



JECRCTM
UNIVERSITY
BUILD YOUR WORLD

SALESFORCE

Submitted By:-

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Course Outcomes (COs)

Possible usefulness of this course after its completion i.e. how this course will be practically useful to him once it is completed.

CO 1

Understanding fundamentals of Salesforce platform

CO 2

Comprehending customization of Salesforce platform

CO 3

Analyze different security features by learning how to secure organization's data and how users can work together to keep data safe.

CO 4

Learn about the power of Sales Cloud and Service Cloud in Salesforce.

Explore Reports and Dashboards which visualize key business metrics in real-time and create eye catching Dashboard to display key business information.

CO 5

UNIT 2**Introduction**

- Lightning Experience Basics
- Data Modeling,
- Formulas & Validations,
- Picklist Administration,
- AppExchange Basics,
- Data Management,
- Customize a Salesforce Object

Lightning Experience

CRM stands for Customer Relationship Management. This technology allows you to manage relationships with your customers and prospects and track data related to all of your interactions.

It also helps teams collaborate, both internally and externally, gather insights from social media, track important metrics, and communicate via email, phone, social, and other channels.

In Salesforce, all of this information is stored securely in the cloud. Let's take a closer look at how that works, using an example you might be familiar with—a spreadsheet.

The screenshot displays the Salesforce Lightning Experience. At the top, there is a header bar with tabs for Sales, Home, Opportunities, Leads, Files, Accounts, Contacts, Campaigns, Dashboards, Reports, and More. Below the header is a search bar labeled "Search Salesforce". The main content area shows an "Opportunity" record titled "Global Media - 220 Widgets". The opportunity details include: Account Name (Acme), Close Date (1/30/2018), Amount (\$12,000,000), and Opportunity Name (Global Media - 220 Widgets). The "Opportunity Owner" is listed as Madison Rigsby. The interface includes a navigation bar with icons for Follow, Edit, New Case, and New Note, and a "Mark Stage as Complete" button. On the left, there is an "Activity" section with buttons for Log a Call, New Task, New Event, and Email. On the right, there are sections for Products (1) and Notes & Attachments (1). A red box highlights the opportunity record, and another red box highlights the navigation bar below the header.

Salesforce Standard and Custom Objects

Accounts

Accounts are the companies you're doing business with. You can also do business with individual people (like solo contractors) using something called Person Accounts.

Contacts

Contacts are the people who work at an Account.

Leads

Leads are potential prospects. You haven't yet qualified that they are ready to buy or what product they need. You don't have to use Leads, but they can be helpful if you have team selling, or if you have different sales processes for prospects and qualified buyers.

Opportunities

Opportunities are qualified leads that you've converted. When you convert the Lead, you create an Account and Contact along with the Opportunity.

Navigate Setup

Let's take a look at some of the basic navigation features in Salesforce, starting with the navigation bar. Think of the navigation bar as a container for a set of items and functionality. It's always there, but the items within it change to represent the app you're using.

- The app name displays on the left side of the navigation bar (1), and custom colors and branding (2) make each app unique and easy to identify.
- You can access other items and apps by clicking the App Launcher icon (3) or the app name.
- You can create records and access recent records and lists directly from the navigation bar (4) for certain items like Opportunities.

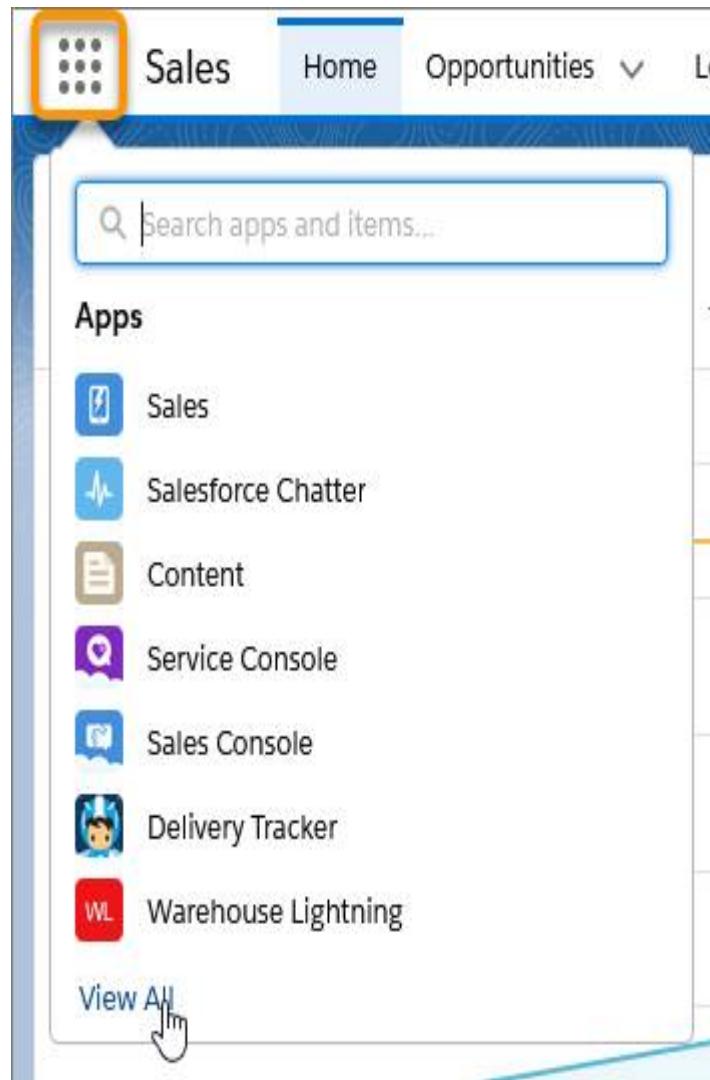
The screenshot shows the Opportunities page in Salesforce. The navigation bar at the top includes the app name 'Sales' (1), a blue header with 'Opportunities' (2), the App Launcher icon (3), and a 'New Opportunity' button (4). The main content area displays a list of opportunities with columns for Account Name, Stage, Close Date, and Opportunity Name. A sidebar on the left shows 'Recently Viewed' items and 'Recent Records' for Global Media.

Account Name	Stage	Close Date	Opportunity Name
Colorado	Needs Analysis	9/20/2017	CMoun
Colorado	Needs Analysis	8/30/2017	CMoun

Items and Apps for Efficient Navigation

Let's set sail on a quick navigation tour to see how you and your users can drill into a standard or custom object from the navigation bar. Just click on the item (for example, Opportunities) to view the item home screen.

If you don't see the item you're looking for in the navigation bar, or if you want to open a different app, click the App Launcher icon.



All Apps shows your custom, standard, Lightning Experience, and connected apps in one place. Your admin chooses which third-party apps to connect with Salesforce, such as Gmail, Google Drive, and Office 365. (1)

All Items shows the home page, the feed, tasks, events, objects, custom tab types, and more. These items are independent of the app that shows up on the navigation bar. (2)

You can search for apps, objects, and other resources by name in the Search apps and items box. (3)

Authorized users can go directly to the AppExchange in one click, without leaving Lightning Experience.

(4)

App Launcher

3

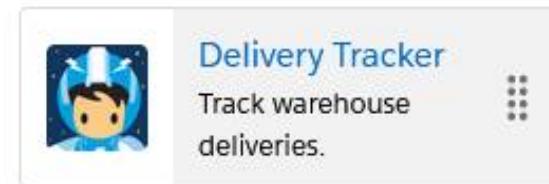
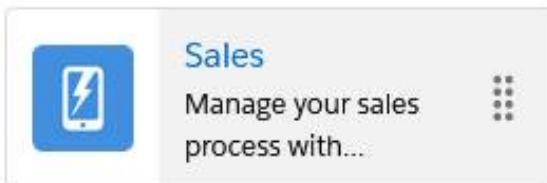
Search apps or items...

4

Visit AppExchange

▼ All Apps

1



Quick Find in Setup (1) is your power tool for getting where you need to go. Type in the Quick Find box to search for pages in the Setup menu. You can also navigate through the Setup menu and find Setup tools based on logical categories. If you're looking for standard and custom objects, you can find those in the Object Manager (5).

The Create menu (2) in the upper right corner appears on every page in setup. It provides quick access to create items that are common in your organization. With the quick create button you can:
Create a new user,
Create multiple users at once,
Create a new custom object,
Create a new custom tab,
Create an email template,
Create a workflow process

The carousel (3) on the Setup home page contains useful tools so you can quickly and easily do things like:
Open the Object Manager and customize records, fields, and layouts

The most recently used list (4) shows your most recently used records or customization features in setup. You can quickly link back to what you were working on with a single click.

The screenshot shows the Salesforce Setup Home page. At the top, there's a navigation bar with 'Setup' (1), 'Home', 'Object Manager' (5), and a search bar 'Search Salesforce'. In the top right corner is a 'Create' button (2). The main area has a sidebar on the left with sections for 'ADMINISTRATION' (Users, Data, Email), 'PLATFORM TOOLS' (Apps, Feature Settings, Objects and Fields, User Interface, Custom Code, Environments), and 'SETTINGS' (Company Settings). To the right of the sidebar is a 'SETUP Home' section with three cards: 'Go to Setup Assistant' (3), 'Go Mobile', and 'Visit AppExchange'. Below these is a 'Most Recently Used' list (4) showing items like 'Feed Item Layout', 'Karen Adams', and 'Lead Layout'. A red box highlights the 'Object Manager' link in the top navigation bar.

