

MS Access Crosstab

Resources: <https://support.office.com/>

Make summary data easier to read by using a crosstab query

To make summary data in Access easier to read and understand, consider using a crosstab query. A crosstab query calculates a sum, average, or other aggregate function, and then groups the results by two sets of values— one set on the side of the datasheet and the other set across the top. On the ribbon, click **Create**, and then in the **Queries** group, click **Query Wizard**. In the **New Query** dialog box, double-click **Crosstab Query Wizard**.

If one set of headings has date values, the wizard will help you group the records by standard intervals – such as months or quarters.

Note: Crosstab queries aren't available in an Access web apps, and are only partially supported in a web database: they can't be used by any web objects.

Overview

A crosstab query is a type of select query. When you run a crosstab query, the results display in a datasheet that has a different structure from other types of datasheets.

The structure of a crosstab query can make it easier to read than a simple select query that displays the same data, as shown in the following illustration.

1

Last Name	Category Name	Sum of Subtotal
Buchanan	Beverages	\$46,302.09
Buchanan	Condiments	\$16,789.35
Buchanan	Confections	\$36,182.13
Callahan	Beverages	\$111,047.76
Callahan	Condiments	\$49,566.21
Callahan	Confections	\$80,005.35

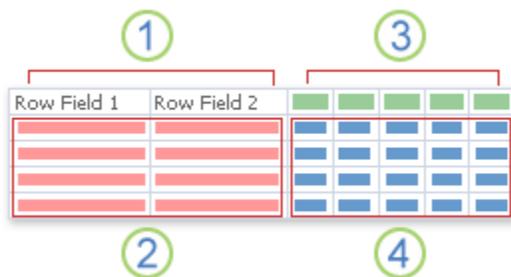
2

Last Name	Beverages	Condiments	Confections
Buchanan	\$46,302.09	\$16,789.35	\$36,182.13
Callahan	\$111,047.76	\$49,566.21	\$80,005.35

1. This select query groups summary data vertically by employee and category.
2. A crosstab query can display the same data, but groups the data both horizontally and vertically so that the datasheet can be more compact and easier to read.

When you create a crosstab query, you specify which fields contain row headings, which field contains column headings, and which field contains values to summarize. You can use only one field each when you specify column headings and values to summarize. You can use as many as three fields when you specify row headings.

You can also use an expression to produce row headings, column headings, or values to summarize. See [SQL Aggregate Functions](#) for more information.



1. One, two, or three columns on this side contain row headings. The names of the fields that you use as row headings appear in the top row of these columns.
2. The row headings appear here. The number of rows in the crosstab datasheet can grow quickly when you use more than one row heading field, because each combination of row headings is displayed.
3. The columns on this side contain column headings and summary values. Note that the name of the column heading field does not appear on the datasheet.
4. Summary values appear here.

Methods for creating your crosstab query

Use the Crosstab Query Wizard The Crosstab Query Wizard is usually the fastest and easiest way to create a crosstab query. It does most of the work for you, but there are a few options that the wizard does not offer.

The wizard has these benefits:

- It is easy to use. To use it, you start the wizard, and then answer a series of guided questions.
- It can automatically group dates into intervals. If you use a field that contains date/time data for column headings, the wizard also helps you group the dates into intervals, such as months or quarters.

Tip: If you want to use values from a Date/Time field for column headings, but want to group the dates into intervals that the wizard does not provide, such as fiscal year or biennium, do not use the wizard to create your query. Instead, create the crosstab query in Design view, and use an expression to create the intervals.

- It can be used as a starting point. You can use the wizard to create the basic crosstab query that you want, and then fine-tune the query's design by using Design view.

However, by using the wizard, you cannot:

- Use more than one table or query as a record source.
- Use an expression to create fields.
- Add a parameter prompt.
- Specify a list of fixed values to use as column headings.

At the last step of the wizard, you can choose to modify the query in Design view. This allows you to add query design elements that the wizard does not support, such as additional record sources.

Work in Design view Design view allows you more control over your query design. It supports the features that are not available in the wizard.

