



Lecture 2 – Salesforce Configuration & Custom Objects

Introduction to Salesforce

Introduction

- What is Salesforce Standard & Custom Objects?
 - How does Salesforce Security Work?
 - Learn about Salesforce Communication methods.
 - Learn about Salesforce Lightning Knowledge.
-
- Lab Session: Basic Data Models and Data Validation

Salesforce Editions

EDITION	WHAT'S GREAT ABOUT IT
Essentials	Designed for small businesses getting started with CRM to boost sales or service productivity. It includes a setup assistant and administration tools to customize your deployment as you grow.
Starter	Want to get started with sales, service, and marketing functionality all in one? With out-of-the-box tools and built-in guidance, Salesforce Starter is the fastest way to get started with the Salesforce CRM suite. It's perfect if you're a first-time user who wants to find, win, and keep customers and build stronger relationships from day one.
Professional	Designed for businesses requiring full-featured CRM functionality. It includes straightforward and easy-to-use customization, integration, and administration tools to facilitate any small to midsize deployment.
Enterprise	Meets the needs of large and complex businesses. It gives you advanced customization and administration tools, in addition to all the functionality available in Professional Edition, that can support large-scale deployments. Enterprise Edition also includes access to Salesforce APIs, so you can easily integrate with back-office systems.
Unlimited	Maximizes your success and extends it across the entire enterprise through the Lightning Platform. It gives you new levels of platform flexibility for managing and sharing all your information on demand. Includes all Enterprise Edition functionality, Premier Support, full mobile access, unlimited custom apps, increased storage limits, and other features.
Developer	Provides access to the Lightning Platform and APIs. It lets developers extend Salesforce, integrate with other applications, and develop new tools and applications. Developer Edition also provides access to many of the features available in Enterprise Edition. Salesforce doesn't provide technical support for Developer Edition. But you can ask for help from developer community message boards after you register for the Lightning Platform developer website: developer.salesforce.com .

Salesforce Objects



- Standard & Custom Objects
- Custom Fields
- Page Layouts
- Compact Layouts
- Search Layouts
- Record Types
- Validation Rules
- Object Limits
- Reports

Standard Objects vs Custom Objects

Standard Objects:

- Objects provided by default
- Examples Account, Contact, Case

Custom Objects:

- The objects created by an organization
- Store information that is unique and important to the organization.

Creating a Custom Object

- Setup -> Object Manager -> Create -> Create Object

Allow Reports:

- If we want to allow users to create reports of the data.

Allow Activities:

- If we want to allow users to create events and tasks related to the records.

New Custom Object

Permissions for this object are disabled for all profiles by default. You can enable object permissions in permission sets or by editing custom profiles. [Tell me more!](#)

Custom Object Definition Edit Save Save & New Cancel

Custom Object Information

The singular and plural labels are used in tabs, page layouts, and reports.

Label Example: Account

Plural Label Example: Accounts

Starts with vowel sound ☐

The Object Name is used when referencing the object via the API.

Object Name Example: Account

Description

Context-Sensitive Help Setting ☒ Open the standard Salesforce.com Help & Training window
☐ Open a window using a Visualforce page

Content Name

Optional Features

☐ Allow Reports
☐ Allow Activities
☐ Track Field History
☐ Allow in Chatter Groups
☐ Enable Licensing [i](#)

Object Classification

When these settings are enabled, this object is classified as an Enterprise Application object. When these settings are disabled, this object is classified as a Light Application object.

☒ Allow Sharing
☒ Allow Bulk API Access
☒ Allow Streaming API Access

Deployment Status

☐ In Development
☒ Deployed

Search Status

When this setting is enabled, your users can find records of this object type when they search. [Learn more.](#)

☐ Allow Search

Object Creation Options (Available only when custom object is first created)

☐ Add Notes and Attachments related list to default page layout
☐ Launch New Custom Tab Wizard after saving this custom object

Custom Fields

Custom Fields can be created by administrators on both Standard and Custom Objects

Field Types

- Lots of data types
- This defines the type of data stored in the Custom Field

History Tracking

- Track and display the history of the field value
- You can track the field history of Custom Objects and limited Standard Objects

Custom Field Types

- **Address**
 - Let's users enter a street, city, state or province, zip or postal code, and country, or to search for an address
- **Auto Number**
 - Automatically assigns a unique number to each record.
- **Checkbox**
 - Let's users check a box, indicating a true or false attribute of a record
- **Currency**
 - Let's users enter a currency amount. Date : Lets users enter a date or pick a date from a popup calendar.
- **Date/Time**
 - Let's users enter a date or pick a date from a popup calendar and enter a time of day.
- **Email**
 - Let's users enter an email address of up to 80 characters, which is validated to ensure proper format.
- **External Lookup Relationship**
 - When you create an external lookup relationship field, the standard External ID field on the parent external object is matched against the values of the child's external lookup relationship field.

Custom Field Types

- **Formula**
 - Let's users automatically calculate values based on other values or fields such as merge fields. Not available for external objects.
- **Geolocation**
 - Let's users specify a location by its latitude and longitude.
- **Hierarchical Relationship**
 - Creates a hierarchical lookup relationship between users. Let's users use a lookup field to associate one user with another that doesn't directly or indirectly refers to itself.
- **Indirect Lookup Relationship**
 - An indirect lookup relationship links a child external object to a parent standard or custom object.
- **Lookup Relationship**
 - Creates a relationship between two records so you can associate them with each other. For example, opportunities have a lookup relationship with cases that lets you associate a particular case with an opportunity.
- **Master-Detail Relationship**
 - Creates a relationship between records where the main record controls certain behaviors of the detail record such as record deletion and security.

Custom Field Types

- **Number**
 - This number is treated as a real number and any leading zeros are removed.
- **Percent**
 - Enter a percentage number as a decimal—for example, 0.10. The system automatically converts the decimal to a percentage—for example, 10%
- **Phone**
 - Character limit is 40. Salesforce automatically formats it as a phone number.
- **Picklist**
 - Let's users select a single value from a list that you define.
- **Picklist (Multi-select)**
 - Let's users select more than one picklist value from a list that you define. These fields display each value separated by a semicolon.
- **Roll-Up Summary**
 - Automatically displays the record count of related records or calculates the sum, minimum, or maximum value of related records. The records must be directly related to the selected record and on the detail side of a custom master-detail relationship with the object that contains the roll-up summary field.

