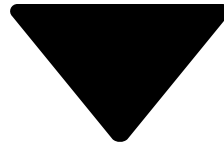


1. [Formulas & Validations](#)



2. [Implement Roll-Up Summary Fields](#)

Implement Roll-Up Summary Fields

Learning Objectives

After completing this unit, you'll be able to:

- Describe what a roll-up summary field is.
- Create a roll-up summary field.
- Apply field-level security to your roll-up summary field.

Introduction to Roll-Up Summary Fields

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

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

- A custom account field that calculates the total of all related pending opportunities.
- A custom order field that sums the unit prices of products that contain a description you specify.

Defining a Roll-Up Summary Field

Since roll-up summary fields are based on master-detail relationships, it's useful to review object relationships before creating a roll-up summary field.

Master-Detail Relationships

Master-detail relationships closely link objects together so that the master record controls specific behaviors of the detail and subdetail record.

You define a roll-up summary field on the object that is on the master side of a master-detail relationship. For example, you can create a roll-up summary field on the Account object, summarizing related opportunities:

The screenshot shows a Salesforce Account record for 'Pyramid Construction Inc.'. The 'Sum of Opportunities' roll-up summary field is highlighted with a blue box and shows a value of \$350,000.00. Below the account record, a list of related opportunities is shown, also highlighted with a blue box. The list includes two opportunities: 'Pyramid Solar Generators' (Value Proposition, \$250,000.00, 6/22/2017) and 'Pyramid Emergency Generators' (Closed Won, \$100,000.00, 4/11/2015). A blue arrow points from the 'Sum of Opportunities' field to the list of opportunities, indicating that the roll-up summary field aggregates the values from these related records.

There are a few different types of summaries you can use.

Type	Description
COUNT	Totals the number of related records.
SUM	Totals the values in the field you select in the Field to Aggregate option. Only number, currency, and percent fields are available.
MIN	Displays the lowest value of the field you select in the Field to Aggregate option for all directly related records. Only number, currency, percent, date, and date/time fields are available.
MAX	Displays the highest value of the field you select in the Field to Aggregate option for all directly related records. Only number, currency, percent, date, and date/time fields are available.

Creating the Summary Field

1. From Setup, open Object Manager and click **Account**.
2. On the left sidebar, click **Fields & Relationships**.
3. Click **New**.
4. Choose the Roll-Up Summary field type, and click **Next**.
5. For Field Label, enter `Sum of Opportunities` and click **Next**.
6. The Summarized Object is the detail object that you want to summarize. Choose Opportunities.
7. Choose the SUM summary type and choose Amount as the Field to Aggregate.
8. Click **Next**, **Next**, and **Save**.

Examples of Roll-Up Summary Fields

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

Date Opportunity First Created

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

ACCOUNT
Express Logistics and Transport + Follow Edit

Account Number: CC947211 Industry: Transportation **Date First Opportunity Created**
5/1/2017 2:21 PM

RELATED DETAILS NEWS

Opportunities (2) New

Express Logistics Generator Replacement Parts ▼

Created Date: 6/5/2017 12:44 PM
Stage: Needs Analysis
Amount: \$15,000.00

Express Logistics Portable Truck Generators ▼

Created Date: **5/1/2017 2:21 PM**
Stage: Value Proposition
Amount: \$80,000.00

[View All](#)

Total Price of All Products Related to An Opportunity

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

OPPORTUNITY
Pyramid Emergency Generators + Follow Edit New Case New Note

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

Progress: 5 steps (all complete) Change Closed Stage

DETAILS

Email: Add

Expand All Refresh

Products (2)

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

[View All](#)

Minimum List Price of An Opportunity

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

OPPORTUNITY
Pyramid Emergency Generators

Account Name: Pyramid Construction Inc.

Minimum List Price: \$75,000.00

Close... Change Closed Stage

DETAILS

Products (2)

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

View All

Tell Me More

Congratulations on creating your first roll-up summary field! Keep in mind that the types of fields you can calculate in a roll-up summary field depend on the type of calculation. For example:

- Number, currency, and percent fields are available when you select SUM as the roll-up type.
- Number, currency, percent, date, and date/time fields are available when you select MIN or MAX as the roll-up type.

Learn more about roll-up summary fields at <https://help.salesforce.com>.

Resources

- [Roll-Up Summary Field](#)
- [Considerations for Relationships](#)
- [Filter Operators Reference](#)
- [Object Relationships](#)

Assessment Complete!

+500 points



Formulas & Validations

100%

Progress: 100%

Retake this Challenge

[View more modules](#)