COMP1111

Week 12

One to One Relationship

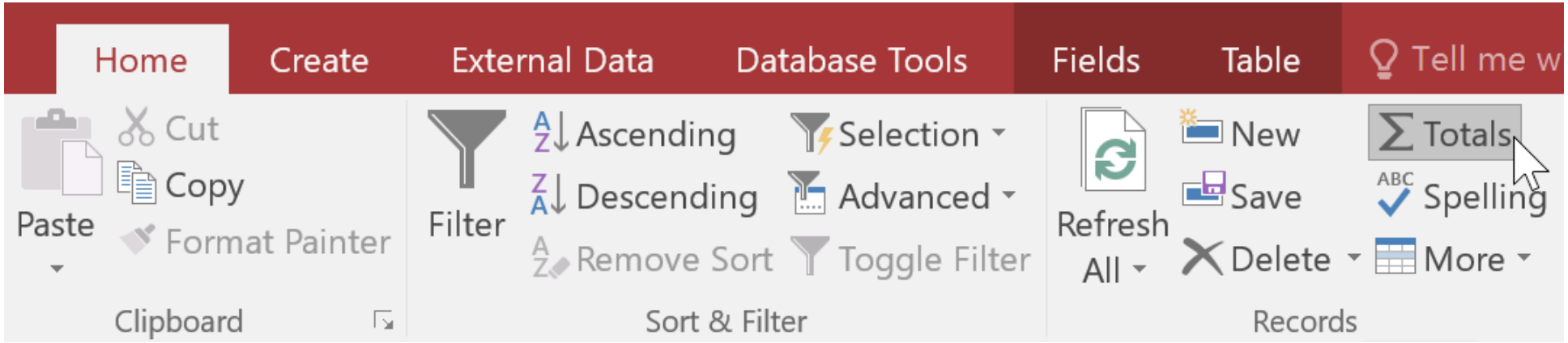
- This isn’t a common relationship type but can be used if you need to split a table that contains many fields into two tables.
- A one-to-one relationship connects one record in the parent table to one record in the child table
- The field that you plan on creating your relationship with should be the primary key in the parent table, and the child table. The name does not have to be exactly the same, but they do need to be of the same type (number, short text, etc).
  - Employees table – empID
  - EmployeeInfo – empID
  - OR
  - Employees table – employeeID
  - EmloyeeInfo - empID

Tables - Totals

- The **totals row** adds up an entire column of numbers, just like in a ledger or on a receipt.
- The resulting sum appears in a special row at the bottom of your table.

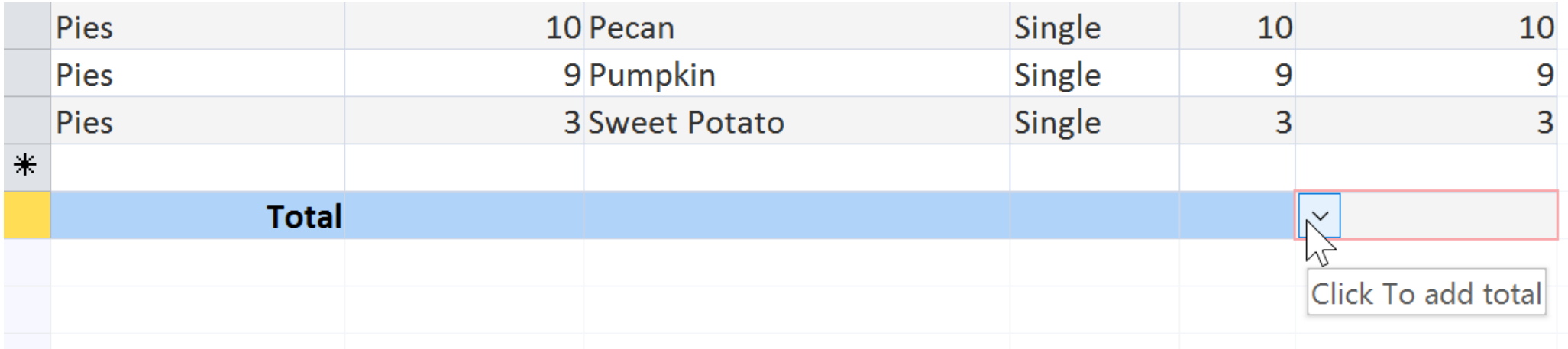
Adding Totals

- From **Datasheet View,** go to the **Home** tab, locate the **Records** group, then click the **Totals** command.



