

A young child with brown hair and eyes is the central figure. They are wearing a bright yellow, chunky-knit beanie and a dark green, quilted jacket. Their hands are raised to their eyes, with fingers spread, as if they are playfully hiding or peeking. They are also wearing a red and white patterned sweater underneath the jacket. The background is a blurred blue, suggesting an outdoor setting like a playground or park.

# Software Cloud Computing

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# — Index

## Week #2 – Lesson #2

- Review last lesson
- Introducing different types of relationships:
  - Lookup Relationship
  - Master-Detail Relationship
  - Many-to-Many Relationship
  - Hierarchical Relationship
- Schema Builder
- Data Management

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# Review last lesson



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# CRM

## **Reactive**

- Sales, Service & Marketing
- CRM Information

## **Anticipatory & proactive**

- Customer Experience (CX)
- CX exists across Multiple channels / applications



## **Salesforce** - facilitates the following customer interactions:

- Sell – Products, Services, Quoting
- Service – Repairing, Helping
- Market – Tracking metrics, defining selling groups
- Analyze – Measure, compare (Business Intelligence)
- Connect – Realtime communication, chat, automatic and connect decoupled/legacy systems



# Objects

**Objects** are tables in the Salesforce database that store a particular kind of information.

There are **standard objects** like Accounts and Contacts and **custom objects** created by developers and admins.

- **Standard Objects** — These are objects included with Salesforce, by default, for example the objects used to store data in standard tabs such as accounts, contacts or opportunities.
- **Custom Objects** — These are new objects you create to store information unique to your application. Custom objects extend the functionality that standard objects provide.