Consider using Design view to create your crosstab query if you want to:

- Have more control over the process. The wizard makes some decisions for you.
- Use more than one table or query as a record source.
- Add a parameter prompt to your query.
- Use expressions as fields in your query.
- Specify a list of fixed values to use as column headings.
- Practice using the design grid.

Write a query in SQL view You can write a crosstab query in SQL view, if you prefer. However, you cannot specify parameter data types by using SQL view. If you want to use a parameter in your crosstab query, you must specify the parameter data type by modifying your query in Design view.

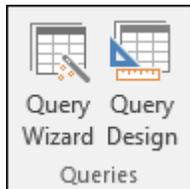
Tip: Remember — you are not limited to using only one method for creating a crosstab query. You can use the wizard to create the query, and then use Design view to modify the query design.

Create a crosstab query by using the Crosstab Query Wizard

Using the Crosstab Query Wizard requires that you use a single table or query as the record source for your crosstab query. If a single table does not have all the data that you want to include in your crosstab query, start by creating a select query that returns the data that you want. For more information about creating a select query, refer to the **See Also** section.

For this example, we'll create a crosstab query using the Products table from the Northwind sample database. We want to display a count of the number of products in each category from all the suppliers.

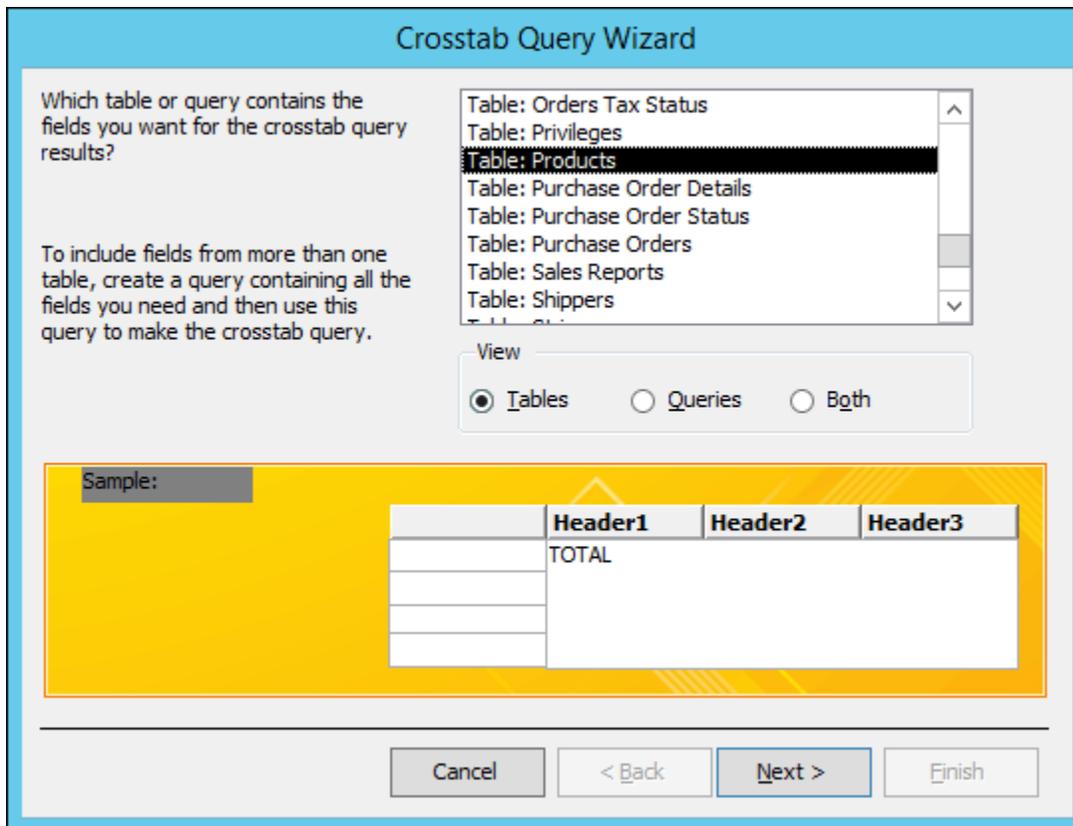
1. On the **Create** tab, in the **Queries** group, click **Query Wizard**. Note, if you're using Access 2007, click **Create** > **Other** > **Query Wizard**.