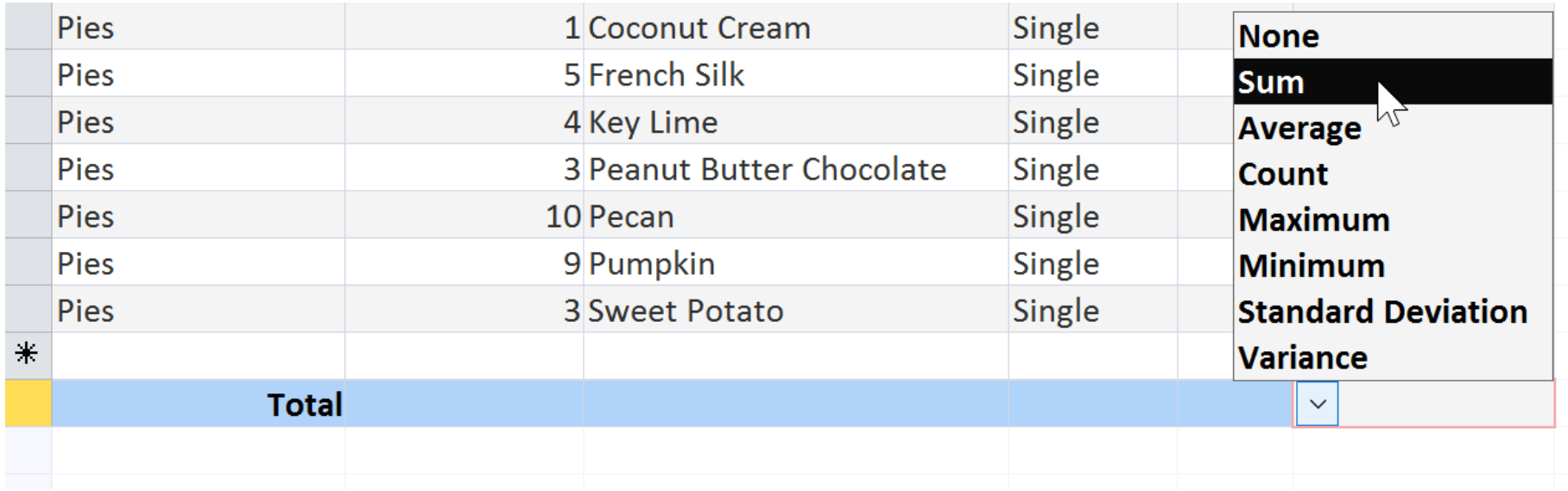
Adding Totals

- Scroll down to the **last row** of your table.
- Locate the desired field for the totals row, then select the **second empty cell** below the last record for that field.
- When a **drop-down arrow** appears, click it.



Adding Totals

- Select the function you want to perform on the field data. In our example, we'll choose **Sum** to add all of the values in the calculated field.



Adding Totals

- The totals row will appear.

	Pies	9	Pumpkin	Single	9	9
	Pies	3	Sweet Potato	Single	3	3
✳						
	Total					**1289**