NAME	TYPE	OBJECT
Feed Item Layout	Page Layout	Feed Item
Karen Adams	User	
Lead Layout	Page Layout	Lead

Five Things You Shouldn't Miss in Setup

Setup (at the top level)

- Your one stop for customizations
- Learn best practices
- Make magic happen in your organization

Object Manager

- All standard and custom objects live in the Object Manager
- All objects now have a standard detail page that stays visible while you drill into related lists
- Infinite scroll on all objects' related lists

Create Menu

- On every page in Setup
- Quick access to perform common tasks
- Quickly navigate to administrative creation pages without having to navigate the Setup tree

App Menu

- Customization node in the Setup Tree
- Use this to:
 - Reorder Apps in the App Launcher
 - Make apps visible or invisible in the App Launcher

View Release Notes

- Links to the most recent version of the release notes
- Great point of reference for new and existing features

Data Modeling

Salesforce supports several different types of objects. There are standard objects, custom objects, external objects, platform events, and BigObjects. In this module, we focus on the two most common types of objects: standard and custom.

Standard objects are objects that are included with Salesforce. Common business objects like Account, Contact, Lead, and Opportunity are all standard objects.

Custom objects are objects that you create to store information that's specific to your company or industry. For DreamHouse, D'Angelo wants to build a custom Property object that stores information about the homes his company is selling.

Objects are containers for your information, but they also give you special functionality. For example, when you create a custom object, the platform automatically builds things like the page layout for the user interface

Create a Custom Object

Click the arrow next to Launch and select **Create a Trailhead Playground**. Don't skip this step! You need to use a fresh and clean Trailhead Playground for this module.

Once your playground is created (it takes a minute!), press **Launch**.

Click the gear icon at the top of the page and launch setup.

Click the **Object Manager** tab.

Click **Create | Custom Object** in the top-right corner.

For Label, enter Property. Notice that the Object Name and Record Name fields auto-fill.

For Plural Label, enter Properties.

Check the box for **Launch New Custom Tab Wizard after saving this custom object**.

Leave the rest of the values as default and click **Save**.

On the New Custom Object Tab page, click the Tab Style field and select a style you like. The style sets the icon to display in the UI for the object.

Click **Next, Next, and Save**.

Create a Custom Field

The Property object we just created is pretty bare-bones. Let's add some custom fields to it. Head back to your Trailhead Playground.

From Setup, go to **Object Manager | Property**.

In the sidebar, click **Fields & Relationships**. Notice that there are already some fields there. There's a name field and some of the system fields we talked about earlier.

Click **New** in the top right.

For data type, select **Currency**.

Click **Next**.

Fill out the following:

Field Label: Price

Description: The listed sale price of the home.

Check the **Required** box.

Click **Next**, **Next** again, and then **Save**.

Create a Record

Let's create a property record to see what you did.

From the App Launcher (in the navigation bar), find and select **Sales**.

Click the **Properties** tab in the navigation bar. If you don't see it, look under the **More** dropdown.

Click **New** in the top corner. Enter a name and price for the property and click **Save**.

PROPERTY
3711 West Elm St.

RELATED DETAILS

Property Name	Owner
3711 West Elm St.	 D'Angelo Cunningham 
Price	
\$425,000	
Created By	Last Modified By
 D'Angelo Cunningham,	 D'Angelo Cunningham,
5/8/2017 12:40 PM	5/8/2017 12:40 PM

Create Object Relationships

What Are Object Relationships?

Now that we're comfortable with objects and fields, it's time to take things to the next level with object relationships. Object relationships are a special field type that connects two objects together.

Let's think about a standard object like Account. If a sales rep opens an account, they've probably been talking to a few people at that account's company. They've probably made contacts like executives or IT managers and stored those contacts' information in Salesforce.

It makes sense, then, that there should be a relationship between the Account object and the Contact object. And there is!

When you look at an account record in Salesforce, you can see that there's a section for contacts on the Related tab. You can also see that there's a button that lets you quickly add a contact to an account.

The screenshot shows a Salesforce Account record for "Edge Communications". The "RELATED" tab is selected, displaying a list of contacts associated with the account. A blue box highlights the "New Contact" button in the top right corner of the main header area. Below the contacts, a message states, "We found no potential duplicates of this account." The contact list includes Sean Forbes (CFO) and Rose Gonzalez (SVP, Procurement).

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

There are two main types of object relationships: lookup and master-detail.

Lookup Relationships

In our Account to Contact example above, the relationship between the two objects is a **lookup relationship**. A lookup relationship essentially links two objects together so that you can “look up” one object from the related items on another object.

Lookup relationships can be one-to-one or one-to-many. The Account to Contact relationship is one-to-many because a single account can have many related contacts. For our DreamHouse scenario, you could create a one-to-one relationship between the Property object and a Home Seller object.

Master-Detail Relationships

While lookup relationships are fairly casual, **master-detail relationships** are a bit tighter. In this type of relationship, one object is the master and another is the detail. The master object controls certain behaviors of the detail object, like who can view the detail’s data.

For example, let’s say the owner of a property wanted to take their home off the market. DreamHouse wouldn’t want to keep any offers made on that property. With a master-detail relationship between Property and Offer, you can delete the property and all its associated offers from your system.

Create a Lookup Relationship

To start, create a custom object called Favorite and add a field to the object.

1. Click the **Object Manager** tab.
2. Click **Create | Custom Object** in the top-right corner.
3. For Label, enter **Favorite**.
4. For Plural Label, enter **Favorites**.
5. Check the box for **Launch New Custom Tab Wizard after saving this custom object**.
6. Leave the rest of the values as default and click **Save**.
7. On the New Custom Object Tab page, click the Tab Style field and select a style you like.
8. Click **Next**, **Next**, and **Save**.
9. On the Object Manager page for the custom object, click **Fields & Relationships**.
10. Click **New**.
11. For Data Type, select **Auto Number**, then click **Next**.
12. Enter the following for the new custom field:
 - Field Label: **Favorite Name**
 - Display Format: **FA-{0000}**
 - Starting Number: **1**
13. Click **Next**, **Next**, and **Save**.

Create Custom Relationship Fields

We're going to create two custom relationship fields on the Favorite object. First, let's create a lookup relationship that lists the users who select **Favorite** for a property.

1. From Setup, go to **Object Manager | Favorite**.

2. On the sidebar, click **Fields & Relationships**.

3. Click **New**.

4. Choose **Lookup Relationship** and click **Next**.

5. For Related To, choose **Contact**.

For the purposes of DreamHouse, contacts represent potential home buyers.

6. Click **Next**.

7. For Field Name, enter **Contact**, then click **Next**.

8. Click **Next**, **Next**, and **Save & New**.

Create a Master-Detail Relationship

Now, we're going to create a second relationship field. We want a master-detail relationship where **Property** is the master and **Favorite** is the detail.

1. On the Object Manager page for the custom object, click **Fields & Relationships**.

2. Click **New**.

3. Select **Master-Detail Relationship** and click **Next**.

4. For Related To, choose **Property**.

5. Click **Next**.

6. For Field Name, enter **Property** and click **Next**.

7. Click **Next**, **Next**, and **Save**.

8. Go to the Sales app and click on the **Property** tab. If you look at a **Property** record, you'll see **Favorites (0)** in the related tab.

9. Click **New**.

10. Enter a name for **Favorite Name**, then click **Save**.



PROPERTY
3711 West Elm St.

New Contact

Edit

New Opportunity



RELATED

DETAILS



Favorites (1)

New

FAVORITE NAME

FA-0001



[View All](#)

