

# Cognos Analytics Basics

## Training and Reference Guide



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# Cognos Analytic Basics

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Cognos Analytics is a business intelligence tool for centralized and standardized reporting of University of Missouri data. It was selected by the University of Missouri Task Force on Reporting Strategies in 2004.

Cognos Analytics can be used for ad hoc reporting and can be used by employees who answer data questions, validate data, or review data on a daily basis.

The topics in this training manual cover some of the basics of using Cognos Analytics. Other Cognos Analytics training materials can be found at [www.umsystem.edu/ums/is/ibm\\_cognos\\_business\\_intelligence](http://www.umsystem.edu/ums/is/ibm_cognos_business_intelligence).

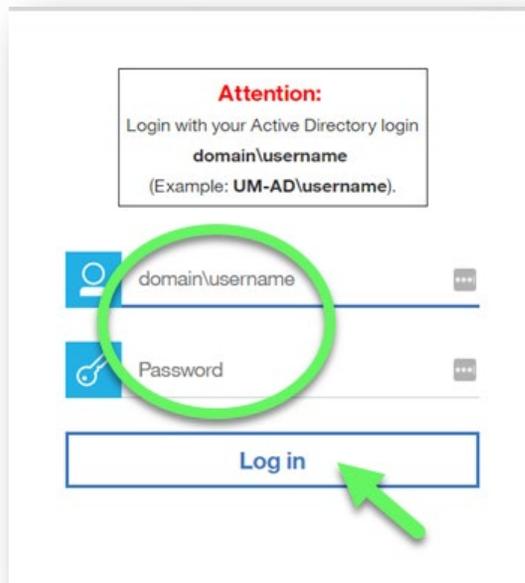
# Accessing Cognos Analytics

This lesson provides an overview of the following topics:

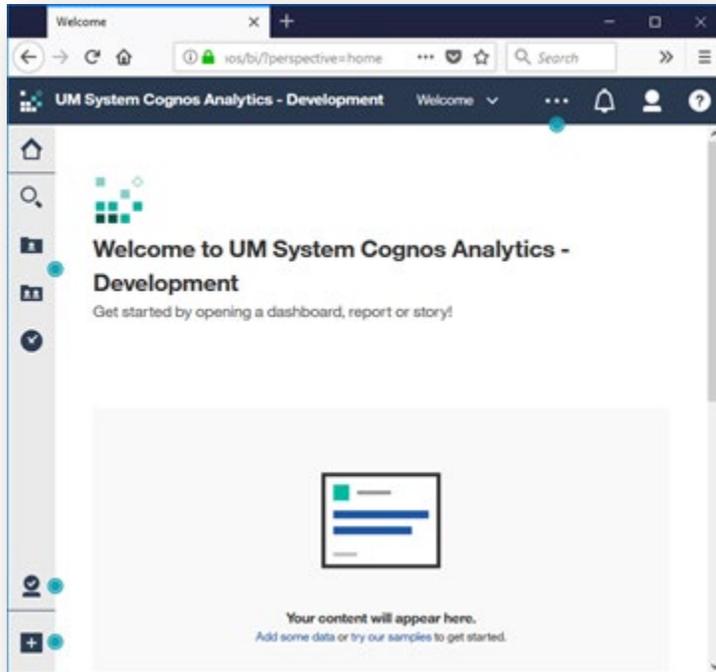
- Launching the Cognos Analytics Web Site
- Accessing Team Content
- Logging out of Cognos Analytics

## Procedure

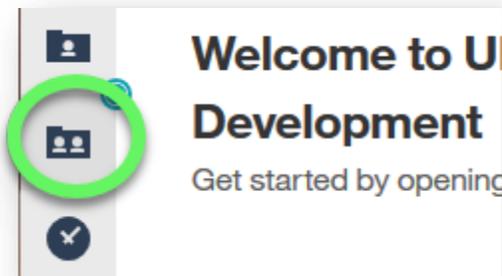
1. Open a browser and navigate to the Cognos Analytics login page, <https://reports.umsystem.edu>.
2. Enter your **Domain\User ID** and **password** into their respective fields, and then click the **Log in** button.  
*Your User ID is your domain qualified Active Directory login (example: UM-Users\username).*



3. **Cognos Analytics** opens.



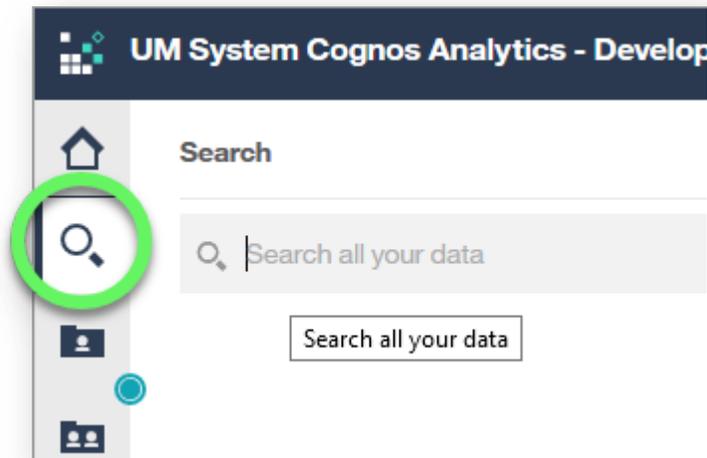
4. Click the **Team Content** button to display a list of public folders.



5. The team content panel expands to display a list of **Public Folders** that are available to you based upon your security and permissions.