Custom Field Types

- Text
 - Let's users enter any combination of letters, numbers, or symbols. You can set a maximum length, up to 255 characters.
- Text Area (Long)
 - Let's users enter up to 131,072 characters that display on separate lines similar to a Description field. You can set the length of this field type to a lower limit, if desired. Any length from 256 to 131,072 characters is allowed.
- Text Area (Rich)
 - With the use of a toolbar, users can format the field content and add images and hyperlinks. The toolbar allows the user to undo, redo, bold, italicize, underline, strike-out, add a hyperlink, upload or link to an image, modify alignment, add a numbered or non-numbered list, indent, and outdent. The maximum field size is 131,072 characters, inclusive of all the formatting and HTML tags.
- Time
 - Let's users enter a time of day, including hours, minutes, seconds, and milliseconds.
- URL :
 - Let's users enter up to 255 characters of any valid website address.

Creating Custom Fields

- Setup -> Object Manager -> [Object Name] -> Fields & Relationship -> New
- Step 1: Choose the Field Type
- Step 2: Enter Field Details

New Custom Field

Step 1. Choose the field type Step 1

[Next](#) [Cancel](#)

Specify the type of information that the custom field will contain.

Data Type	
☒ None Selected	Select one of the data types below.
☐ Auto Number	A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.
☐ Formula	A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.
☐ Roll-Up Summary i	A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.
☐ Lookup Relationship	Creates a relationship that links this object to another object. The relationship field allows users to click on a lookup icon to select a value from a popup list. The other object is the source of the values in the list.
☐ Master-Detail Relationship	Creates a special type of parent-child relationship between this object (the child, or "detail") and another object (the parent, or "master") where: • The relationship field is required on all detail records. • The ownership and sharing of a detail record are determined by the master record. • When a user deletes the master record, all detail records are deleted. • You can create rollup summary fields on the master record to summarize the detail records. The relationship field allows users to click on a lookup icon to select a value from a popup list. The master object is the source of the values in the list.

New Custom Field

Step 2. Enter the details Step 2 of 4

[Previous](#) [Next](#) [Cancel](#)

Field Label [i](#)

Please enter the maximum length for a text field below.

Length

Field Name [i](#)

Description

Help Text [i](#)

Required ☐ Always require a value in this field in order to save a record

Unique ☐ Do not allow duplicate values

☐ Treat "ABC" and "abc" as duplicate values (case insensitive)

☐ Treat "ABC" and "abc" as different values (case sensitive)

External ID ☐ Set this field as the unique record identifier from an external system

Auto add to custom report type ☒ Add this field to existing custom report types that contain this entity [i](#)

Creating Custom Fields

- Step 3. Establish field-level security
- Step 4: Add to page layouts

New Custom Field

Step 3. Establish field-level security Step 3 of 4

[Previous](#) [Next](#) [Cancel](#)

Field Label: testing object
Data Type: Text
Field Name: testing_object
Description:

Select the profiles to which you want to grant edit access to this field via field-level security. The field will be hidden from all profiles if you do not add it to field-level security.

Field-Level Security for Profile	☐ Visible	☐ Read-Only
Analytics Cloud Integration User	☒	☐
Analytics Cloud Security User	☒	☐
Contract Manager	☒	☐
Cross Org Data Proxy User	☒	☐
Custom: Marketing Profile	☒	☐
Custom: Sales Profile	☒	☐
Custom: Support Profile	☒	☐
Force.com App Subscription User	☒	☐

Step 4. Add to page layouts Step 4 of 4

[Previous](#) [Save & New](#) [Save](#) [Cancel](#)

Field Label: testing object
Data Type: Text
Field Name: testing_object
Description:

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

☒ Add Field	Page Layout Name
☒	testing object Layout

Page Layout

- Control the layout and organization of buttons, fields, etc., on object record pages.
- Determine which fields are visible, read only, and required.
- Customize the content of record pages for your users.

Other Types of Layouts

- Compact
- Search

The screenshot displays a Salesforce Lightning interface for a Case record (00021034). The layout is organized into several columns and sections:

- Top Navigation:** Includes a search bar, a list of tabs (e.g., YAYA Service Light..., Cases, DISCOV..., 1433027, YAYA Se..., YAYA ED..., 000223..., Chatter..., 000222..., 000224..., 000210...), and a user profile icon.
- Left Column:**
 - Relation:** Shows details for 'PER TUTTI MODE' (Account Name, Bank Account, Phone, Account Receivable Code, Customer Group, Address).
 - Contact:** Shows details for 'Annemieke Schutte' (Account Owner, Total Open Invoice Amount, Last Payment Date, Payment Description, Payment Plan, Credit Amount).
 - Case Details:** Shows details for 'PER TUTTI MODE' (Contact Email, Relation, Case Number, Case type level 1, Returns, Contact Phone, Contact Name, Parent Case, Case type level 2).
- Middle Column:**
 - Case:** Shows details for '00021034' (Relation, Subject, Priority, Status).
 - Details:** Shows 'Description Information' (Subject, Description, Customer, Boxes, Remarks, Item Quantity Reason).
 - Case Information:** Shows 'Case Number' (00021034) and 'Parent Case'.
- Right Column:**
 - Related:** Shows 'Laatste E-mailbericht' (Laatste emailbericht, Dit is de aanmelding, zit ook in de doos, Gr.Hermann, Per Tutti Mode, Korte Molenstraat 9b, 5431 DT Culjk, T: +31 485 321 773, E: info@pertuttimode.nl, W: www.pertuttimode.nl).

Edit Page layout

- Setup -> Object Manager -> [Object Name] -> Page Layout -> [Page Layout Name]
- Drag and Drop Item to the section of the layout

The screenshot displays the Salesforce Page Layout Editor. At the top, a toolbar includes buttons for 'Save', 'Quick Save', 'Preview As...', 'Cancel', 'Undo', 'Redo', and a 'Layout Properties' icon. On the left, a sidebar lists available components: 'Fields', 'Buttons', 'Quick Actions', 'Mobile & Lightning Actions', 'Expanded Lookups', 'Related Lists', and 'Report Charts'. The main workspace features a 'Quick Find' search bar and a list of components. Two components are highlighted: 'Section' (labeled 'Owner') and 'Blank Space' (labeled 'testing object Name'). Below these, there are fields for 'Created By' and 'Last Modified By'. The page layout itself is titled 'testing object Detail' and includes a 'Standard Buttons' section with buttons for 'Edit', 'Delete', 'Clone', 'Change Owner', 'Change Record Type', 'Printable View', 'Sharing', and 'Sharing Hierarchy'. The layout contains two sections: 'Information (Header visible on edit only)' and 'System Information (Header visible on edit only)'. The 'Information' section shows a record for 'testing object Name' with a status indicator (red star, blue circle), 'Sample Text', and 'Owner' set to 'Sample Text'. The 'System Information' section shows a 'Created By' field with a green checkmark icon and a 'Last Modified By' field set to 'Sample Text'.