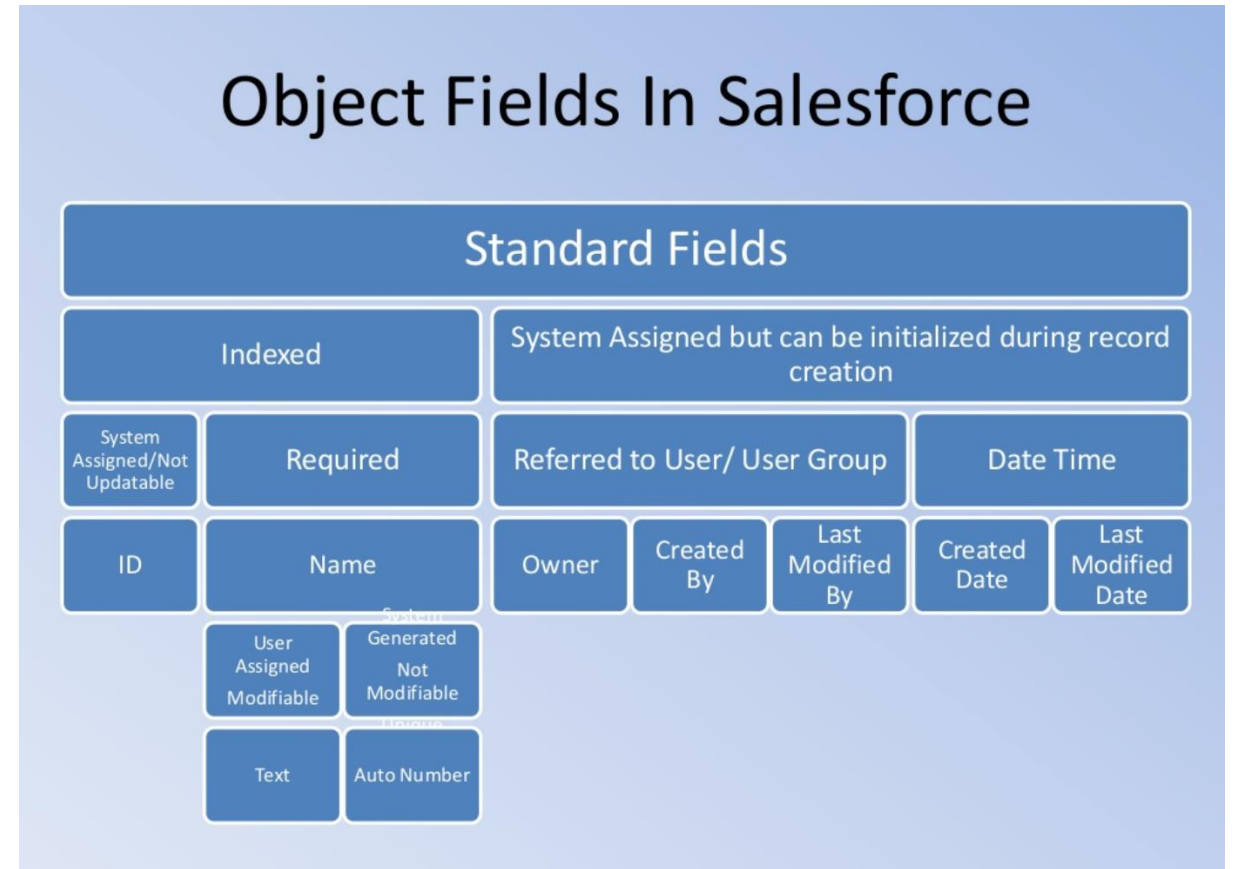
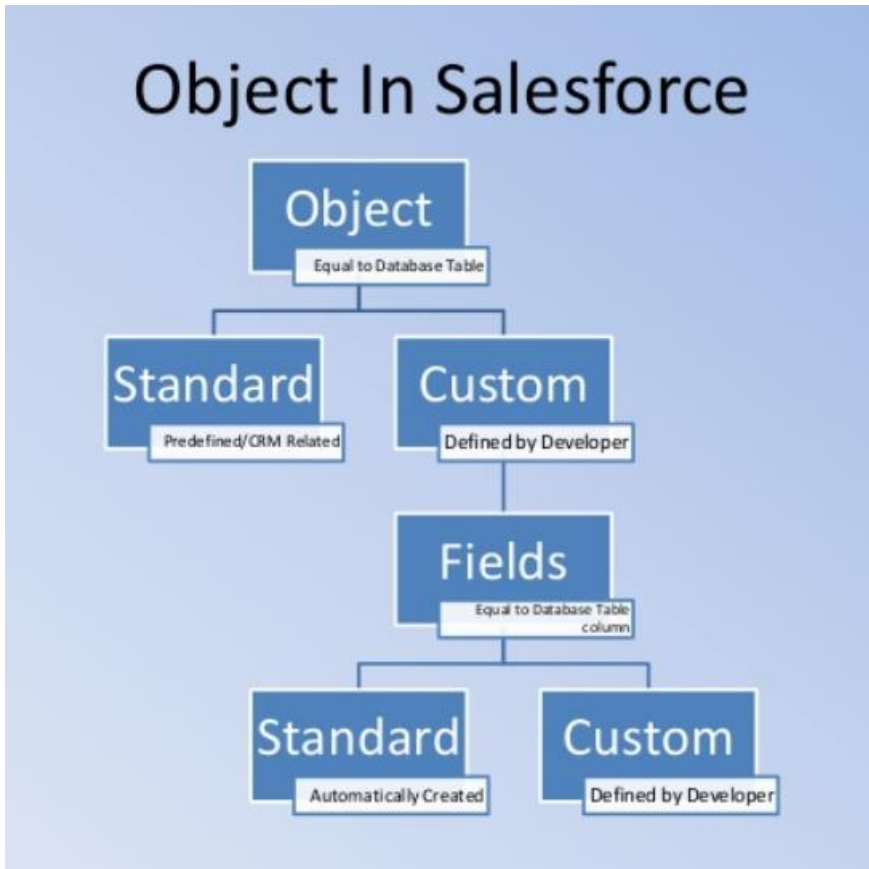
**Fields** are columns in object database tables. Both standard and custom objects have fields.

