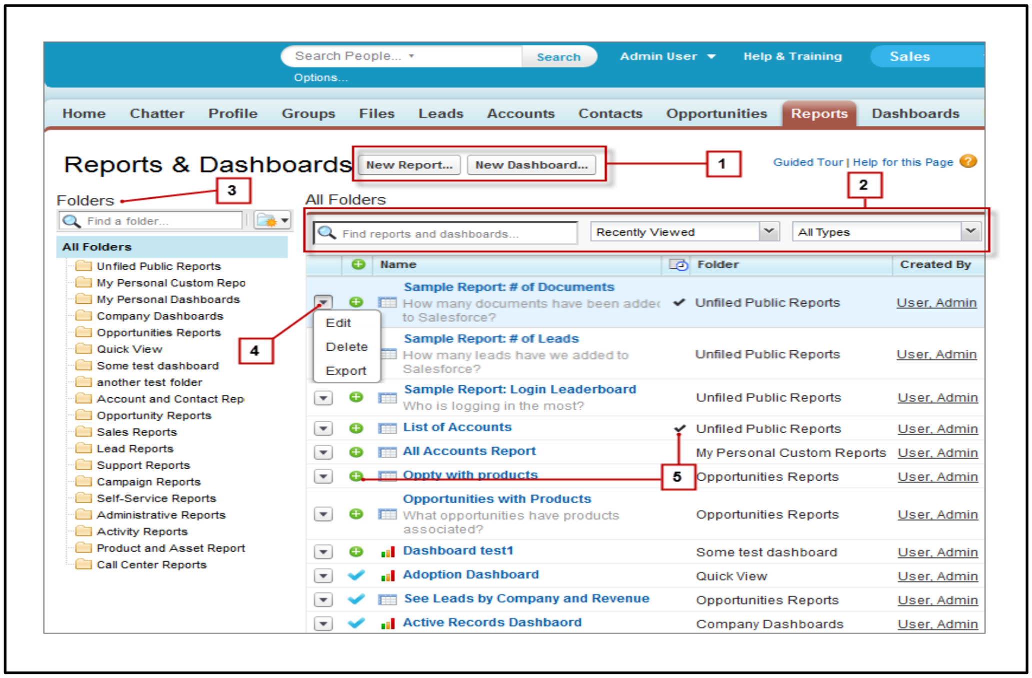
[i]A Guide to Understanding the fundamentals of Reports and Dashboards in Salesforce



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About This Guide

This guide encompasses explanations, instructional videos and step-by-step directions on how to create reports and dashboards in Salesforce. The purpose of this guide is to educate both new and experienced salesforce users on how to optimize the reporting functionality in salesforce. The guide is divided into two sections, Beginning and Advanced. The beginning section focuses on the basic fundamentals necessary to create and modify both reports and dashboards. The section focuses on the original of reports "report types." In addition to the aforementioned, filter logic and how to utilize the reporting highlight functionality, bucket fields, and custom summary formulas.

Best Practices	Best practices are signified by a thumbs up icon – these are suggestions to help you use Energy Insight more efficiently.	Hints & Tips	Our Hints & Tips icon signifies information to help you save time and be more efficient as you use Energy Insight.

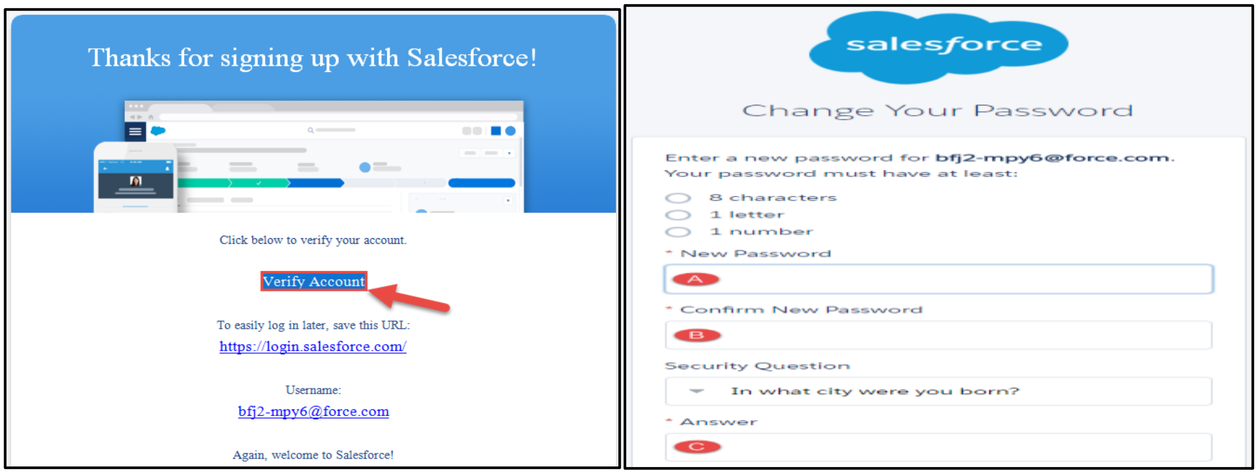
Initial Setup Step

[Salesforce Training and Testing Org.](#)

Clicking the above hyperlink enables you to create a fully configured testing instance. This Org will be necessary if you want to implement learning concepts based on pre-configured data (**practice exercises**). Choose the option of "Administration Essentials for New Admins…"as your configuration type.

- Access Training Org.

Once you click the "Start free trial", you with receive the "Thanks for signing up with Salesforce!" email. Click the "Verify Account" link and complete the "Change Your Password" section. This instance with be available to you for 30 days.

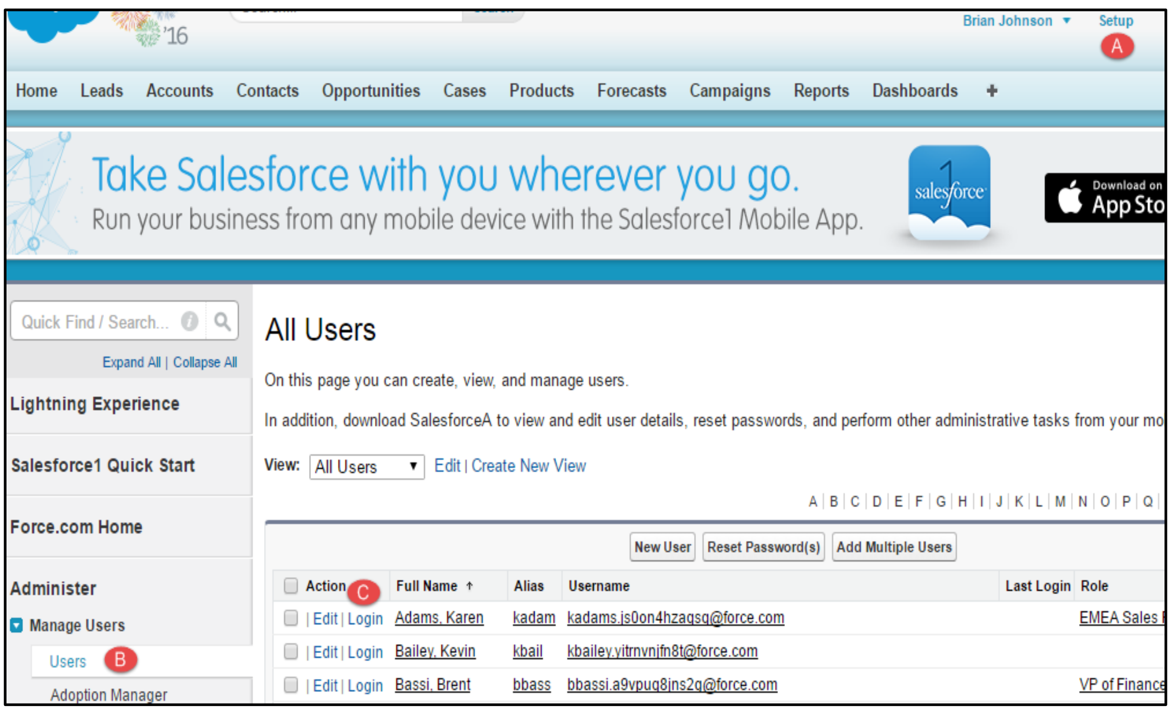


A: Create a password that conforms to the criteria above.

B: Re-enter new created password.

C: Choose and question from the drop down box and supply the appropriate answer.

- Process to login as a particular user



A: Go to the Setup option and click.

B: Select the Users option under the Manage Users heading.

C: Choose any user from the list and you will be logged into the system as that user.

Data Analytics with Reports and Dashboards

These analytic tools allow users to customize and manage the reporting and visual representation of data. For example, the sales team can produce reports that show the sales pipeline, the marketing team can report on the progress of campaigns, and you can create reports that display the number of active users in your Salesforce organization.

We will also look in detail at how these analytical elements can be used to provide sophisticated dashboard charting and graphics.[ii]

[Salesforce analytics consist of the basic mechanisms of reports, dashboards, and folders.]

• **Reports:** Reports are the key building blocks for analytics in Salesforce, where a resulting set of records are displayed in rows and columns to match the specified criteria. Report results may be further filtered and grouped, and may also be displayed as graphical summaries.

• **Dashboards:** Dashboards are visual components generated from data in reports. These components can include the following five types: charts, gauges, tables, metrics, and Visualforce pages.

• **Folders:** Folders are used to store the reports and dashboards and can either be set to read-only or read/write. To configure which of your users have access to a folder, you can set it to be either accessible by all users, hidden from all users, or accessible only by certain users. When restricting to certain users, the options exist to restrict by Public Groups, Roles, and Roles and Subordinates.

Reports

Within Salesforce, reports are accessed from the Reports tab. There are a large variety of predefined reports that are automatically provided when your organization is first set up by Salesforce. These predefined reports are known as standard reports, and are located in pre-prepared report folders known as standard report folders. For example, standard reports provide information about accounts and contacts; details about opportunities, forecasts, products, and sales pipelines; information about your organization's leads; details about forecast reports for customizable forecasting, and so on.

In this section on reports, we will outline the available standard reports and describe some of the key reports for system administrators in particular.

The predefined reports are suitable for existing objects and fields. They would not be suitable for reporting on any new objects that you have created. For this, we will look at how to extend the existing reports and how to create completely new types of reports, known in Salesforce as custom report types.

When building reports from either standard or custom report types, Salesforce provides a full-featured drag-and-drop editor to simplify the setup and layout of reports, called the Report Builder.