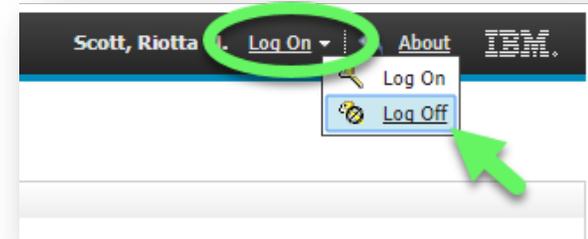
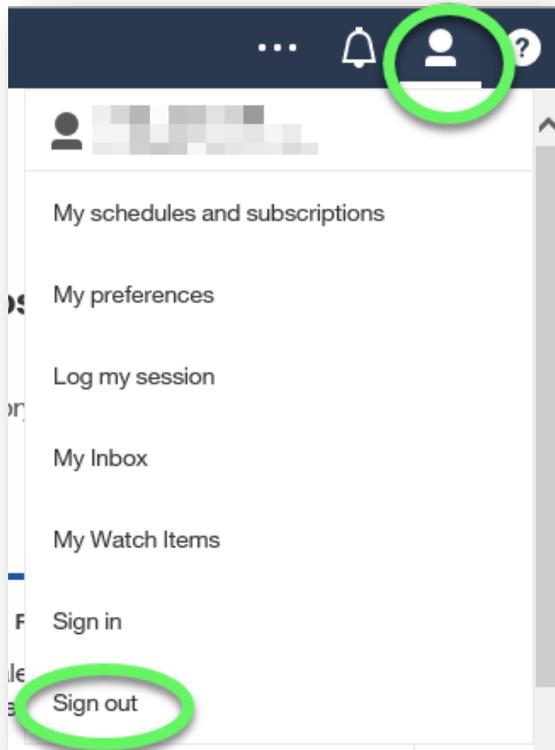


6. If you're not sure where to find a specific report, you can click the Search button to expand the search feature.



7. To log off Cognos Analytics, use one of the following procedures:

- Expand the **Log On** list in the upper right corner of the page, and click **Log Off**.
- Click the **Personal** button ("head and shoulders" icon) to expand personal account options, and click the Sign out link.



**END OF PROCEDURE.**

**You have successfully Accessed Cognos Analytics.**

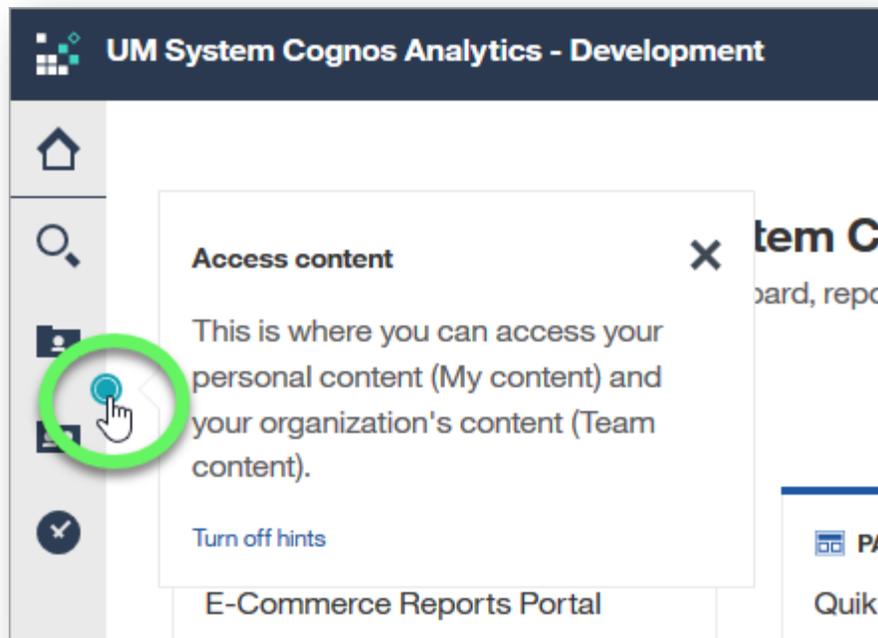
# Navigating Cognos Analytics

Prior to Cognos Analytics 11, Query Studio was a separate application. All features are now integrated into a single interface. The following procedures cover user menus, features, and toolbars.

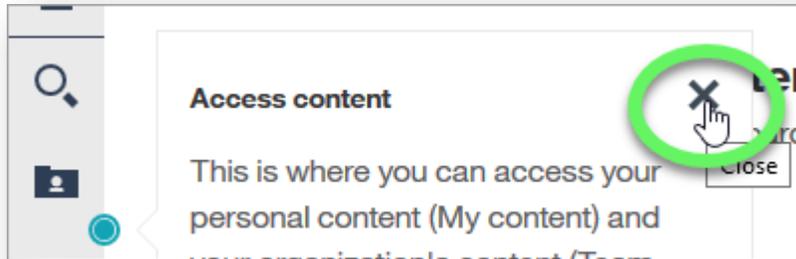
## Coach Marks

**Coach Marks** are the small blue-green dots found in various locations in the Cognos Analytics interface, which help new users learn about components of the application.

1. Click the Coach Mark on the Access Content panel to reveal information (aka *hints*) about the feature.



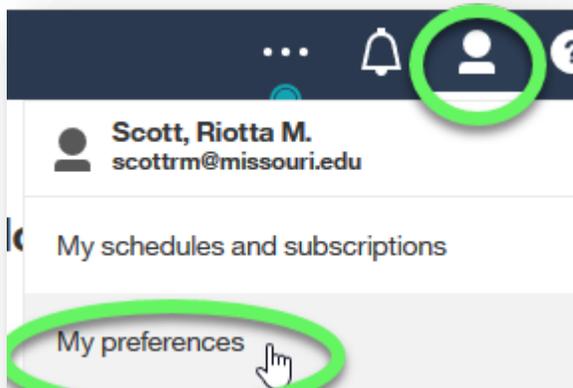
2. Click the **X** in the upper right corner of the hint to close it. Once you've read and closed a hint, that coach mark will no longer appear.