**Records** are rows in object database tables. Records are the actual data associated with an object.

# Fields

Field Type	What is it?	Can I get an example?
<b>Identity</b>	A 15-character, case-sensitive field that's automatically generated for every record. You can find a record's ID in its URL.	An account ID looks like 0015000000Gv7qJ.
<b>System</b>	Read-only fields that provide information about a record from the system, like when the record was created or when it was last changed.	CreatedDate, LastModifiedById, and LastModifiedDate.
<b>Name</b>	All records need names so you can distinguish between them. You can use text names or auto-numbered names that automatically increment every time you create a record.	A contact's name can be Julie Bean. A support case's name can be CA-1024.
<b>Custom</b>	Fields you create on standard or custom objects are called custom fields.	You can create a custom field on the Contact object to store your contacts' birthdays.

# Objects & Fields



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# Object relationships





# Object Relationships

- Object relationships are a special field type that connects two objects together
- Example: Account and Contact

The screenshot displays the Salesforce interface for an Account named 'ACCOUNT Edge Communications'. At the top, there are buttons for '+ Follow', 'Edit', and 'New Contact'. Below this, the account details are shown: Type (Customer - Direct), Phone ((512) 757-6000), and Website (http://edgecomm.com). A tabbed interface shows 'RELATED', 'DETAILS', and 'NEWS' tabs, with 'RELATED' being the active tab. A message box states: 'We found no potential duplicates of this account.' Below this, a section titled 'Contacts (2)' lists two contacts: Sean Forbes (CFO, sean@edge.com, (512) 757-6000) and Rose Gonzalez (SVP, Procurement, rose@edge.com, (512) 757-6000). A 'View All' link is at the bottom right of the contacts list.

Type	Phone	Website
Customer - Direct	(512) 757-6000	<a href="http://edgecomm.com">http://edgecomm.com</a>

RELATED DETAILS NEWS

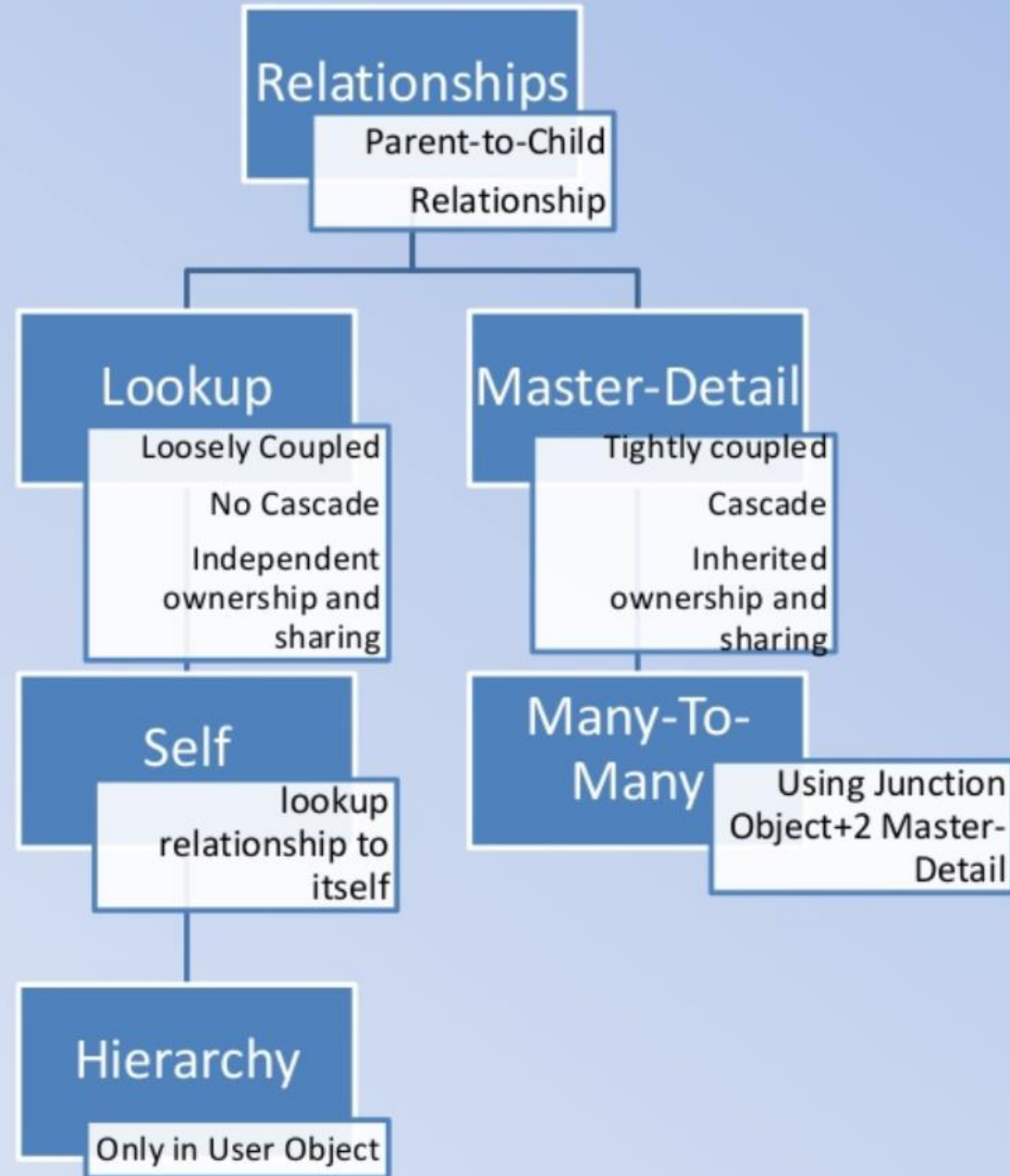
We found no potential duplicates of this account.

