

Creating Simple Queries with Tasks – Part 2

1. Filtering and Sorting Data

2. Creating New Columns

3. Grouping and Summarizing Data

4. Joining Tables

Creating Simple Queries with Tasks

1. Filtering and Sorting Data

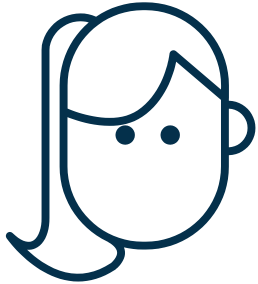
2. Creating New Columns

3. Grouping and Summarizing Data

4. Joining Tables

Grouping and Summarizing Data

Which products
have profits
exceeding \$3,500?



Product ID	Order Date	Profit	Quantity
240200100136	8/20/2018	\$1,028.25	3
240200100136	10/1/2018	\$342.75	1
240200100136	5/5/2018	\$1,018.05	3
240200100136	11/6/2018	\$1,028.25	3
240200100136	8/9/2018	\$685.50	2
		\$4,102.80	12
240300300078	7/20/2018	\$345.90	2
240300300078	7/24/2018	\$172.95	1
		\$518.85	3



Grouping and Summarizing Data

The Select Data tab can be used to group and summarize data.

Query name: Query Builder Output name: WORK.QUERY_FOR_ORION_PROFIT

Computed Columns Prompt Manager Preview Tools Options

Add Tables Delete Join Tables

Column Name	Source Column	Summary
Product_Category (Prod...	i1.Product_Category	
SUM_of_Quantity	Computed	SUM
AVG_of_Profit	Computed	AVG

Summary groups

☒ Automatically select groups

i1.Product_Category

☐ Select distinct rows only

Run Stop

Choose a statistic for columns to be summarized.

Columns without an assigned statistic automatically define the groups.

Grouping and Summarizing Data

Statistics include the following:

AVG, MEAN	STD (standard deviation)
COUNT, FREQ, N (number nonmissing values)	STDERR (standard error of the mean)
CSS (corrected sum of squares)	SUM
CV (coefficient of variation)	SUMWGT (sum of WEIGHT variable values)
MAX or MIN	T (Student's <i>t</i> -value testing the hypothesis that the population mean is zero)
NMISS (number of missing values)	USS (uncorrected sum of squares)
PRT (two-tailed <i>p</i> -value for Student's <i>t</i> statistic)	VAR (variance)
RANGE (range of values)	

Grouping and Summarizing Data

Grouping by Column Values

- ❖ The query results includes one row for every unique value of
 - The group column or combination of columns
 - A calculated statistics for the summarized column or columns

Select Data Filter Data Sort Data		
Column Name	Source Column	Summary
Product_Category (Prod...	t1.Product_Category	
SUM_of_Quantity	Computed	SUM
AVG_of_Profit	Computed	AVG

	Product_Category	SUM_of_Quantity	AVG_of_Profit
1	Assorted Sports Articles	121	\$95.54
2	Children Sports	49	\$30.93
3	Clothes	206	\$48.65
4	Golf	143	\$131.39
5	Indoor Sports	27	\$213.29
6	Outdoors	240	\$107.99
7	Racket Sports	37	\$90.04
8	Running - Jogging	64	\$64.19
9	Shoes	69	\$78.94
10	Swim Sports	11	\$28.85
11	Team Sports	75	\$31.08
12	Winter Sports	36	\$147.72

4.04 Activity

1. Use any data source in the current project and open the Query Builder.
2. Click the **Filter Data** tab and notice the layout.
3. Return to the **Select Data** tab and add any two columns.
4. For one of the columns on the Select Data tab, select **COUNT** in the Summary field.
5. Return to the **Filter Data** tab.

How does the Filter Data tab change after a query includes grouped data?

4.04 Activity – Correct Answer

How does the Filter Data tab change after a query includes grouped data?

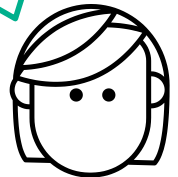
Without grouping

Select Data	Filter Data	Sort Data
Filter the raw data		Operator

With grouping

Select Data	Filter Data	Sort Data
Filter the raw data		Operator
Filter the summarized data		Operator

An additional pane labeled "Filter the summarized data" is added to the Filter Data tab.





Summarizing and Filtering by Groups

This demonstration illustrates grouping data, and then summarizing and filtering grouped data.

Questions?