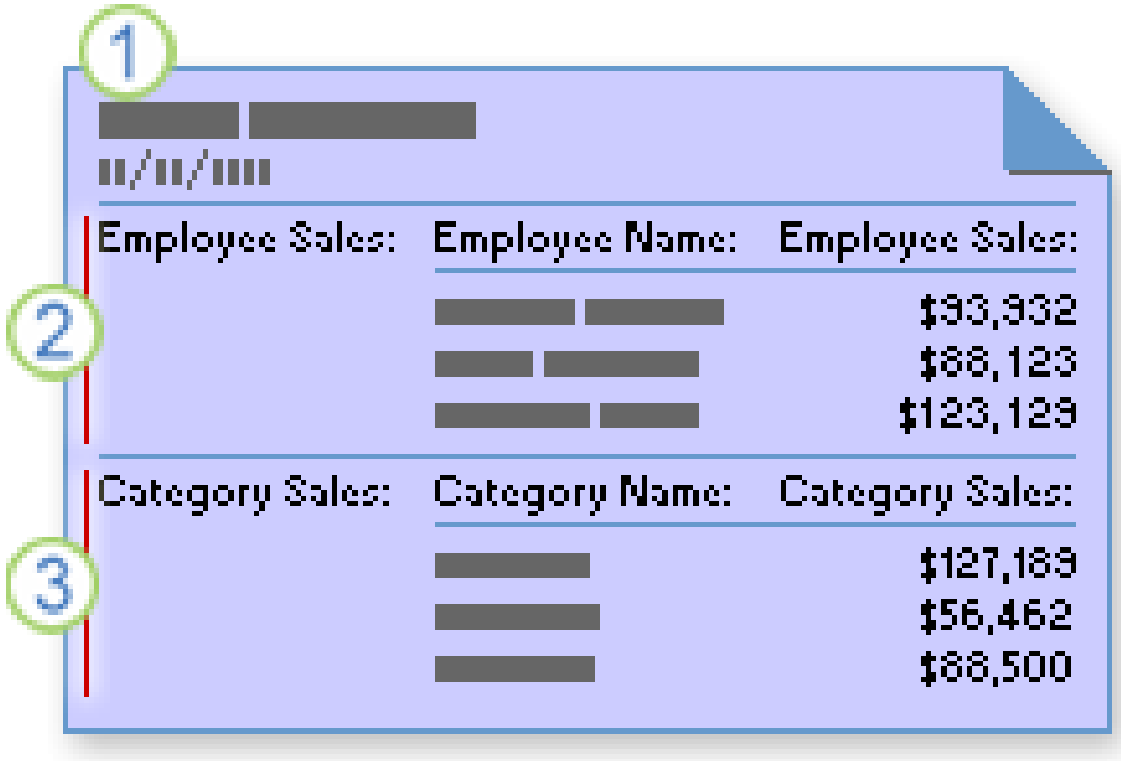
Report with a Subreport

- A subreport is a report that is inserted in another report.
- When you combine reports, one of them must serve as the main report that contains the other report.
- A main report is either *bound* or *unbound*.
- A bound report is one that can display data and has a table, query, or SQL statement specified in its **Record Source** property.
- An unbound report is one that is not based on a table, query, or SQL statement (that is, the **Record Source** property of the report is empty).

Unbound reports

- An unbound main report cannot display any data of its own, but it can still serve as a main report for unrelated subreports that you want to combine.

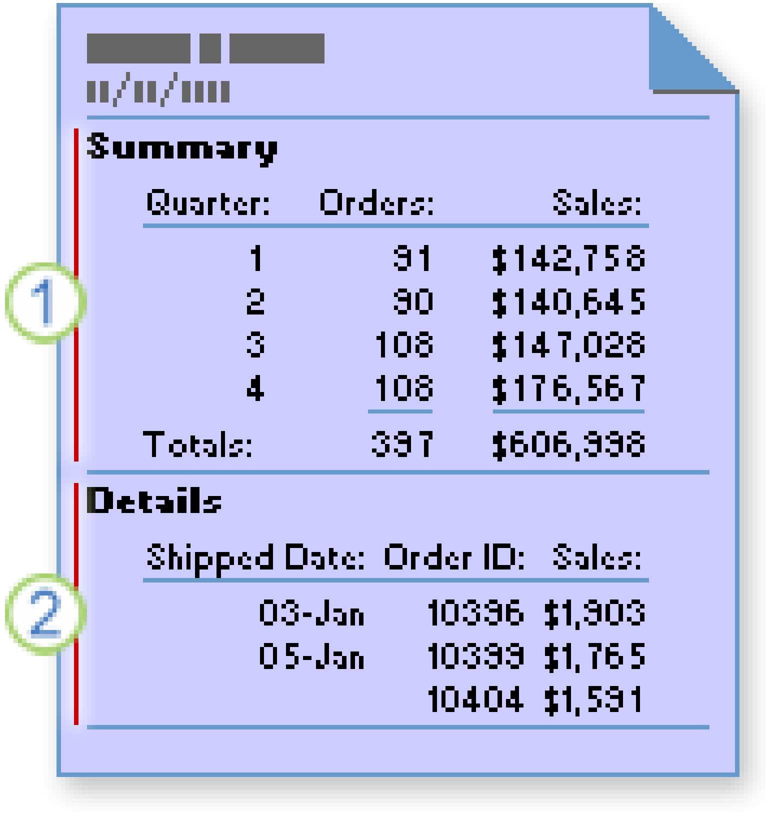
- 1. The unbound main report contains two subreports.
- 2. One subreport summarizes sales by employee.
- 3. The other subreport summarizes sales by category.