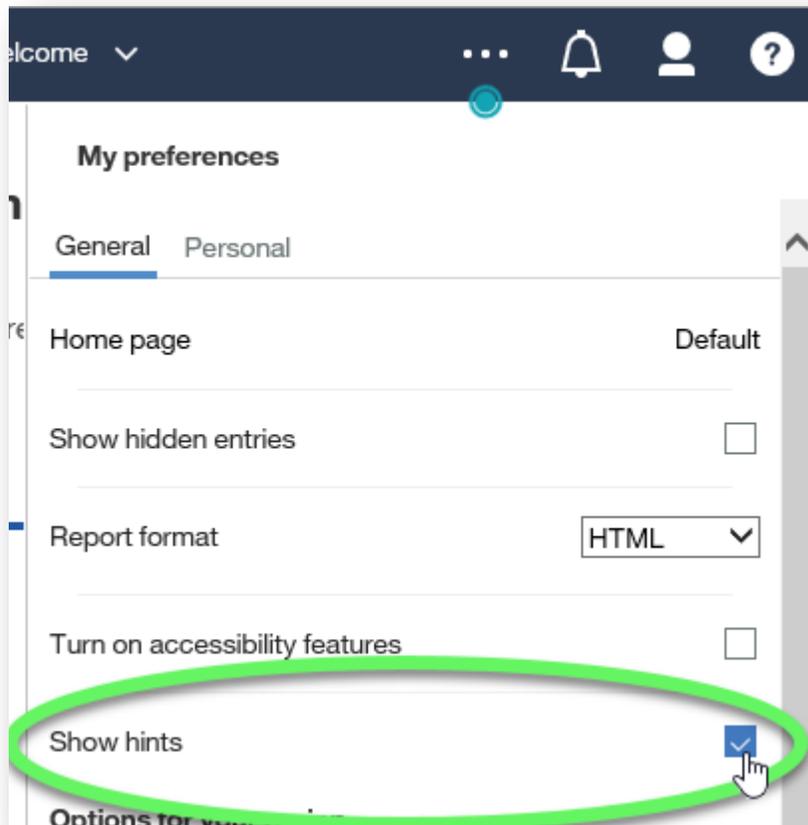
3. You can turn off all hints by clicking **Turn off hints** in any open hint.



4. You can turn hints on again through **My preferences**, found under the **Personal** button ("head and shoulders" icon).



5. In the **My preferences** panel, check mark **Show hints**.

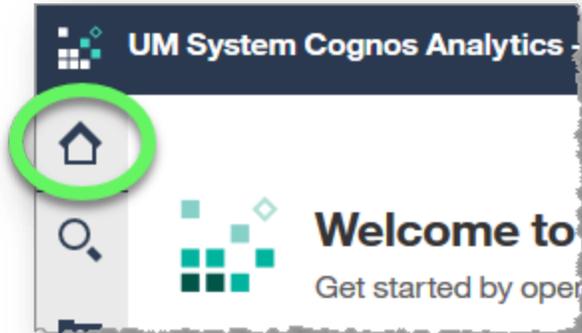


End of Coach Marks topic.

## Access Content panel

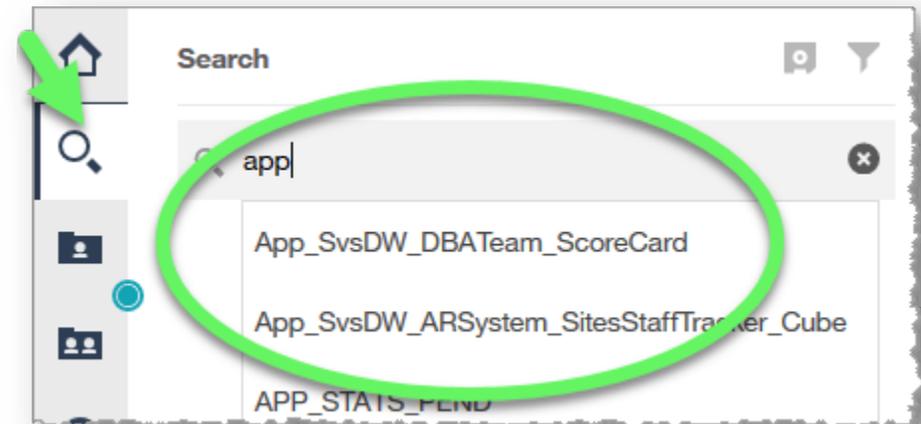
The **Access Content** panel contains buttons for accessing, managing, and creating content.

1. The **Home** button on the Access Content panel takes you back to your home page, which is the Welcome screen by default.

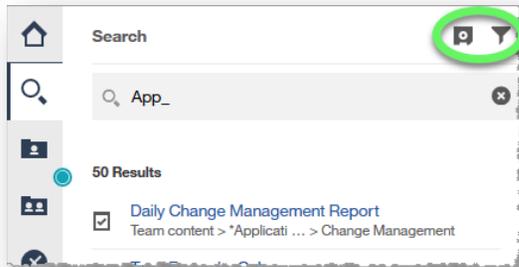


2. The **Search** feature on the Access Content panel contains features to help narrow your searches if necessary.

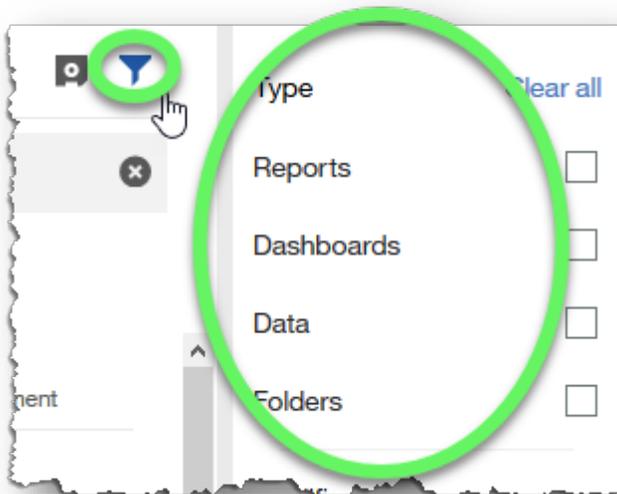
Click the **Search icon** and type a search term into the search field. Possible matches begin to appear in the Results section as you type.



Press **Enter** to return results and reveal the **Save search** and **Filter search** features.



Click the **Filter icon** to reveal filtering options for your search.



Click an empty area outside of the search and filtering options dialog panel to dismiss the features.

- To browse for content rather than searching for it, use the **My content** and **Team content** buttons.

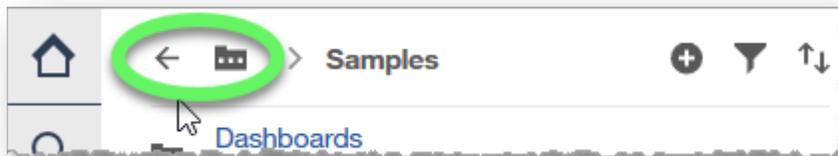
Personal content, or content that you've copied or saved into your private folder, will appear when you click the **My content** button.



University content is listed under the **Team content** section.