Compact Layouts

Displays key fields for a record at a glance when hovering over a record link.

Also shows in the ribbon at the top of a layout record.

The screenshot displays a Salesforce Compact Layout for an Opportunity record. The layout is divided into several sections:

- Header Section (Red Box):** Contains the Opportunity icon, the title "OPPORTUNITY Burlington Textiles Weaving Plant Generator", and a table of key fields: Account Name (Burlington Textiles Corp of America), Close Date (9/4/2016), Amount (\$235,000.00), and Opportunity Owner (Madison Ri...).
- Navigation Ribbon:** Located below the header, it includes buttons for "Prospect...", "Qualifica...", "Proposal...", and "Negoti...".
- Activity and Chatter Section:** Below the ribbon, there are tabs for "ACTIVITY" and "CHATTER".
- Opportunity Owner Section:** Displays the Opportunity Owner's name, "Madison Rigsby", with a profile picture.
- Private Section:** A checkbox labeled "Private" is shown.
- Opportunity Name Section:** Displays the Opportunity Name, "Burlington Textiles Weaving Plant Gen".
- Account Name Section:** Displays the Account Name, "Burlington Textiles Corp of America".
- Related Section (Red Box):** A section titled "Burlington Textiles C..." containing details about the account: Type (Customer - Direct), Phone ((336) 222-7000), Website (www.burlington.com), and Account Owner (Madison Rigsby).
- Opportunities (1) Section:** A section titled "Opportunities (1)" containing details about the opportunity: Stage (Prospecting), Amount (\$235,000.00), and Close Date (9/4/2016).

Search Layouts

- Determine what users see when Einstein Search returns results.
- Can be unique per user profile, ensuring the layout shows users what's most relevant to them.
- Can create search layouts for standard and custom objects.
- The search layout that you configure applies to **global** and **lookup** searches.

The screenshot shows the Einstein Search interface with a search bar at the top containing 'tesla'. The left sidebar lists various object types: Accounts, People, Groups, Opportunities, Contacts, Files, Dashboards, and Reports. The main content area displays three sections of results, each sorted by Relevance.

Accounts

5+ Results • Sorted by Relevance

ACCOUNT NAME	ACCOUNT OWNER	INDUSTRY	LAST MODIFIED DATE	SHIPPING CITY	ACCOUNT NUMBER	EMPLOYEE
Tesla, Inc.	Art Vandelay	Technology	1/23/2017 4:23 PM	San Francisco	0-545412	14,000
Tesla Motors	David Newman	Technology	6/12/2017 6:12 AM	San Francisco	0-984246	10,000
Tesla Semi	Susan Ross	Transportation	9/30/2017 10:00 PM	San Francisco	0-578454	40,000
Tesla Home Solar	George Steinbrenner	Technology	5/1/2017 1:22 AM	New York	0-323197	30
Tesla Powerwall Manufacturing	Matthew Wilhelm	Manufacturing	8/4/2017 4:12 AM	San Francisco	0-998744	200

People

2 Results • Sorted by Relevance

NAME	TITLE	EMAIL ADDRESS	PHONE NUMBER	EMPLOYEE NU...	ROLE	USER TYPE	ACTIVE
Elon Musk	Chief Executive...	ceo@tesla.com	415-555-3541	0000001	President's Co...	Standard	✓
JB Straubel	Chief Technical...	ceo@tesla.com	415-555-7741	0000002	President's Co...	Standard	✓

Groups

5+ Results • Sorted by Relevance

NAME	LAST ACTIVITY	MEMBERS	OWNER
Tesla CA	2/9/2017 9:50 AM	27,541 Members	Art Vandelay

Record Types

Ability to classify data in an Object so

- Different types of the same record can be tracked e.g., Customer & Broker Branch Accounts
- Users from different roles can consume and update data different ways.

Account Record Type

Customer

Account Source

--None--

✓ --None--

Web

Phone Inquiry

Partner Referral

Purchased List

Other

Account Record Type

Broker Branch

Account Source

--None--

✓ --None--

Web

Partner Referral

Other

Validation Rules

- Custom Defined Rule that verify the data a user enters in a record meets the standards you specify
- Expression that evaluates the data in one or more fields and returns a value of “True” or “False”.
- Validation rules also include an error message to display to the user.

Edit Pyramid Construction Inc.

Review the errors on this page.

Account number must be 8 characters long.

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

How to create a validation rule

- Setup -> Object Manager
-> [Object Name] ->
Validation Rules -> New

Validation Rule Edit Save Save & New Cancel

Rule Name

Active ☒

Description

Error Condition Formula

Example: [More Examples...](#)

Display an error if Discount is more than 30%

If this formula expression is **true**, display the text defined in the Error Message area