1
2
3
Employee Sales:
Employee Name:
Employee Sales:
$93,932
$86,123
$123,129
Category Sales:
Category Name:
Category Sales:
$127,189
$56,462
$86,500

Main and Subreport bound to same source

- You can use the main report to show detail records, such as every sale in a year, and then use a subreport to show summary information, such as the total sales for each quarter.

- 1. The subreport summarizes the year's sales by quarter.
- 2. The main report lists the day-to-day sales.


Summary
Quarter: Orders: Sales:
1 91 $142,758
2 90 $140,645
3 108 $147,028
4 108 $176,567
Totals: 397 $606,998
Details
Shipped Date: Order ID: Sales:
03-Jan 10396 $1,903
05-Jan 10399 $1,765
10404 $1,591
1
2

Main and Subreport bound to related source

- A main report can contain data common to one or more subreports. In this case, the subreport contains data that is related to the data in the main report.

- 1. The main report lists the name and city of each fair.
- 2. The subreport lists the representatives who will attend each fair.


Food Fairs
Gourmet Expo
Representatives:
1
2
International Food Fair
Representatives:

Grouping and Sorting

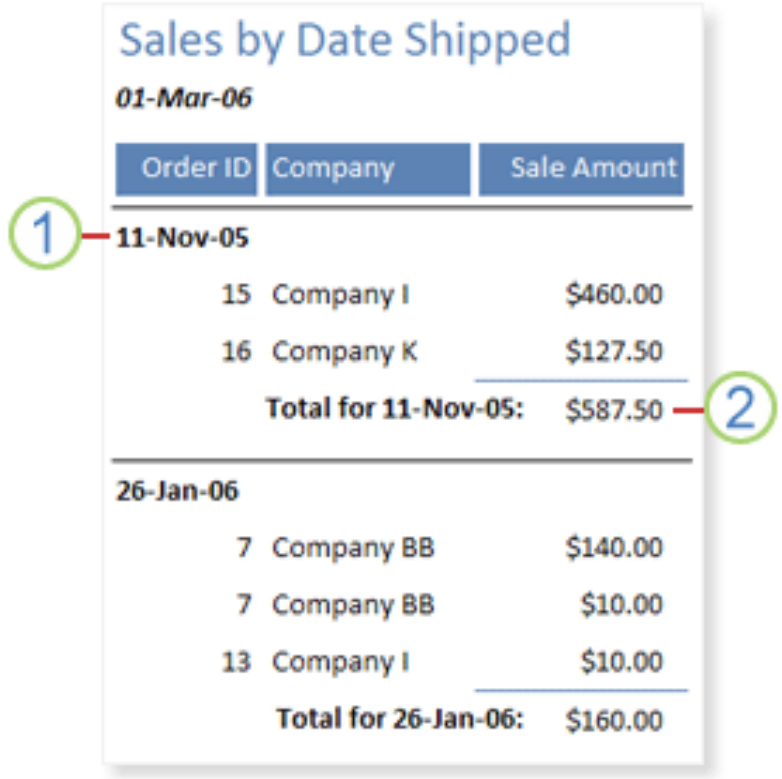
- Information is often easier to understand when it is divided into groups.
- For example, a report that groups sales by region can highlight trends that otherwise might go unnoticed.
- In addition, placing totals at the end of each group in your report can replace a lot of manual interaction with a calculator.
- Microsoft Office Access makes working with grouped reports easy.
- You can create a basic grouped report by using the Report Wizard, you can add grouping and sorting to an existing report, or you can revise grouping and sorting options that have already been defined.

Grouping and Sorting

- When you print a report, you usually want to organize the records in a particular order. For example, if you’re printing a list of suppliers, you might want to sort the records alphabetically by company name.
- For many reports, sorting the records isn't enough. You may also want to divide them into groups.
- A *group* is a collection of records, along with any introductory and summary information displayed with the records, such as a header. A group consists of a group header, nested groups (if any), detail records, and a group footer.
- Grouping allows you to separate groups of records visually and to display introductory and summary data for each group. For example, the following report groups sales by date shipped and calculates the total amount of sales for each day.