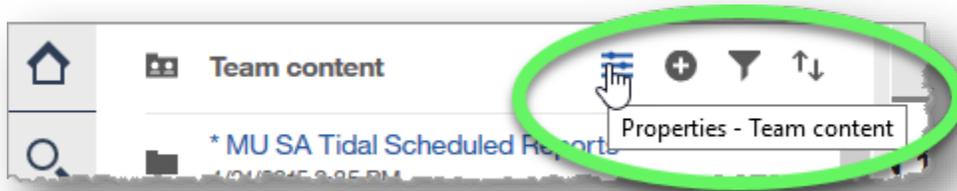


Click links in **Team content** to drill down to the desired content. Different button icons appear at the top depending on the type of content displayed.

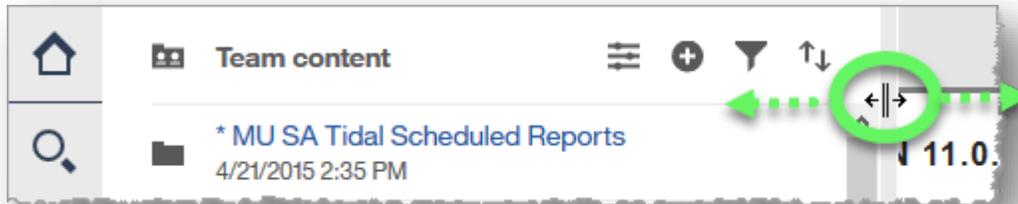


- There are buttons for returning to previous content, filtering and sorting content, adding folders, viewing content properties, and showing collapsed content (when there's not enough room to show previous content in the breadcrumbs).

**Hover the cursor over a button icon** to see its label to determine its function.

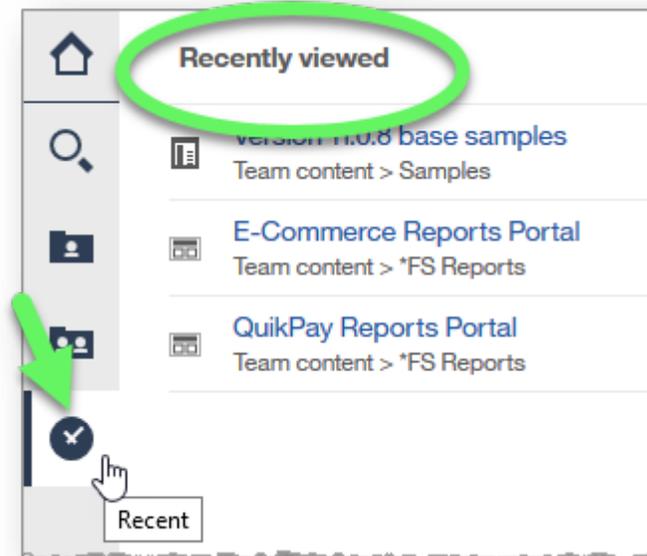
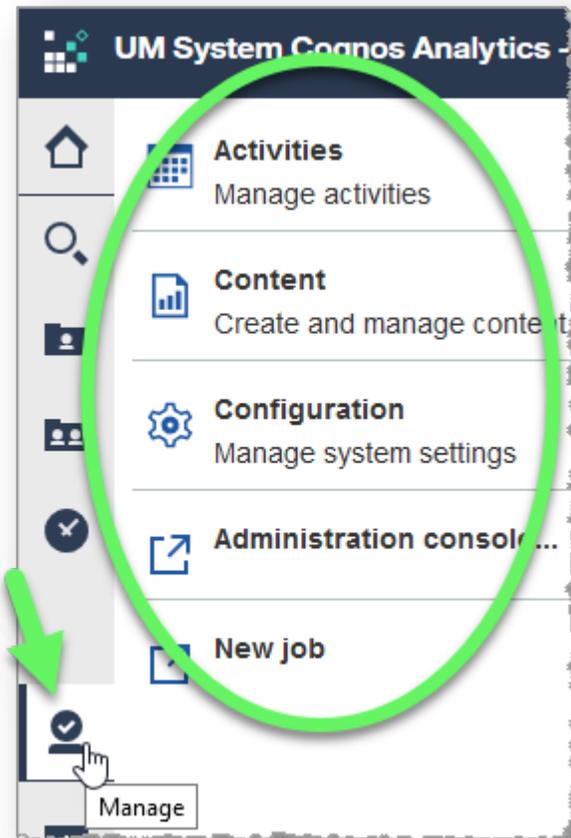


Drag the right side of the panel to increase or decrease its width. Increasing the width may reveal more breadcrumbs.

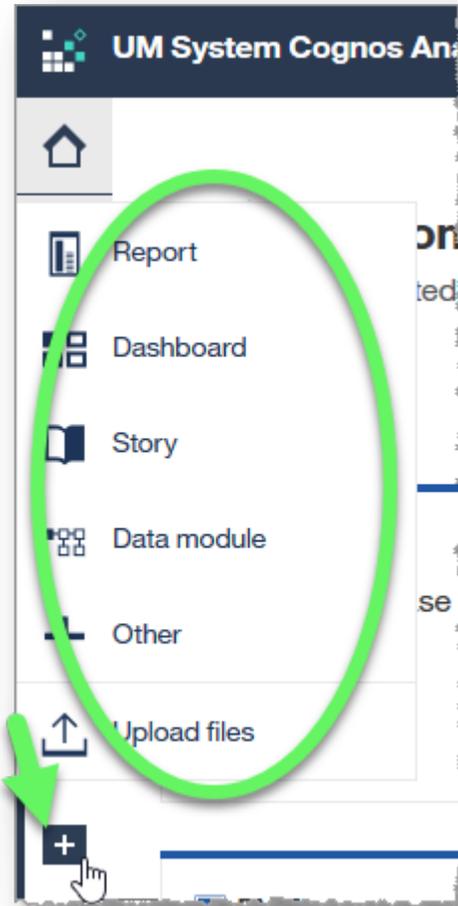


To close the section without clicking a report link, click the **Team content button** again, or click an empty area outside the dialog panel.

5. The **Recent** button shows content you've recently viewed.
6. The **Manage** button lists options for managing content.