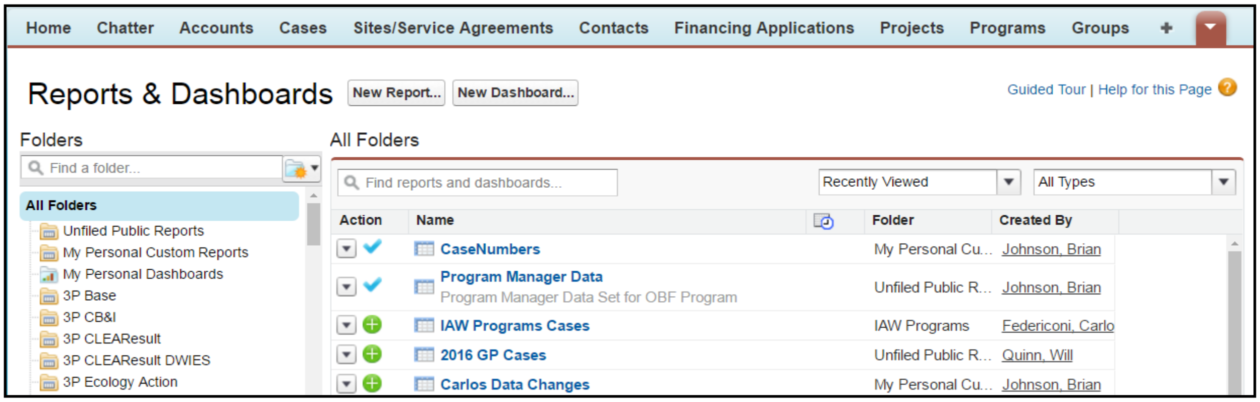
We will first look at how to use report folders, which can help organize and control access to reports by your users within Salesforce. When we click on the Reports tab, the **Reports and Dashboards** home page presents the following features:

- New Report and New Dashboard buttons
- Folder search box that allows users to search for specific report and dashboard folders
- Create New Report Folder and Create New Dashboard Folder selections
- Report search box that allows users to search for specific reports and dashboards
- Reports and Dashboards Folders section with different icons to show whether the folder is a report or dashboard

- Main Reports and Dashboards List View section. This allows filtering of Recent Reports tabs, displays appropriate reports, and allows the creation of new reports Report and Dashboard Folders

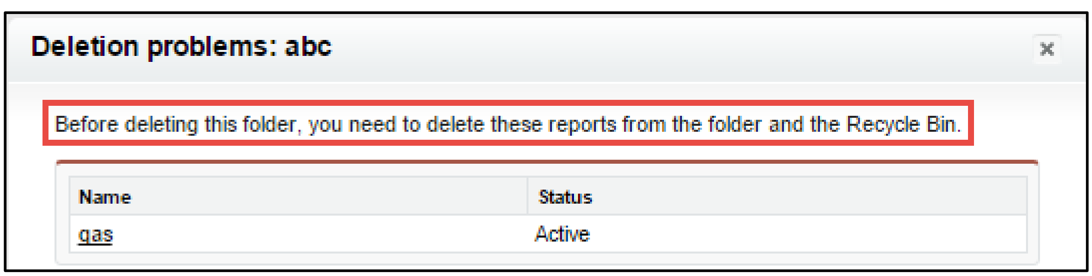
Running reports

The Reports tab presents the report's home page, on which users can search for reports and select or create a folder for reports.



The list of folders (represented by the folder icon) displays all the report folders that the user has permission to access. Within this section, you can view, edit, and manage all of your organization's public report folders. By clicking on the Reorder Folders option, you can change the order in which folders appear on the sub-tab.

The section on the right displays the selected report folders and allows users to click on the Actions drop-down, which appears as the first column. Here, the options are Pin to Top, Share, Edit, and, Delete. Pin to the Top enables one to place the report on top of the section, Share enables one to define who has access to the folder, Edit enables you to change the folder's name and choosing the Delete option will remove the folder and the reports it contains for all users and move it to the Recycle Bin. Here, you are prompted with a warning before the deletion is carried out. However, if the folder contains any reports, they must be removed from the folder or deleted first and then removed from the Recycle Bin. If this step is not done, the following error message with be generated:



You cannot delete reports that are being used by dashboards. To delete these reports, you must first delete the calling dashboard component.

Report and Dashboard Folders

The Report and Dashboard Folders section allows users to select the reports and dashboards that are stored in that specific folder.

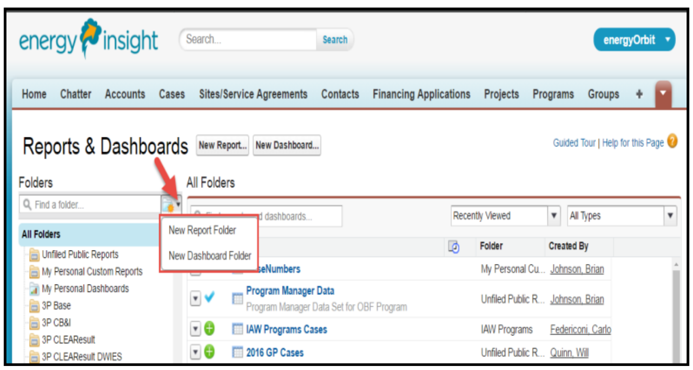
In Salesforce, you cannot save reports to the standard report folders. You can save reports only to the My Personal Custom Reports folder, the Unfiled Public Reports folder, or any custom report folder where you have the appropriate read/ write access.

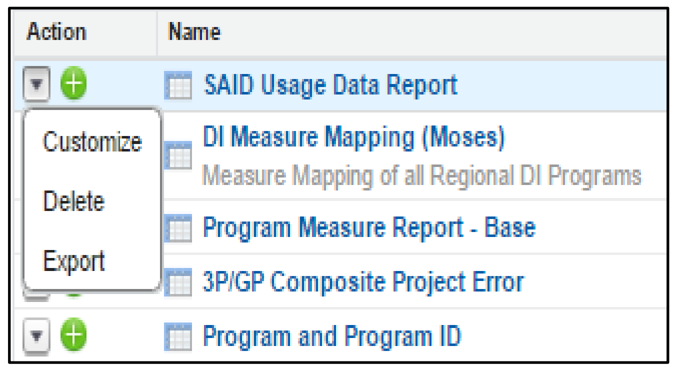
[*Standard reports may not be deleted or removed, but the folder can be hidden.*]

Standard and Custom Report Types

Standard report types are automatically included with standard objects and custom objects where "Allow Reports" is checked. Standard report types cannot be customized, and automatically include standard and custom fields for each object within the report type.

Using the create folder icon and associated options allows you to create new report and dashboard folders for custom reports and dashboards, as shown in the following screenshot:



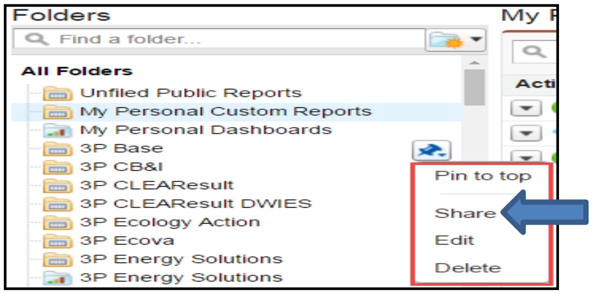


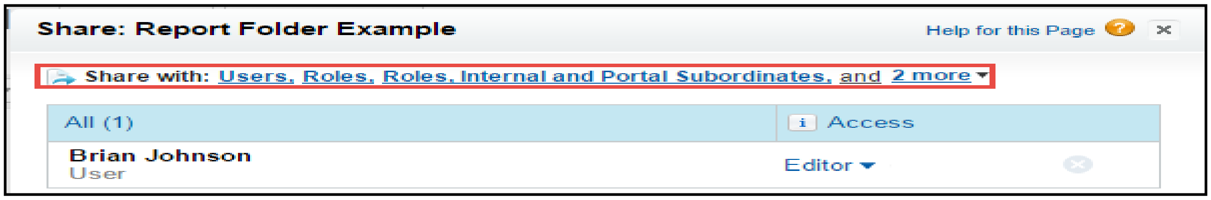
[It is good practice to create new folders to help manage the structure of reports of your organization.]

[You cannot mix standard and custom reports in the same folder.]

Unlike many IT systems, creating reports in Salesforce is very simple; users can themselves create reports. Since it is so easy for users to create reports, without a careful control and organized approach, it is easy for the number of reports to rapidly increase and become difficult to manage. You should, for example, create report folders that only certain the users who need access to the reports contained in the folder. This could be restricted to specific users, certain departments or geographic regions.

Once you create a "New Report folder", decide whether the public folder access should be set to read-only or read/write. You can optionally move reports from the Unfiled Public Reports folder. You must specify the accessibility to users-you can select either accessible by all users, hidden from all users, or accessible by certain users. Only the report creator can make edits and assign "Share With" functionality. This can be done through use of the following options: Public Groups, Roles, Roles and Subordinates.





[*How to Create Folders (Start 2 hours into & view for 5 minutes)*]

* Please note, that while the method demonstrated in this video is outdated, the concept behind assigning access should be the main take away.

How to do Folder Sharing 3:45 minutes This is the current methodology used in Salesforce.

Creating reports

Salesforce: Creating your first Report 10:00 minutes

The basic steps for creating new reports are as follows:

1. From the **Reports** tab, click on the New Report... button.
2. Select the report type[1] for the report and click on the **Create** button.
3. Customize your report, then save or rename it.

Best practices for reports

- Establish a report naming convention so this can make it easier to refer to reports using the coding scheme (there is an upper limit of 40 characters). Use the Description field to describe exactly what the report is intended for (there is an upper limit of 255 characters).
- Consider creating reports that are only needed for dashboards in separate report folders called something like Dashboard Reports Sales, for example.
- You can also create temporary reports that are hidden from all users and save these reports while you figure out if they are required.

[Selecting the appropriate report type is one of the most important steps in creating a report.]

[1] Record types let you offer different business processes, picklist values, and page layouts to different users.

Report types set the rules for which records can be shown in reports. They allow predefined sets of records and fields to be available within a report based on the relationship between a primary object and any related object(s).

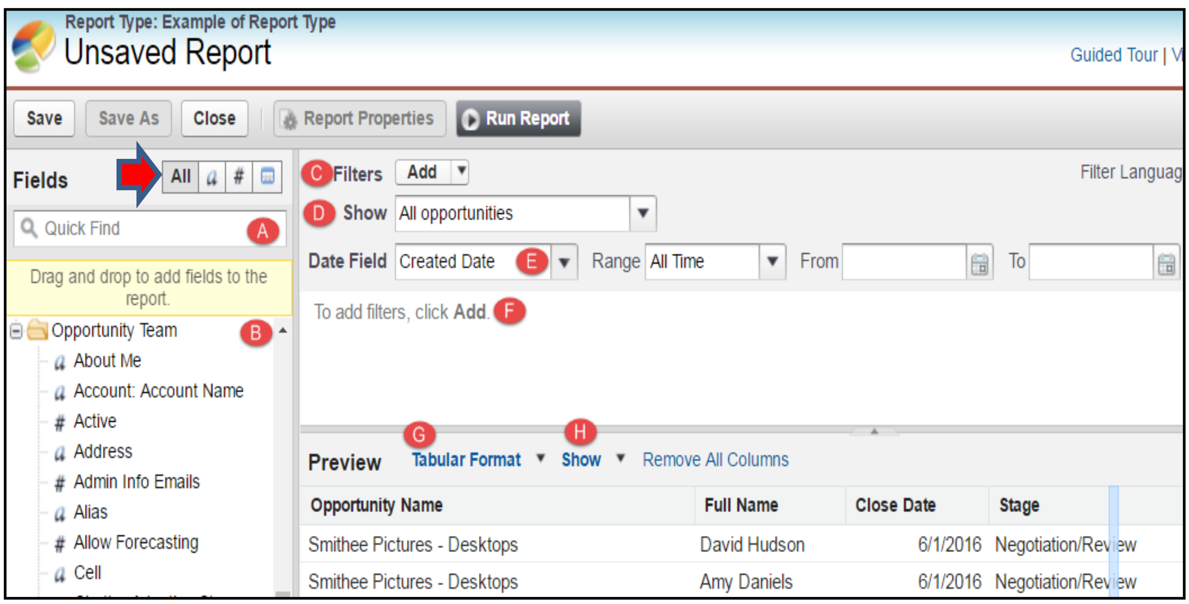
The Report builder

The report builder in Salesforce is a visual editor that enables the creation and modification of reports. The report builder interface uses drag-and-drop functionality to configure reports, and the interface consists of the following three sections:

The following screenshot shows the report builder page, which is presented as a full-screen window in order to maximize the display of the Fields, Filters, and Preview panes:

Fields:

- Click **All** to see all field types, as well as custom summary formulas.
- Click  to see just text fields.
- Click  to see just number fields (numeric, percentage, or currency).
- Click  to see just date fields.



A. **Quick Find:**

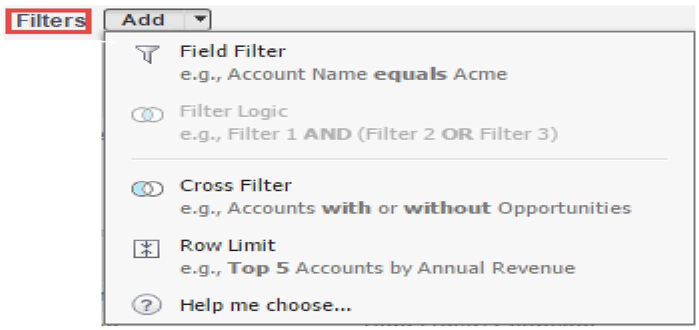
The field search begins once the first letter is typed.