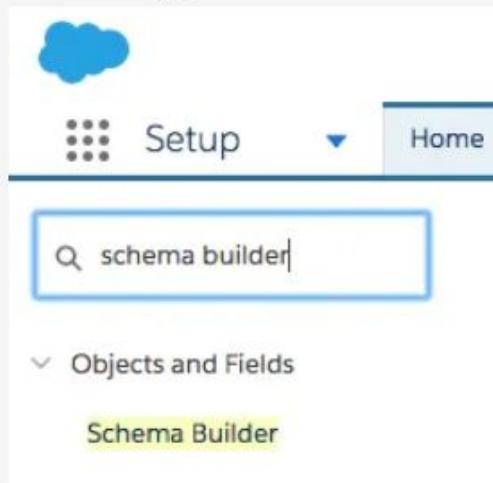
Work with Schema Builder

See Your Data Model in Action

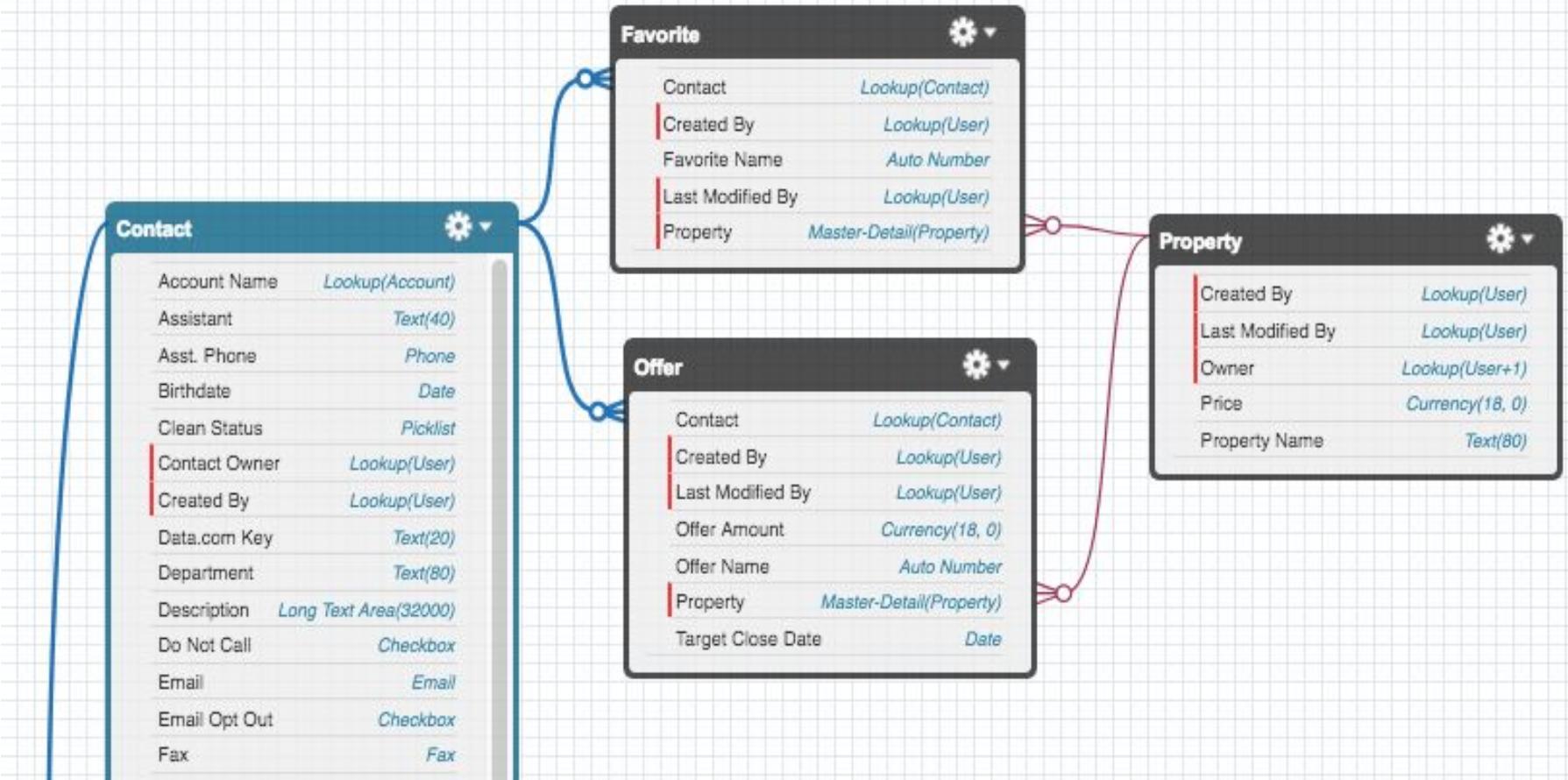
By now, you and D'Angelo have created a handful of custom objects, fields, and relationships. Your app's data model is starting to get a little more complicated.

Schema Builder is a tool that lets you visualize and edit your data model. It's useful for designing and understanding complex data models like the one D'Angelo is building. Let's take a look.

1. From Setup, search for and click Schema Builder in the Quick Find box.



2. In the left panel, click **Clear All**.
3. Check Contact, Favorite, Offer, and Property.
You should have the Favorite object from the previous unit, and the Offer and Property objects from the previous challenges.
4. Click Auto-Layout.



Notice that you can drag these objects around the canvas. This doesn't change your objects or relationships, but it can help you visualize your data model in a useful way. Schema Builder is a handy tool for introducing your Salesforce customizations to a co-worker or explaining the way data flows throughout your system

Picklist Administration

We have three types of picklists:

Standard

Custom

Custom Multi-Select

And picklist fields can have the following properties:

Restricted

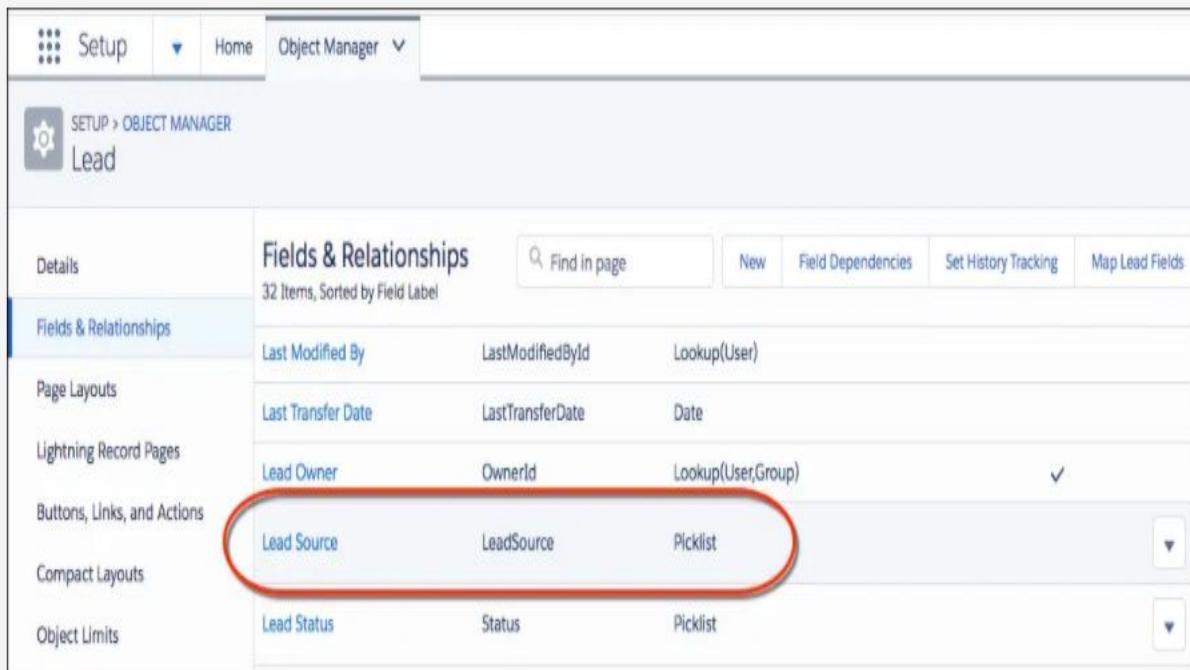
Dependent or Controlling

Values can be defined three ways:

1. Set individual values when you create the picklist. These are specific to a single picklist field.
2. Use the built-in set of values for the standard picklist fields that come with your Salesforce org.
3. Create a global value set. A global value set is a custom set of values you create to share with more than one picklist field.

Standard Picklists

Standard picklists are the ones that are included in your Salesforce org before any customization. Examples include the Lead Source picklist on the Lead object, the Opportunity Stage picklist on the Opportunity object, and others.



The screenshot shows the Salesforce Object Manager interface for the Lead object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. Below the navigation is a sidebar with links: 'SETUP > OBJECT MANAGER' and 'Lead'. The main content area is titled 'Fields & Relationships' with a sub-header '32 Items, Sorted by Field Label'. A red oval highlights the 'Lead Source' field, which is defined by the field name 'LeadSource' and the type 'Picklist'. Other visible fields include 'Last Modified By', 'LastTransferDate', 'Lead Owner', 'Status', and 'Lead Status'.

Details	Fields & Relationships	
	Last Modified By	LastModifiedById
	Last Transfer Date	LastTransferDate
	Lead Owner	OwnerId
	Lead Source	LeadSource
	Lead Status	Status

Standard picklist fields are included for the common fields you likely want on standard objects that come with your org.

Standard picklist fields are included for the common fields you likely want on standard objects that come with your org.

The screenshot shows the Salesforce Object Manager interface for the Lead object. The left sidebar lists various configuration options: Details, Fields & Relationships, Page Layouts (selected), Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Object Limits, Record Types, Related Lookup Filters, and Search Layouts. The main workspace displays the Lead Information section, which includes fields for Lead Owner (Sample User), Name (Sarah Sample), Company (Sample Company), Title (Sample Title), Primary (Sample Primary), Lead Status (Sample Lead Status), Campaign (Sample Campaign), and Lead Source (Sample Lead Source). The Lead Source field is highlighted with a red oval. At the top of the workspace, there are buttons for Save, Quick Save, Preview As..., Cancel, Undo, Redo, and Layout Properties. A Quick Find bar is also present at the top.

Standard picklist fields sometimes share a standard value set. For example, on the Lead object, the Lead Source picklist values are part of a standard value set. The same values are also used on the Account object for the Account Source picklist field. When you change a value from that set in the Lead Source picklist settings, the change also appears in the Account Source picklist field values.

For more flexibility, you need a custom picklist field.

Custom Picklists

Custom picklists are the ones you create. You can add your own values and configure a custom picklist's behavior. As you create a new custom field, select **Picklist** as the field type.

Here are the steps to create a custom picklist. You can do more customization later.

1. In Setup, click the **Object Manager** tab, and then select the object to contain the picklist field.
2. Click **Fields & Relationships**.
3. Click **New**. Select **Picklist**, and then click **Next**.
4. Enter a Label for the picklist field.

The Field Name is automatically assigned. The Field Name is often also called the "API name" since it's a way to reference the field programmatically.