7. The **New** button at the bottom of the Access content panel provides options for creating or adding content.



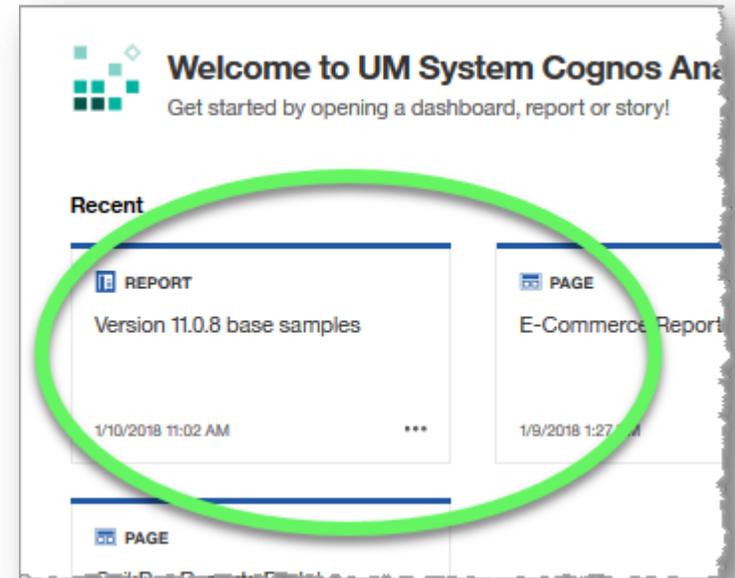
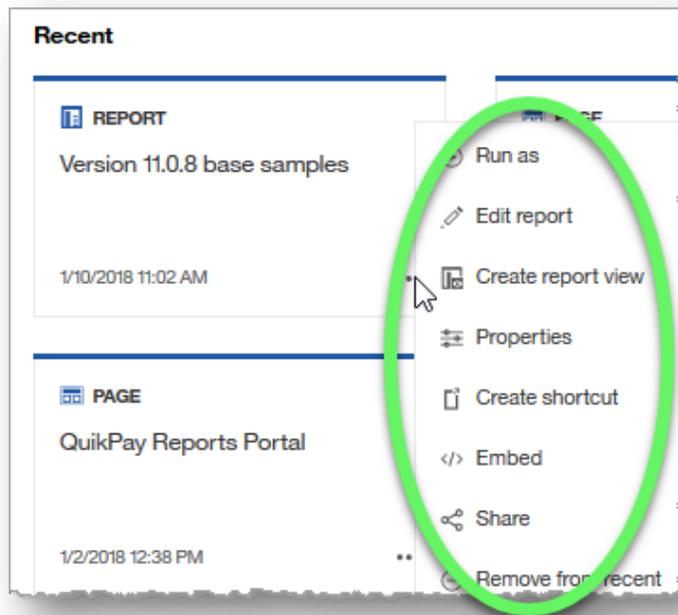
**End Access Content Panel topic.**

## Welcome screen

The Welcome screen is the default home screen unless and until you designate a new home screen, which we will examine in the next section of this topic.

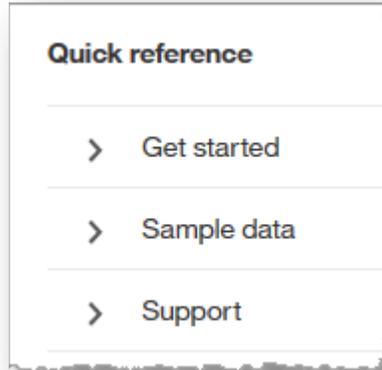
1. The **Recent** area displays tiles for the most recent content you've opened. It displays the type of content (report, page, etc.), the name of the content, the date and time it was viewed, and an Action menu.

Click the **Action menu button** (ellipses icon, lower right of tile) to reveal action items for the selected content.

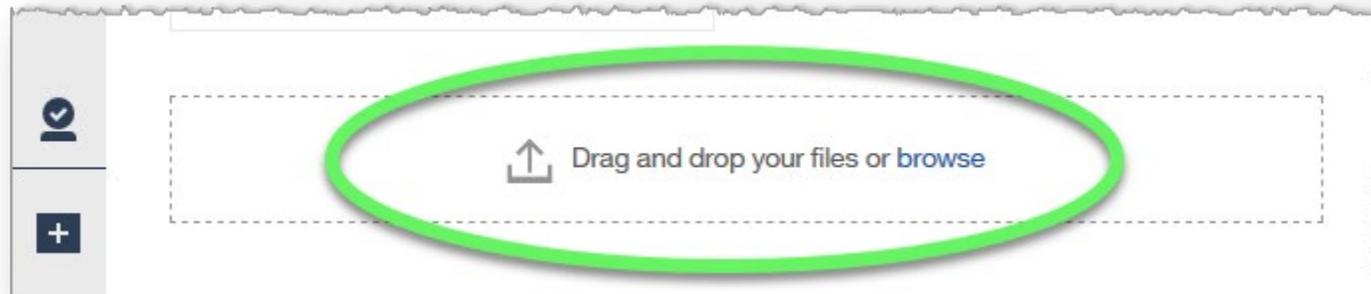


The listed action items vary depending upon the content type represented in the tile.