B. **The Fields pane:**

The section that contains the Objects and fields associated to the report type. The Fields pane is shown on the left-hand side of the report builder page and, as the name suggests, lists all the accessible fields in the selected report type. The list of fields is organized by the sections that were set in the page layout of the associated report type. Here, fields can easily be identified by using the Quick Find search box at the top of the pane. You can also limit the number of fields shown by using the field type filters. In this pane, the fields can be dragged into the Preview pane to add them to the report. Additional calculated fields can be created just for the specific report. These are known as custom summary formulas and buckets.

C. **The Filters pane:**

To limit the number of rows of data results that are returned when you run a report, you can either limit your report results by clicking on the Hide Details button at the top of the report or you can add custom filters. To restore the full set of returned data, click on the Show Details button. The Filters pane is displayed in the top-right part of the report builder page, and is used to configure the view, the time period, and also any custom filters to limit the data that is actually displayed as part of the report.



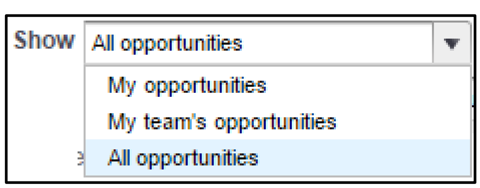
i. Field Filter to filter on fields. For example, use a field filter to filter by per any given filed based on a type of **relational** and **contains** operators. A maximum of 20 constraints are allowed.

ii. Filter Logic is used to customize how **logical** Operators (and, or) can be applied to your report. Each filter is assigned a number. If you'd like your report to return records that meet the criteria of Filter 1 and either Filter 2 or Filter 3, use this filter logic: Filter 1 AND (Filter 2 OR Filter 3). Filter logic requires at least one field filter.

iii. Cross Filter to filter on one object's relationship to another object. Cross filter on Accounts with Opportunities that your report only returns Accounts that have Opportunities. Add a sub filter to a cross filter to further filter by the second object. For example, the Opportunity sub filter Amount greater than 50000 causes your report to return Accounts that have Opportunities worth more than $50,000.00.

iv. Row Limit to limit the number of report results in tabular reports. To see which five Accounts have the largest annual revenue, set a row limit of Top 5 Accounts by Annual Revenue. This option is available for tabular reports (only).

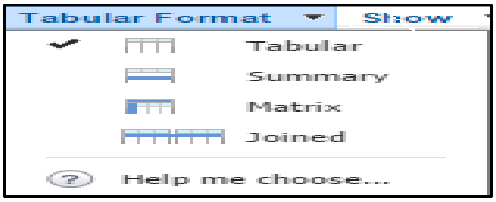
D. Show: Determines what records will show, based on the record owner.



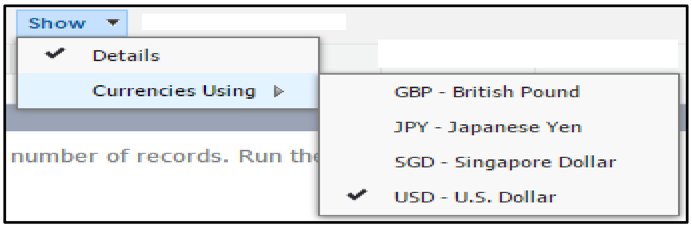
E. Date Field: Determines what records will show, based on the record owner.

F. Filters Section: Based on the dragging and dropping fields, one is able to place constraints on that help determine what data are presented.

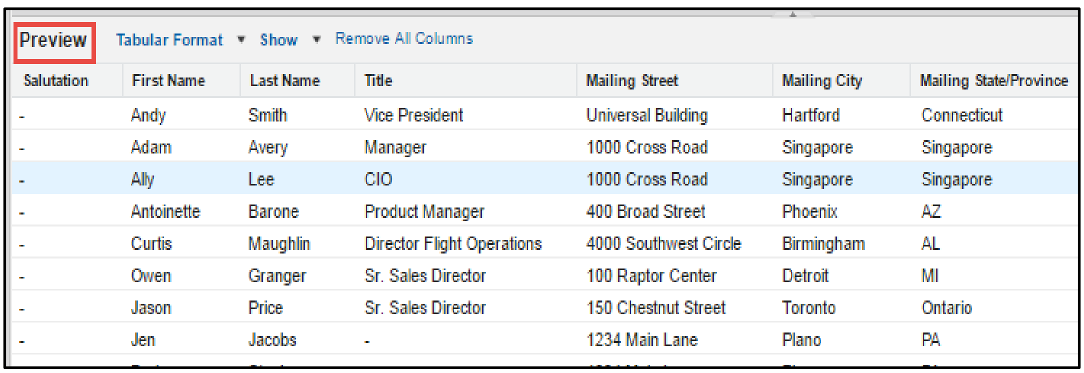
G. Format: Enables the use to choose any one of the four possible format:



H. Show: Enables the user to determine the reporting currency if using Multi-Currency.



To exit the report builder editor page, click on the Close button located in the top-left corner of the page, where you will be prompted to save any unsaved changes. You can also click on the Salesforce.com logo in the top-left corner of the page. However, you will not be prompted to save any changes.



Salutation	First Name	Last Name	Title	Mailing Street	Mailing City	Mailing State/Province
-	Andy	Smith	Vice President	Universal Building	Hartford	Connecticut
-	Adam	Avery	Manager	1000 Cross Road	Singapore	Singapore
-	Ally	Lee	CIO	1000 Cross Road	Singapore	Singapore
-	Antoinette	Barone	Product Manager	400 Broad Street	Phoenix	AZ
-	Curtis	Maughlin	Director Flight Operations	4000 Southwest Circle	Birmingham	AL
-	Owen	Granger	Sr. Sales Director	100 Raptor Center	Detroit	MI
-	Jason	Price	Sr. Sales Director	150 Chestnut Street	Toronto	Ontario
-	Jen	Jacobs	-	1234 Main Lane	Plano	PA

The Preview pane: The Preview pane is where the report can be customized. You and your users can add, rearrange, and remove columns, summary fields, formulas, and field groupings. When you enter the report builder for the first time, the Preview pane shows an initial result to provide a starting point from which the crafting and fine-tuning of the report results can be done. In the Preview pane, you can also set the required report format, which can be either, Tabular, Summary, or Matrix.

The preview shows only a limited number of result records. You need to actually run the report in order to see all the results. You can drag-and-drop report columns to change the order in which they are displayed. By clicking on the data column header, you can sort your report using that column. Sorting can also be performed by clicking on the column menu and then choosing either the Sort Ascending or the Sort Descending option from the drop-down list.

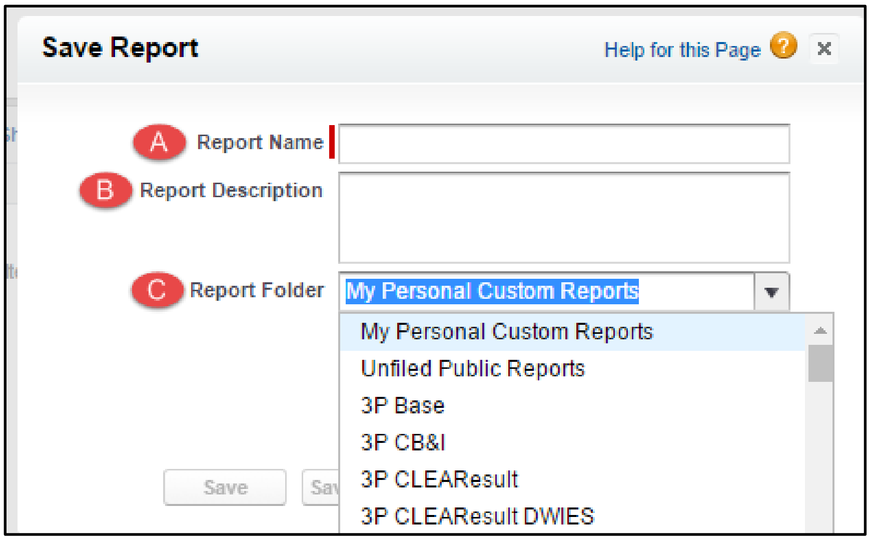
If a field has been added to the preview pane and is not required, it can be removed by grabbing its column header and dragging it back to the Fields pane. You can also click on the column menu and choose Remove Column, or click on Remove All Columns to clear the Preview pane of all the fields.

When first creating a report involving dates the date range may not initially be set appropriately. By setting the date range to All Time, you will most likely see some data returned, which can be useful as a quick check to see whether the report is working as intended.

[The source report(s) must be stored in folders that your intended dashboard viewers have access to or they will not be able to view the information.]

Save versus Save As

Click Save to update an existing report with recent changes, or click Save As to clone a report that you don't have access to edit. If you add a colon to your report name, it displays in two separate lines when you view the report. Use this to categorize reports by name, or to better display long report names. Upon clicking the Save As option, the following dialog box will appear:



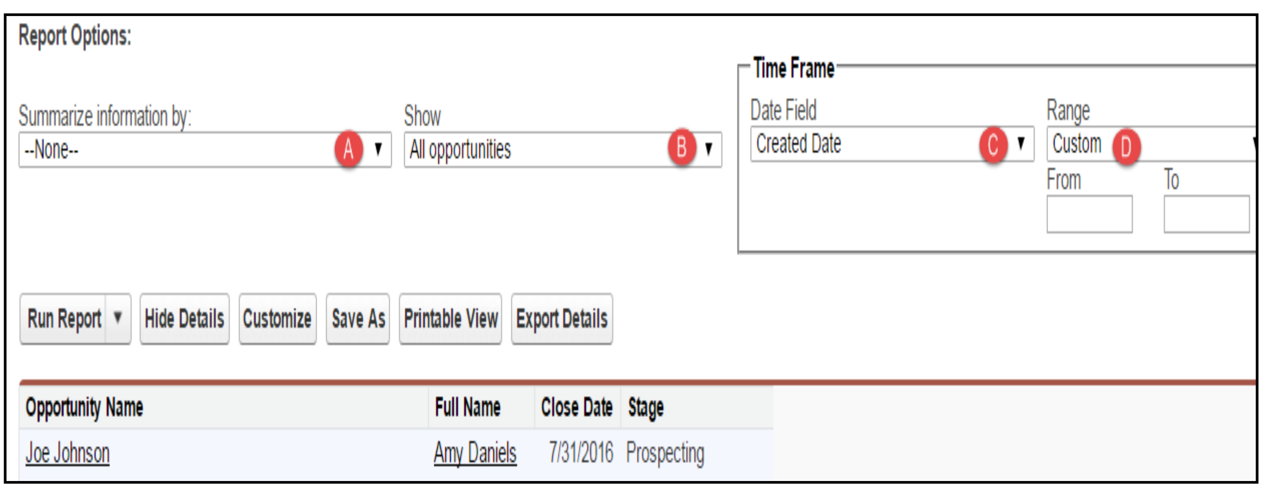
A. Report Name: Enter the name to assign to the report.

B. Report Description: A written explanation regarding what the report is about.

C. Report Folder: Indicates what folder to save the report in.

Reconfiguring a Standard Report:

When reconfiguring a standard report, the following report layout will appear. Please note that the "Save" button does not appear because Salesforce will not allow uses to override a standard report.



A. Summarize information by Provides subtotals for the fields you specify. Subtotaling your reports gives you a tool to analyze trends in the data. You can group sets of information, sort the groupings, and compare subtotals for each set against the overall total. In summary and joined reports, you can also subtotal by multiple fields to give you cascading sets of information.

B. Specifies which items to include in the report: just the records you own, or all records to which you have access. Use this option to see team data in your report.