5. Select **Enter values, with each value separated by a new line**.
6. Enter your values.

Product
New Custom Field

Help for this Page

Step 2 of 4

Previous Next Cancel

Field Label

Values Use global picklist value set
 Enter values, with each value separated by a new line

Gingerbread
Strawberry
Chocolate
Raspberry

Display values alphabetically, not in the order entered
 Use first value as default value
 Restrict picklist to the values defined in the value set

Field Name

7. Optionally, sort the values alphabetically or use the first value in the list as the default value, or both.
If you select both options, Salesforce alphabetizes the entries and then sets the first alphabetized value as the default.
You can use a formula to assign a default value dynamically. We get into that later.
8. Choose whether to restrict this picklist's values to an admin-approved list. This is where you can decide this should be a **restricted picklist**. You can change it later if you find that you do need to accept new values in the field.
9. Click **Next**.
10. Set field-level security for the picklist field, and then click **Next**.
This list determines who can see or edit the field.
11. Choose the page layouts on which to include the picklist field.
12. Click **Save**.

Custom Multi-Select Picklists

When you create a custom picklist, notice the Picklist (Multi-Select) option, too.

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. Under 'Product', the 'Fields & Relationships' tab is active. On the left, a sidebar lists various layout options. On the right, a list of field types is shown with descriptions. The 'Picklist (Multi-Select)' option is highlighted with a red box and has a blue checked icon next to it, indicating it is selected.

Field Type	Description
Geolocation	Allows users to define locations. Includes latitude and longitude components, and can be used to calculate distance.
Number	Allows users to enter any number. Leading zeros are removed.
Percent	Allows users to enter a percentage number, for example, '10' and automatically adds the percent sign to the number.
Phone	Allows users to enter any phone number. Automatically formats it as a phone number.
Picklist	Allows users to select a value from a list you define.
Picklist (Multi-Select)	Allows users to select multiple values from a list you define.
Text	Allows users to enter any combination of letters and numbers.
Text Area	Allows users to enter up to 255 characters on separate lines.
Text Area (Long)	Allows users to enter up to 131,072 characters on separate lines.
Text Area (Rich)	Allows users to enter formatted text, add images and links. Up to 131,072 characters on separate lines.
Text (Encrypted)	Allows users to enter any combination of letters and numbers and store them in encrypted form.
URL	Allows users to enter any valid website address. When users click on the field, the URL will open in a separate browser window.

Pick this option if you want your users to select more than one value from the picklist. When a user picks more than one value, the selected values show in the field, separated by a semicolon.

A screenshot of a custom picklist field. The label is 'Macaron Flavors'. The field contains the text 'Gingerbread;Strawberry;Chocolate' with a small edit icon to its right.

Do they have to select more than one value? No. They can select only one. Now, you're probably thinking "Then, why don't I always use a multi-select picklist?" And, that's in case you want to restrict users to only one value. So, just remember:

- **Picklist:** Only one value at a time. Sometimes that's a good thing.
- **Multi-Select Picklist:** One or more values at a time.

Restricted Picklists

Restricted picklists keep users from adding new values (either through the API or other apps). This restriction is useful for keeping your data consistent. Imagine someone working in an app that loads data into your picklist and entering a typo into the list (for example, Vamilla).

If you don't restrict the values on a picklist, you can get records with values like "Vamilla" instead of "Vanilla" or added values you just don't want to see. With a restricted picklist, your picklist data stays clean.

Admins with the permission to edit the field can continue to add and edit values.

You set a restricted picklist when you select the **Restrict picklist to the values defined in the value set** option when you create a custom picklist.

To change this setting on an existing picklist:

1. Go to the picklist detail page and select **Edit**.
2. Select **Restrict picklist to the values defined in the value set**.

Product
New Custom Field

Help for this Page ?

Step 2 of 4

Previous Next Cancel

Field Label Macaron Flavor i

Values Use global picklist value set Enter values, with each value separated by a new line

Gingerbread
Strawberry
Chocolate
Raspberry

Display values alphabetically, not in the order entered
 Use first value as default value
 Restrict picklist to the values defined in the value set i

Field Name Macaron_Flavor i

3. Click **Save**.

Dependent Picklists

Guide users, save UI space, and further improve data integrity with a dependent picklist. A dependent picklist filters values for one picklist based on a selection from another picklist or a checkbox (the *controlling value*) on the same record.

Say your bakery has a hundred different kinds of cookies, and you want to guide customers with gluten or nut allergies to cookies that don't have gluten or nuts. Create a controlling picklist for preferences to select “all”, “gluten-free” or “nut-free”. Then, set the cookie flavor picklist as a dependent picklist of the preference picklist. When someone selects “gluten-free” the cookie flavor picklist shows only the gluten-free flavors.

The screenshot shows a user interface for managing macaron preferences. On the left, there is a "Restriction" picklist with the value "gluten-free" selected. To the right, there is a "Macaron Flavor" picklist. The top item in this list is "--None--". Below it, a dropdown menu is open, showing two options: "✓ --None--" and "Raspberry".

We cover how to set a dependent picklist in the next unit.

Compare Picklist Fields

Consider printing this, laminating it, hanging it on your wall.

	Standard Picklist	Custom Picklist	Custom Multi-Select Picklist
Add/Remove from Page Layouts	✓	✓	✓
Delete from Your Org		✓	✓
Set a Default Value	✓	✓	✓
Use a Formula for a Default Value		✓	✓
Can Select Multiple Values			✓
Can Add Values via Apps or API	✓	✓	✓
Can Be Restricted		✓	✓
Can Be a Dependent Picklist		✓	✓

That covers the picklist field types and properties. In the next unit, you focus on the things you can do with the picklist's values.

Manage Your Picklist Values

Manage Picklist Values

Time to start tinkering with the values.

1. In Setup, click the **Object Manager** tab, and then select the object associated with your picklist field.
2. Click **Fields & Relationships**.
3. Click the picklist's Field Label to see the field's detail page.

You see your values in the Values related list

Custom Field Definition Detail [Edit](#) [Set Field-Level Security](#) [View Field Accessibility](#)

Field Information

Field Label	Macaron Flavor	Object Name	Product
Field Name	Macaron_Flavor	Data Type	Picklist
API Name	Macaron_Flavor__c		
Description			
Help Text			
Created By		Modified By	

General Options

Required	<input type="checkbox"/>
Default Value	<input type="text"/> 1

Picklist Options

Restrict picklist to the values defined in the value set	<input checked="" type="checkbox"/>
Controlling Field	Restriction [Change]

Field Dependencies [New](#) [Field Dependencies Help](#) [?](#)

No dependencies defined.

Validation Rules [New](#) [Validation Rules Help](#) [?](#)

No validation rules defined.

Values [New](#) [Reorder](#) [Replace](#) [Printable View](#) [Chart Colors](#) [Values Help](#) [?](#)

Action	Values	API Name	Default	Chart Colors	Modified By
Edit Del Deactivate	Gingerbread	Gingerbread	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 10:50 AM
Edit Del Deactivate	Strawberry	Strawberry	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 10:50 AM
Edit Del Deactivate	Chocolate	Chocolate	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 10:50 AM
Edit Del Deactivate	Raspberry	Raspberry	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 10:50 AM

Inactive Values

No Inactive Values values defined.

Active, Inactive, Deleted, and Replaced Values

In the Values related list on the detail page, you can edit, delete, or deactivate individual values.

Active values appear as an option in a picklist. Inactive values don't, but they're not entirely removed from your org.

When is this helpful? Think about your delicious pumpkin cookies. They aren't popular in summer, so you set that value to inactive all summer. In the fall, customers want pumpkin-flavored everything, so you start making pumpkin cookies and set the value to active, again.

But sometimes you really no longer need a value. You tried selling spinach cookies. Surprisingly, these were not a hit with your customers, so you delete that value.

Some important things to know about inactive values:

Existing records containing a value when you set it to Inactive continue to contain the value. You can reactivate inactive values. This makes it a good alternative to deleting a value entirely. There is a limit on total combined active and inactive values. If you hit these limits and need more, you need to delete some values.

Important things to know about deleting/replacing values: Decide whether to replace the value or leave it blank. If you replace it with a blank value, existing records will not display the value anymore. To keep the value on existing records, use **Deactivate**, instead of **Del**.

Deleting a value in a picklist goes to the background jobs queue. When the job completes, your picklist is updated and you're notified by email.

If you replace a parent value in a controlling picklist, the picklist dependency on that value is lost. After replacing the parent value, re-create the dependency using the new parent value.

Edit Picklist Values

Let's look at the Values related list.

Values						Values Help ?
Action	Values	API Name	Default	Chart Colors	Modified By	
Edit Del Deactivate	Gingerbread	Gingerbread	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 10:50 AM	
Edit Del Deactivate	Strawberry	Strawberry	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 10:50 AM	
Edit Del Deactivate	Chocolate	Chocolate	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 10:50 AM	
Edit Del Deactivate	Raspberry	Raspberry	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 10:50 AM	

On the field's detail page, click **Edit** to see more options for a single value.

Picklist Edit

Macaron Flavor

Help for this Page ?

Enter a name for the picklist value below. Check the box to use this value as the default value.

Label	<input type="text" value="Gingerbread"/>
API Name	<input type="text" value="Gingerbread"/> i
Default	<input type="checkbox"/> Make this value the default for the master picklist
Chart Color	Assigned dynamically 

Save **Cancel**

And you can make any of the following changes:

- Change the Label.** This is what appears in the UI.
- Change the API Name.** This identifies the value for use in formulas and programming references. Typically, once set, this value shouldn't change. Otherwise, references to the value can break.
- Set the value as the default for the picklist.**
- Change the chart color.** This setting determines how this value appears in reports and dashboards. If not

Controlling Fields, Dependent Picklists, and Narrowing Values

As we discussed in the previous unit, *dependent picklist fields* narrow the available values based on a selection in a *controlling field*. For example, the user selects “nut free” in a controlling field, and only cookie flavors that don’t have nuts show in the dependent picklist field.