2. The **Quick reference** section provides links to help get you started in Cognos Analytics.



3. The **Drag and drop** feature usually appears at the bottom of the screen.

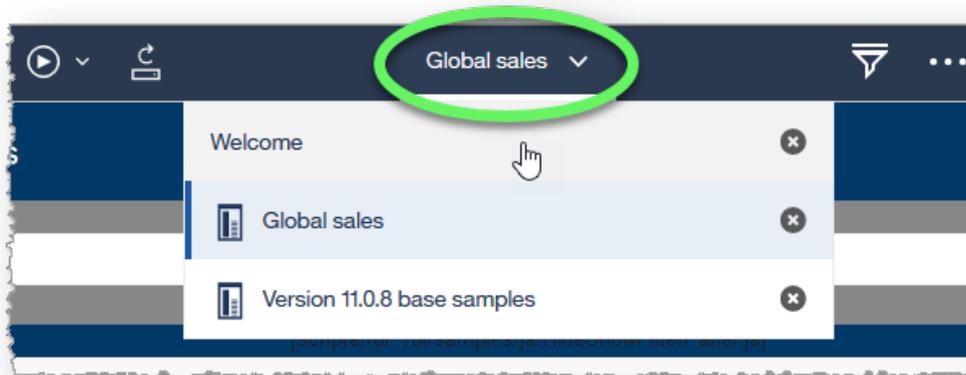


**End of Welcome screen topic.**

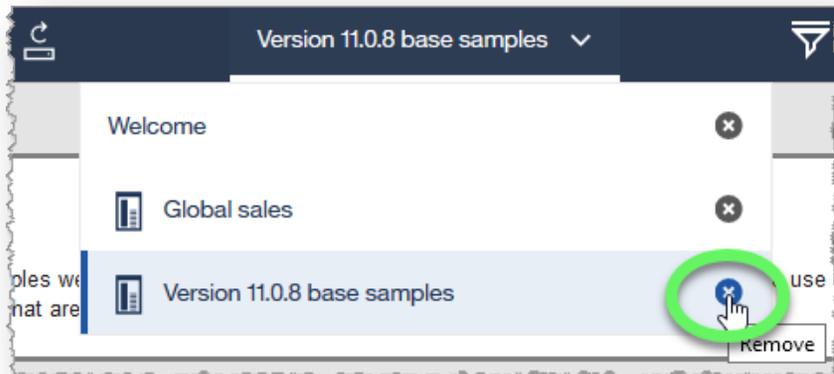
## Header bar

The buttons available on the header bar vary depending on the content you're viewing.

1. The **Switcher**, located at the top, center of the page, allows you to switch to other open content or back to your home screen, which is the Welcome page by default.



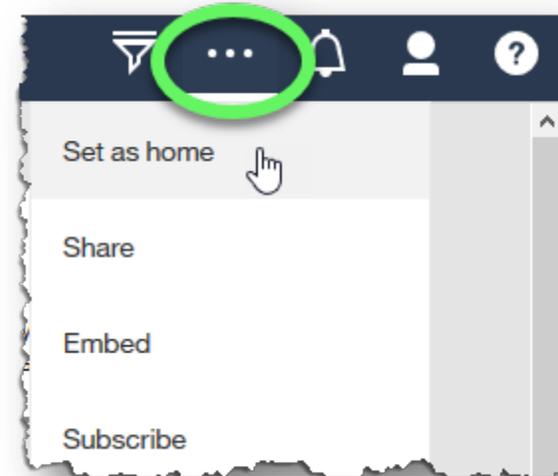
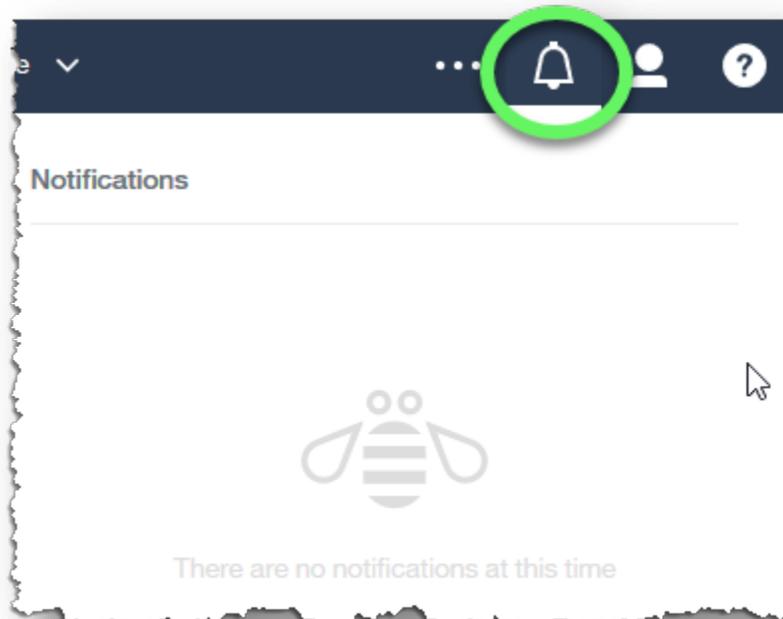
Click the x next to the name of content you wish to close.



- The **More** button (the ellipses icon in the upper right area of the page) displays options depending on the content you are currently viewing.

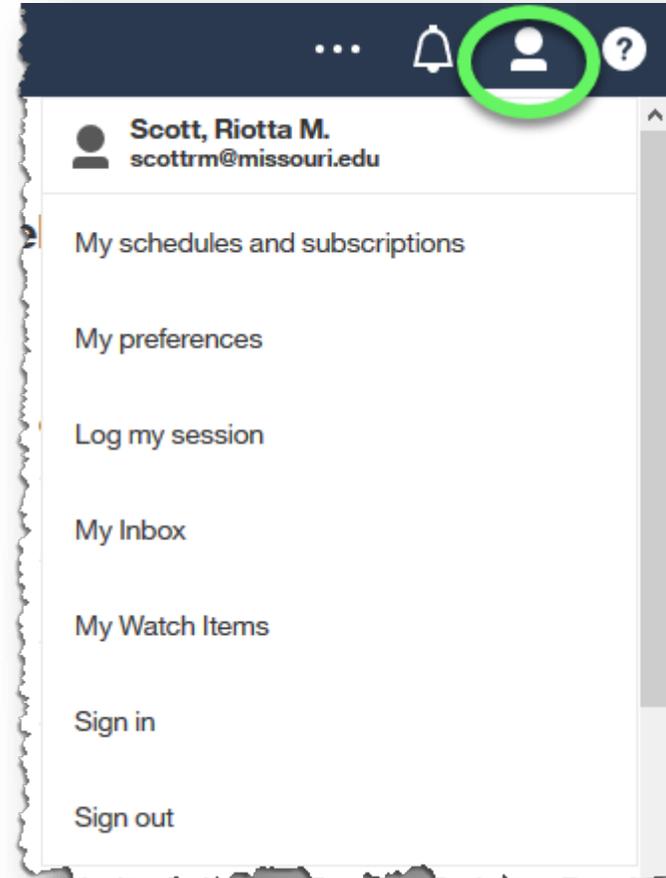
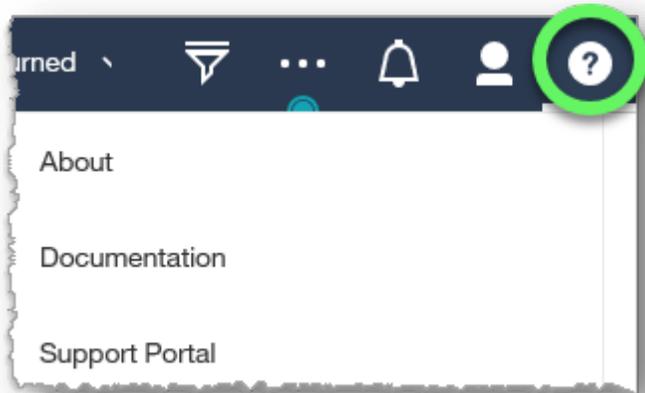
The **Set as home** item in the More menu allows you to set the current page as your home page, replacing the Welcome screen as home.