2. In the **New Query** dialog box, click **Crosstab Query Wizard**, and then click **OK**.

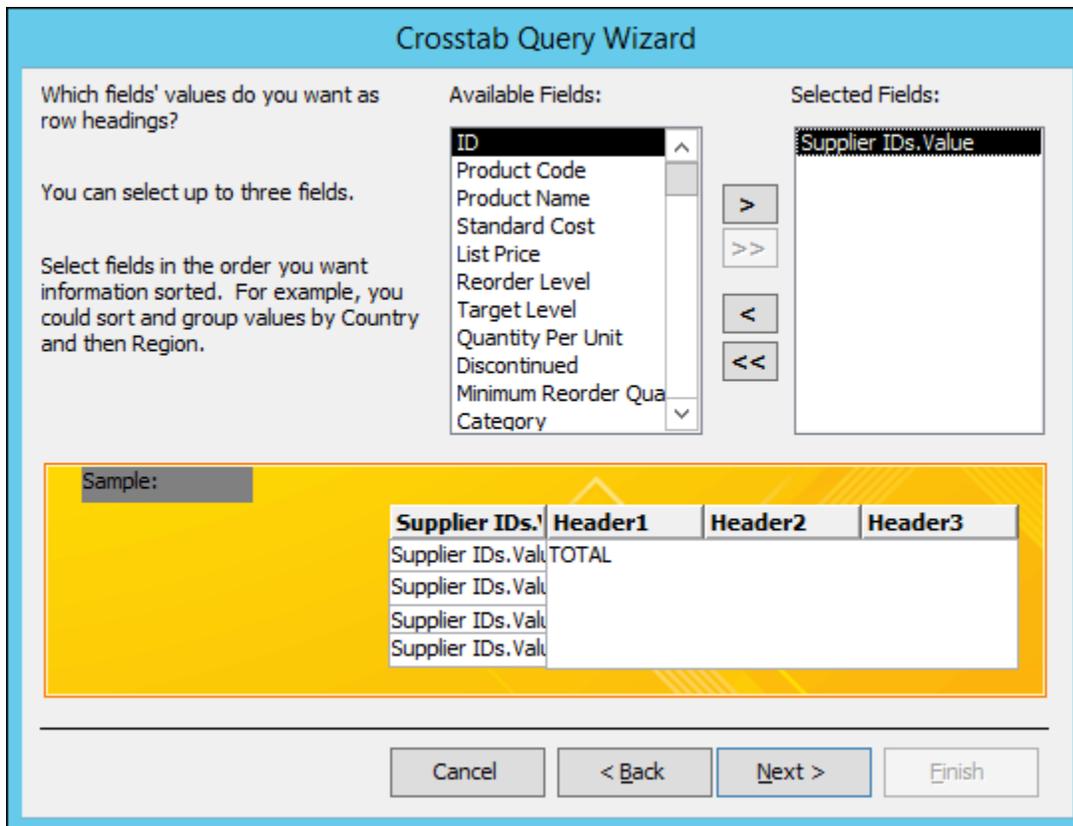
The Crosstab Query Wizard starts.

3. On the first page of the wizard, choose the table or query that you want to use to create a crosstab query. For this example, select the **Products** table and then click **Next**.



- On the next page, choose the field that contains the values that you want to use as row headings. You can select up to three fields to use as row headings sources, but the fewer row headings you use, the easier your crosstab datasheet will be to read. If you choose more than one field to supply row headings, the order in which you choose the fields determines the default order in which your results are sorted.