C. Choose date-specific information about the records: created date, last updated date, and date of last activity.

D. Specifies a time period for a report. You can limit the data by specific dates using any standard or custom date field defined for the type of record in the report. Works with **From** and **To** fields.

Create a Custom Report #1 **(practice exercise)**

Goal:
Allison Wheeler, VP of Global Sales, would like a report showing all open opportunities, organized b sales rep, with the opportunity amount subtotaled for each rep.

Instructions:

1. Create a new opportunity report.
    a. Click the Reports tab
    b. Click New Report
    c. In the Select Report Type list, double click Opportunities, and then select Opportunities from the list that appears.
    d. Click Create. If you are prompted to take a tour of the report builder, click No Thanks.
2. Set the scope of the report using the standard filters.
    a. In the Filters pane, set the Opportunity Status to Open.
    b. Set the Range to All Time
3. Change the columns as required.
    a. Hold down the CTRL Key and click the column headers.
        i. Type
        ii. Lead Source
        iii. Next Step
        iv. Fiscal Period
        v. Age
        vi. Created Date
        vii. Owner Role
    b. Click on one of the selected column headers and drag the selection into the Fields pane.
    c. Hold down the CTRL Key and click the column headers.
        i. Opportunity Owner
        ii. Account Name
    d. Drag the selected columns and drop them in front of the Opportunity Name column.
    e. From the Fields pane, drag the Stage Duration field into the preview pane and drop it to the right of the stage column.
4. Select the format and grouping.
    a. At the top of the Preview pane, click Tabular Format and select Summary.
    b. Over the Opportunity Owner column heading, click the arrow button that appears, and select Group by this Field.
5. Add a summary field.
    a. Hover over the column heading, click the arrow button that appears, and select Summarize this Field.
    b. Select the Sum checkbox, and click Apply.
6. Save the report as Opportunities by Rep in the Global Sales Reports folder.
    a. Click Run Report
    b. Click Save As, and then complete that Save Report details.
        i. Report Name: Opportunities by Rep
        ii. Report Description: What opportunities do my reps have in the pipeline?
        iii. Report Folder: Global Sales Reports
    c. Click Save & Return to Report.

Create a Custom Report #2 (practice exercise)

Goal:
Connor McCoy, VP of Marketing, wants to perform industry segmentation analysis on customer accounts and has requested a report displaying all customer accounts created this year grouped by industry. He would like to see an annual revenue subtotal for all customers in easy industry.

Instructions:

1. Create a new account report.
   a. Click the Reports tab
   b. Click New Report
   c. In the Select Report Type list, double click Accounts and Contacts, and then select Accounts from the list that appears.
   d. Click Create
   e. In the Filters pane, set the new report filter criteria.
      i. Show: All accounts
      ii. Range: All Time (most users would choose Current Year)
   f. Hold down the CTRL Key, click the following column headers, and drag them into the Fields pane:
      i. Prospect Rating
      ii. Last Activity
      iii. Last Modified Date
   g. In the Fields pane, hold down the CTRL Key, and select the following fields:
      i. Annual Revenue
      ii. Industry
   h. Drag the selected fields into the Preview pane and drop them to the right of the Account Name column.
2. Group the accounts by Industry, and summarize the Annual Revenue field.
   a. Hover over the Industry column heading, click the arrow button that appears, and select Group by this Field.
   b. Hover over the Annual Revenue column, click the arrow button that appears and select Summarize by this field.
   c. Click Sum
   d. Click Apply
3. Add a filter to limit the report to just customer accounts.
   a. In the Filters pane, click Add.
   b. Create the filter Type equals Customer.
   c. Click OK
4. Save the report as Accounts by Industry in the marketing Reports folder.
   a. Click Run Report
   b. Click Save As, and then complete the Save Report details.
      i. Report Name: Customer Accounts by Industry
      ii. Report Description: What are the customer accounts that created this year grouped by industry?

iii. Report Folder: Marketing Reports

c. Click Save & Return to Report.

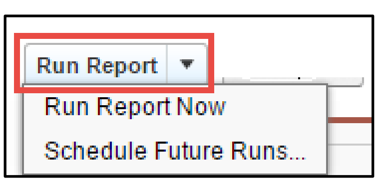
Schedule Reports[2]

You can set up a report to run itself daily, weekly, or monthly and send the results automatically to the people who need to see them, so that you don't have to remember to log in and do it yourself.

- On the Reports tab, hover over ✔ in the schedule column () to view a report's schedule. Note that users without the "Schedule Reports" permission can't see this icon and information.
- Your organization is limited to no more than 200 scheduled reports. Daily limits differ by edition. Additional scheduled reports may be available for purchase.
- Scheduled reports run in the time zone of the user who set up the schedule. For example, if the Time Zone field on your user record is set to Pacific Standard Time, and you schedule a report to run every day at 2:00 PM, then the report runs every day between 2:00 PM and 2:29 PM Pacific Standard Time.
- If you view and save a schedule in a time zone different from the one in which it was previously scheduled, the time slot could potentially change.
- If you schedule a report to run on a specific day of every month, the report runs only on months that have that specific day. For example, if you schedule a report to run on the 31st day of every month, then the report runs only on months that have 31 days. To schedule a report on the last day of every month, choose last from radio button of the On day # of every month or the radio button On drop- "1^{st}, 2^{nd} etc." and "Day of the week" drop down list.
- The report runs within 30 minutes of the time you select for Preferred Start Time. For example, if you select 2:00 PM as your preferred start time, the report runs any time between 2:00 PM and 2:29 PM, depending on how many other reports are scheduled at that time.
- Scheduling reports is not tracked in the audit trail history.

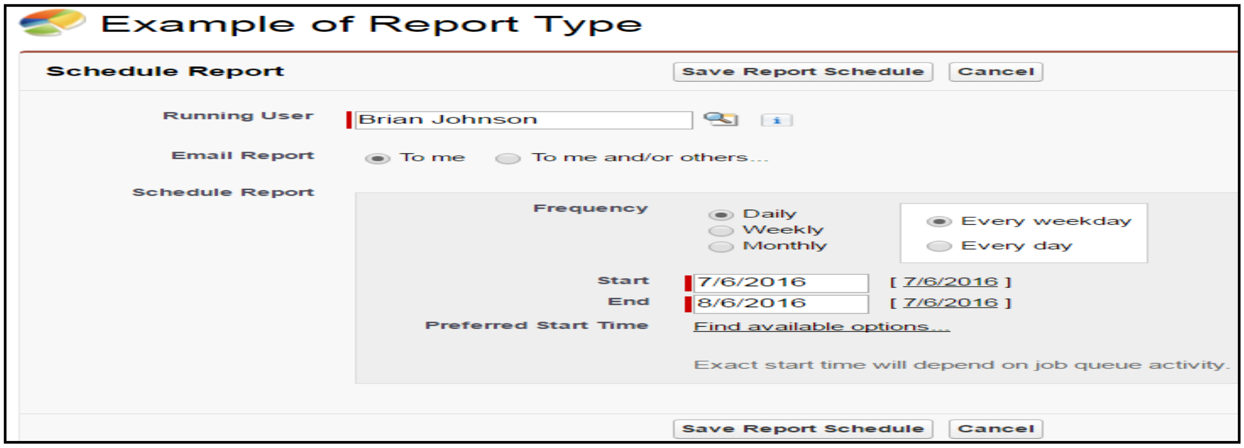
Emailing Scheduled Reports

- Emailed reports don't include report charts. To email a chart of the report, create a dashboard and schedule a dashboard refresh.
- Reports display only the first 2,000 records (same as in a browser).
- Report emails containing tables more than 22 inches wide or with more than 63 columns might not display properly when emailed byway of outlook.[3]
- The maximum size for emailed reports is 10 MB. Try the following techniques to reduce the amount of data in your report:
  - Filter for your own records, rather than all records.
  - Limit the scope of the data to a specific date range.
  - Exclude unnecessary columns from your report.
  - Hide the report details.



[2] You can't create schedules for joined reports.

[3] This issue may not be a factor anymore.



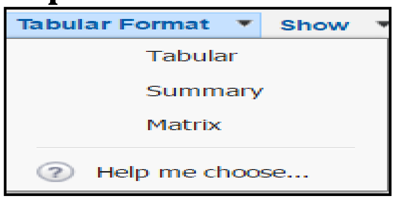
Schedule and Email a Report (practice exercise)

Goal:
Allison Wheeler, VP of Global Sales, would like to have the latest Sales Rep Win Rates report emailed to her every Wednesday morning ready for her 9:00 am team meeting.

Instructions:

1. Run the Sales Rep Win Rates report
    a. Click the Reports tab
    b. Click the sales Rep Win Rates report
2. Schedule the report as per Allison's request
    a. Click the arrow part of the Run Report button, and select Schedule Future Runs...
    b. Complete the Schedule Report page
        i. Log in as Allison Wheeler
        ii. Running user: Allison Wheeler
        iii. Email Report: To me and/or others..
        iv. Search: Users
        v. From the Select From list, select Allison Wheeler, and then click Add
        vi. Frequency: weekly on Wednesday
        vii. Preferred Start Time: Click the Find available options... link and select the earliest available time.
        viii. Click Save Report Schedule
    c. Click the Reports tab
    d. I the Scheduled column, hover over the check next to Sales Rep Win Rates to see the schedule details
3. Schedule the report
    a. Click the Sales Rep Win Rates report
    b. Click the arrow part of the Run Report button, and select Schedule Future Runs...
    c. Click Unscheduled Report to cancel the schedule
    d. Click OK in the warning box

Report formats



The following four report formats are available in Salesforce: **Tabular, Summary, Matrix, and Joined**. The features and benefits of each format are outlined next.

The Tabular report format

Tabular reports are the easiest and quickest way to report data. They can be linked to a spreadsheet, where they comprise a set of records listed in rows and fields (ordered in columns). Tabular reports are most suited for creating lists of records or a list with a single grand total as they cannot be used to group data.

The Summary report format

Summary reports are similar to tabular reports except that they group rows of data. They can be used for reports to show subtotals based on the value of a field. Summary reports with no groupings are simply displayed as tabular reports. However, please note that the grouping format will not be maintained if the report is exported to Excel.

The Matrix report format

[Building Matrix Reports]

Matrix reports are similar to summary reports, but they also allow the grouping and summarizing of data by both rows and columns and can be used for comparing related totals. Matrix reports are useful for summarizing large amounts of data to compare values in several different fields or for analyzing data by date or by product, person, region, and so on.

[Matrix reports can be used as the source report for dashboard components.]

The Joined report format

[Introducing Joined Reports with Salesforce]

Joined reports are reports that can store and group multiple reports together and allow you to build a single report that contains data from multiple report types.

A joined report can have up to five report blocks that can be added from either standard or custom report types, but can only be included if they share a common object relationship. For example, if you have a joined report that contains the Opportunities report type, you can then add the Contacts report type since both Opportunity and Contact objects have a relationship with the Accounts object.

For joined reports with multiple report types, any field that is shared by all report types is known as a common field. Common fields appear in the Common Fields area in the Fields pane and can be used to group together the separate report blocks.

[The following features are not available in joined reports: Bucket fields, Cross filters, and Rows to Display filters.]

Groupings

Groupings can be added to summary, matrix, or joined reports to group together sections of report data. For example, you might want to group accounts by the number of employees that the account has.

To add a summary field, follow the steps as shown:

1. Drag a field from within the Fields pane.
2. Drag the field into the grouping section of the Preview pane.
3. Wait for the loading dialog to complete.
4. Observe what the field is showing on the grouping section:

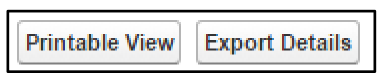
[Summary reports can have up to three grouping levels. Matrix reports can have two row and two column groupings. You can't use the same field for both the row and the column groupings. Joined reports can have up to three grouping levels]

Printing and exporting reports

Click on the Printable View button to open the report as a printed view. Printable View allows you to print data on the spot, like a Contact or Lead detail page. You can customize the view by hiding the Salesforce logo and collapsing certain details of that page. Take a look at the following options.