Insert Field Insert Operator ▼

Check Syntax

Functions

-- All Function Categories -- ▼

- ISOYEAR
- ISPICKVAL
- LEFT
- LEN**
- LN
- LOG

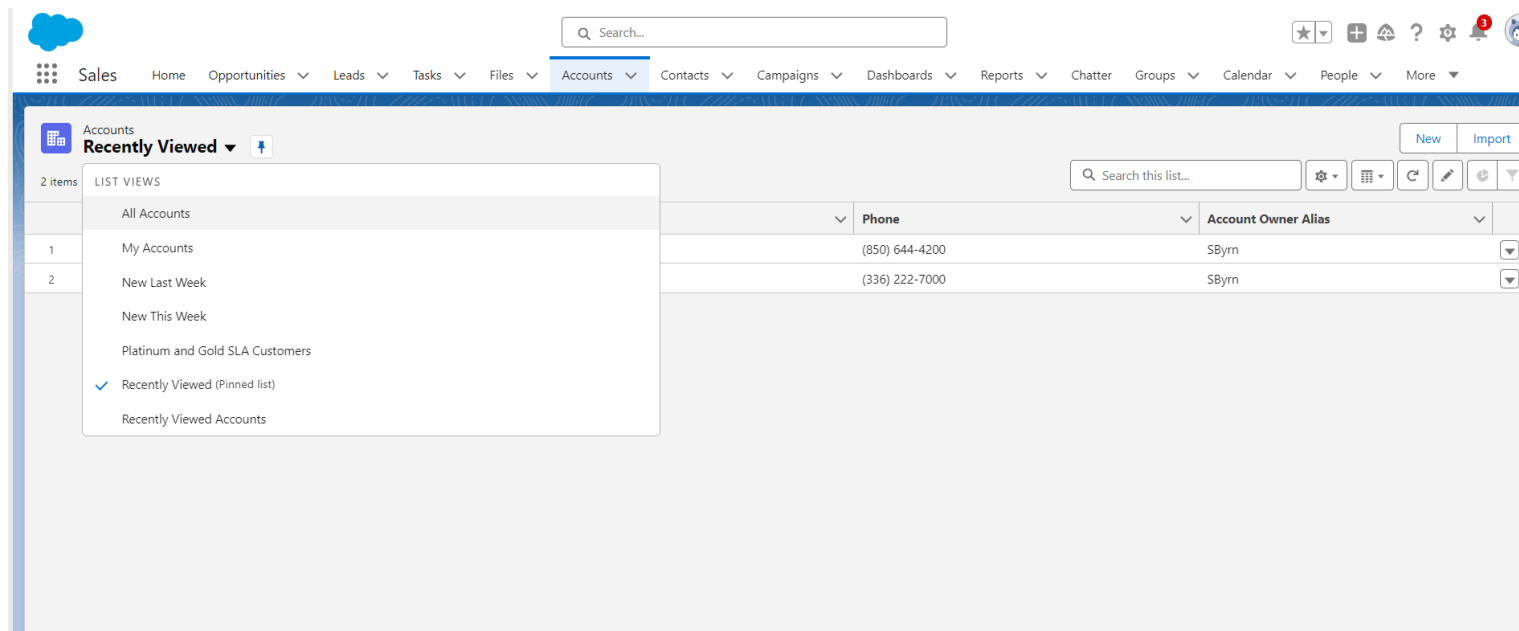
Insert Selected Function

LEN(text)
Returns the number of characters in a text string

[Help on this function](#)

List Views

- A list view is a filtered list of records where you can view records for one object at a time. For example, a list of Contacts, Accounts, or Opportunities.
- Default list views for each object, but you can also create custom list views based on your user needs.



Creating a List Views

- [Object Tab] -> List View Controls -> New
- Ability to share the list view with all users or a subset group
- Create filters to display the record that match the criteria

The screenshot shows the Salesforce interface for the 'Accounts' object. The top navigation bar includes 'Sales', 'Home', 'Opportunities', 'Leads', 'Tasks', 'Files', 'Accounts' (selected), 'Contacts', 'Campaigns', 'Dashboards', 'Reports', 'Chatter', 'Groups', 'Calendar', 'People', and 'More'. A search bar is present in the top right.

Below the navigation bar, the 'Accounts' section is displayed with the filter 'All Customer - Direct'. It shows 13 items, sorted by Account Name, and updated a few seconds ago. The table lists accounts with columns for Account Name, Account Site, Billing State/Prov..., Phone, Type, and Account Own....

On the right side, there is a sidebar for filters. It includes a 'Filter by Owner' section with 'All accounts' selected. Below this, it shows 'Matching all of these filters' with a filter 'Type* equals Customer - Direct'. There are buttons for 'Cancel', 'Save', 'Add Filter', and 'Remove All'.

	Account Name ↑	Account Site	Billing State/Prov...	Phone	Type	Account Own...
1	☐ Burlington Textiles Corp of America		NC	(336) 222-7000	Customer - Direct	SByrn
2	☐ Dickenson plc		KS	(785) 241-6200	Customer - Channel	SByrn
3	☐ Edge Communications		TX	(512) 757-6000	Customer - Direct	SByrn
4	☐ Express Logistics and Transport		OR	(503) 421-7800	Customer - Channel	SByrn
5	☐ Farmers Coop. of Florida		FL	(850) 644-4200		SByrn
6	☐ GenePoint		CA	(650) 867-3450	Customer - Channel	SByrn
7	☐ Grand Hotels & Resorts Ltd		IL	(312) 596-1000	Customer - Direct	SByrn
8	☐ Pyramid Construction Inc.			(014) 427-4427	Customer - Channel	SByrn

Report Types

- Salesforce comes with report types out-of-the-box for all standard objects and standard object relationships
 - e.g. "Contacts & Accounts" or "Opportunities with Products".
- Custom report types enable you to create complex reports that go beyond the standard Salesforce report types.

SETUP
Report Types

This report type will generate reports about Accounts. You may define which related records from other objects are returned in report results by choosing a relationship to another object.

A Accounts
Primary Object

B Cases
A to B Relationship:
☒ Each "A" record must have at least one related "B" record.
☐ "A" records may or may not have related "B" records.

C Activities
B to C Relationship:
☒ Each "B" record must have at least one related "C" record.
☐ "B" records may or may not have related "C" records.

D Assigned To
C to D Relationship:
☒ Each "C" record must have at least one related "D" record.
☐ "C" records may or may not have related "D" records.

Object Limit Reached
You can associate up to four objects to a custom report type.

A	B	C	D
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■

Creating a Report & Dashboard

- Report Tab -> New Report -> Select Report Type -> Start Report
- Drag & Drop required Field
- Create filters to display the record that match the criteria

The screenshot displays the Salesforce Reports interface. The top navigation bar includes tabs for Sales, Home, Opportunities, Leads, Tasks, Files, Accounts, Contacts, Campaigns, Dashboards, Reports, Chatter, Groups, Calendar, People, Cases, and Forecasts. The 'Reports' tab is active, showing a search bar and a 'New Reports & Accounts Report' button. Below the navigation bar, the 'Outline' section on the left lists available fields for the report, including 'Contact Owner' and various contact details. The 'Columns' section in the center shows a list of fields to be included in the report, such as 'Salutation', 'First Name', 'Last Name', 'Title', 'Account Name', 'Mailing Street', 'Mailing City', 'Mailing State/Province', and 'Mailing Zip/Postal Code'. The 'Filters' section on the right is currently empty. The main area on the right displays a preview of the report results, showing a table with columns for the selected fields and a single record for a contact named Bertha Boxer.