**Contacts (2)**

Name	Title	Email	Phone
Sean Forbes	CFO	sean@edge.com	(512) 757-6000
Rose Gonzalez	SVP, Procurement	rose@edge.com	(512) 757-6000

View All

# Object Relationships



# — Lookup Relationship

- A **Lookup relationship** basically links two objects together so that you can “look up” one object from the related items on another object.

- A **Lookup relationships can be one-to-one...**

This means that a single record can have only one related record

- **or one-to-many**

This means that a single record can have multiple related records.

*Source: Trailhead, Data Modelling*

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## Master-Detail Relationship

- A **parent-child relationship** where the *master* (parent) object controls certain behaviors of the *detail* (child) object;
- This type of relationship is more tighter meaning that when the parents is deleted, the child records are also deleted;
- Standard objects can't be on the detail side;

*Example:* A property and an offer, or an Invoice and Invoice lines

*For more detail information: [https://developer.salesforce.com/docs/atlas.en-us.api.meta/api/relationships\\_among\\_objects.htm](https://developer.salesforce.com/docs/atlas.en-us.api.meta/api/relationships_among_objects.htm)*

# — Lookup vs Master-Detail Relationship

## Comparison of Object Relationships

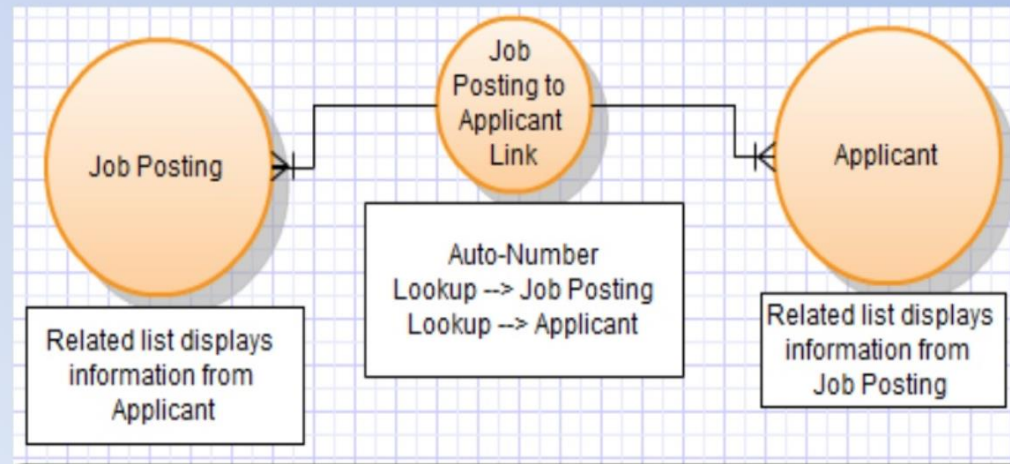
	Lookup Relationship	Master-detail Relationship
Coupled	Loosely	Tightly
Child field value	Optional	Required
Cascade Delete	No	Yes
Ownership & sharing	Independent	Inherited from parent
Maximum relationship per object	25	2
Roll-up summary in parent supported	No	Yes
Multiple Layers	Yes	Yes (Depend the number on the object is Standard or Custom)