To export a report, users can click the Export Details option. To work with report data in a dedicated tool, such as a spreadsheet, export report data as a Microsoft Excel ® (.xls) or comma-separated values (.csv) file.

Running large reports



If your report contains more than 2,000 records, not all of the records we be displayed. To see a complete view of your report results, click on Export Details.

All users can click on Export Details option to export the report's contents directly into an Excel spreadsheet in the form of a CSV (comma separated values) file.

[Reports that take longer than 10 minutes to complete will be cancelled by the Salesforce system.]

Report timeout warning

The report timeout warning analyzes reports that are invoked from the Run Reports page. The standard timeout for reports is 10 minutes. If the report is identified to be highly complex and is likely to time out, a warning is displayed.

The report timeout warning analyzes reports that are activated manually and ignores reports via dashboards or scheduled reports.

[You can have the timeout period for reports extended from the default 10 minutes by sending a request to Salesforce customer support.]

If your organization has extended the limit to say 20 minutes, the report timeout warning might be less likely to appear. However, bear in mind that highly complex reports may still time out in the future.
You can disable the report timeout warning by navigating to Your Name I Setup I (App Setup) I Customize I Reports & Dashboards I User Interface Settings. Uncheck the Enable Report Timeout warning checkbox and then click on Save.

Dashboards

[Intro to Salesforce.com Dashboards 5:35 minutes]

[Dashboard Overview 3:25 minutes]

[Creating and Editing Dashboards 3:28 minutes]

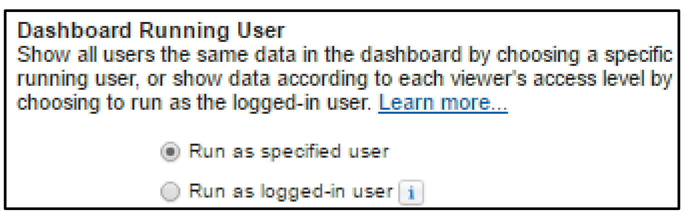
[Creating Salesforce Dashboards 7:08 minutes]

Dashboards are visual information snapshots that are generated from the data in associated reports and are presented as graphical elements. These graphical elements are known as dashboard components, of which there are the following five types: charts, gauges, tables, metrics, and Visualforce pages.

Dashboards can have up to 20 components, and you can control users' access to dashboards by storing them in folders with appropriate permissions, where folders can be public, hidden, or restricted to groups or roles.

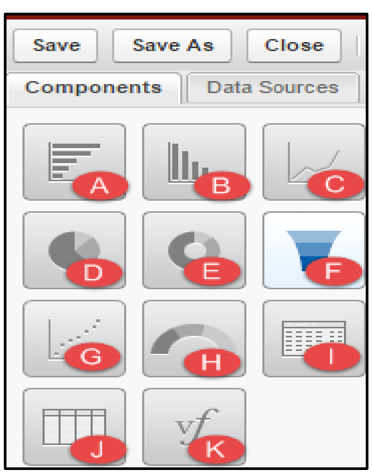
Dashboards can be further configured to run with the concept of a "running user", which means that the named user's security settings determine which data to display. Here, all dashboard viewers see data according to the security settings of that user who has been set as the running user, irrespective of the dashboard viewer's own personal security settings.

However, the dynamic approach, allows you to set the running user to be the logged-in user, so that each user is presented with the dashboard according to their data access level. This is known as dynamic dashboards.



Dashboard Component Types

In Salesforce, the following dashboard component types can be set up for display in dashboards:



A. Horizontal Bar Chart
B. Vertical Bar Chart
C. Line Chart
D. Pie Chart
E. Donut Chart
F. Funnel Chart
G. Scatter Chart
H. Gauge
I. Metric
J. Table
K. Visualforce

Types of Charts

Chart component types may be used to show data graphically, where the following variety of chart types can be selected: horizontal and vertical bar, line, pie, donut, funnel, and scatter charts.

Horizontal Bar Chart: A bar chart shows values as horizontal lengths, so this format can be good for comparing distance or time. Use a bar chart when you have a summary report with a single grouping, or you only want to display one grouping.

Vertical Bar Chart the chart can be extended vertically to show numerous groupings, though the width is fixed. Depending on chart settings, you can also display Chatter photos.

Line charts are good for showing changes in the value of an item over a series of points in time, such as week to week or quarter to quarter. Use a line chart when you have one important grouping representing an ordered set of data and one value to show. Line charts are useful for showing data over time. For example, to see the numbers of leads created each month in a report, set record count as the Y-axis and created month for the X-axis. The chart displays a line connecting the record count totals for each month. Salesforce does not plot missing (null) values.

Use a **pie chart** when you have multiple groupings and want to show the proportion of a single value for each grouping against the total. For example, to see the breakdown of your case queue by case status in a report, set record count for Values and status for Wedges. The chart displays a circle made up of wedges, each wedge representing the cases in a case status. Wedge size is proportional to the numbers of cases. Pie charts are not ideal for comparing values that are close together or numerous small values.

Use a **donut chart** when you have multiple groupings and want to show not only the proportion of a single value for each grouping against the total, but also the total amount itself. For example, to see the breakdown of your case queue by case status in a report, as well as the total number of cases, set record count for Values and status for Wedges. The chart displays a donut made up of wedges, each wedge representing a case status. Wedge size is proportional to the numbers of cases. The total number of cases for all statuses is shown in the middle.

Use a **funnel chart** when you have multiple groupings in an ordered set and want to show the proportions among them For example, to see the amount of opportunities in each stage in a report, set amount for Values and stage for Segments. Since the Opportunity: Stage field is an ordered picklist; the stages are sorted in the same order as the picklist, with each segment representing the amount for that stage. Funnel charts are useful for showing the flow of opportunities through the stages; a substantially larger segment may indicate a bottle-neck at that stage.


Use **scatter charts** to show meaningful information using one or two groups of report data plus summaries. For example, to see how stage duration correlates with the number of activities for opportunities, group your report by Opportunity Name and plot the scatter chart by the grouping. Then set X-Axis on the chart to Record Count and Y-Axis to Stage Duration. The chart will show a dot for each opportunity. You can tell at a glance if the stage duration is shorter for opportunities that have more activities. Because a scatter chart shows data grouped by summarized values, you need at least one grouping in your report. Choose a report format that allows groupings, such as, summary, matrix, or joined. You also need at least one summarized field in the report to show data on the axes of the chart. Otherwise, the chart will show record count on the axes. Scatter charts automatically show data from the source report or you can manually choose what information to display for groupings and summaries.

Gauge


Gauge component types may be used to show a single value that is to be shown as a part of a range of custom set values. Here, the ranges that can be set can represent say, low, medium, and high values, and the value from the report is plotted accordingly.

Metric


Metric component types may be used to show a single value to display.

Table

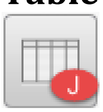


Table component types may be used to show a set of report data In column form.

Visualforce page


In addition to the standard types, **Visualforce** page component types may be used to create a custom component type and present information in a way not available in the standard dashboard component types.

Build a Global Sales Dashboard (practice exercise)

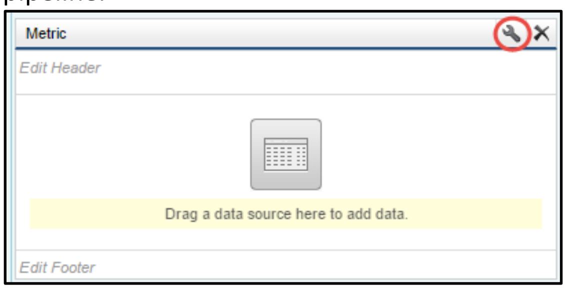
Goal:
Allison Wheeler, VP of Global Sales, would like a dashboard to display the key information from her sales reports. The dashboard should also be assessable to her team.
Tasks:

1. Create a new folder called Global Sales Dashboards.
2. Create the Global Sales dashboard with Allison Wheeler as the running user.
3. Add a Closed Business YTD gauge component.
4. Add Opportunities by Rep chart and metric components.
5. Add Sales Rep Win Rates table and gauge components.
6. Save the dashboard and schedule a daily refresh at 8:00 am.

Instructions:

1. Create a new folder called Global Sales Dashboards.
    a. Click the Reports tab
    b. To the right of the Find a folder… box. Click the button and select New Dashboard Folder, and then completed the Folder Edit page.
        i. Dashboard Folder Label: Global Sales Dashboards
        ii. Public Folder Access: Read Only
        iii. This folder is accessible to only the following users: (selected)
            1. Search: Roles and Subordinates
            2. From the Available for Sharing list, select Role and Subordinates: VP of Global Sales/Sales Ops.
        iv. Click Add
    c. Click Save
2. Create the Global Sales dashboard with Allison Wheeler as the running user.
    a. Click new Dashboard. (Click No Thanks if you see a message prompting you to take a tour.)
    b. In View dashboard as enter Allison Wheeler.
3. Add a Closed Business YTD gauge component.
    a. From the Components tab on the left, drag the Gauge component into the first column.
    b. Click the Data Sources tab, and in the Quick Find box, enter closed.
    c. Drag the Closed Business YTD report onto the Gauge component.
    d. Click on the text areas of the component to enter the corresponding information.
        i. Edit Header: Closed Business
        ii. Edit Title: Closed Business YTD
        iii. Edit Footer: Value of won opportunities this fiscal year.
    e. Click the edit attributes (wrench) icon on the component.
    f. Click the Formatting tab and enter the component settings, ignoring any red error messages that appear.
        i. Minimum: 0
        ii. Breakpoint 1: 200000
        iii. Breakpoint 2: 400000
        iv. Maximum: 6000000
        v. Show %: (selected)
    g. Click OK
4. Add Opportunities by Rep chart and metric components.
    a. On the Data Sources tab, in the Quick Fine box, enter opportunities.
    b. Drag the opportunities by Rep report **twice** into the second column.

c. Click the Components tab, and drag the Vertical Bar Chart component onto the first source report in the second column.
d. Click on the text areas of the component to enter the corresponding information.
    i. Edit header: Sales Pipeline
    ii. Edit Title: Open Opportunities by Rep
e. Click the edit attributes (wrench) icon on the component.
f. Click the Component Data tab, and from the Drill Down to picklist, select Record Detail Page.
g. Click the Formatting tab, and enter the component settings.
    i. Sort Rows By: Value Descending
    ii. Show Details on Hover: (selected)
h. Click OK
i. Click the Components tab, and drag the Metric component onto the second source report in the second column.
j. Click on the text areas of the component to enter the corresponding information.
    i. Label (box next to value): Total Open Opportunities
    ii. Edit Footer: This column displays the current value of open opportunities in sales pipeline.



5. Add Sales Rep Win Rates table and gauge components.
    a. Click the Components tab, and drag the Table and Gauge components into the third column.
    b. Click the Data Sources tab, and in the Quick Find box, enter win.
    c. Drag the Sales Rep Win Rates report onto the Table component.
    d. Click on the text areas of the component to enter the corresponding information.
        i. Edit header: Win Rates
        ii. Edit Title: Leaderboard
    e. Click the edit attributes (wrench) icon on the component.
    f. On the Formatting tab, enter the component settings.
        i. Sort Rows By: Value Descending
        ii. Show Chatter Photos: (selected)
    g. Click OK.
    h. Drag the Sales Rep Win Rates report onto the Gauge component in the third column.
    i. Click on the text areas of the component to enter the corresponding information.
        i. Edit Title: Company Win Rate
        ii. Edit Footer: Values in this column are based on ratio of won to closed opportunities.
    j. Click the edit attributes (wrench) icon on the component.
    k. On the Formatting tab, enter the component settings, ignoring any red error messages that appear.
        i. Minimum: 0
        ii. Breakpoint 1: 33
        iii. Breakpoint 2: 66
        iv. Maximum: 100
    l. Click OK

6. Save the dashboard and schedule a daily refresh at 8:00 am.
    a. Click Save, and then complete the Save Dashboard details as follows:
        i. Title: Global Sales Dashboard
        ii. Save To: Global Sales Dashboards
    b. Click Save and Run Dashboard.
    c. Click the arrow part of the Refresh button, and select Schedule Refresh…
    d. Complete the Schedule Dashboard Refresh page.
        i. Email Dashboard: To me and To others…
        ii. Search: Roles and Subordinates
        iii. From the Select From list, select Role and Subordinates: VP of Global Sales/Sales Ops, and then click Add.
        iv. Frequency: Daily and Every Weekday
        v. Preferred Start Time: Click the Find available options… link and select 8:00 AM.
    e. Click Save
    f. Click Close.