The controlling field doesn’t have to be a picklist. It can also be a checkbox.

The screenshot shows a user interface for managing product details. On the left, there is a checkbox labeled "gluten-free" with a checked mark. To the right, under the heading "Macaron Flavor", there is a dropdown menu showing "Raspberry" as the selected option. Below the dropdown, a list box displays two options: "--None--" and "Raspberry", with "Raspberry" having a checked mark next to it. This illustrates how a checked checkbox in a controlling field narrows down the available options in a dependent picklist.

To set a dependent picklist field:

1. From the management settings for the object you want to add a field to, click **Fields & Relationships**.
2. Click **Field Dependencies**.
3. Click **New**.
4. Choose a controlling field and dependent field.
5. Click **Continue**.
6. Use the [field dependency matrix](#) to specify which dependent picklist values are available when a user selects each controlling field value.
7. Optionally, click **Preview** to test your selections.
8. Click **Save**.

Some things to consider:

- Custom picklist fields can be either controlling or dependent fields.
- Standard picklist fields can be controlling fields, but not dependent fields.
- Multi-select picklist fields can be dependent, but not controlling fields.
- You can set default values for controlling fields but not for dependent picklists.
- If your org uses record types, choose a record type to test how it affects your controlling and dependent picklist values.

Share Values with Global Value Sets

Create a Global Value Set

Global value sets are always restricted. You can't convert them to unrestricted. This protects your values, because changing global value set values modifies the values for all the fields that reference the global value set.

While you can edit them, later, be mindful to create values that make sense across multiple fields.

1. From Setup, enter **Picklist** in the Quick Find box, then select **Picklist Value Sets**.
2. Next to Global Value Sets, click **New**.

Global Value Set Help for this Page ?

Global Value Set Edit

Information = Required Information

Label !

Name !

Description

Enter values, with each value separated by a new line

Values

Display values alphabetically, not in the order entered

Use first value as default value

Use the Global Value Set in a Picklist Field

Let's go back and take a look at the page where you set a custom picklist's properties.

In Setup, click the **Object Manager** tab, and then select the object to contain the picklist field.

Click **Fields & Relationships**.

Click **New**. Select **Picklist**, and then click **Next**.

Enter a Field Label.

Keep the default Values option (**Use a global value set**) and then choose the global picklist you want to use from the picklist.

Select other field settings as needed and click **Next**.

Set field-level security for the picklist field, and then click **Next**.

Choose the page layouts on which to include the picklist field, and then click **Save**.

Manage Values for Global Value Sets

As with other picklist values, you can reorder, replace, and change the default value of a global value set. You can also edit, delete, and deactivate individual values. Keep in mind, the changes apply to *all* picklist fields that use the global value set.

1. From Setup, enter **Picklist** in the Quick Find box, then select **Picklist Value Sets**.
2. Click the Label of the global value set to see its details.

Global Value Set

[« Back to List](#)

[Values \[10\]](#) | [Inactive Values \[0\]](#) | [Fields Where Used \[2\]](#)

Global Value Set Detail

[Edit](#) [Delete](#)

Information

Label	Ingredients
Name	Ingredients
Description	

[Edit](#) [Delete](#)

Values

[New](#) [Reorder](#) [Replace](#) [Printable View](#) [Chart Colors ▾](#)

Action	Values	API Name	Default	Chart Colors	Modified By
Edit Del Deactivate	Milk	Milk	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 4:36 PM
Edit Del Deactivate	Sugar	Sugar	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 4:36 PM
Edit Del Deactivate	Butter	Butter	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 4:36 PM
Edit Del Deactivate	Vanilla	Vanilla	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 4:36 PM
Edit Del Deactivate	Brown Sugar	Brown Sugar	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 4:36 PM
Edit Del Deactivate	All Purpose Flour	All Purpose Flour	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 4:36 PM
Edit Del Deactivate	Whole Wheat Flour	Whole Wheat Flour	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 4:36 PM
Edit Del Deactivate	Oatmeal	Oatmeal	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 4:36 PM
Edit Del Deactivate	Raisins	Raisins	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 4:36 PM
Edit Del Deactivate	Oil	Oil	<input type="checkbox"/>	Assigned dynamically	Dave Jacowitz, 9/13/2017 4:36 PM

Inactive Values

No Inactive Values values defined.

Fields Where Used

Field Label	Object	Data Type	Controlling Field
Ingredient	Asset	Picklist	
Shopping List	Asset	Picklist (Multi-Select)	

Promote Existing Field Values to a Global Value Set

You don't always know which picklist values make a good global value set before you've started using a picklist field. But don't worry. If you find that a particular set of values for one field makes a good set for another field, you can promote the existing value set to a global value set. Then, use it when you create a new custom picklist field.

1. Go to the Fields & Relationships section of the object that contains the picklist you want to convert.
2. Click the Field Label for the picklist.
3. Click **Edit**.
4. Click **Promote to Global Value Set**.

The screenshot shows the 'Edit Product Custom Field' interface for a field named 'Macaron Flavor'. The top navigation bar includes 'Edit Product Custom Field', 'Macaron Flavor', 'Help for this Page', and buttons for 'Change Field Type', 'Promote to Global Value Set' (which is circled in red), 'Save', and 'Cancel'. Below this is a 'Field Information' section with fields for 'Field Label' (set to 'Macaron Flavor'), 'Field Name' (set to 'Macaron_Flavor'), 'Description' (empty), and 'Help Text' (empty). To the right of the 'Field Label' field, the 'Data Type' is listed as 'Picklist'. A note at the bottom right of the form area indicates that a red vertical bar next to a field means it is 'Required Information'.

5. Enter a label for the global value set.
6. Accept the Field Name or edit it.
7. Optionally, enter a description to identify it when using the values for other custom picklists.
8. Click **Promote to Global Value Set**, again.

You see the value set in the Values section.

Global value sets offer efficiency and consistency across multiple picklists. But remember, global value sets are always restricted. Independent custom field values are more flexible, but higher maintenance.

Formulas & Validations

Introduction to Formula Fields

You've got a lot of data in your organization. Your users need to access and understand this data at-a-glance without doing a bunch of calculations in their heads. Enter formula fields, the powerful tool that gives you control of how your data is displayed.

Let's say you wanted to take two numeric fields on a record and divide them to create a percentage. Or perhaps you want to turn a field into a clickable hyperlink for easy access to important information from a record's page layout. Maybe you want to take two dates and calculate the number of days between them. All these things and more are possible using formula fields.

Let's look at a specific example. What if you wanted to calculate how many days are left until an opportunity's close date. You can create a simple formula field that automatically calculates that value. By adding the value to the Opportunity page layout, your users can quickly access this key information. You can also add this field to reports and list views for instant access.

Finding the Formula Editor

Before we dive into writing formulas, let's locate the formula editor and get to know its features.

You can create custom formula fields on any standard or custom object. To start, we'll create a formula on the Opportunity object. Follow these steps to navigate to the formula editor:

1. From Setup, open the Object Manager and click **Opportunity**.
2. In the left sidebar, click **Fields & Relationships**.
3. Click **New**.
4. Select **Formula** and click **Next**.
5. In **Field Label**, type **My Formula Field**. Notice that **Field Name** populates automatically.
6. Select the type of data you expect your formula to return. For example, if you want to write a formula that calculates the commission a salesperson receives on a sale, you select **Currency**. For now, pick **Text**.
7. Click **Next**. You've arrived at the formula editor! Time for our tour.

Using the Formula Editor

This image highlights the most important parts of the formula editor:

Opportunity
New Custom Field

Help for this Page ?

Step 3. Enter formula Step 3 of 5

Previous Next Cancel

Enter your formula and click Check Syntax to check for errors. Click the Advanced Formula subtab to use additional fields, operators, and functions.

