Oracle BI 11g Reports and Dashboards

Set Operations

PEAK indicators

Set Operations

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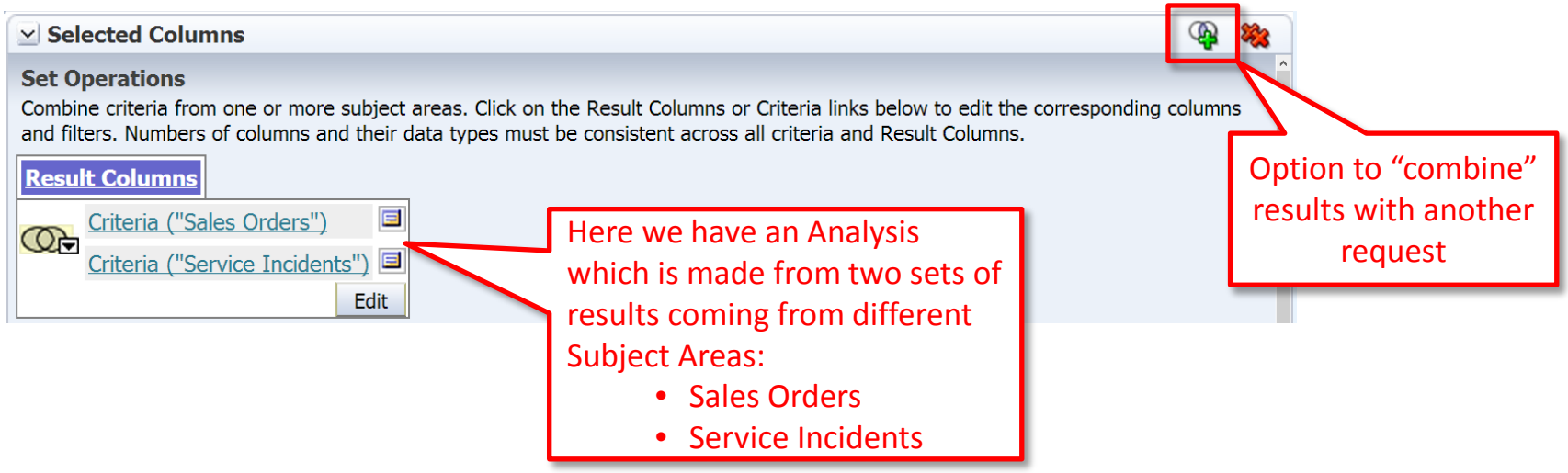
PEAK indicators

Set Operations

Overview

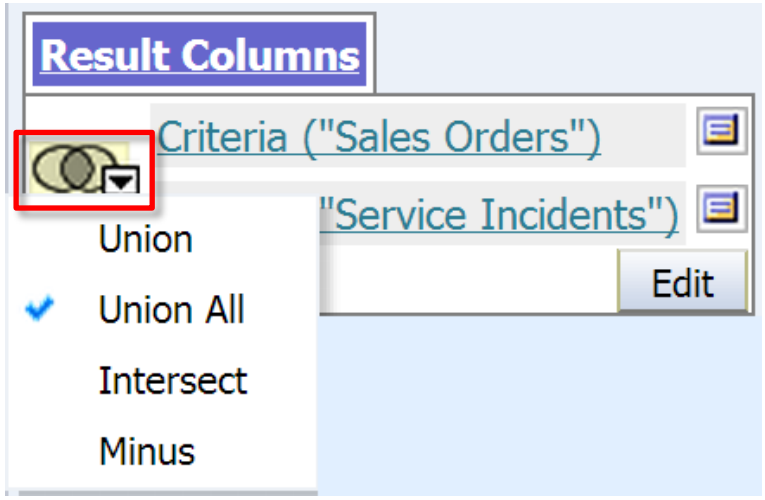
Overview

- In more complex reporting requirements, sometimes you need to combine one data set with one or more other data sets
- It is therefore possible to perform "**Set Operations**" to merge the results of multiple requests together
- The various data sets can come from different subject areas, but each data set must have the same number of columns and corresponding columns must be of the same data type