Advance Section

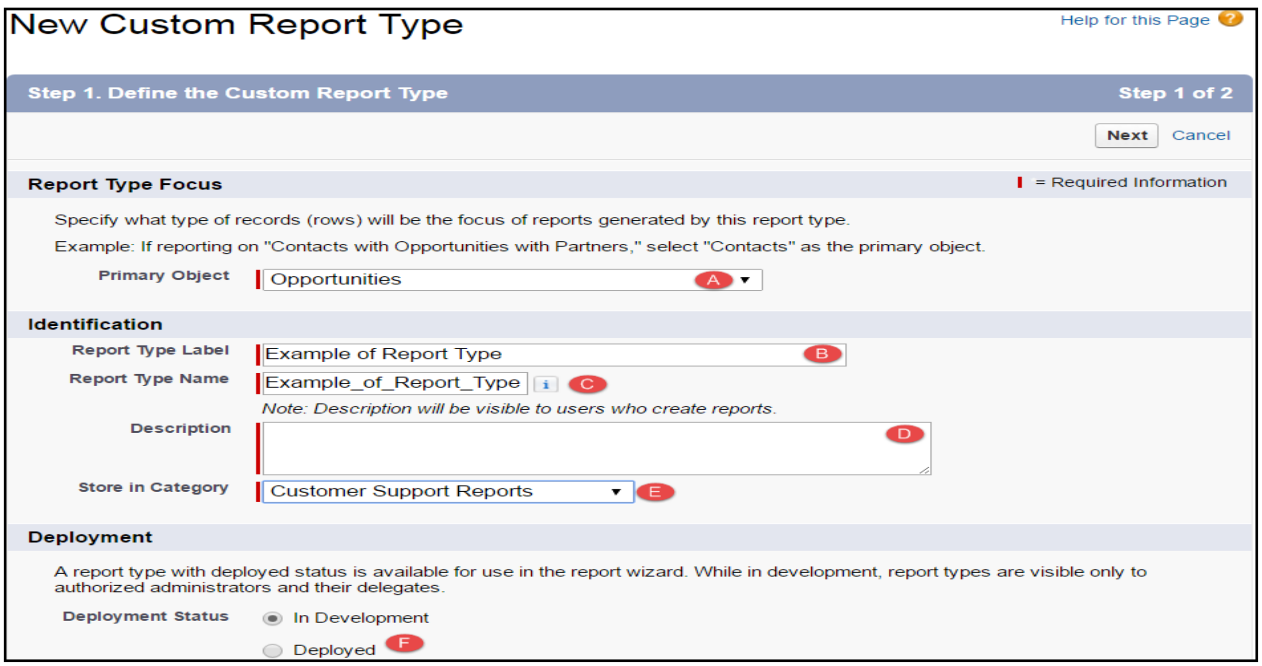
Report Types[4]

The report type determines which records are included in a report. Report filters then determine which records are excluded from the report.

For example, I want to run an "Opportunities with Products" report that includes all opportunities (with or without products). The standard report type will only include opportunities if they have an associated product. However, I could create a custom report type that used an optional object relationship to meet this need.

The Primary Object (***Opportunities***) drop-down list, select the primary object from which to build your custom report type. Primary object you choose determines the views available to users creating your reports from your custom report type.

Now enter the Report Type Label and the Report Type Name fields, and enter a description for the custom report type. The description will be visible to users who create reports and is used to help explain the purpose for the custom Report Type template.



A. **Primary Object:** The first object that the subsequent pivot off of.
B. **Report Type Label:** The label can be up to 50 characters long.
C. **Report Type Name:** The name is used by the SOAP API.
D. **Description:** Enter a description for your custom report type, up to 255 characters long.
E. **Store in Category:** The category (folder) in which you want to store the custom report type.

[4] To navigate to the Custom Report Types page, navigate to Your Name I Setup I (App Setup) I Create I Report Types. Now click on New Custom Report Type.

F. **In Development/Deploy:** Choose In Development during design and testing as well as editing. The report type and its reports are hidden from all users except those with the "Manage Custom Report Types" permission. Only users with that permission can create and run reports using report types in development. Choose Deployed when you're ready to let all users access the report type.

Select the category (Folder) to store the custom report type in. Then, select a development status. Here, you can select In Development while you are first creating the custom report type to hide it from users while you are defining it. This will hide the custom Report Type template and prevent users from creating and running reports from the report type. Choose Deployed when you are finished defining it and want to let users create and run reports using that Custom Report Type template.

Custom Report Type Object Selection

When creating a custom report type, pay very close attention to the two options when selecting relationships (Each "A" record [must/may or may not] have at least one "B" record). The objects and relationships selected determine which records will be included when reports of this type are run.

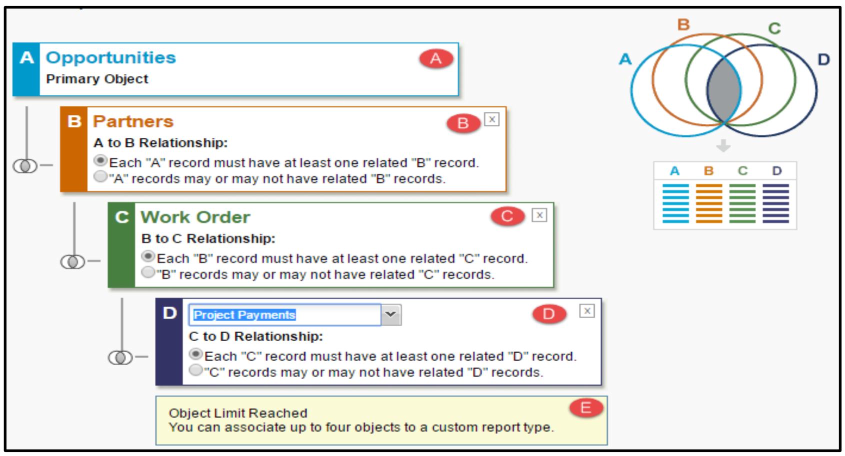


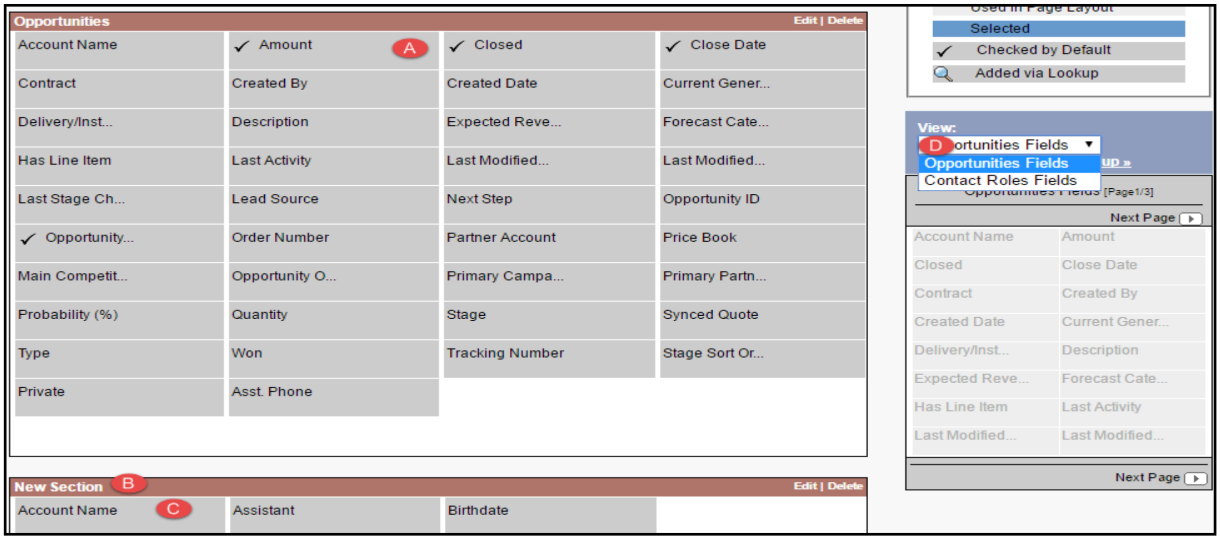
Figure 1

A. Primary Object
B. Secondary Object
C. Third Object
D. Forth Object

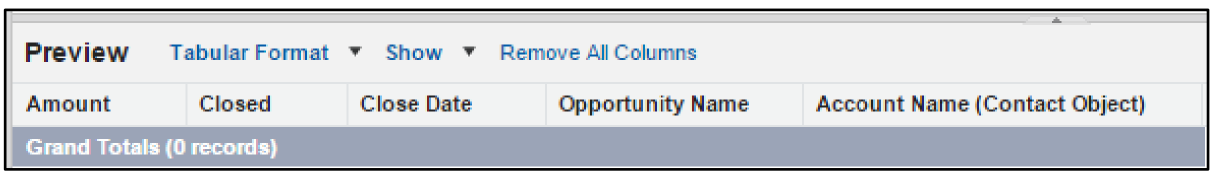
Edit layout

After clicking on the save button, the Custom Report Type definition and the layout can be edited to specify which standard and custom fields a report can displayed.

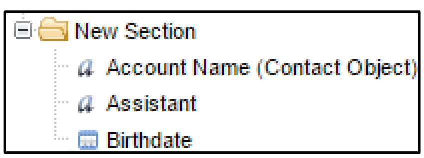
Clicking on Preview Layout shows which fields will display on the Select Columns page of a report based on this report type. To start confirming the layout, select fields from the right-hand box and drag them to a section on the left, as shown next:



A. Default fields: The fields that will automatically appear in the Report Builder when the report is chosen.
B. Custom Created Section: This will appear in the Report Builder as another folder.
C. Default fields: The fields that will be included in the Custom Created Section.
D. View: A drop down of the accompanying Objects that are associated with the Report Type.



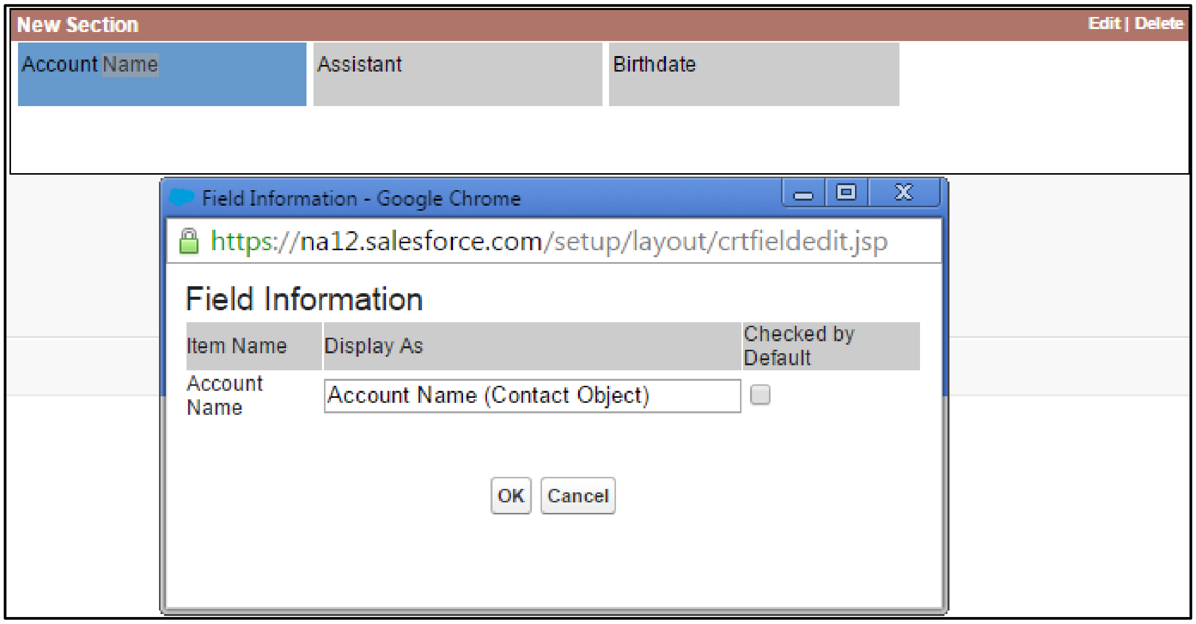
To rename the sections, click on Edit next to an existing section or create a new section by clicking on Create New Section.