1 Note: Fahrenheit = 1.8 * Celsius + 32 More Examples ...

Simple Formula Advanced Formula

2 Insert Field 3 Insert Operator

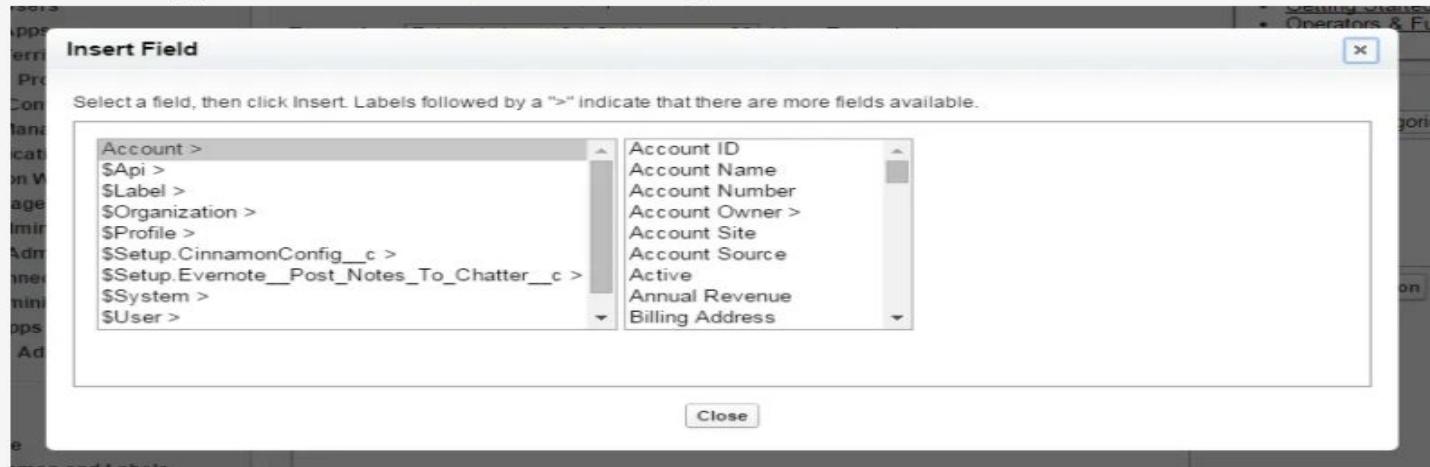
4 Functions

5 My Formula Field (Number) =

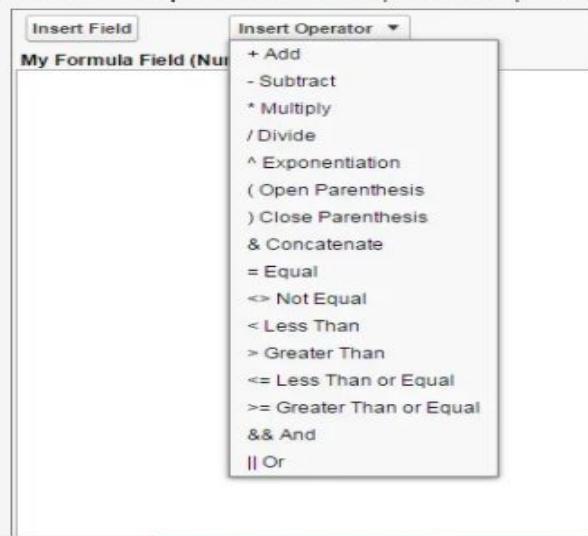
6

- Getting Started
- Operators & Functions

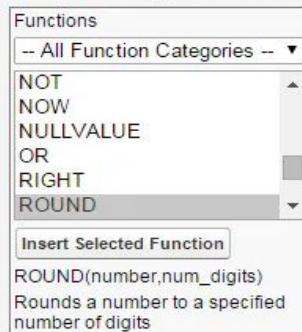
1. The formula editor comes in two flavors: Simple and Advanced. It's tempting to use the Simple editor, but we always recommend using the Advanced editor. Advanced doesn't mean more complicated. It means more tools for you to create powerful formulas.
2. The **Insert Field** button opens a menu that allows you to select fields to use in your formula. Inserting from this menu automatically generates the correct syntax for accessing fields.



3. The **Insert Operator** button opens a drop-down list of the available mathematical and logical operators.



4. The Functions menu is where you view and insert formula functions. Functions are more complicated operations that are pre-implemented by Salesforce. Some functions can be used as-is (for example, the `TODAY()` function returns the current date), while others require extra pieces of information, called parameters. The `LEN(text)` function, for instance, finds the length of the text you input as a parameter. The formula `LEN("Hello")` returns a value of 5.



5. The text area is where you enter your formula. When writing formulas, keep in mind that:

- Whitespace doesn't matter. You can insert as many spaces and line breaks as you want without affecting the formula's execution.
- Formulas are case sensitive. Pay attention to capitalization of field and object names.
- When working with numbers, the standard order of operations applies.

6. Once you've written a formula, you can use the **Check Syntax** button to ensure that everything is in working order before saving. If your formula has issues, the syntax checker alerts you to specific problems.

We don't need to continue creating this formula field, so click **Cancel**. Now that you know your way around, let's put the editor to use with some simple examples.

The Formula Editor in Action

Example 1: Displaying an Account Field on the Contact Detail Page

Record detail pages contain a ton of information, but sometimes it's not enough. Sometimes you need more! For your first formula, let's do something simple. Let's take a single field from an Account and show it on a Contact using what's called a *cross-object formula*. Let's take a look.

The Formula Editor in Action

Example 1: Displaying an Account Field on the Contact Detail Page

Record detail pages contain a ton of information, but sometimes it's not enough. Sometimes you need more! For your first formula, let's do something simple. Let's take a single field from an Account and show it on a Contact using what's called a *cross-object formula*. Let's take a look.

First create a Contact. If you've never created a Contact before, go to the Contacts tab and click **New**. Enter any value for Last Name and make sure that you fill in a value for the Account Name field by clicking the lookup icon. Next we'll create a formula to display the account number on the Contact page:

1. From Setup, open the Object Manager and click **Contact**.
2. In the left sidebar click **Fields & Relationships**.
3. Click **New**.
4. For the field type, select **Formula** and click **Next**.
5. Call your field **Account Number** and select **Text** for the formula return type. Click **Next**.
6. Click **Insert Field** on the Advanced Formula Editor. Select **Contact | Account | Account Number** and then click **Insert**.

The screenshot shows the 'Advanced Formula Editor' window. The formula text area contains the following code:
Account Number (Text) =
Account.AccountNumber
A 'Check Syntax' button is visible at the bottom left, and a status message at the bottom right says 'No syntax errors in merge fields or functions. (Compiled size: 22 characters)'.

Congratulations, you've written your first formula!

Let's see this formula in action. The next page lets you set field-level security. For now, click **Next** so we can add our formula field to the page layout. For the time being, make sure that all the checkboxes are selected. Click **Next** and then click **Save**.

Now it's time to see what you've done. Open the detail page for the Contact object you just created and find your new Account Number formula field. Cool!

Example 2: Displaying the Number of Days Until an Opportunity Closes on a Report

Example 2: Displaying the Number of Days Until an Opportunity Closes on a Report

You can also use formula fields in reports to increase the visibility of important information. Say, for example, you wanted a report column that displays the number of days until an opportunity is closed. First, create an Opportunity to test our formula.

If you've never created an Opportunity before, go to the Opportunities tab and click **New**. Fill in any value for the Name, select any Stage, and set a close date that's at least three days in the future. Then create a custom formula field called **Days to Close** on the Opportunities object with a Number return type:

1. From Setup, open the Object Manager and click **Opportunity**.
2. In the left sidebar click **Fields & Relationships**.
3. Click **New**.
4. Select the **Formula** and then click **Next**.
5. In the **Field Label** text area, type **Days to Close**.
6. Select the **Number** radio button.
7. Click **Next** to open the formula editor.

We need to find the difference between the opportunity close date and today's date. Let's start by inserting the Close Date field in the editor. Since we're finding a difference, use subtraction. Select **- Subtract** from the **Insert Operator** menu.

But how do we tell our formula that we need today's date? Luckily, there's a function called **TODAY()** that updates to match the current date. Find it in the Functions menu on the right side of the editor and click **Insert Selected Function**.

Days to Close (Number) =
CloseDate - TODAY()

Check Syntax No syntax errors in merge fields or functions. (Compiled size: 30 characters)

After you click through the save screens, it's time to put your new formula field in a report. From the Reports tab, click **New Report**. Then select **Opportunities** and click **Create**. Your opportunity appears in the Preview panel. Search for **Days to Close** in the Fields menu on the left side of the page. This field is the formula field you just created. Drag it to the last column in your report. The column populates automatically with the calculated value.

Implement Roll-Up Summary Fields

While formula fields calculate values using fields within a single record, roll-up summary fields calculate values from a set of related records, such as those in a related list. You can create roll-up summary fields that automatically display a value on a master record based on the values of records in a detail record. These detail records must be directly related to the master through a master-detail relationship.

You can perform different types of calculations with roll-up summary fields. You can count the number of detail records related to a master record, or calculate the sum, minimum value, or maximum value of a field in the detail records. For example, you might want:

- A custom account field that calculates the total of all related pending opportunities.

- A custom order field that sums the unit prices of products that contain a description you specify.

Examples of Roll-Up Summary Fields

Here are more examples of detail data rolling-up to master records.

Date Opportunity First Created

A roll-up field was created on the Accounts object. Created Date is summarized on the Opportunities object to find the earliest date an opportunity was created related to an account.

The screenshot shows the Microsoft Dynamics 365 interface for an Account record. The account name is "Express Logistics and Transport". On the right side of the screen, under the "RELATED" tab, there is a section titled "Opportunities (2)". This section lists two opportunities:

- Express Logistics Generator Replacement Parts**
 - Created Date: 6/5/2017 12:44 PM
 - Stage: Needs Analysis
 - Amount: \$15,000.00
- Express Logistics Portable Truck Generators**
 - Created Date: 5/1/2017 2:21 PM
 - Stage: Value Proposition
 - Amount: \$80,000.00

A blue box highlights the "Date First Opportunity Created" field in the Account record, which displays "5/1/2017 2:21 PM". A blue arrow points from this highlighted field to the "Created Date" field of the second opportunity listed in the "Opportunities (2)" section.

Total Price of All Products Related to An Opportunity

A roll-up field was created on the Opportunities object. Total Price is summarized on the Opportunity Product object to find the grand total of all products related to an opportunity.

The screenshot shows a Salesforce Opportunity record for "Pyramid Emergency Generators".