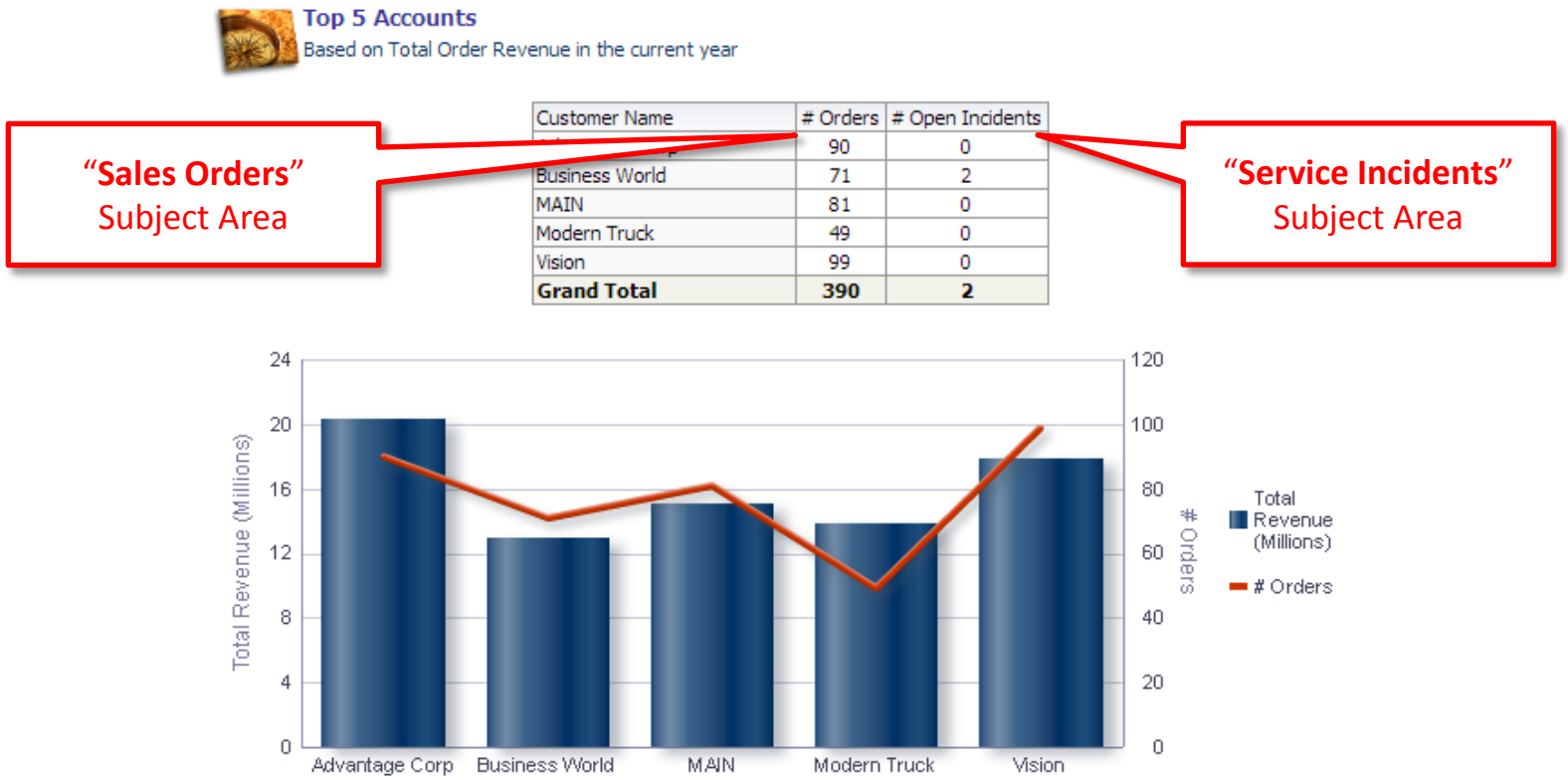
Operation Types

- There are four different set operations available:
  - **Union** - Take the “distinct” set of results
  - **Union All** - Return all records even if they are duplicated
  - **Intersect** - Only return records that are common to both result sets
  - **Minus** - Return records in the 1st results set not present in the 2nd set



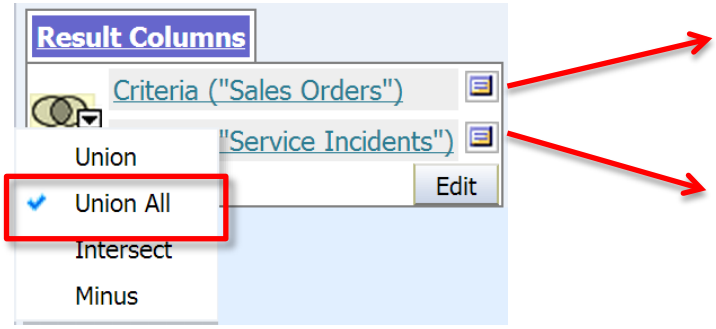
Example 1: Complex Request

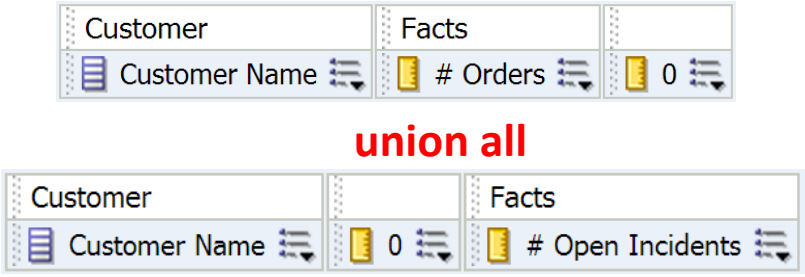
- Consider this example, we want an Analysis where the data comes from two different Subject Areas which are <u>not</u> logically related (they do not share the same Business Model in the BI Repository)



Example 1: Complex Request

- We need to run two separate requests and then union them together:

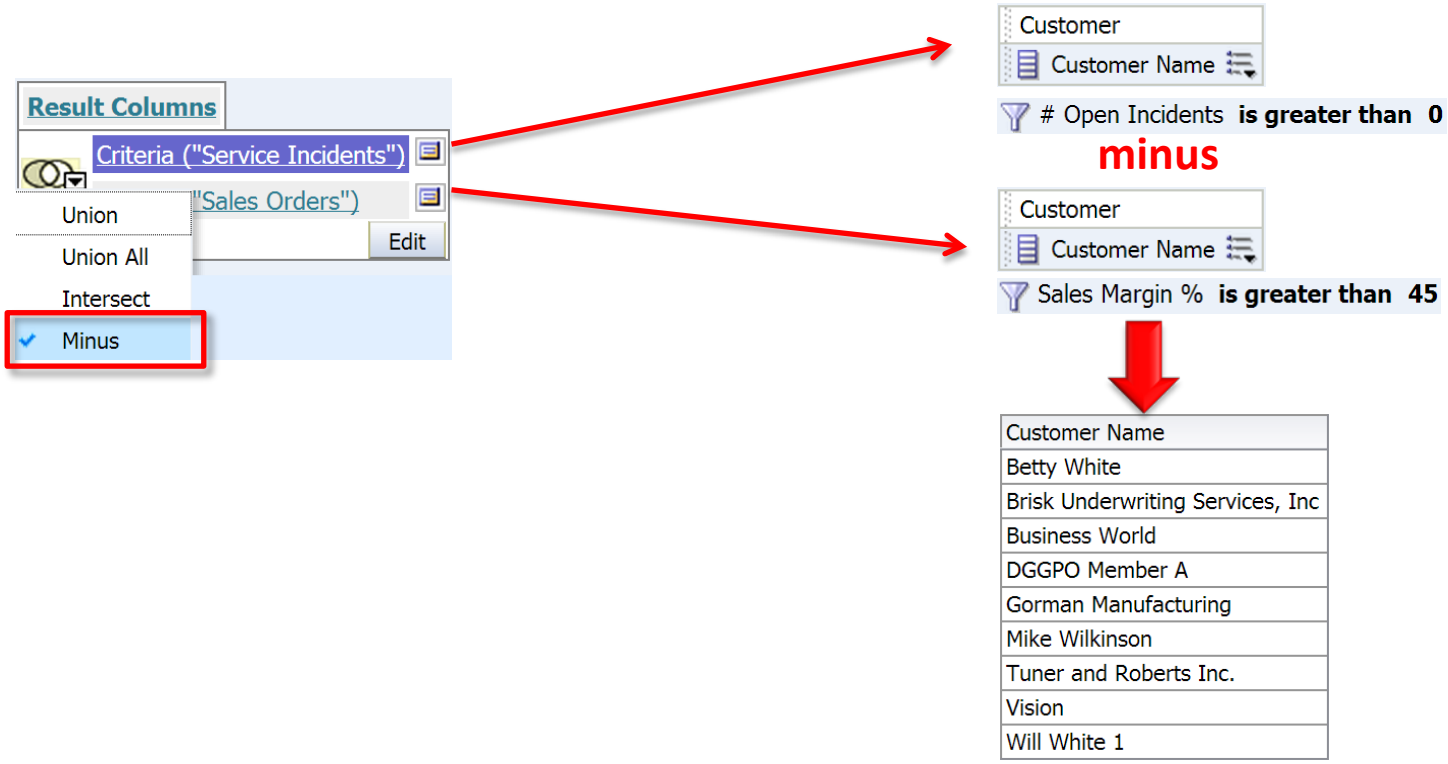




Customer Name	# Orders	# Open Incidents
Advantage Corp	90	0
Business World	71	2
MAIN	81	0
Modern Truck	49	0
Vision	99	0
Grand Total	**390**	**2**