Grouping and Sorting

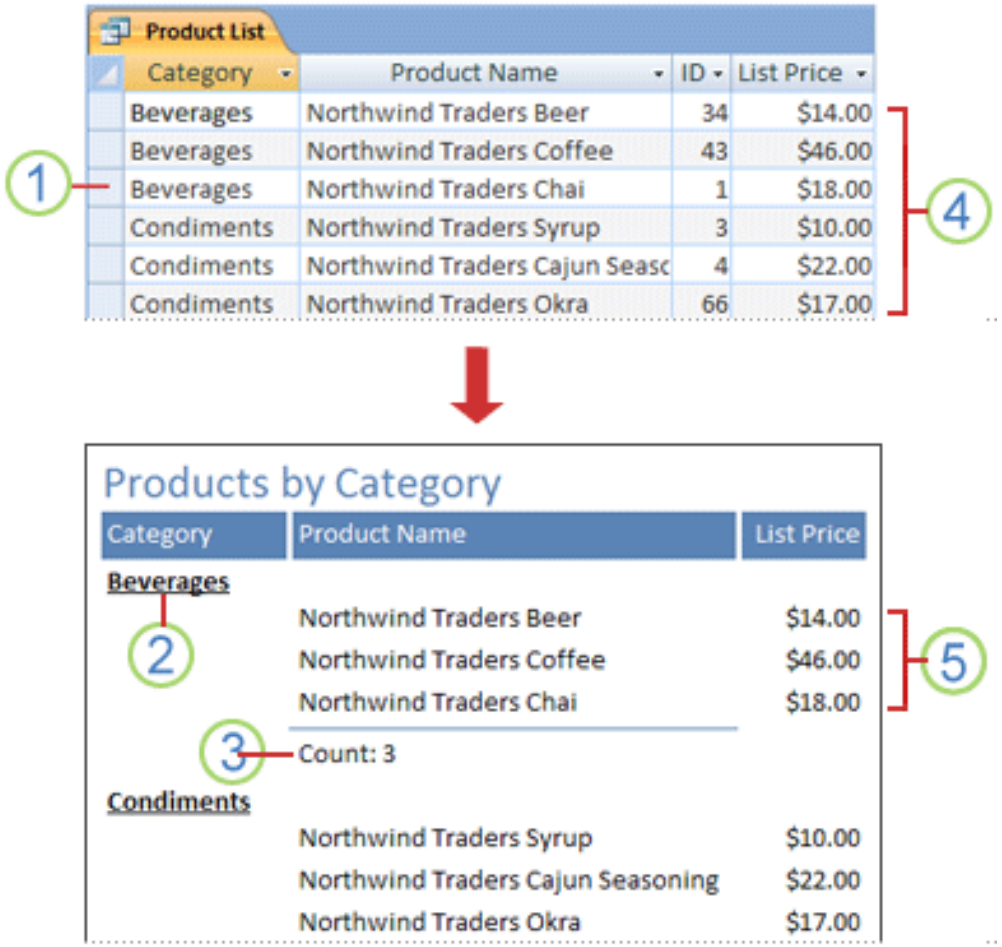
- 1. The date introduces the group.
- 2. The total summarizes the group.



Grouping and Sorting

- You can see how grouping works by comparing the List of Products by Category report (shown in the following illustration) to the datasheet for its underlying query, Product List.
- Both the report and the query sort products by category, but the report also prints the name of each category on a separate line at the beginning of each group (in the group header) and the number of products for each category on a separate line at the end of each group (in the group footer).