# Many-to-Many Relationship

- A many-to-many relationship allows each record of one object to be linked to multiple records from another object and vice versa.
- For creating a many-to-many relationship is necessary to create a **junction object** in order to link the two objects you want to relate.

Required 3<sup>rd</sup> object called junction object

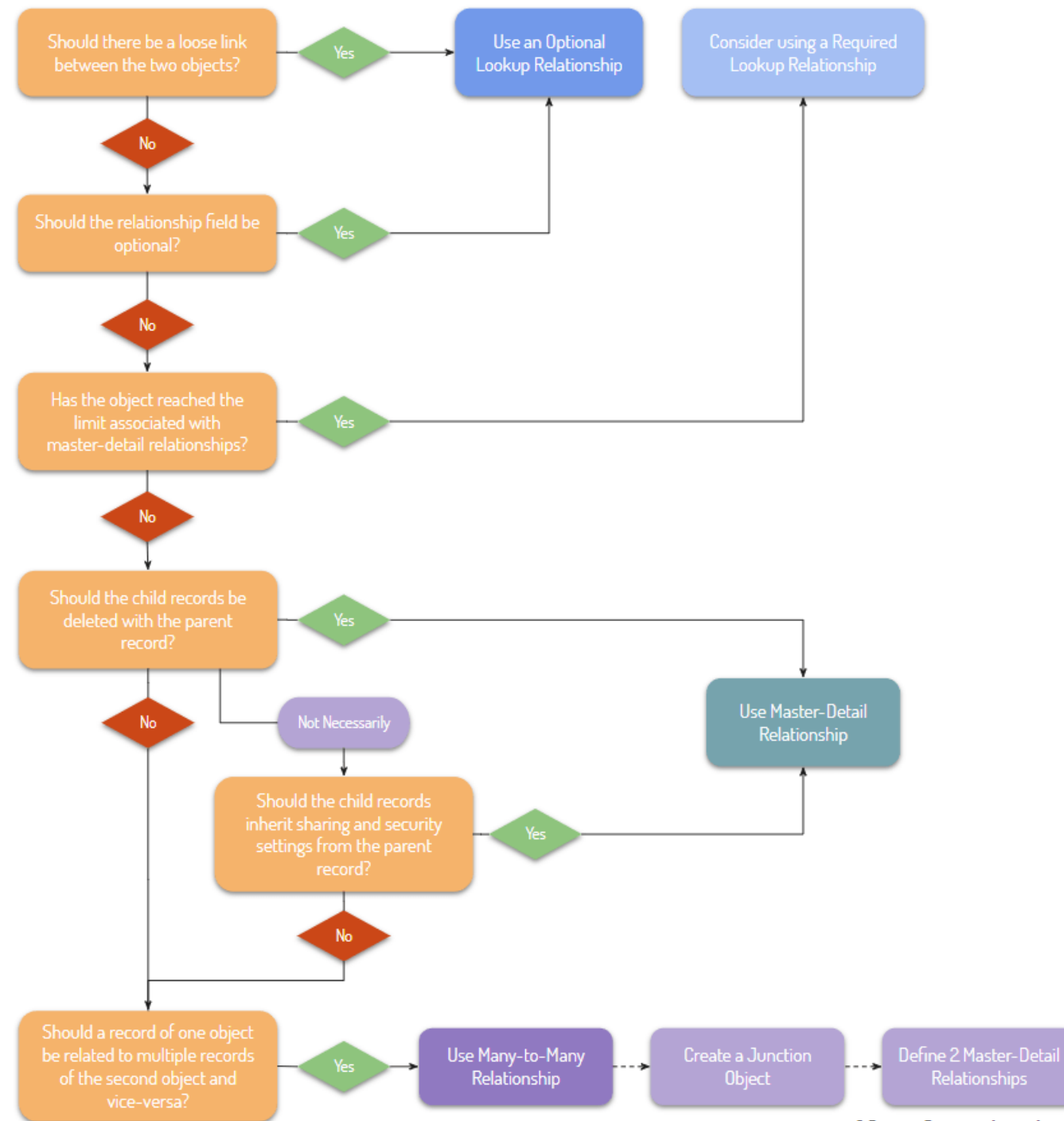


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# Hierarchical Relationship

- A Hierarchical relationship is a type of Lookup relationship.
- The main difference for a Lookup relationship is that this relationship is only available for the **User** object.
- Allows associating one user to another user.