Salutation	First Name	Last Name	Title	Account Name	Mailing Street	Mailing City	Mailing State/Province	Mailing Zip/Postal Co
Ms.	Bertha	Boxer	Director of Vendor Relations	Farmers Coop. of Florida	321 Westcott Building	Tallahassee	FL	32306

Object Limits

- 3,000 total custom objects per Organization
- 800 Custom fields per object
- 5 Active lookup filters per object
- 500 Active validation rules per object
- 20 maximum standard or custom fields tracked for standard or custom objects
- 15 Unique Formula Relationships per object
- 300 Sharing Rules Per Object
 - 50 criteria-based Rules

* Depending on Salesforce Edition, the above is based on the Salesforce Unlimited Edition Allocations

Object Limits

11 Items, Sorted by Item

ITEM	▲ USAGE	LIMIT	% USED
Active Lookup Filters	0	15	0%
Active Validation Rules	0	500	0%
Active Workflow Rules	4	50	8%
Approval Processes	0	500	0%
Custom Fields	138	800	17%
Custom Relationship Fields	2	50	4%
Rollup Summary Fields	4	40	10%
Sharing Rules (Both Owner- and Criteria-based)	0	300	0%
Sharing Rules (Criteria-based Only)	0	50	0%
Total Workflow Rules	4	500	1%



Salesforce Security Model

Introduction to Salesforce

Security

- 1 – Object-Level Security
- 2 – Record-Level Security
- 3 – Field-Level Security



1 – Object-Level Security

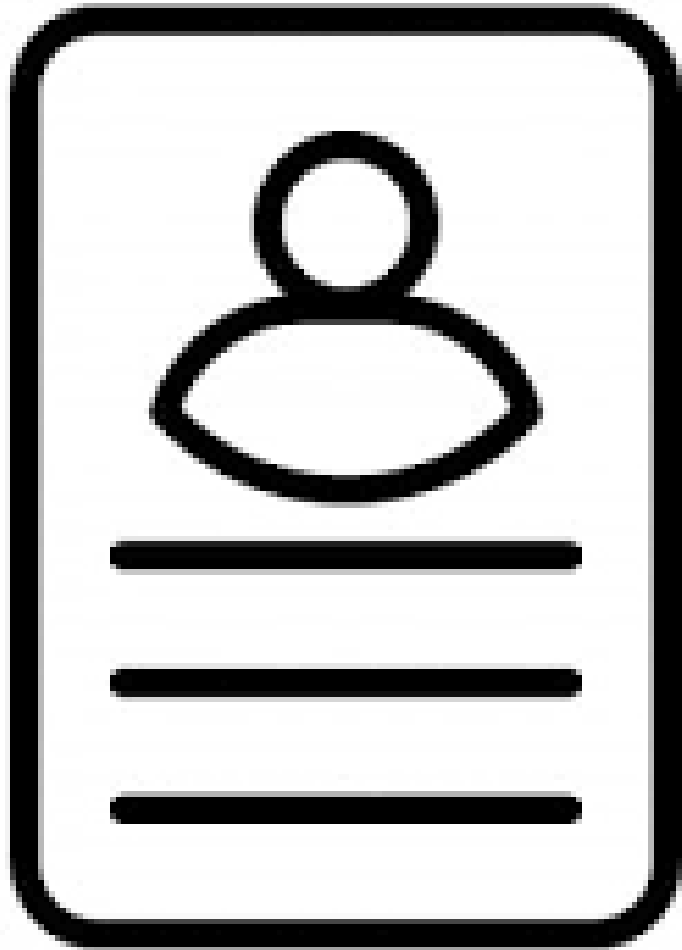
- Users
- Profiles
- Permission Sets and Permission Sets Groups
- CRUD permissions



User

Represent an individual

- Provide authentication, authorization and license information.
- It's the master object on the Salesforce Security model