Grouping and Sorting

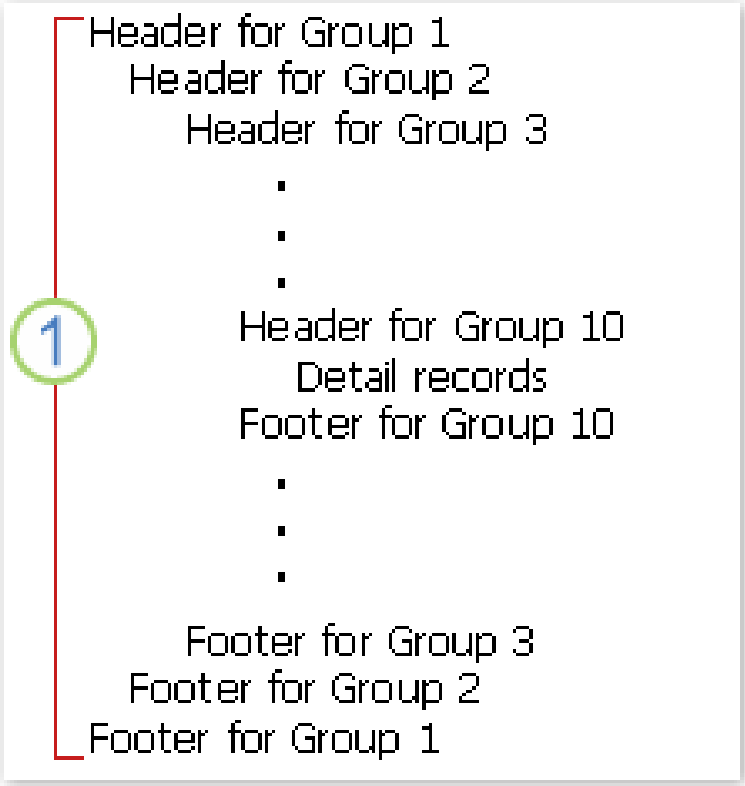


Grouping and Sorting

- You can group on any fields and expressions you sort on.
- You can group on the same field or expression more than once.
- When you group on more than one field or expression, Office Access nests the groups according to their group level.
- The first field you group on is the first and most significant group level; the second field you group on is the next group level; and so on.
- The following illustration shows how Office Access nests the groups.

Grouping and Sorting

1. Each group header is paired with a group footer.



Add or modify grouping and sorting in an existing report

- You can perform simple sorting, grouping and totaling operations by right-clicking fields in Layout view and then choosing the operation you want from the shortcut menu.
- To switch to Layout view, right-click the report in the Navigation Pane and then click **Layout view**
- On the **Format** tab, in the **Grouping & Totals** group, click **Group & Sort**.

Sorting

- Right-click any value in the field that you want to sort.
- On the shortcut menu, click the sort option you want. For example, to sort a text field in ascending order, click Sort A to Z
- To sort a numeric field in descending order, click Sort Largest to Smallest

Grouping

- Right-click any value in the field on which you want to group.
- On the shortcut menu, click **Group On**
- Access adds the grouping level and creates a group header for it.
- If the **Group, Sort, and Total** pane is open, you can see that a new **Group on** line for the field is added.

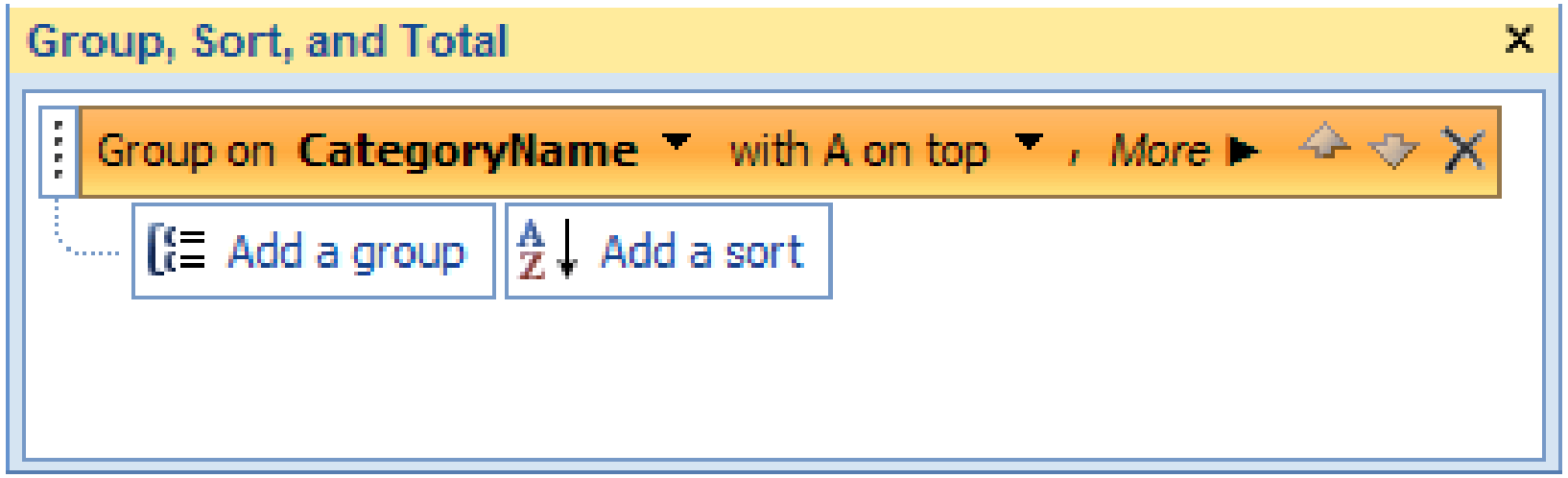
Add a total field

- This option lets you calculate a sum, average, count, or other aggregate for a field.
- A grand total is added to the end of the report, and group totals are added to any groups that exist on the report.
- Right-click any value in the field that you want to total.
- Click **Total**.
- Click the operation you would like to perform: **Sum**, **Average**, **Count Records** (to count all records), **Count Values** (to count only the records with a value in this field), **Max**, **Min**, **Standard Deviation**, or **Variance**.