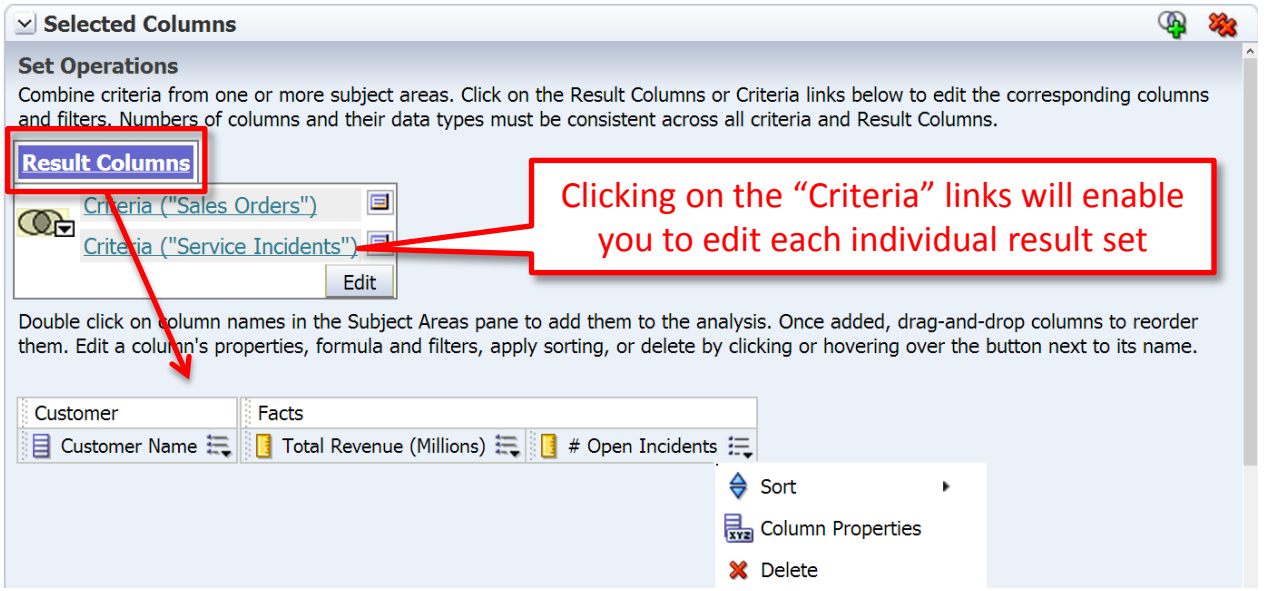
Example 2: Complex Request

- As another example, we want a list of Customers who currently have an “Open” Incident, but we want to exclude any Customers who’s overall “Sales Margin” is greater than 45%:



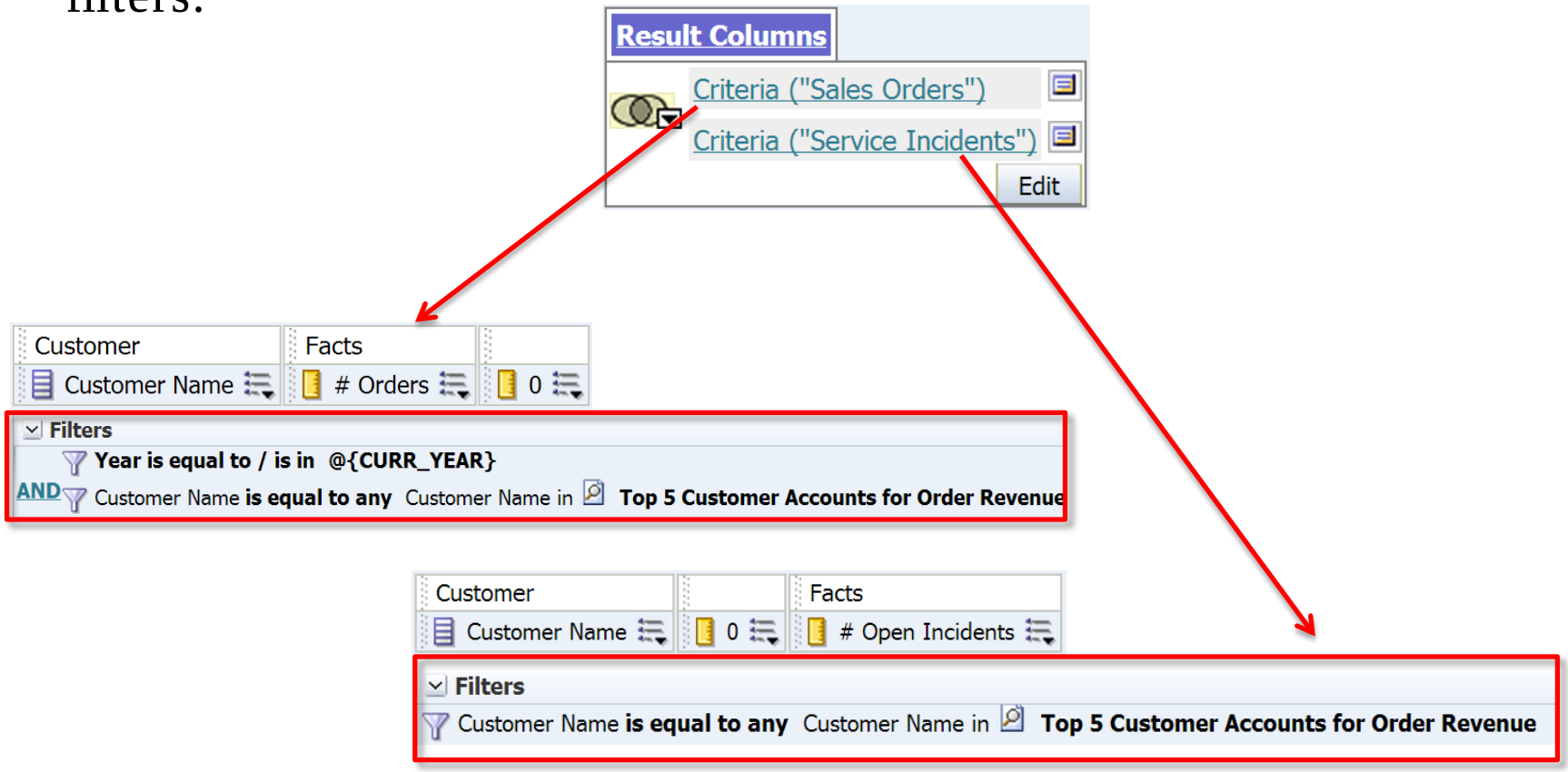
Result Columns

- By clicking on “Result Columns” you will be able to set the column sort and formatting properties for the final set of result columns that are generated after combining all the result sets together



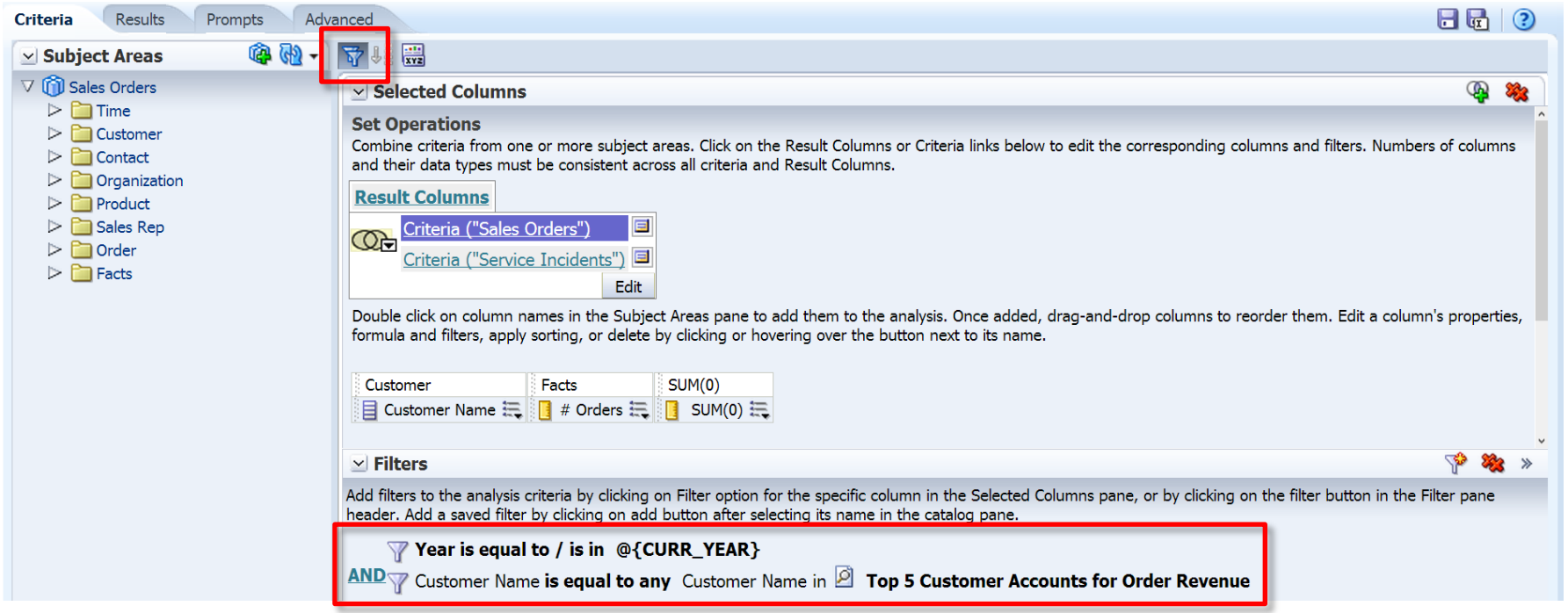
Filters

- With Set Operations, you do not specify a “global” filter for the entire results set. Instead, each result set has its own specific filters:



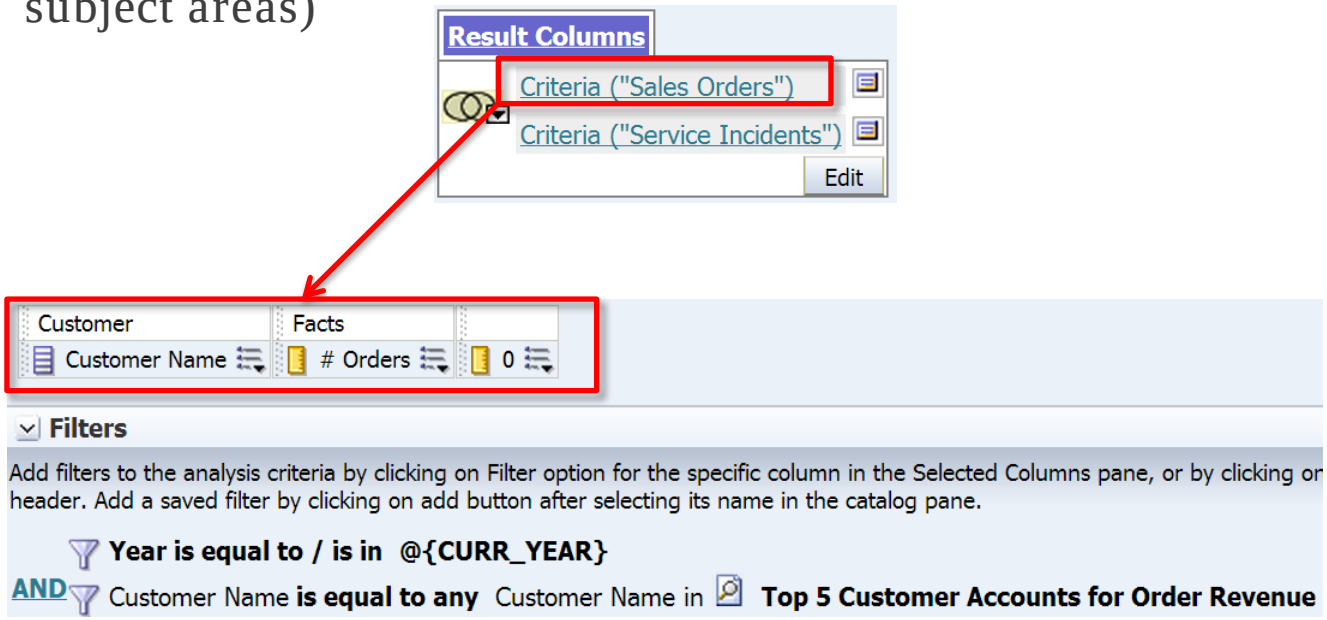
Filters

- Note that in order to see the filters for a specific result set, you may need to click on the “View Filters Pane” button