Profile

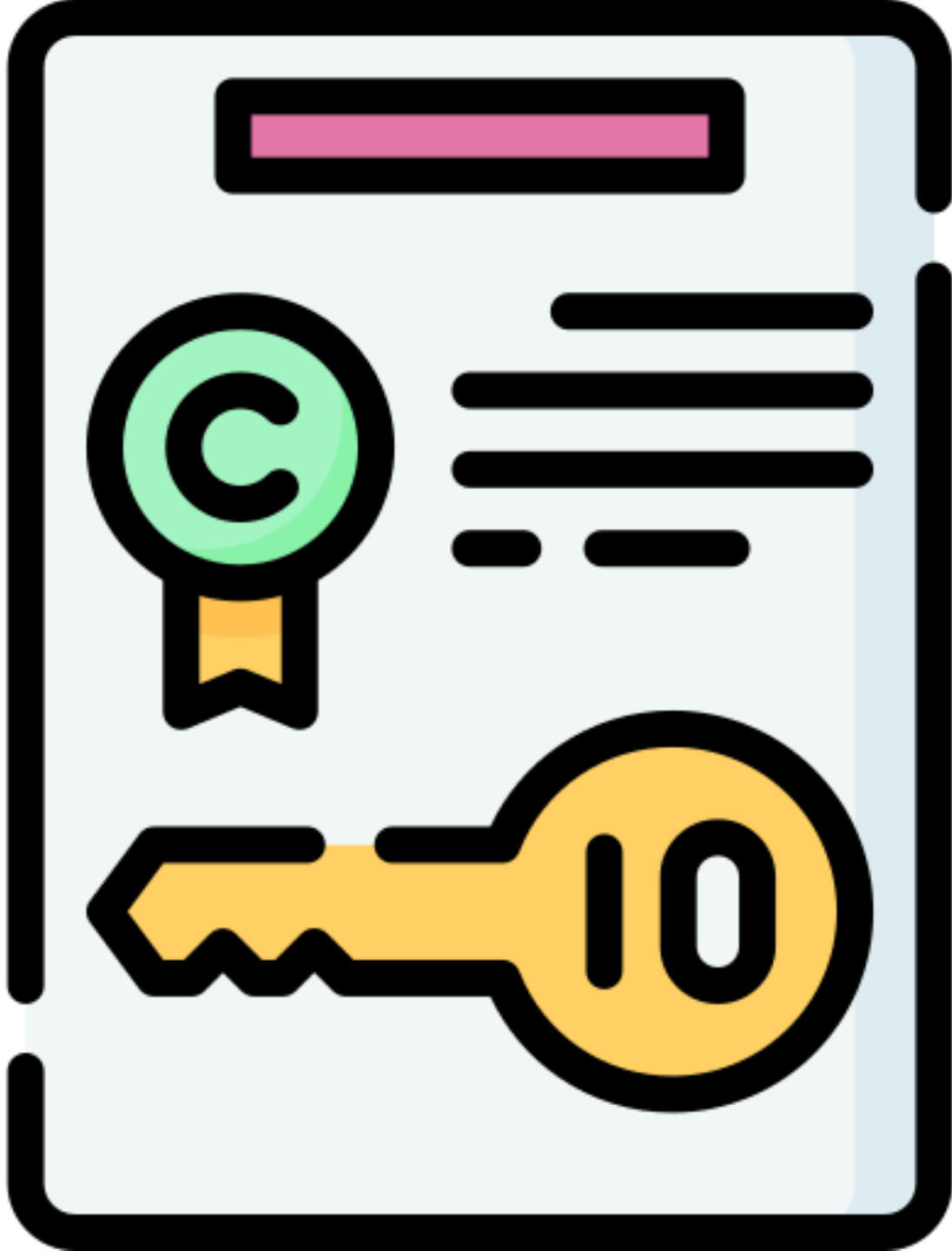
Represent a persona

Define a set of **permissions to perform different operations.**

Operations can include a **variety of privileges** in the platform. Settings, configuration, login Urls, working hours, API access, high- level privileges.

Salesforce **recommends to maintain profiles with minimum global platform permissions.**

Examples; system administrators, sales representative, API only users...

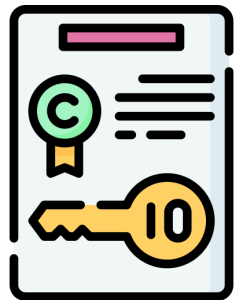


Permission Set

- **Define permissions to grant access** to users on different aspect in the platform.
- Permission sets can be grouped on **Permission set group** to maintain a cohesive sets of permissions for a given user.

CRUD operations

- Profiles and permissions set are ready to define CRUD operations on different objects
- Salesforce recommend to use permission sets and maintain profiles with minimum access.



Permission sets



Setup Home Object Manager

Q prof

Users

Profiles

Didn't find what you're looking for? Try using Global Search.

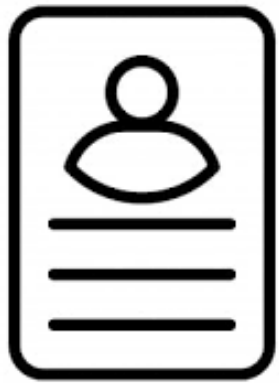
Profiles

Standard Object Permissions

The permissions defined here control access at the object level. Access to individual records within that object type is controlled by the sharing model. Set access levels based on the functional requirements for the profile. For example, create different groups of permissions for individual contributors, managers, and administrators. [How do I choose?](#)

	Basic Access				Data Administration	
	Read	Create	Edit	Delete	View All	Modify All
Accounts	☒	☒	☒	☒	☐	☐
AI Insight Reasons	☐	☐	☐	☐	☐	☐
AI Record Insights	☐	☐	☐	☐	☐	☐
Alternative Payment Methods	☐	☐	☐	☐	☐	☐
API Anomaly Event Stores	☐	☐	☐	☐	☐	☐
App Analytics Query Requests	☐	☐	☐	☐	☐	☐
Application Usage Assignments	☐	☐	☐	☐	☐	☐
Assets	☒	☒	☒	☒	☐	☐
Asset Actions	☐	☐	☐	☐	☐	☐
Asset Action Sources	☐	☐	☐	☐	☐	☐
Asset State Periods	☐	☐	☐	☐	☐	☐
Async Operation Logs	☐	☐	☐	☐	☐	☐
Authorization Forms	☐	☐	☐	☐	☐	☐
Authorization Form Consents	☐	☐	☐	☐	☐	☐
Authorization Form Data Uses	☐	☐	☐	☐	☐	☐
Authorization Form Texts	☐	☐	☐	☐	☐	☐
Background Operations	☐	☐	☐	☐	☐	☐
Business Brands	☐	☐	☐	☐	☐	☐
Campaigns	☒	☒	☒	☒	☐	☐
Card Payment Methods	☐	☐	☐	☐	☐	☐
Engagement Channel Types	☐	☐	☐	☐	☐	☐
Entitlements	☒	☐	☐	☐	☐	☐
Entitlement Contacts	☒	☐	☐	☐	☐	☐
Finance Balance Snapshots	☐	☐	☐	☐	☐	☐
Finance Transactions	☐	☐	☐	☐	☐	☐
Gateway Provider Payment Method Types	☐	☐	☐	☐	☐	☐
Ideas	☐	☐	☐	☐	☐	☐
Images	☐	☐	☐	☐	☐	☐
Individuals	☐	☐	☐	☐	☐	☐
Invoices	☐	☐	☐	☐	☐	☐
Leads	☒	☒	☒	☒	☐	☐
Legal Entities	☐	☐	☐	☐	☐	☐
Locations	☐	☐	☐	☐	☐	☐
Location Groups	☐	☐	☐	☐	☐	☐
Location Group Assignments	☐	☐	☐	☐	☐	☐
Macros	☐	☐	☐	☐	☐	☐
Opportunities	☒	☒	☒	☒	☐	☐
Orders	☐	☐	☐	☐	☐	☐
Party Consents	☐	☐	☐	☐	☐	☐
Payments	☐	☐	☐	☐	☐	☐