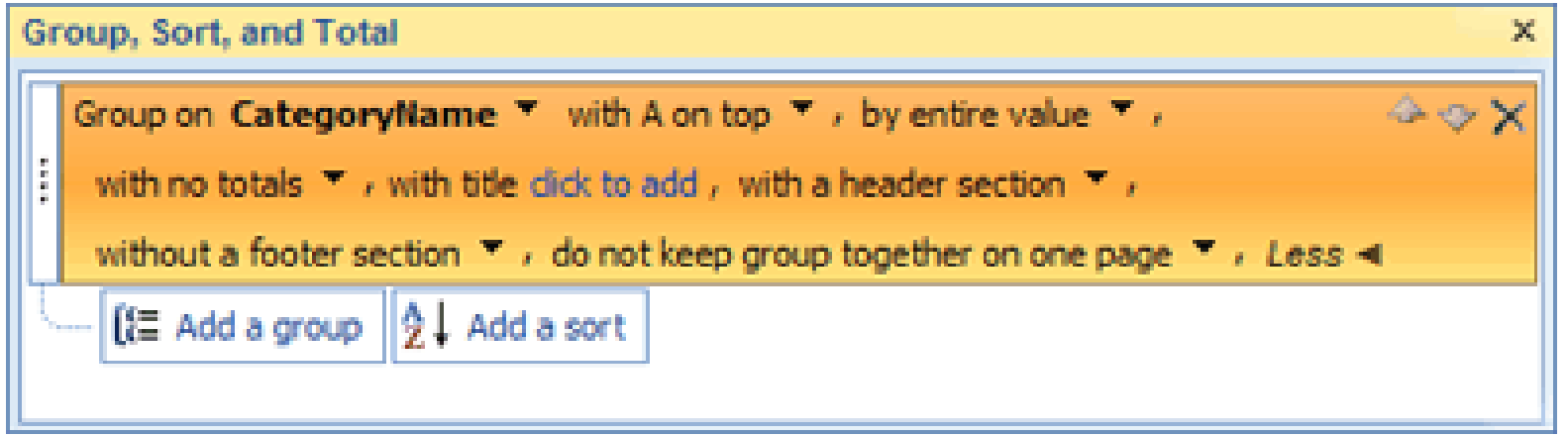
- Access adds a calculated text box control to the report footer, which creates a grand total.
- Also, if your report has any grouping levels, Access adds group footers (if not already present) and places the total in each footer.

Change Grouping Options

- Each sorting or grouping level has a number of options that can be set to obtain the results you want.



- To display all the options for a grouping or sorting level, click **More** on the level that you want to change.



- **Sort order** You can change the sort order by clicking the sort order drop-down list, then clicking the option you want.
- **Group interval** This setting determines how the records are grouped together. For example, you can group on the first character of a text field so that all that start with "A" are grouped together, all that start with "B" are grouped together, and so on. For a date field, you can group by day, week, month, quarter, or you can enter a custom interval.
- **Totals** To add totals, click this option. You can add totals on multiple fields, and you can do multiple types of totals on the same field.

Delete Grouping and Sorting Levels

- To delete a grouping or sorting level, click the row you want to delete in the **Group, Sort, and Total** pane, and then press DELETE or click the **Delete** button on the right side of the row.
- When you delete a grouping level, if the grouping field was in the group header or footer, Access moves it to the report's Detail section.
- Any other controls that were in the group header or group footer are deleted.

Sources

- http://www.gcflearnfree.org/access2016/how-to-create-calculated-fields-and-totals-rows/1/
- http://www.fontstuff.com/access/acctut04.htm
- https://support.office.com/en-us/article/Display-column-totals-in-a-datasheet-8F1F89C4-7F86-4113-A836-291AC3EA446E

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- Information from http://www.gcflearnfree.org/access2016 and other web resources