Dashboard Prompts

- Dashboard prompts can override filters in all result sets.
- For example: A dashboard prompt on “Year” would override the existing filter on “Year” = “Current Year” in the result set
  - NOTE: This holds true even if the result sets come from different subject areas (as long as the column names are the same across all subject areas)



Pivot Tables

- Pivot Tables are often the most useful view for showing the results of a Set Operation
- The example below shows how a Pivot Table can provide better results than a standard Table view
  - NOTE: Calculated Items could be used on the Pivot Table to implement calculations on the measures coming from the different result sets

Table

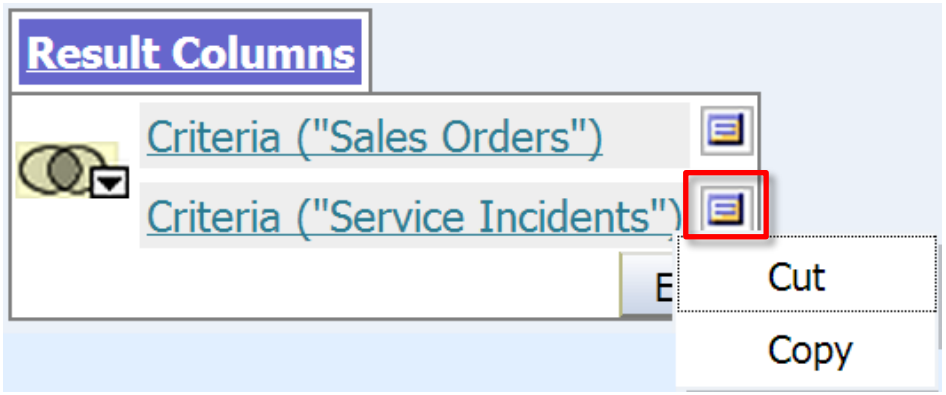
Customer Name	# Orders	# Open Incidents
Advantage Corp	90	0
Business World	0	3
	71	0
MAIN	81	0
Modern Truck	49	0
Vision	0	2
	99	0
Grand Total	**390**	**5**

Pivot Table

Customer Name	# Orders	# Open Incidents
Advantage Corp	90	0
Business World	71	3
MAIN	81	0
Modern Truck	49	0
Vision	99	2
Grand Total	**390**	**5**

Cut/Copy/Paste

- Note that "**Cut**", "**Copy**" and "**Paste**" options exist:
  - Cut: Remove the result set from the analysis
  - Copy: Take a copy of the result set
  - Paste: Insert the result set which was taken using Cut/Copy