Security Model Schema



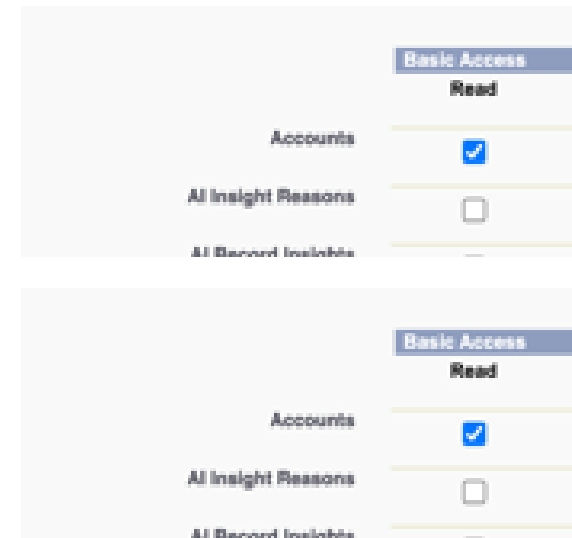
Profile



Users



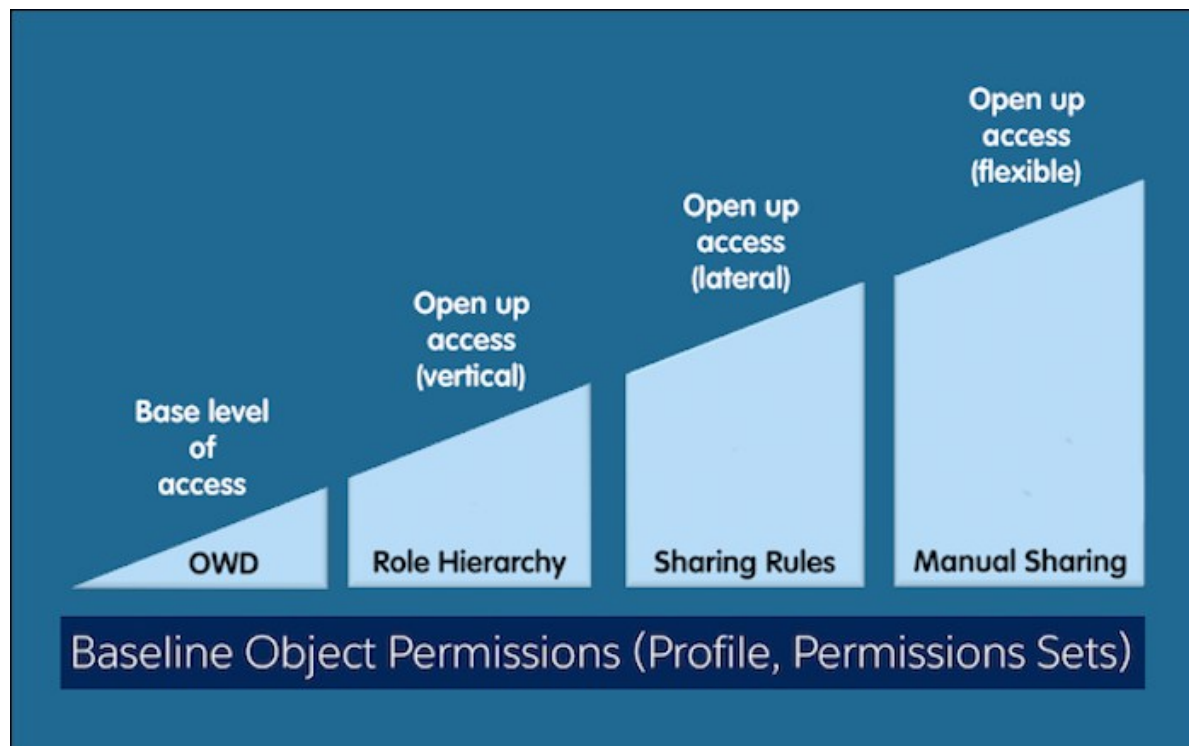
Permission sets



Level 2 – Record Access Security

- OWD – Org-wide defaults
- Hierarchy
- Sharing rules

Organization Wide Sharing Defaults



- Set the baseline access for your users for your records.
- Minimum Access Privilege (private)
- General types of access:
 - **Private:** Only users who are granted access by ownership.
 - **Read only:** All users can view all records for the object.
 - **Public read/Write:** All users can view and edit all records for the object.
- Each object has a separate default
- Set different levels of access for internal, external, and guest users

[Salesforce sharing settings](#)

User Role Hierarchy

- One of the ways you can control access to records.
- Come into play if your security model (OWDs) are set to private.
- Assigned at the Users Record Level

Sample Role Hierarchy

View other sample Role Hierarchies:



[Set Up Roles](#)

☐ Don't show this page again

Sharing Rules

- Rules used to extend sharing access to users in public groups, roles, or territories
- Gives users greater access by making automatic exceptions to your org-wide sharing settings.
- Based on ownership or criteria.

SETUP
Sharing Settings

Setup

Campaign Sharing Rule

[Help for this Page](#)

Use sharing rules to make automatic exceptions to your organization-wide sharing settings for defined sets of users.

Note: "Roles and subordinates" includes all users in a role, and the roles below that role.

You can use sharing rules only to grant wider access to data, not to restrict access.

Step 1: Rule Name

Label

Volunteers Site Guest

Rule Name

Volunteers_Site_Guest

Description

Step 2: Select your rule type

Rule Type

☐ Based on record owner
 ☐ Based on criteria
 ☒ Guest user access, based on criteria

Step 3: Select which records to be shared

Criteria	Field	Operator	Value	
	Active	equals	True	AND
	--None--	--None--		AND
	--None--	--None--		AND
	--None--	--None--		AND
	--None--	--None--		

Add Filter Logic...