Opportunity Details:

- Account Name: Pyramid Construction Inc.
- Total List Price: \$175,000.00

Product Summary:

Product	Quantity	Sales Price
GenWatt Diesel 1000kW	2.00	\$100,000.00
GenWatt Gasoline 750kW	1.00	\$75,000.00

Buttons and Links:

- + Follow, Edit, New Case, New Note, ▾
- Change Closed Stage
- Expand All, C
- View All

Minimum List Price of An Opportunity

A roll-up field was created on the Opportunities object. List Price is summarized on the Opportunity Product object to find the product with the lowest price related to an opportunity.

The screenshot shows the Salesforce Opportunities page for an opportunity named "Pyramid Emergency Generators".

Opportunity Details:

- Account Name: Pyramid Construction Inc.
- Minimum List Price: \$75,000.00 (highlighted with a blue box)

Product Details:

- Products (2):**
 - GenWatt Diesel 1000kW
 - Quantity: 2.00
 - Sales Price: \$100,000.00
 - Date: [unspecified]
 - GenWatt Gasoline 750kW
 - Quantity: 1.00
 - Sales Price: \$75,000.00
 - Date: [unspecified]

A blue arrow points from the highlighted "Minimum List Price" value to the "GenWatt Gasoline 750kW" product row, indicating that this specific product's sales price is being used to calculate the minimum list price for the opportunity.

Create Validation Rules

Introduction to Validation Rules

Validation rules verify that data entered by users in records meet the standards you specify before they can save it.

A validation rule can contain a formula or expression that evaluates the data in one or more fields and returns a value of “True” or “False.” Validation rules can also include error messages to display to users when they enter invalid values based on specified criteria.

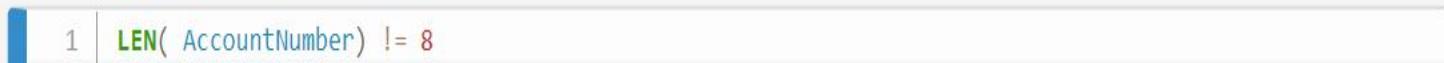
Using these rules effectively contributes to quality data. For example, you can ensure that all phone number fields contain a specified format or that discounts applied to certain products never exceed a defined percentage.

Defining Validation Rules

You can create validation rules for objects, fields, campaign members, or case milestones. In these steps, we create a validation rule that fires when a user tries to save an account with an account number of incorrect length.

Creating a Validation Rule

1. From Setup, go to Object Manager and click **Account**.
2. In the left sidebar, click **Validation Rules**.
3. Click **New**.
4. Enter the following properties for your validation rule:
 - a. Rule Name: **Account_Number_8_Characters**
 - b. Error Condition Formula:



The screenshot shows a validation rule formula editor. It has a blue icon on the left, followed by a white input field containing the formula `LEN(AccountNumber) != 8`. The formula is highlighted in green, while the field name `AccountNumber` is in blue.

5. Error Message: **Account number must be 8 characters long.**
6. To check your formula for errors, click **Check Syntax**.
7. Click **Save** to finish.

Here's how a validation rule's error message can appear when a user types an incorrect account number format into a field.

Edit Pyramid Construction Inc.

Formulas & Validations > Create Validation Rules ▾

Here's how a validation rule's error message can appear when a user types an incorrect account number format into a field.

Edit Pyramid Construction Inc.

Review the errors on this page.

Account number must be 8 characters long.

* Account Name Pyramid Construction Inc.	Phone (014) 427-4427
Parent Account Search Accounts	Fax (014) 427-4428
Account Number 1234	Website www.pyramid.com

Time Est

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Examples of Validation Rules

Here are some validation rule examples that you can try out yourself:

Account Number Is Numeric

Field	Value



Type here to search



Examples of Validation Rules

Here are some validation rule examples that you can try out yourself:

Account Number Is Numeric

Field	Value
Description:	Validates that the Account Number is numeric if not blank.
Formula:	<pre> 1 AND(2 NOT(ISBLANK(AccountNumber)), 3 NOT(ISNUMBER(AccountNumber)) 4 </pre>
Error Message:	Account Number is not numeric.
Error Location:	Account Number

Date Must Be in the Current Year

Field	Value
Description:	Validates that a custom date field contains a date within the current year.
Formula:	<code>YEAR(My_Date__c) <> YEAR(TODAY())</code>
Error Message:	Date must be in the current year.
Error Location:	My Date

Number Range Validation

Field	Value
Description:	Validates that the range between two custom fields, Salary Min and Salary Max, is no greater than \$20,000.
Formula:	<input type="text"/> 1 $(\text{Salary_Max_c} - \text{Salary_Min_c}) > 20000$
Error Message:	Salary range must be within \$20,000. Adjust the Salary Max or Salary Min values.
Error Location:	Salary Max

Time Estimate
About 15 mins

Topic

Learning Objectives

Introduction to Validation

Defining Validation Rules

Examples of Validation Rules

Resources

Challenge



?

Question, feedback

Website Extension

Field	Value
Description:	Validates a custom field called Web Site to ensure that its last four characters are in an explicit set of valid website extensions.
Formula:	<pre>1 AND(2 RIGHT(Web_Site__c, 4) <> ".COM", 3 RIGHT(Web_Site__c, 4) <> ".com", 4 RIGHT(Web_Site__c, 4) <> ".ORG", 5 RIGHT(Web_Site__c, 4) <> ".org", 6 RIGHT(Web_Site__c, 4) <> ".NET", 7 RIGHT(Web_Site__c, 4) <> ".net" 8)</pre>
Error Message:	Web Site must have an extension of .com, .org, or .net.

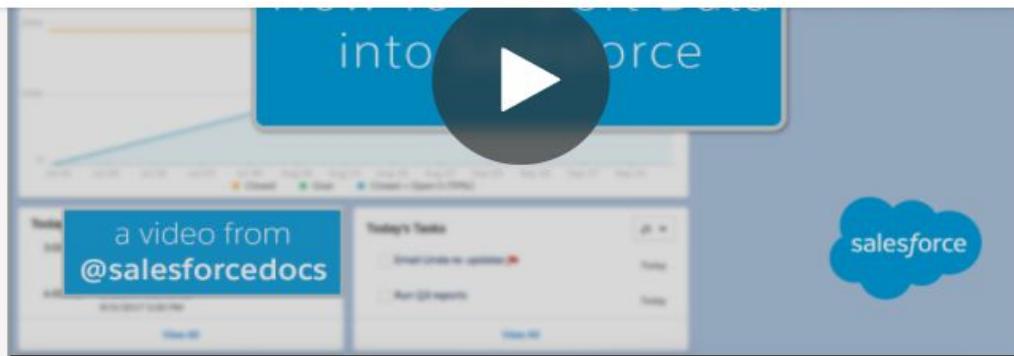
Data Management

Introduction to Data Import

You can easily import external data into Salesforce. Supported data sources include any program that can save data in the comma delimited text format (.csv). Salesforce offers two main methods for importing data.

Data Import Wizard—this tool, accessible through the Setup menu, lets you import data in common standard objects, such as contacts, leads, accounts, as well as data in custom objects. It can import up to 50,000 records at a time. It provides a simple interface to specify the configuration parameters, data sources, and the field mappings that map the field names in your import file with the field names in Salesforce.

Data Loader—this is a client application that can import up to five million records at a time, of any data type, either from files or a database connection. It can be operated either through the user interface or the command line. In the latter case, you need to specify data sources, field mappings, and other parameters via configuration files. This makes it possible to automate the import process, using API calls.



The video player displays a thumbnail of a Salesforce interface with the text "import into salesforce" overlaid. A play button is centered over the thumbnail. To the right of the video player is a vertical sidebar with three numbered links:

- 2 Data Import: Clean Up Your Import File
- 3 Data Import: Clean and Prepare Your Data Using Excel
- 4 Data Import: Owner IDs and Parent IDs

How To Import Data into Salesforce Series

This 5 part video series walks you through all aspects of data import, from preparing your import files to matching owner and parent record IDs. Need additional guidance? Bring your questions to an Ask the Expert webinar. Search sessions and register here: <https://sfdc.co/7I4hc>

Use the Data Import Wizard

Once you have created an export file and cleaned up the data for import, follow these steps to import data using the Data Import Wizard.

1. Start the wizard.
 - a. From Setup, enter Data Import Wizard in the Quick Find box, then select **Data Import Wizard**.
 - b. Review the information provided on the welcome page, then click **Launch Wizard!**
2. Choose the data that you want to import.
 - a. To import accounts, contacts, leads, solutions, person accounts, or campaign members, click **Standard Objects**. To import custom objects, click **Custom Objects**.
 - b. Specify whether you want to add new records to Salesforce, update existing records, or add and update records simultaneously.
 - c. Specify matching and other criteria as necessary. Hover over the question marks for more information about each option.
 - d. Specify the file that contains your data. You can specify your data file by dragging the CSV to the upload area of the page or by clicking the CSV category you're using and then navigating to and selecting the file.
 - e. Choose a character encoding method for your file. Most users can accept the default character encoding.
 - f. Click **Next**.

3. Map your data fields to Salesforce data fields. The Data Import Wizard tries to map as many of your data fields as possible to standard Salesforce data fields. If Salesforce can't automatically map fields, however, you do it manually. Unmapped fields are not imported into Salesforce. To see a list of standard Salesforce data fields, from Setup, at the top of the page, click **Object Manager**. Click the object whose fields you're interested in, and click **Fields & Relationships**. For example, if you want to see a list of standard Salesforce fields for leads, click **Object Manager | Lead | Fields & Relationships**.