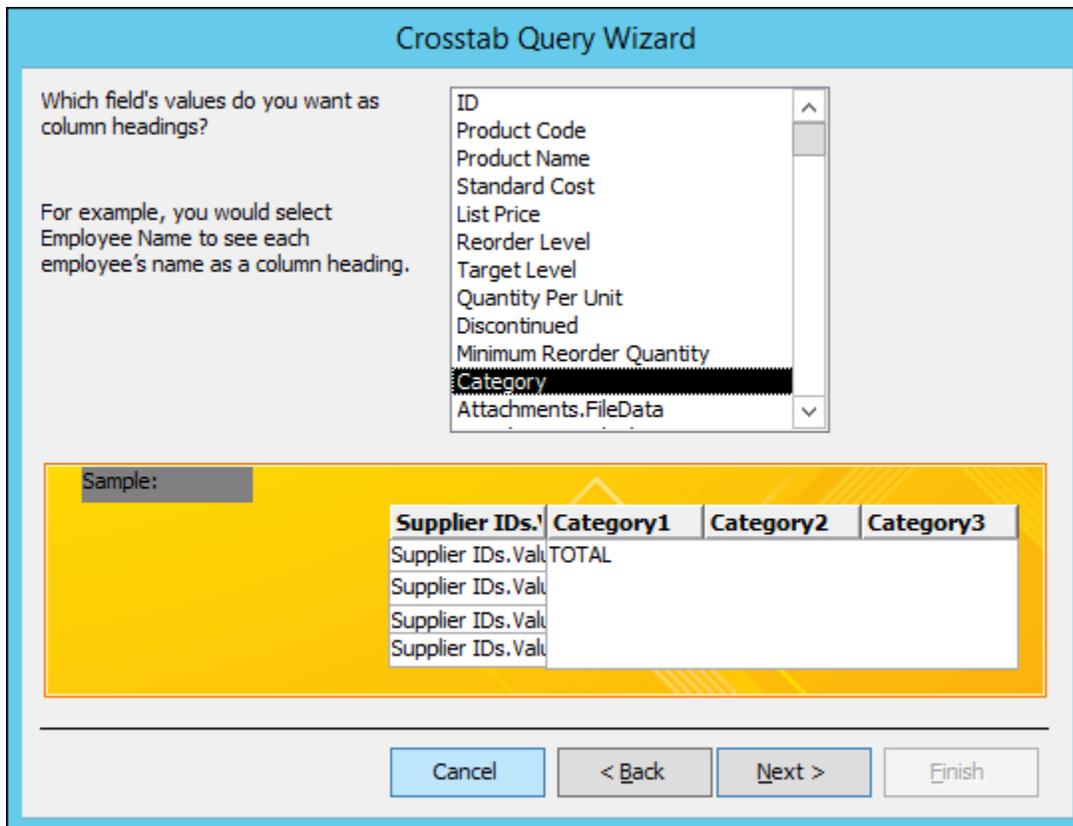
For this example, select **Supplier IDs.Value** and then click the button labeled with a > symbol. Notice that Access displays the field name along the left side of the sample query preview at the bottom of the dialog box. Click **Next** to continue.



- On the next page, choose the field that contains the values that you want to use as column headings. In general, you should choose a field that contains few values, to help keep your results easy to read. For example, using a field that has only a few possible values (such as gender) might be preferable to using a field that can contain many different values (such as age).

If the field that you choose to use for column headings has the Date/Time data type, the wizard adds a step that lets you specify how to group the dates into intervals, such as months or quarters.

For this example, select **Category** and notice that Access displays category sample names along the top of the sample query preview at the bottom of the dialog box. Click **Next** to continue.