- The **Notifications button**, denoted by a bell icon, lists any Notifications you've received.



4. The **Personal menu** lists personal options like Preferences and access to your Inbox. It is also where you can sign in or out.

5. The **Help menu** displays options for information, help, and learning.



6. The following buttons appear on the header bar when some types of content are open:



**Save** (floppy disk icon) - This button can be expanded to choose 'Save as' or 'Save as report view'.



**Edit**  
(pencil icon)



**Undo and Redo**  
(curved arrow icons)



**Run** (circle with arrowhead icon)  
This button can be expanded to choose a run format.



**Refresh**  
(circular arrow over a bar icon)



**Filter**  
(funnel icon)



**Page views**  
(eye icon)



**Properties**  
(3 horizontal lines with dots)

**End of Header bar topic.**

**END OF PROCEDURE.**

**You have successfully navigated Cognos Analytics.**

# Creating and Formatting a List Report

A list report is a type of report that displays data as a series of tabular columns. Each column is one field, and each row is one record.

**DISCLAIMER:** The following demonstration is an example of applying formatting to a report. The formatting choices you apply to reports created with Cognos Analytics may not always correspond to this example.

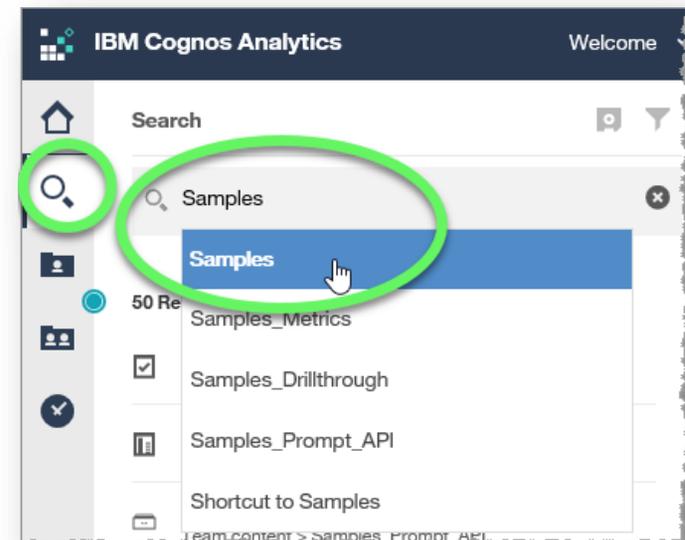
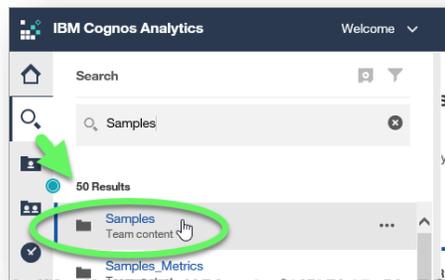
For report standardization, templates with extensive formatting can be built, saved, and then applied to the report pages and prompt pages to achieve a consistent look and feel.

For formatting instructions specific to your own reports, consult a department style guide.

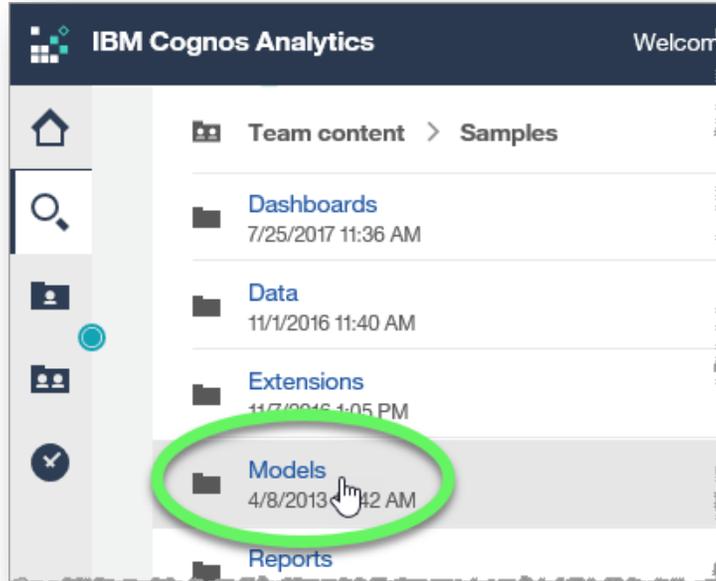
## Procedure A: Create a report using the Search feature

In this first procedure, we will create a report using the Search feature as a short cut.

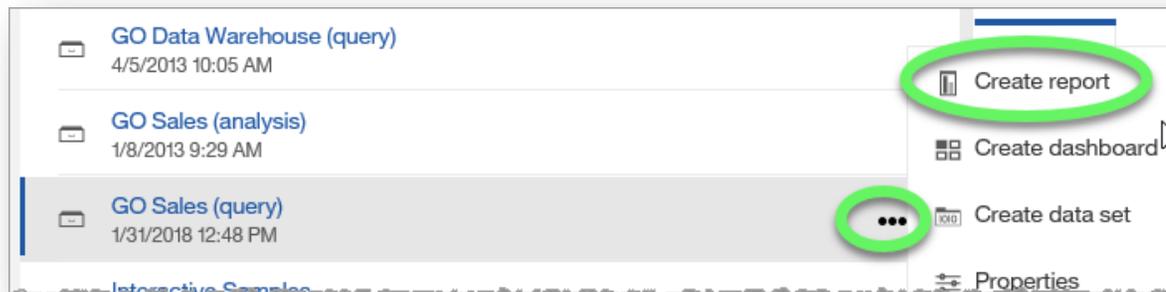
1. Expand the **Search** button and type the name of the content folder in which your data resides. For this training example, type **Samples** in the search field. Possible matches appear in a list below the field; click the appropriate match (in this example, **Samples**).
2. Search results based on your selection appear. Click the appropriate content link, which is **Samples** in this example.