- a. Scan the list of mapped data fields and locate any unmapped fields.
- b. Click **Map** to the left of each unmapped field.
- c. In the Map Your Field dialog box, choose the Salesforce fields you want to map to and click **Map**. The Map Your Field dialog box also gives you the option of saving data from unmapped fields in a general notes field for accounts and contacts. To do so, choose Account Note or Contact Note from the Map To drop-down list and click **Map**.
- d. To change mappings that Salesforce performed automatically, click **Change** to the left of the appropriate field, then choose the Salesforce fields you want to map to and click **Map**.
- e. Click **Next**.

4. Review and start your import.

- a. Review your import information on the Review page. If you still have unmapped fields that you want to import, click **Previous** to return to the previous page and specify your mappings.
- b. Click **Start Import**.

5. Check import status. From Setup, enter “Bulk Data Load Jobs” in the Quick Find box, then select **Bulk Data Load Jobs**. The user who starts the data import receives a status email when the import is completed.



Note

Use the zoom option in your browser to adjust (shrink) the size of the content if you can't see the Map button.

The user who starts the data import receives a status email when the import is completed.

Introduction to Data Export

You can easily export data from Salesforce, either manually or on an automatic schedule. The data is exported as a set of comma-separated values (CSV) files. Data export tools provide a convenient way to obtain a copy of your Salesforce data, either for backup or for importing into a different system.

Salesforce offers two main methods for exporting data.

Data Export Wizard—an in-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. Weekly exports are available in Enterprise, Performance, and Unlimited Editions. In Professional Edition and Developer Edition, you can generate backup files only every 29 days, or automatically at monthly intervals only.

Data Loader—a client application that you must install separately. It can be operated either through the user interface or the command line. The latter option is useful if you want to automate the export process, or use APIs to integrate with another system.

Follow these steps to export data using the wizard.

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.
7. Click **Start Export** or **Save**. Salesforce creates a zip archive of CSV files and emails you when it's ready. Exports will complete as soon as possible, however we can't guarantee the date and time the export will complete. Large exports are broken up into multiple files. Follow the link in the email or click **Data Export** to download the zip file. Zip files are deleted 48 hours after the email is sent.

Resources

- [Data Loader Overview](#)
- [Installing Data Loader](#)
- [Exporting Data using the Data Loader](#)
- [Explore how to export data more effectively in Salesforce](#)
- Best Practice Hub: [Improve Data Quality](#)

AppExchange

Install an App from AppExchange

When you're building a report or dashboard, a common strategy is to copy an existing report and modify it to meet your needs. But where do you get sample reports and dashboards to modify? Maria, the admin over at Ursa Major Solar, looks no further than [AppExchange!](#)

On AppExchange, there are sample report and dashboard packages available from Salesforce Labs. These can be downloaded and installed into your sandbox or production environment. The packages are free and the reports and dashboards can all be copied and then modified to suit your specific needs.

Popular topics include:

- Salesforce Adoption Dashboards
- Salesforce CRM Dashboards
- Sales Activity Dashboards
- Clean Your Room! Dashboard
- Service & Support Dashboards
- Knowledge Base Dashboards and Reports
- Salesforce Chatter Dashboards
- Chatter Challenge Dashboard

Whether you're looking for Sales, Service, Activity, CRM, or adoption-related dashboards, there are sample reports and dashboards available for you.

Keep in mind that some apps contain tabs, fields, objects, and more. And there are governors and limits in Salesforce, which your org is subject to. Apps can either be managed or unmanaged, and your overall limits are affected in different ways depending on which type you choose. When you're installing any app, keep your limits in mind. You can learn more about this topic by earning the [AppExchange Solutions](#) badge.

Access Installed Packages

Here's how to find what you just installed.

1. From Setup, enter Installed Packages in the Quick Find box, then select **Installed Packages**.
2. Click the name of your installed package. This will be the same name on the page where you downloaded the package from AppExchange.
3. Click **View Components**.
4. This opens the Package Details page, where you can see all the components, including reports, dashboards, folders, custom fields, and more. The easiest way to browse all the reports and dashboards is to view them from the Reports tab in Salesforce.

Now you can see all the reports and dashboards you just installed.

Modify Reports

The very first thing to remember before modifying an existing report is to make a copy so you don't write over a report that you or someone else might want to keep!

To make a copy of a report, open it and click **Save As** [1].

Lead List Report							
Total Records 6							
LEAD OWNER	FIRST NAME	LAST NAME	TITLE	COMPANY / ACCOUNT	LEAD SOURCE	RATING	STREET
William Chen	Amy	Jordan (Sample)	VP Purchasing	Lee Enterprise, Inc	Website	Warm	1479 Grotton Gardens
William Chen	David	Adelson (Sample)	Director, Information Technology	Green Dot Publishing	Other	Warm	120 Sutter Street
William Chen	John	Steele (Sample)	Senior VP	BigLife Inc.	Trade Show	Hot	11 Farm Avenue
William Chen	John	Gardner (Sample)	Exec VP	3C Systems	Other	-	1 Boston Rd

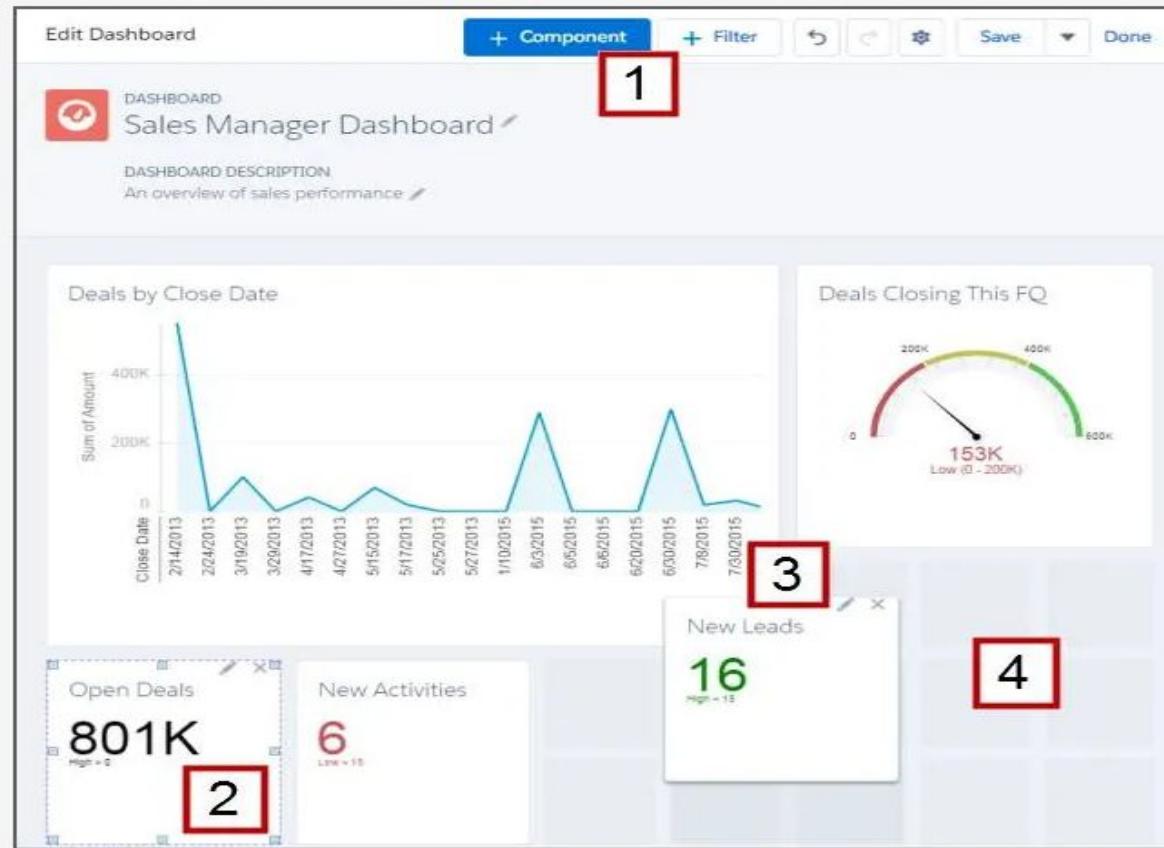
Give your copied report a name, choose the **Private Reports** folder, and click **Save**. You can always move it to another

Modify Dashboards

As with reports, make sure you make a copy so that you don't mess up someone else's dashboard!

To copy the dashboard, open it up, click the arrow to the right of the **Edit** button and select **Save As**.

Enter a name, specify a folder, and click **Create**. Then click **Edit** to open the dashboard in edit mode in the drag-and-drop dashboard builder. Now you can see how the dashboard was initially created. Let's take a closer look.



Remember, you can add components and filters [1], change a component by clicking [2], drag and drop a component [3], and rearrange components [4].

As you're getting started with modifying dashboards, one of the best things to do is simply change dashboard component types. To this end, try taking a single report and building a dashboard with that same report displayed in each dashboard component type. This will give you a good sense of how each dashboard component type works.

Assignment 2

Complete Project **Customize a Salesforce Object**

Use picklists, filters, formulas, and other tools to customize an object in your org.

Customize a Salesforce Object

Work with Standard and Custom Fields

~15 mins

Create Picklists and Field Dependencies

~15 mins

Create Lookup Filters

~10 mins

Create Formula Fields

~15 mins

Create Record Types

~15 mins

Create Account Page Layouts

~15 mins

Enable Account Field History Tracking

~10 mins

Create Validation Rules

~10 mins