Step 4: Select the users to share with

Share with

Volunteers Site Guest User

Step 5: Select the level of access for the users

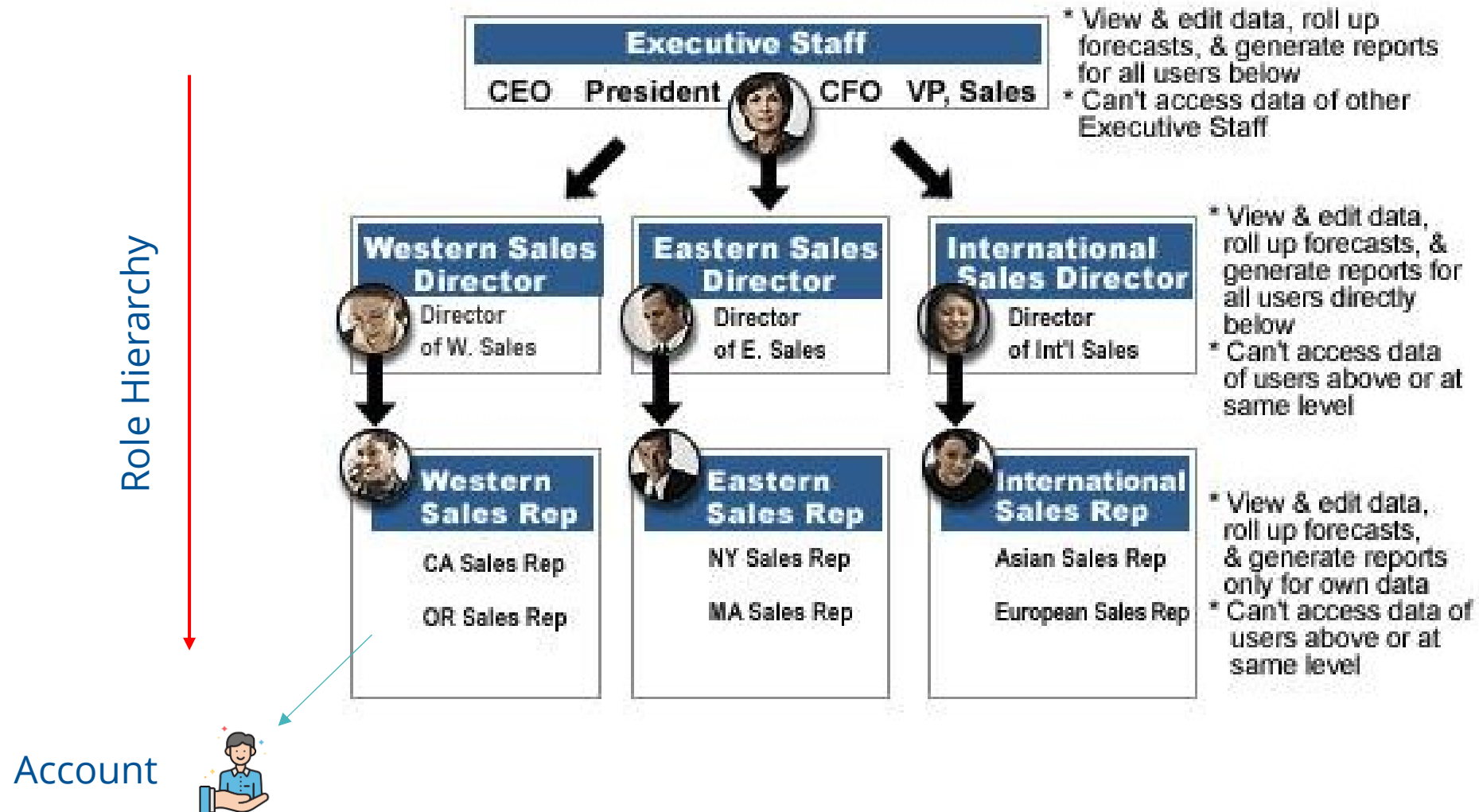
Campaign Access

Read Only

Save

Cancel

Sharing rules



Creating a Role

- **Setup-> User -> Roles - > Add Role**
- Select who the new role reports to creating a Hierarchy
- When we create a new user, we assign a role to them.

The screenshot shows a web interface for creating a new role. At the top, there is a header bar with a user icon and the text 'SETUP Roles'. Below this, the main content area is titled 'Role Edit New Role'. Inside this area, there is a sub-header 'Role Edit' and a form with the following fields:

- Label**: A text input field.
- Role Name**: A text input field with an information icon (i) to its right.
- This role reports to**: A text input field containing the value 'CEO' and a search icon (magnifying glass) to its right.
- Role Name as displayed on reports**: A text input field.

At the bottom right of the form, there are three buttons: 'Save', 'Save & New', and 'Cancel'.

Creating a Sharing Rule

- **Setup -> Security-> Sharing Settings -> [Object] Sharing Rules**
- Can create rules base on Owner or on Criteria
 - e.g. is owner in x Role or is Account x Type
- Control who the record should be shared with
 - e.g. Public Group, Roles etc.
- Control what level of Access they should have

SETUP
Sharing Settings

You can use sharing rules only to grant which access to data, not to restrict access.

Step 1: Rule Name

Label

Rule Name ⓘ

Description

Step 2: Select your rule type

Rule Type ☒ Based on record owner ☐ Based on criteria

Step 3: Select which records to be shared

Account: owned by members of

Step 4: Select the users to share with

Share with

Step 5: Select the level of access for the users

Default Account and Contract Access

Opportunity Access

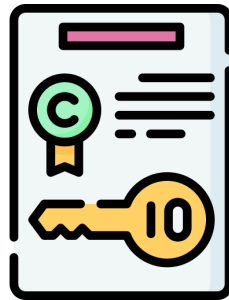
Case Access

Level 3 – Field Access Security

- Permissions

Field-Level Security

- Let's you specify whether users can view or edit each field for an object.
- Salesforce recommend to use permission sets and maintain profiles with minimum access.



Permission sets



Field Permissions

Field Name	Read Access	Edit Access
Approval Status	☐	☐
Created By	☒	☐
Department	☐	☐
Education	☐	☐
Hiring Manager	☐	☐
Job Description	☐	☐
Last Modified By	☒	☐
Legacy Position Number	☐	☐
Location	☐	☐
Operating Systems	☐	☐
Owner	☒	☒
Pay Grade	☐	☐
Programming Languages	☐	☐
Record Type	☒	☒
Related Position	☐	☐
Salary Range	☒	☒
Skills Required	☐	☐
Status	☐	☐
Title	☒	☒

Q&A

Exercises

Go to <https://trailhead.salesforce.com/> and login to your account.

- Continue the Admin Beginner Trail and complete the following
 - Data Modeling
 - Lightning Experience Customization
 - Reports & Dashboards for Lightning Experience
- Continue the Developer Beginner Trail and complete the following
 - Formulas and Validations
- Complete the Following Project
 - Knowledge Basics (Lightning)



References

- [Salesforce Standard Objects](#)
- [Extend Salesforce with Clicks, Not Code](#)
- [Salesforce Chatter](#)