# How to choose the right relationship



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# Schema Builder



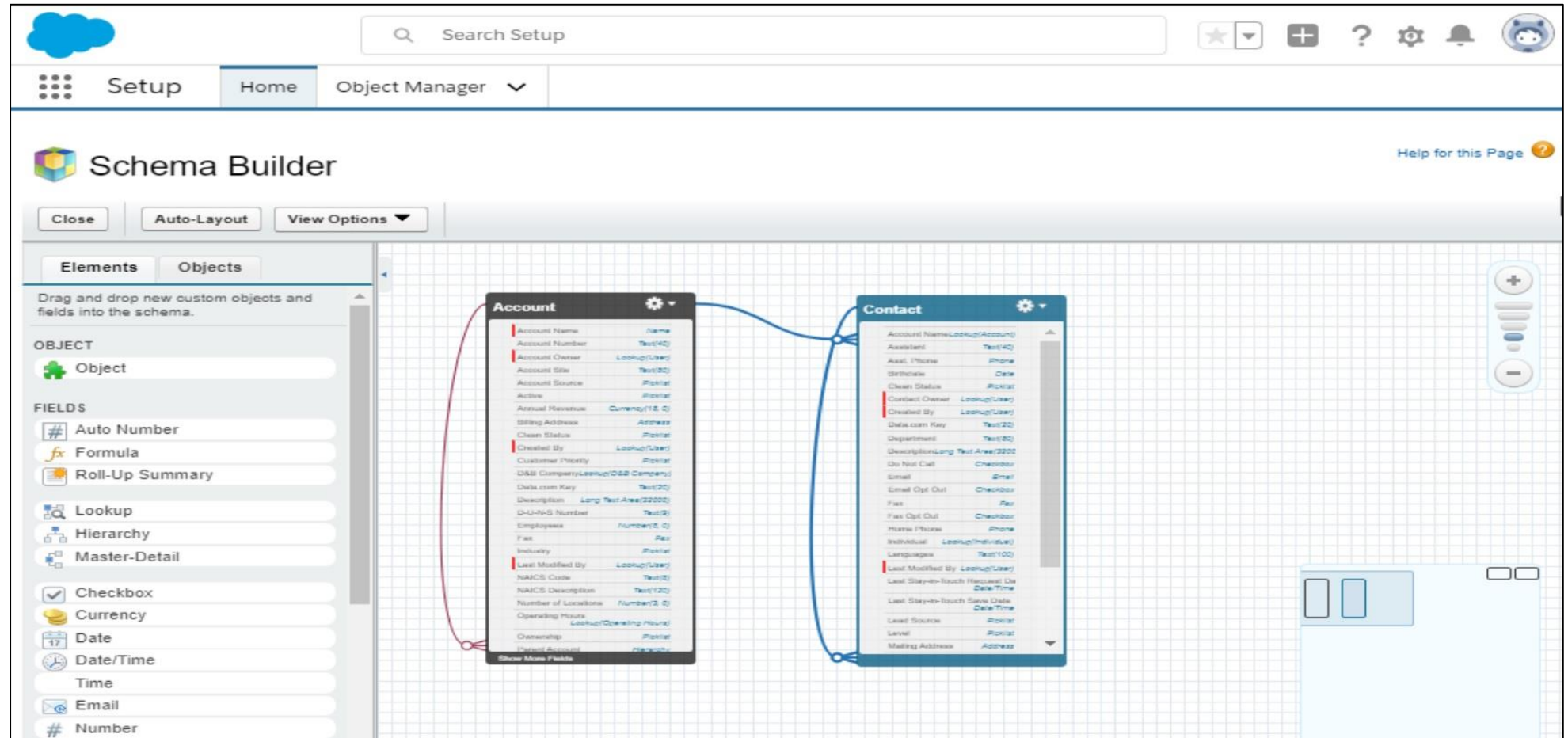
# — Schema Builder

- It is a tool used for creating and viewing data models or customizing them.
- Allows to view the relationship structure and fields for each object
- Creating new custom objects and fields
- Interactive environment that shows the relationship through lines connecting objects



# Schema Builder

- From the gear icon (⚙️), click **Setup** to launch the setup page.
- On the *Quick Search*, enter *Schema Builder*, when filtered, click on **Schema Builder** option;



## References

- Trailhead data modeling Create object Relationship
- [https://developer.salesforce.com/docs/atlas.en-us.api.meta/api/relationships\\_among\\_objects.htm](https://developer.salesforce.com/docs/atlas.en-us.api.meta/api/relationships_among_objects.htm)

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# Data management



# Data management

## Import Data

- **Data Import Wizard**

- You need to load less than 50,000 records.
- The objects you need to import are supported by the wizard.
- You don't need the import process to be automated

- **Data Loader**

- You need to load 50,000 to five million records.
- You need to load into an object that is not supported by the Data Import Wizard.
- You want to schedule regular data loads, such as nightly imports.

# Data management

## Use Data Import Wizard

- From Setup, enter Data Import Wizard in the Quick Find box, then select **Data Import Wizard**.
- Choose the data that you want to import
- To import accounts, contacts, leads, solutions, person accounts, or campaign members, click **Standard Objects**. To import custom objects, click **Custom Objects**.
- Specify whether you want to add new records to Salesforce, update existing records, or add and update records simultaneously.
- Specify the file that contains your data.
- Choose a character encoding method for your file. Most users can accept the default character encoding.
- Map your data fields to Salesforce data fields.
