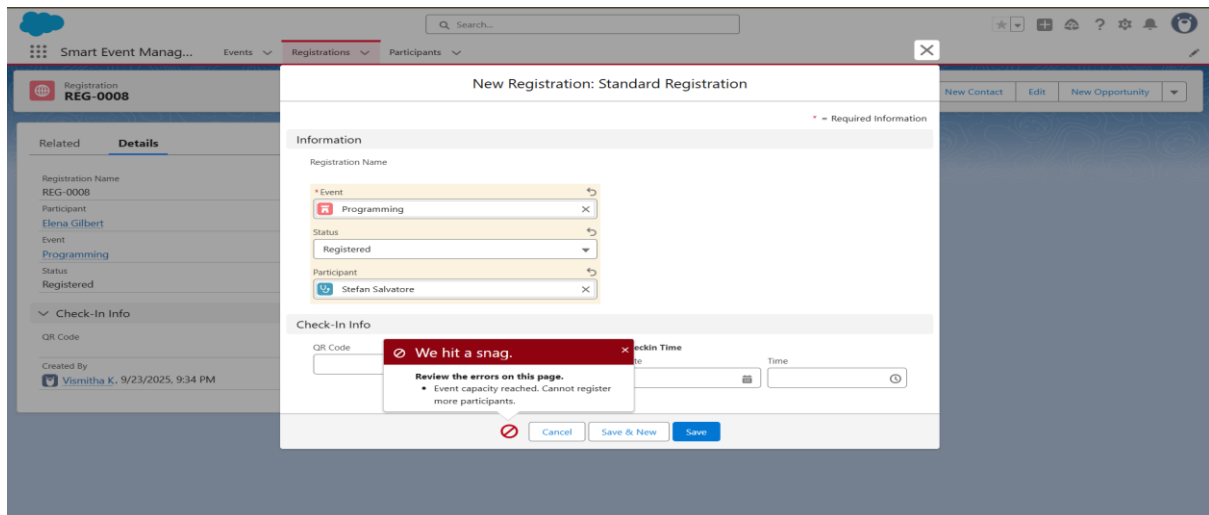
**Batches**

View Request	View Result	Batch ID	Start Time	End Time	Total Processing Time (ms)	API Active Processing Time (ms)	Apex Processing Time (ms)	Records Processed	Records Failed	Retry Count	State Message	Status
<a href="#">View Request</a>	<a href="#">View Result</a>	751gK00000B4kyn	9/23/2025, 8:53 PM	9/23/2025, 8:53 PM	70	29	0	2	0	0		Completed

The second screenshot shows the 'Participants' page in Salesforce. It displays a list of 4 participants, sorted by name. The participants are: Elena Gilbert, John Doe, Stefan Salvatore, and Vismitha Shetty. The page includes a search bar, a 'Participants' dropdown menu, and a 'New' button.

## 9. Testing & Verification

- Created an **Event** with capacity = 3.
- Added 3 **Registrations** successfully.
- Attempted 4th registration: blocked by Validation Rule → error shown: *“Event capacity reached. Cannot register more participants.”*
- Tested cancellation of a registration → count reduced → allowed new registration.
- Verified roll-up summary auto-updates.
- Confirmed End Date validation works (cannot set end date before start date).



## OUTCOME OF PHASE 3

- **Core Data Model** established with Events, Registrations, and Participants.
- **Relationships** (Master-Detail & Lookup) ensure data integrity and inheritance of visibility.
- **Roll-Up Summaries & Validation Rules** enforce logical constraints (capacity, date checks).
- **Tabs, Layouts, Schema Builder** provide usability and visualization.
- **Test Data & Import** verified that the system works as designed.
- The project is now ready for **Phase 4: Process Automation**, where workflows, approvals, and Flows will be added.