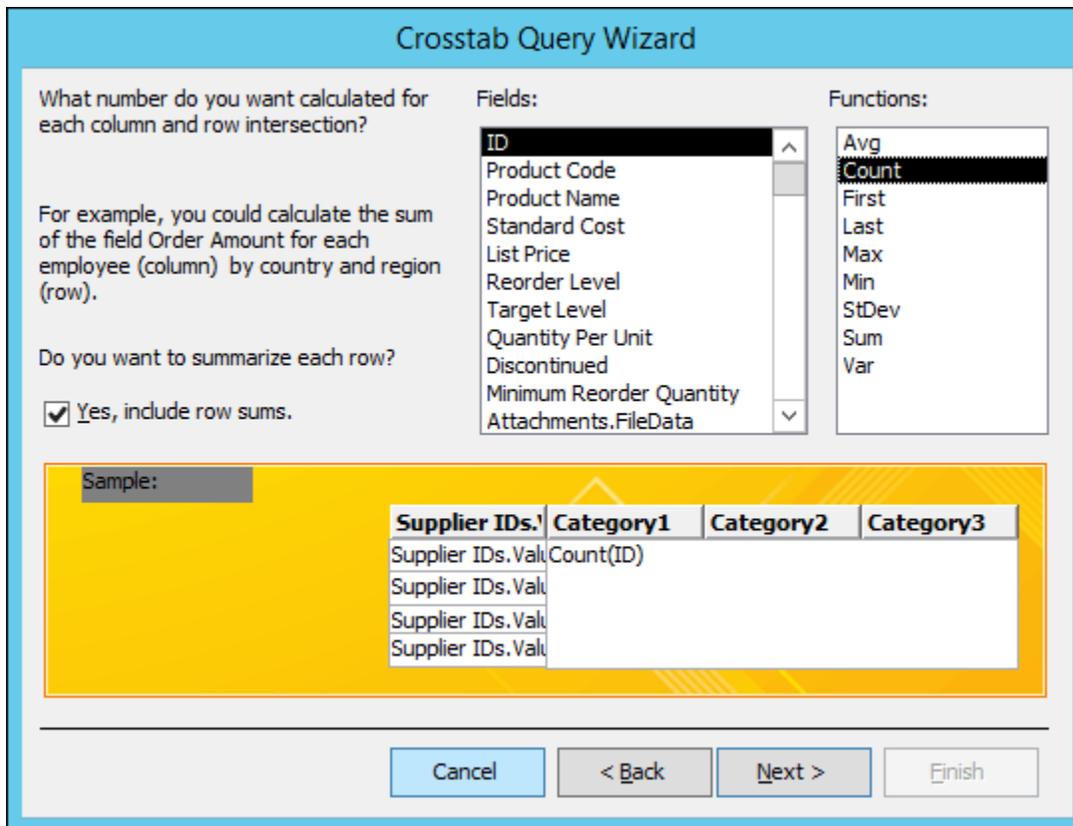


6. If you choose a Date/Time field for column headings, the next page of the wizard asks you to specify the interval to use to group the dates. You can specify **Year**, **Quarter**, **Month**, **Date**, or **Date/Time**. If you do not choose a Date/Time field for column headings, the wizard skips this page.
7. On the next page, choose a field and a function to use to calculate summary values. The data type of the field that you select determines which functions are available.

On the same page, select or clear the **Yes, include row sums** check box to include or exclude row sums.

If you include row sums, the crosstab query has an additional row heading that uses the same field and function as the field value. Including a row sum inserts an additional column that summarizes the remaining columns. For example, if your crosstab query calculates average age by location and gender (with gender column headings), the additional column calculates the average age by location, across all genders.

For this example, select **ID** in the **Fields** box and **Count** in the **Functions** box in order to have Access count the number of products in each intersection of supplier and category. Leave the **Yes, include row sums** check box selected. Access will create a column that totals the number of products from each supplier. Click **Next** to continue.



- On the last page of the wizard, type a name for your query and then specify whether you want to view the results or modify the query design.

You can change the function that is used to produce row sums by editing the crosstab query in Design view.

- If you've walked through this example using the Products table from the Northwind database, the crosstab query displays the list of supplier names as rows, the product category names as columns, and a count of the number of products in each intersection.

Products_Crosstab				
Supplier IDs.Value	Total Of ID	Baked Good	Beverages	Candy
Supplier A	9	4		
Supplier B	7			
Supplier C	2		2	
Supplier D	3		3	
Supplier E	1			
Supplier F	15			
Supplier G	4		1	
Supplier H	3			
Supplier I	1			
Supplier J	5			1