You can view a specific object's fields by selecting an object from the View drop down list and arrange fields within sections as they should append to users.

Fields not dragged onto a section will not be visible to users when they create reports using this report type. You can add up to 1000 fields to each Custom Report Type template.

To rename or set which fields are selected by default for users, select one or more fields and click on Edit Properties, as shown in the following screenshot:



Click on the Checked by Default checkbox next to the field you want selected by default. Change the Display As field next to the field you want to rename.

When to Create Custom Report Types Best Practices

Generally speaking, unless you need a custom report type, there is **No reason** to create one. Standard report types usually meet the majority of an organization's needs.

The objects available for you to choose from are based on the primary object's relationships to other objects. For example, our custom object in **Figure 1**, Opportunities, is set as the primary object for the Custom Report Type template-so only standard and custom objects associated with Opportunities can be chosen. This also applies to additional objects added to the Custom Report Type template. In our example with Opportunities selected as the primary object and Partners selected as the secondary object, only the objects associated with Partners can be selected as the third object on the Custom Report Type template, which is our custom object Work Order.

Although up to four object levels can be set up for Custom Report Type templates, some of the object combinations may not be able to reach that limit. For example, if you add contacts as the primary object, opportunities as the secondary object, and activities as the third object, Then you cannot add any additional objects, because activities do not have any child object relationships.

Within the diagram, there is the option of setting the first relationship to the primary object with either "A" records may or may not have related "B" records or Each "A" record must have at least one related "B" record.

The following paragraph describes the effects of selecting may or may not options: All subsequent objects automatically include the may-or-may-not association on the custom report type. For example, if accounts are the primary objects and opportunities are the secondary objects, and you choose that accounts may or may not have opportunities, then any third and fourth level objects included on the Custom Report Type template default to may-or-may-not associations. Blank fields display on report results for object B when object A does not have object B.

The repot type determines which fields can be added to the report. Customize the report then the report type is displayed in the top left. You cannot change the report type after the report is created (you would need to create a new report).

[Create Custom Report Type and Add Fields Via Lookup 2:17 minutes]

[Salesforce: Creating Custom Report Types 7:43 minutes]

Use Filters and Filter Logic in a Report (practice exercise)

Goal:
Connor McCoy, VP of Marketing, would like to see a list of all customer accounts based in New York, Massachusetts, Pennsylvania, or New Jersey that have either a Prospect Rating of Hot, or Annual Revenue over 8 million.

Instructions:

1. Create a new account report.
    a. Click the Reports tab
    b. Click New Report
    c. In the Select Report Type list, double click Accounts and Contacts, and then select Accounts from the list that appears.
    d. Click Create
    e. In the Filters pane, set the new report filter criteria
        i. Show: all accounts
        ii. Range: All Time
    f. Hold down the CTRL Key, click the following column headers, and drag them into the Fields pane:
        i. Last Activity
        ii. Last Modified Date
    g. In the Fields pane, double-click Annual Revenue to add it to the report.
2. Add the necessary filters and filter logic.
    a. In the Filters pane, click Add, and create the needed filters (click OK after each one, and click Add to create the next).
        i. Type equals Customer
        ii. Billing State/Province equals NY, MA, PA, and NY
        iii. Prospect Rating equal Hot
        iv. Annual Revenue greater than 8000000
    b. Click the arrow part of the Add button and select Filter Logic.
    c. In the Filter Logic field, change the logic to 1 AND 2 AND (3 or 4) and click OK.
3. Save the report as Northeast Target Accounts in the Marketing Reports folder.
    a. Click Run Report
    b. Click Save As, and then complete the Save Report details.
        i. Report Name: Northeast Target Accounts
        ii. Report Description: Who are our important customers in the northeast states?
        iii. Report Folder: Marketing Reports
4. Click Save & Return to Report.

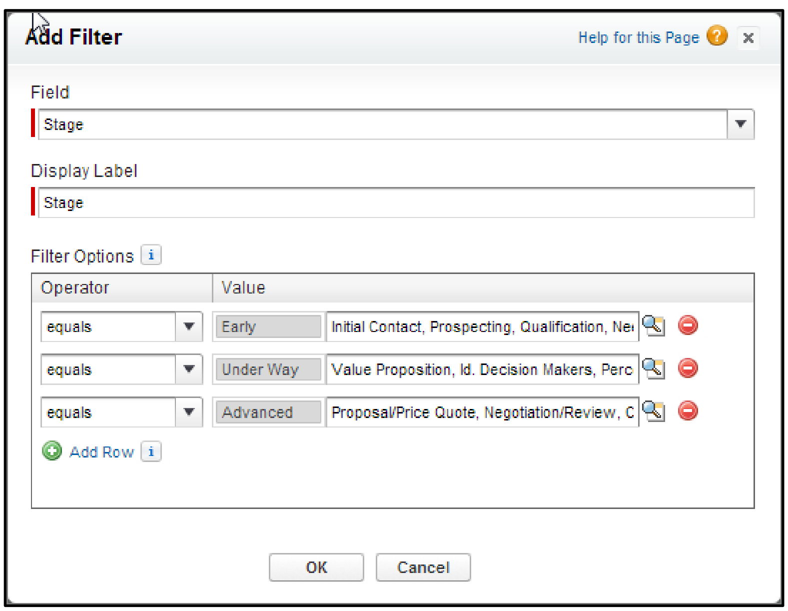
[How to Use Cross Filters in Salesforce Reports 3:19 minutes] (exception reporting)

Add a Dashboard Filter

To create a dashboard filter, select a field that contains the type of information you want to filter on, then define how the filter returns the data. The field you select for the filter may have equivalent fields. Equivalent fields share the same underlying object as the field you select for the filter. You can use equivalent fields to filter components that don’t have the exact field you selected for the filter, or to filter some components differently. For example, if you filter on the Account Owner field, equivalent fields may include Opportunity Owner or Opportunity Created by, as all three are part of the User object.

When you edit a dashboard, you can see how each component is being filtered under Filtered By. If equivalent fields are available for a component, you can select a different field to filter the component.

1. Click Edit on your dashboard, then click Add Filter.
   In Lightning Experience, you can’t edit filtered dashboards, which means you can’t add new dashboard filters. (You can change existing filters while viewing the dashboard, though!) Switch to Salesforce Classic to edit filtered dashboards.
2. Select the field to filter on from the Field drop-down. The drop-down shows fields that can be used to filter all components. (To see equivalent fields for your selection, click.)
3. Give your filter a display label to identify it. If your filter has many equivalent fields, we recommend using a label that works for all components.
4. Under Filter Options, select an operator and provide one or more values to filter by.
   Use the Group Name field to give your filter a name. For example, on a sales dashboard, you might gather several stages of Opportunities into a group called “Early.” This lets users quickly filter the dashboard to show only data relevant to deals that are in the early stages of development.



Note: Options with multiple values are treated as OR conditions.

5. Click OK. When you click OK, you can see how the filter is applied on each component. If equivalent fields are available for a component, you can select which one to use to filter the component.
   To modify or delete an existing filter, from the filter drop-down, select Edit Filter or Remove Filter.

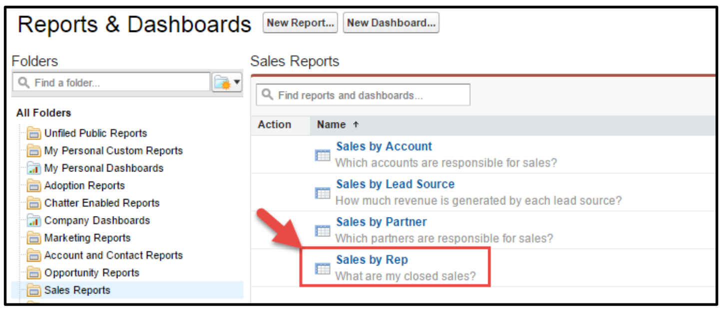
[Salesforce Dashboard Filters 1:49 minutes]

Add Conditional highlights (practice exercise)

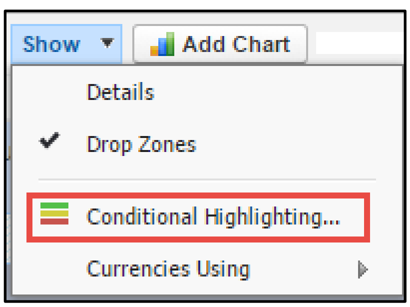
Goal:
Allison Wheeler, VP of Global Sales, wants to highlight sales rep win rates in different colors to help identify the high and the low performers. She also wants to compare these win rates visually in a chart.

Instructions:

1. Modify the Sales Rep Win Rates report to add a conditional highlight to the Win Rate summary formula
    a. Click the Reports tab
    b. Click the Action button (down arrow) next to the Sales Rep Win Rates report, and select Edit.



    c. Click Show, select Conditional Highlighting… and complete as follows



        i. From the Select Field picklist, select Win Rate
        ii. In the next field to the right, enter 4 as the low breakpoint
        iii. In the next field to the right, enter 70 as the high breakpoint

    Click OK

2. Add a vertical bar chart to compare sales rep win rates
    a. Click Add Chart
    b. From the Select Type options at the top of the Chart Editor, select Vertical Bar Chart
        i. On the Chart Data tab, from the Y-Axis picklist, select Win Rate
        ii. Click the Formatting tab, and complete as follows:
    c. Chart Title: Sales Rep Win Rates
    d. Enable Hover: (selected)

    e. Chart Size: Small
    f. Click OK
3. Save the report with the same name
    a. Click Run Report
    b. Click Save
    c. Click Save & Return to Report

Conditional Highlighting

Add a Custom Summary Formula (practice exercise)

Goal:
Allison Wheeler, VP of Global Sales, would like a report showing the company's win rates by sales rep.