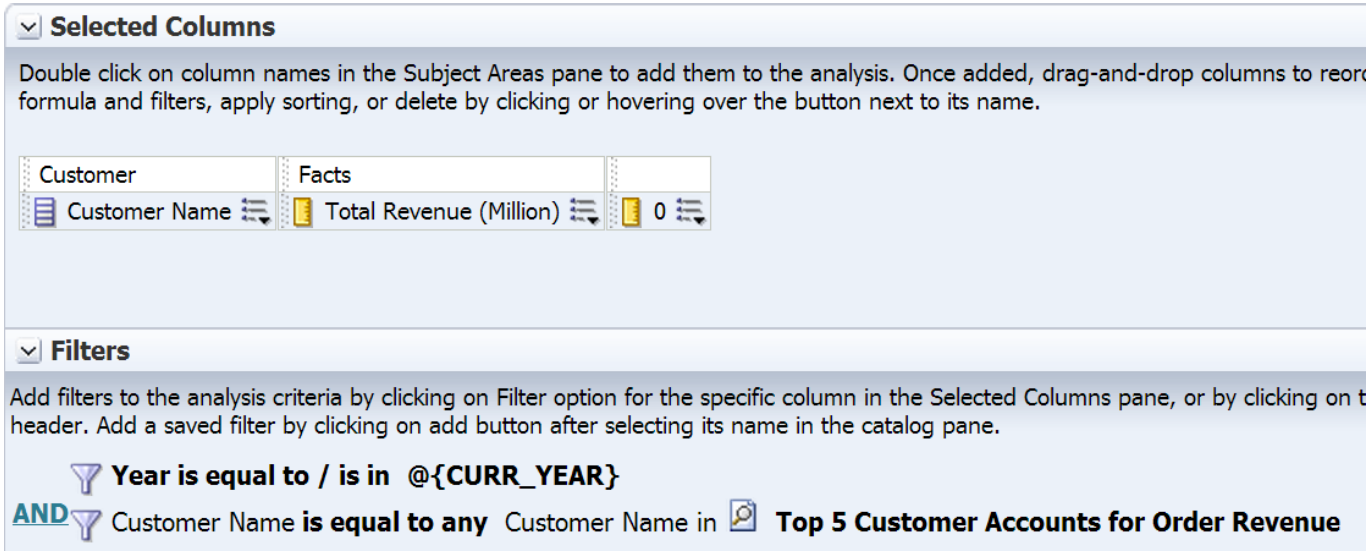
Set Operations

Implementing

Implementing

Implementing: Step 1

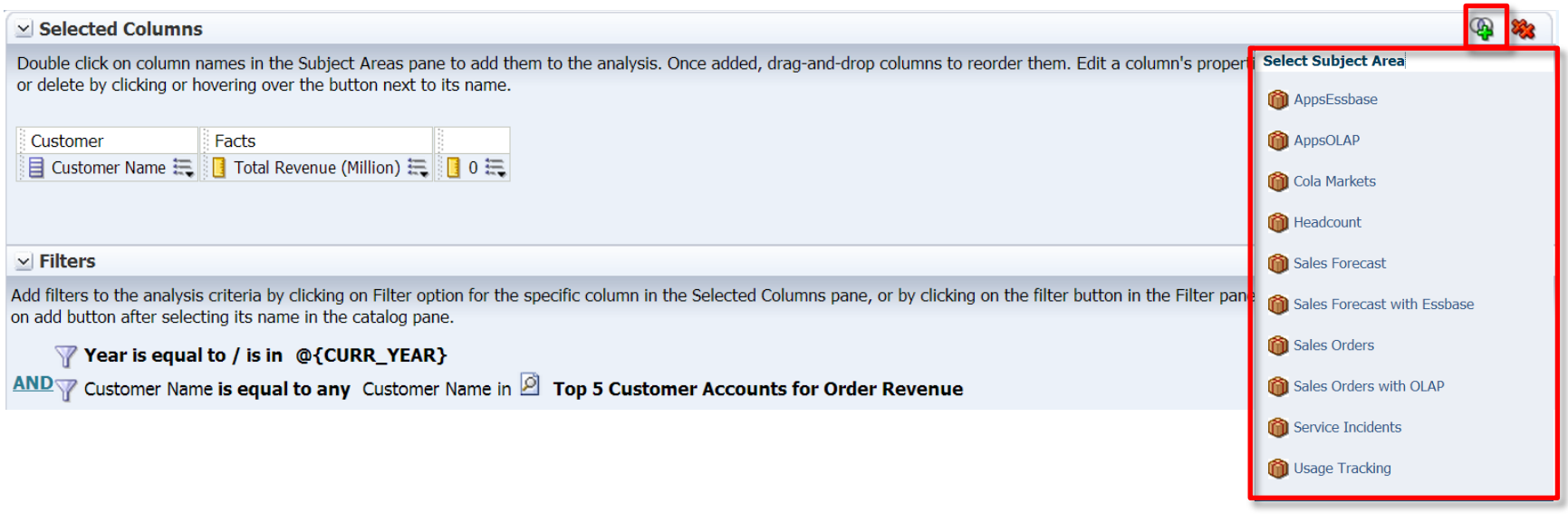
- To implement a Set Operation, the first step is to define the first result set columns and filters as you would normally do on the “Criteria” tab of an Analysis:



Implementing

Implementing: Step 2

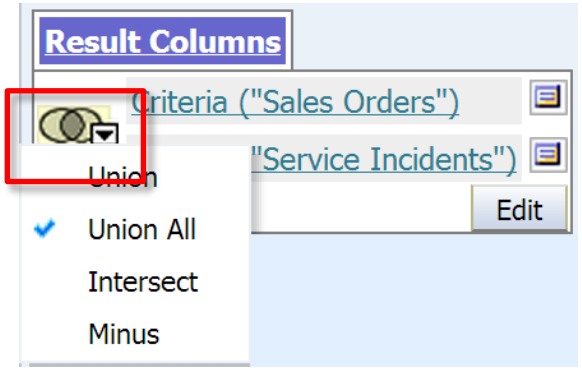
- You can then add another result set by clicking on the button and choosing the Subject Area for the result set to be added:



Implementing

Implementing: Step 3

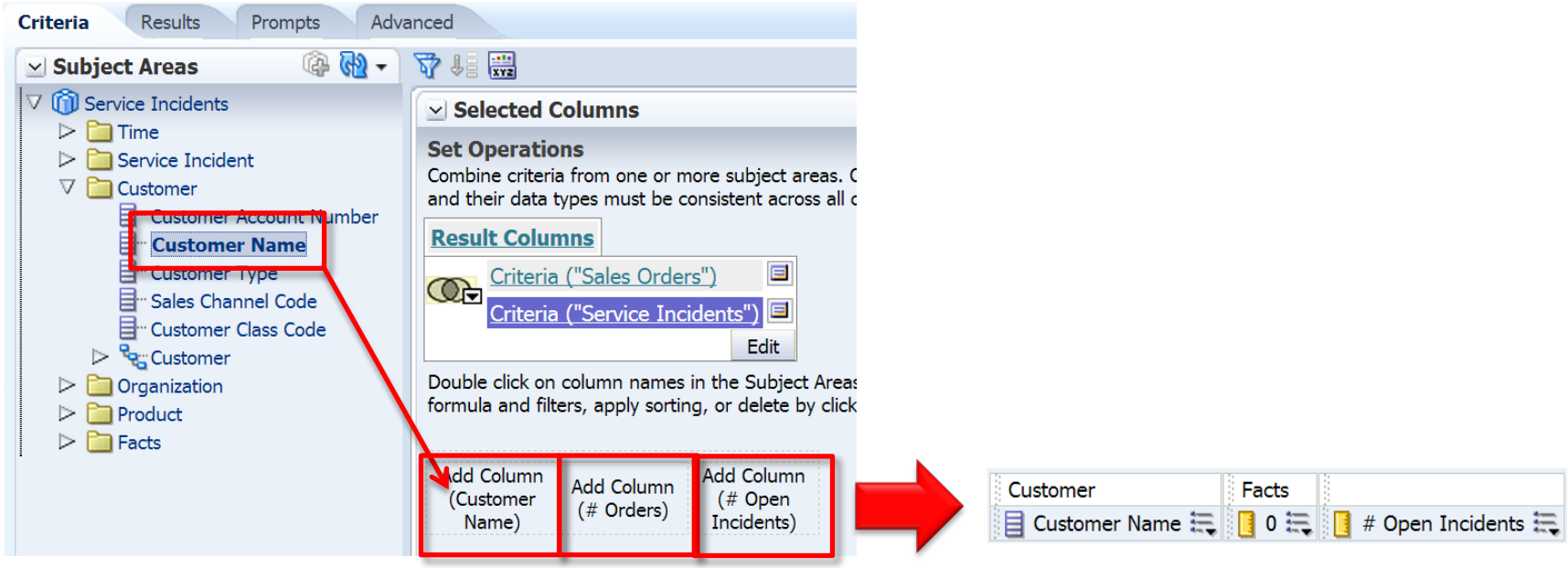
- Choose the type of “Set Operation” you require:



Implementing

Implementing: Step 4

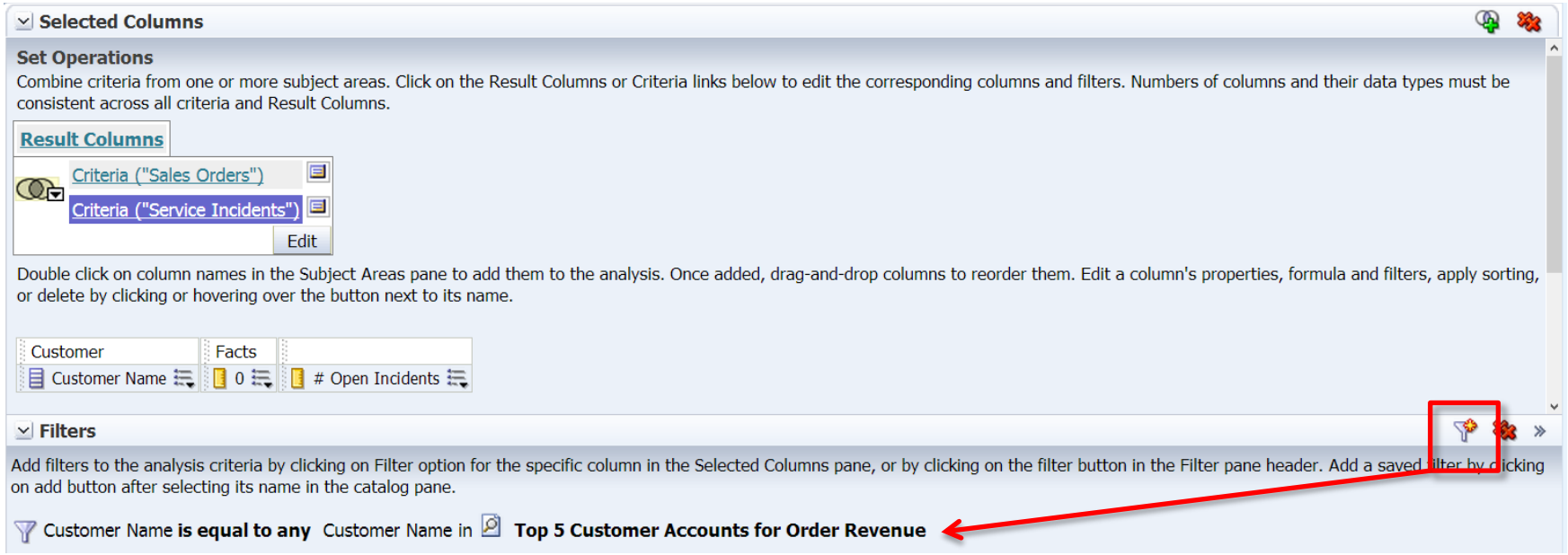
- Then for each column listed on the Analysis, choose an appropriate column from the Subject Area
  - Keep doing this until all the columns are filled



Implementing

Implementing: Step 5

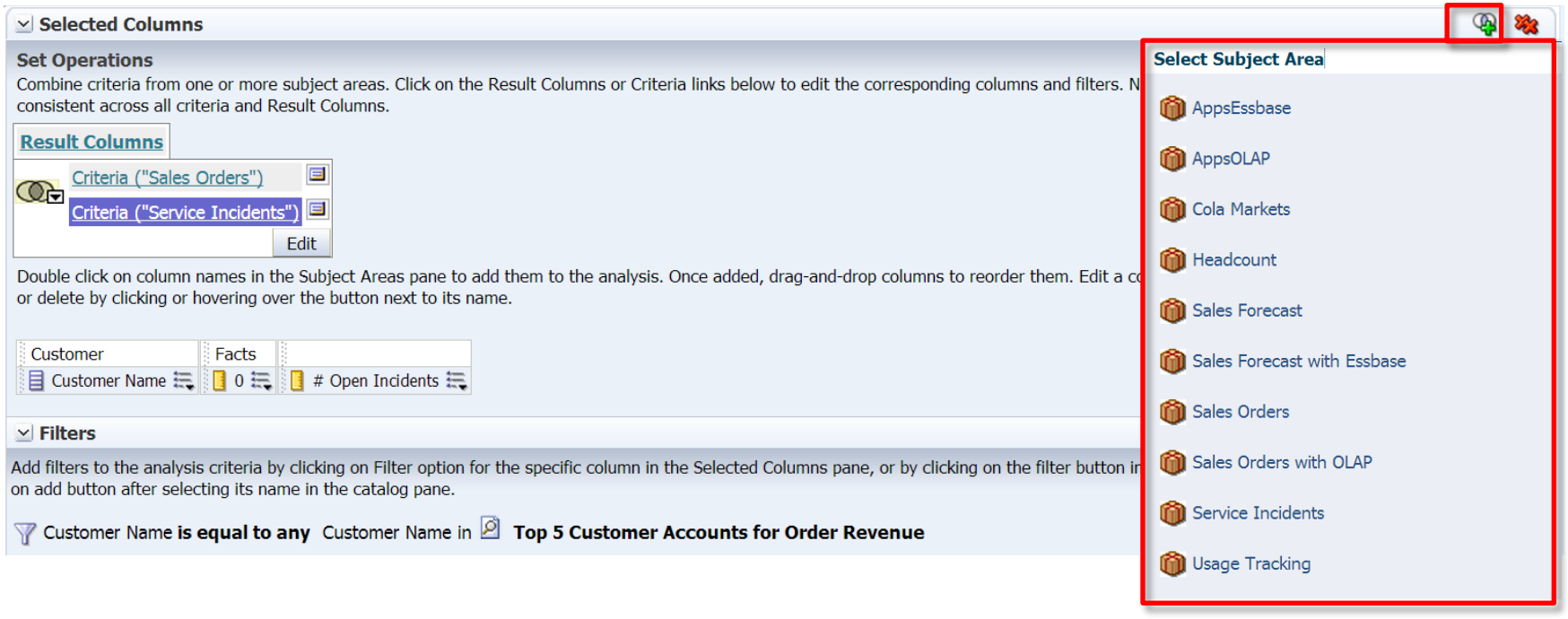
- Add the necessary filters to your new result set:



Implementing

Implementing: Step 6

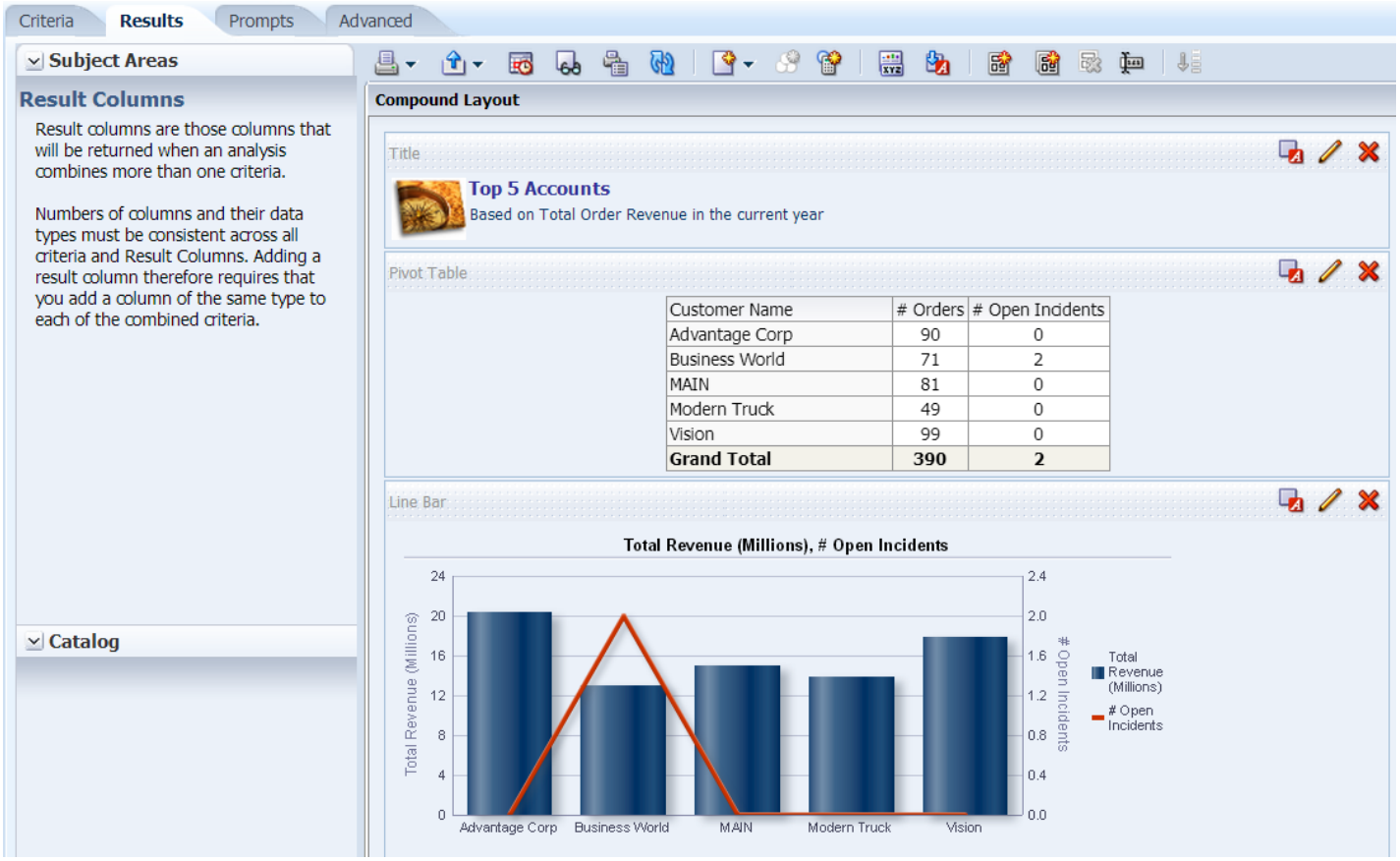
- Add any further result sets to the Analysis and repeat the process:



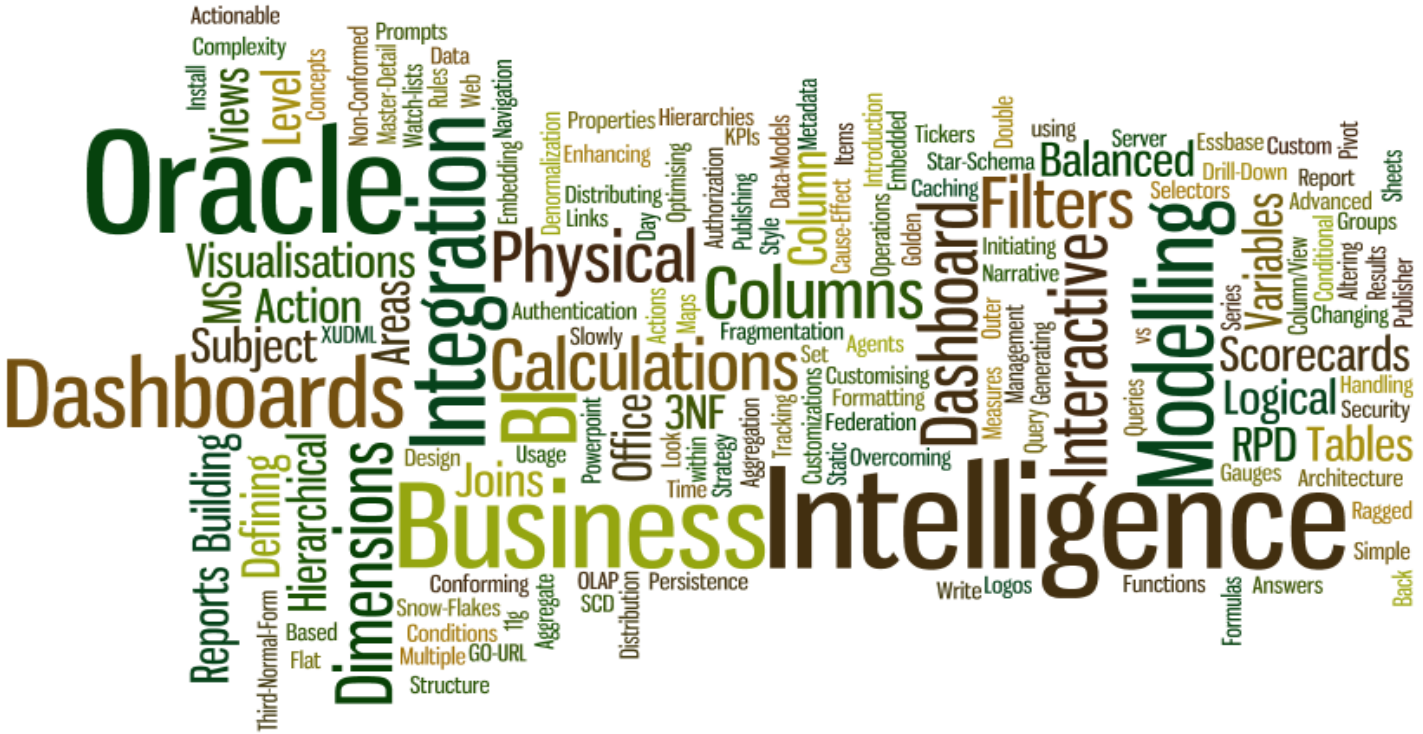
Implementing

Implementing: Step 7

- That's it! You can now go to the "Results" tab and format the Compound Layout:



Questions?



PEAK
indicators

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