- Review and start your import.



# Data management

## Import Starships Data Sample





# Data management

## Export Data

- **Data Export Wizard**

- Browser wizard, accessible through the Setup menu.
- It allows you to export data manually once every 7 days (for weekly export) or 29 days (for monthly export).
- You can also export data automatically at weekly or monthly intervals.
- In Professional Edition and Developer Edition, you can generate backup files only every 29 days, or automatically at monthly intervals only.

- **Data Loader**

# Data management

## Export Data

1. From Setup, enter Data Export in the Quick Find box, then select **Data Export** and **Export Now** or **Schedule Export**.
  - The **Export Now** option prepares your files for export immediately. This option is only available if enough time has passed since your last export.
  - The **Schedule Export** option allows you to schedule the export process for weekly or monthly intervals.
2. Select the desired encoding for your export file.
3. If you want images, documents, attachments, and so on included in your data, select the appropriate options.
4. Select Replace carriage returns with spaces to have spaces instead of carriage returns or line breaks in your export files. This is useful if you plan to use your export files for importing or other integrations.
5. If you're scheduling your export, select the frequency (only available for organizations with monthly exports), start and end dates, and time of day for your scheduled export.
6. Under Exported Data, select the types of data to include in your export. We recommend that you select **Include all data** if you're not familiar with the terminology used for some of the types of data.

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# Question time!

**I need to import 150.000 records, what Import tool I need to use?**

- Data Import Wizard

or

- Data Loader

# Question time!

**I need to import 150.000 records, what Import tool I need to use?**

- Data Import Wizard 

or

- Data Loader 



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