Instructions:

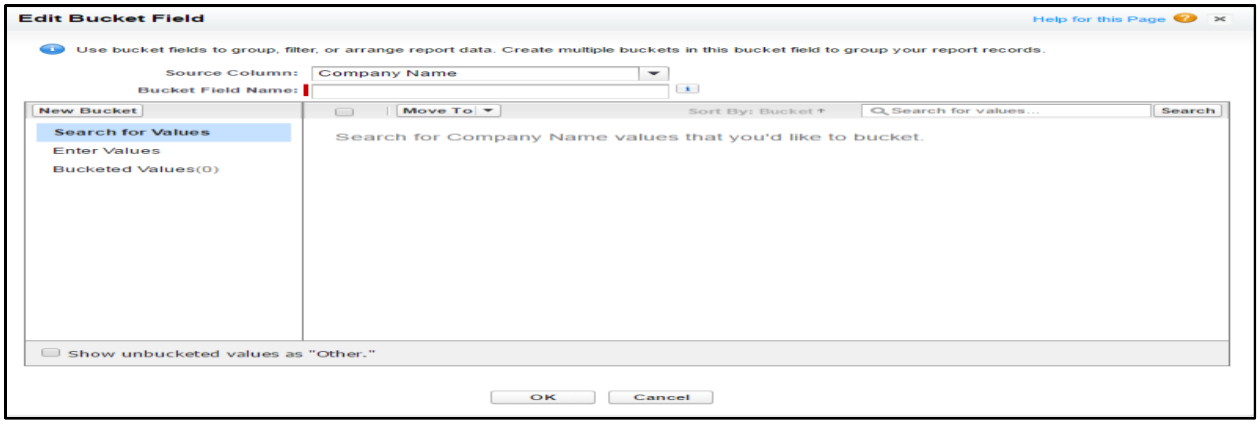
1. Modify the Opportunities by Rep report to display closed opportunities by sales rep.
    a. Click the Reports tab
    b. Click the Action button (down arrow) next to the Opportunities by Rep report, and select Edit.
    c. In the Filters pane, from the Opportunity Status picklist, select Closed.
2. Add a custom summary formula to display the win rate by sales rep.
    a. In the Filters pane, double-click Add Formula, and enter the formula.
        i. Column Name: Win Rate
        ii. Description: Ratio of won to closed opportunities.
        iii. Format: Percent
        iv. Decimal Places: 2
        v. Where will this formula be displayed?: All summary levels
        vi. In the Formula section, click Summary Fields, hover over Won, and then select Sum.
        vii. Click Operators, and then select (/) Divide.
        viii. Click Summary Fields, hover over Closed, and then select Sum.
        ix. Click OK.
    b. Click Show, and then click Details to hide details.
3. Save the report as a new report called Sales Rep Win Rates in the Global Sales Report folder.
    a. Click Report
    b. Click Save As, and then completed the Save Report details.
        i. Report Name: Sales Rep Win Rates
        ii. Report Description: How well are my sales reps closing?
        iii. Report Folder: Global Sales Reports
    c. Click Save & Return to Report

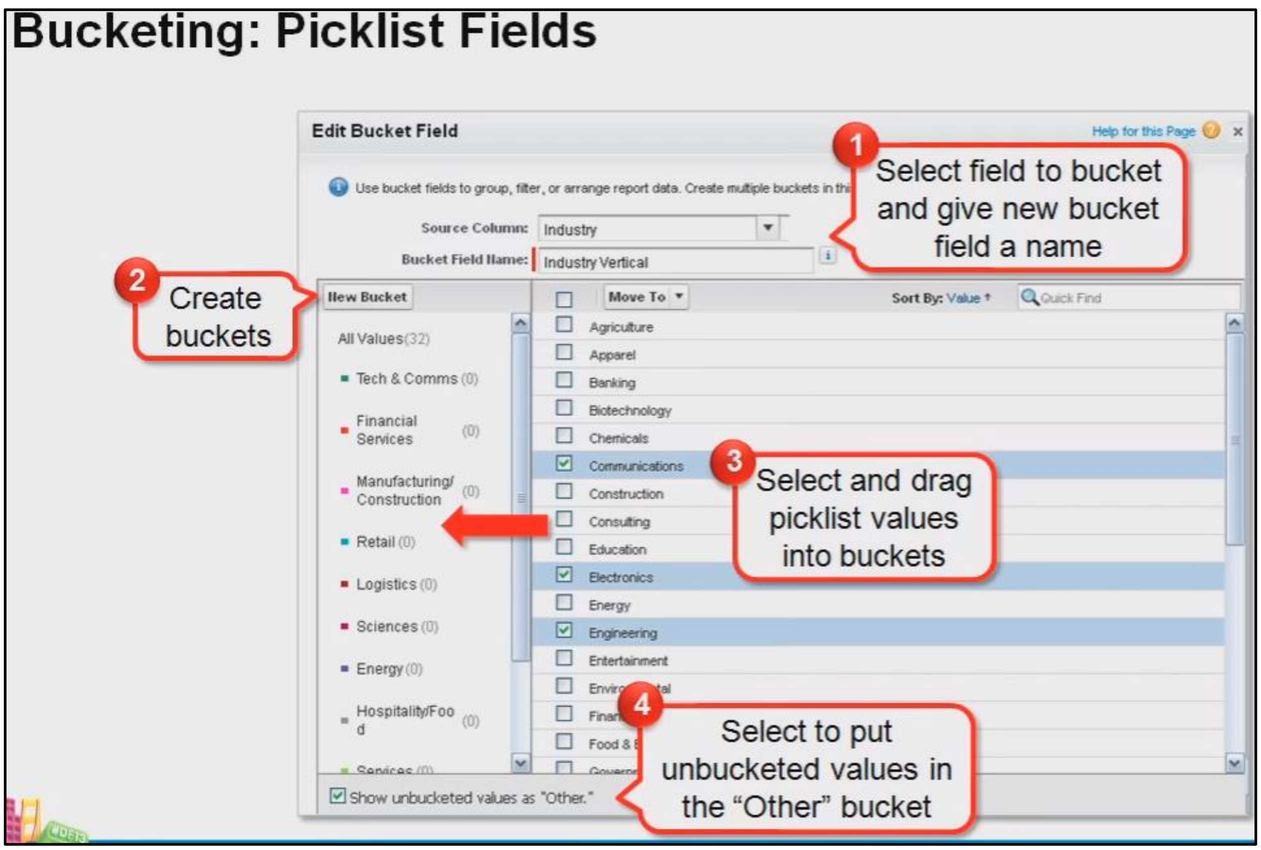
Bucket fields

[How to Create a Report with Buckets 3:38 minutes]

Bucket fields allow you to categorize values based on fields available in the report type. This means you do not have to create custom formula fields for categories or segmentation of values if they are only relevant in reports. For example, sales managers can bucket or group opportunities by size based on amount, support managers can age cases based on days opened, and sales reps can group accounts into strategic accounts.

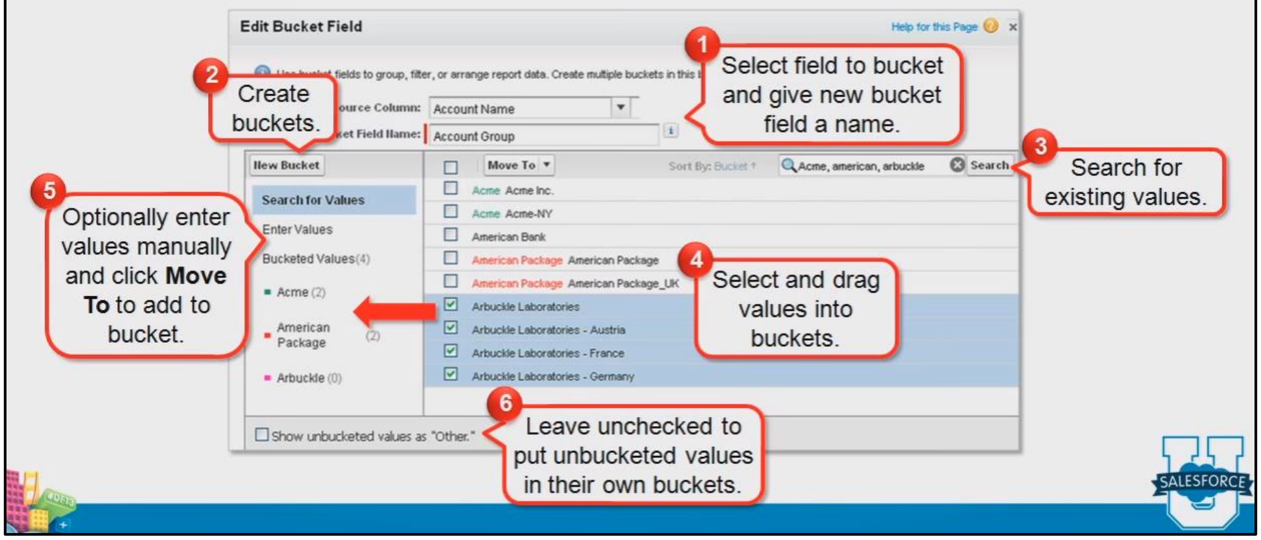
[Fields available as Buckets are Picklist, Text, Number, Percent, and Currency Fields.]



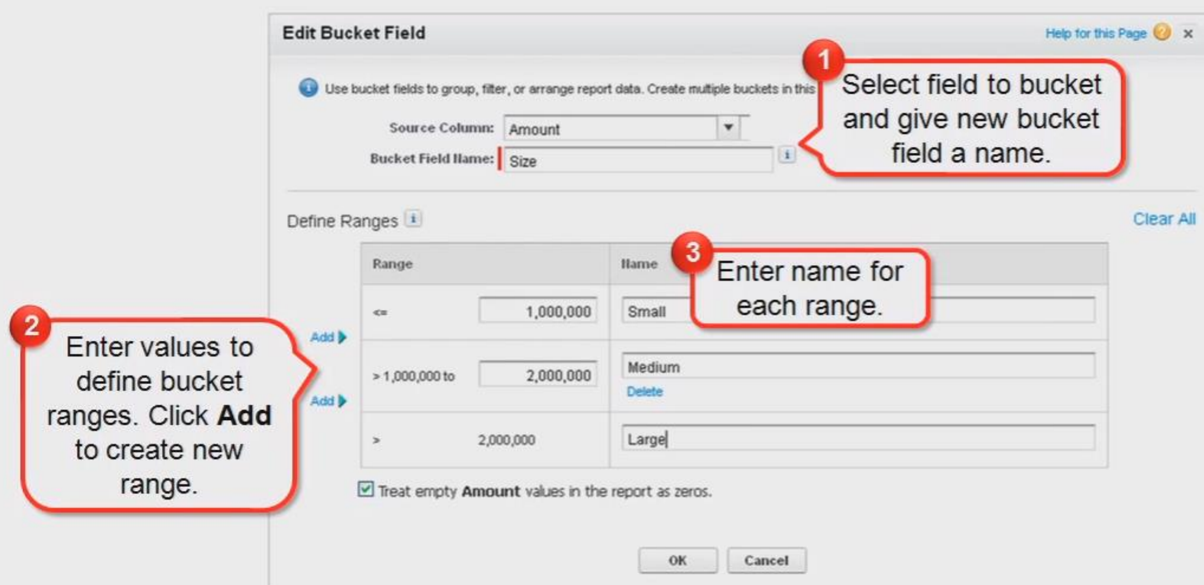


Bucketing: Text Fields

Text field bucketing lets you consolidate variations of the same data.



Bucketing: Number Fields



Custom summary formulas

Using Reports Custom Formulas 4:53 minutes

Custom summary formulas allow you to calculate values based on the numeric fields available in the report type. Formulas must be 3,900 characters or less. Up to five formulas can be created per report. Fields available for custom summary formulas are Number, Percent, and Currency. To add a new formula to a summary or matrix report, navigate to the Fields pane, where at the top, you will see the formulas folder icon. By double clicking on the Add Formula option, you can define it and then click on OK. After you have defined a new formula on the report, it automatically gets added to the preview pane as a column for summary reports and as a summary field for matrix reports.

To define a formula field, follow these steps:

1. Click on Add Formula in the Fields pane:
2. Enter a column name for the formula. This will be displayed within the report.
3. Optionally, enter a description.
4. Select the data type from the Format picklist.
5. Select the number of decimal places from the Decimal Places picklist.
6. Set the option, where this formula is to be displayed.
7. The formula calculation will be displayed in the report at the level that is selected.
8. Build the formula by selecting one of the fields listed in the Summary Fields picklist and then select the summary type:

Hiding details when building new reports

You may also be experimenting with the report format to see which data are being returned. In these cases, you should set the Hide Details option to prevent the detailed data being returned and show just the "skeleton" of the report this shows the number of rows that will be returned. Limiting rows on a tabular report allows you to use it as a source report for dashboard table and chart components. However, if you change the report format, the Row Limit setting is automatically removed.

Hands-on Training: Extend Reports w/ Buckets, Cross Filters & Joined Format 2:15:24 minutes

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i Salesforce CRM: The Definitive Admin Handbook 2nd Edition, Paul Goodey 2013

ii **Force.com Platform Fundamentals: An Introduction to Custom Application Development in the Cloud Version 2 & August 2012, Phil Co, Chris McGuire and Caroline Roth**