Junction Object

A junction object in Salesforce establishes a many-to-many relationship between objects. The junction object acts as a middleman between the preceding objects whether the 2 objects are custom or standard. What is necessary is to have the master-detail relationship established with the junction object—one with each object.

The purpose of this is to offer flexibility when relating records from multiple parent records to multiple child records.

An example already made in salesforce is the opportunity-product object (which is a junction object) This is in between the opportunity and product object in salesforce. Because many opportunities can have many products or many products can be associated with many opportunities.

The advantages of a junction object:
- Better reporting on related records.
- Workaround complex scenarios and scalability to have data organized in the appropriate manner.
- Better data management.

Let's go through the example together.

We will use 3 objects:

Your team works in real estate owning multiple properties from apartments to triplexes. Your business rents out one of the owned real estate.

Properties: This object will store information about your rental properties, including address, unit number, square footage, and property type (apartment, single-family home, etc.).

Maintenance Requests: This object serves as the central hub for capturing and managing tenant requests. It can include fields like:

- Description of the issue
- Priority level (urgent, moderate, low)
- Attachments (to document the issue)
- Service date/time

Tenant (Using Contacts Object): Links the request to the specific tenant who submitted it.

The junction object will be maintenance requests. There could be many properties with many tenants. Properties can have many tenants and many tenants can live in one of those properties.

The Relationship Breakdown

- **Properties and Maintenance Requests:** A single property can have multiple maintenance requests. This is a **one-to-many** relationship. For example, a single apartment building (Property) might have multiple maintenance requests (Plumbing, Electrical, etc.).
- **Tenants and Maintenance Requests:** A single tenant can submit multiple maintenance requests. This is also a **one-to-many** relationship. For example, a single tenant might report multiple issues within their apartment.
- **Tenants and Properties:** A tenant can occupy one or more properties (e.g., a family renting multiple units in the same building). This is a **many-to-many** relationship, as a tenant can be associated with multiple properties and a property can have multiple tenants. This is often handled in Salesforce by using a junction object, but in this simplified example, we used the Tenant object directly to link to the Properties object.

Once the objects are available in your Salesforce instance.

From object manager >

Select junction object (in this example it is the Maintenance requests object) >
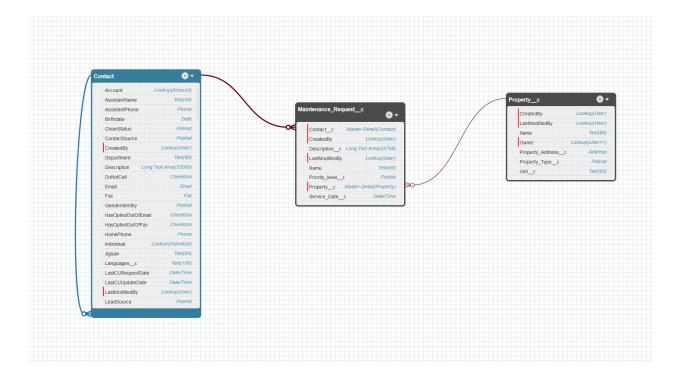
Click on field and relationships>

Click new >

Select Master-detail relationship >

Select the object you want to relate it to >

Add field name of your choice or it could be the default >

Complete the rest of the field creation steps.

Here is a screenshot of the many-to-many relationship. Contact and property objects are parents to the maintenance request objects. (above screenshot)

Here is a sample report displaying that each property has a number of maintenance requests (Child records). Below Screenshot.

Report: Properties with Maintenance Requests and Contacts
Properties sample

Total Records
11

Property: Property Name ↑	Property Address (Street) ↑	Property Address (City)	Property Type	Contact: First Name	Contact: Last Name	Maintenance Request: Maintenance Request Name	Priority level	Service Date	Unit
Birch Triplex (3)	101 Birch Blvd	New York	Triplex	Lisa	Brown	Pest Control	Moderate	1/17/2024, 5:00 AM	1A
	101 Birch Blvd	New York	Triplex	Tom	Davis	Plumbing Issue	Urgent	1/19/2024, 3:00 AM	1B
	101 Birch Blvd	New York	Triplex	Sarah	Wilson	Electrical Issue	Urgent	1/20/2024, 8:00 AM	2A
Subtotal									
Cedar Single Family Home (1)	555 Cedar Ct	New York	Single Family Home	James	Taylor	Garage Door Fix	Urgent	1/25/2024, 2:00 AM	-
Subtotal									
Elm Apartments (2)	1000 Elm St	New York	Apartment	Emily	Anderson	Water Heater Replacement	Urgent	1/27/2024, 4:00 AM	1A
	1000 Elm St	New York	Apartment	Chris	Thomas	Window Replacement	Moderate	1/29/2024, 1:00 AM	2B
Subtotal									
Maple Apartments (2)	123 Maple St	New York	Apartment	John	Doe	Leaky Faucet Fix	Urgent	1/10/2024, 2:00 AM	2B
	123 Maple St	New York	Apartment	David	White	Roof Repair	Low	1/22/2024, 12:00 AM	3A
Subtotal									
Oak Duplex (2)	456 Oak Ave	New York	Duplex	Jane	Smith	Broken Window Repair	Moderate	1/12/2024, 6:00 AM	1
	456 Oak Ave	New York	Duplex	Mary	Moore	Landscaping	Moderate	1/24/2024, 7:00 AM	1
Subtotal									
Pine Single Family Home (1)	789 Pine Rd	New York	Single Family Home	Mike	Johnson	HVAC Maintenance	Low	1/15/2024, 1:00 AM	-
Subtotal									
Total (11)									

Row Counts Detail Rows Subtotals Grand Total