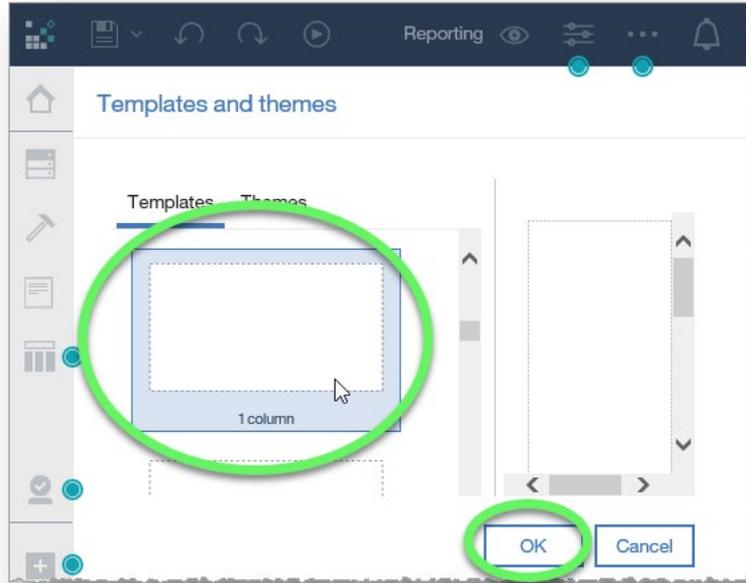
- The data we want to use is in the **Models** folder, so click Models in the Samples content menu.



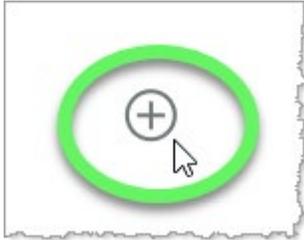
- Hover over the appropriate link in the Models menu, **GO Sales (query)** in this example, and click the **More** button (ellipses icon) when it appears on the right side of the link. Choose **Create report** from the options that appear.



5. The **Templates and themes** page opens. Select the **1 column** template and click the **OK** button.



6. A **Plus** icon appears in the right screen area. Skip to **Procedure B, Step 5** below to continue the process of creating a report.

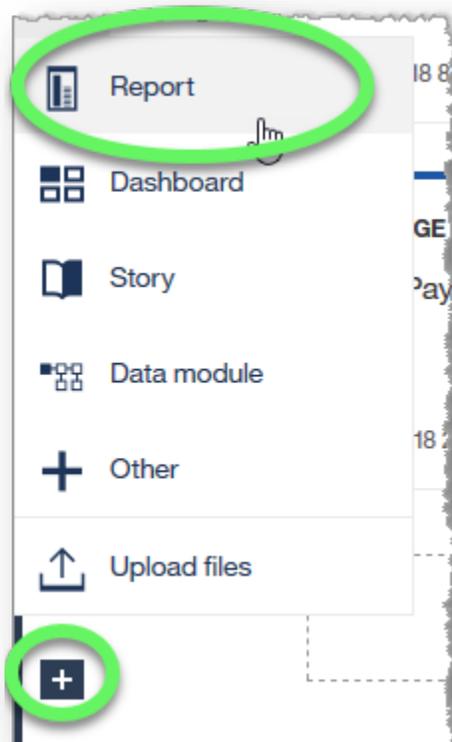


**End of Procedure A.**

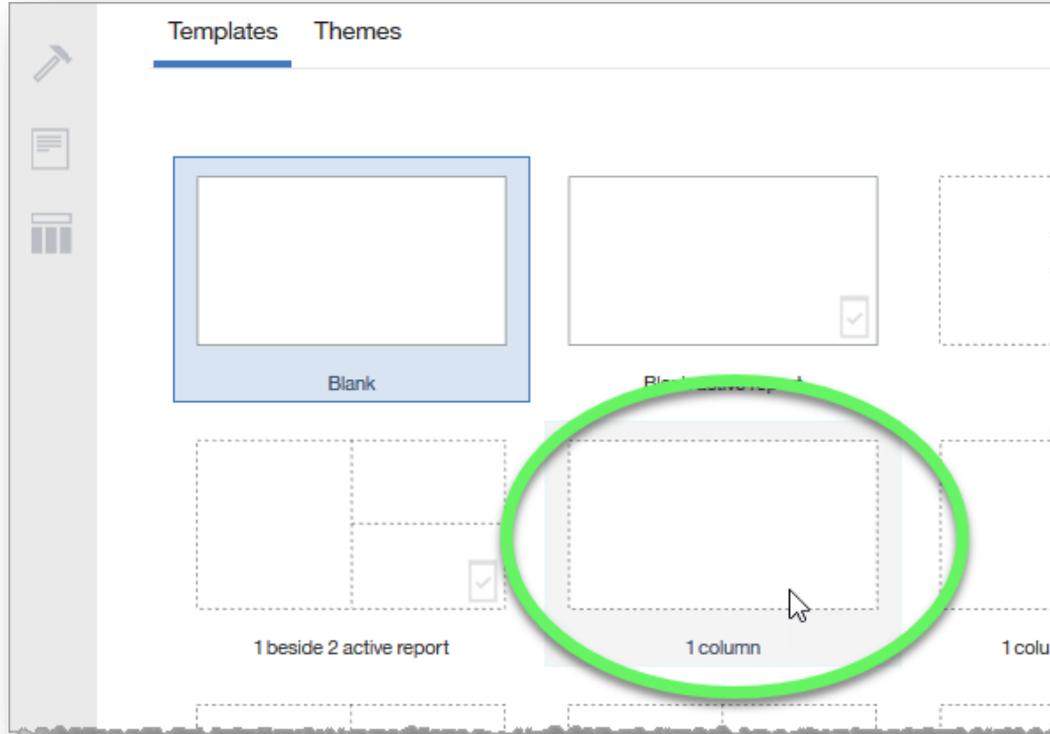
## Procedure B: Create a report by using the New button

The following procedure involves using the New button rather than using the Search feature shortcut outlined in Procedure A above. If you've completed the steps above, you may skip to step 5.

1. Click the **New** button at the bottom of the **Access Content** panel (left side of the screen) and select **Report** from the options that appear.



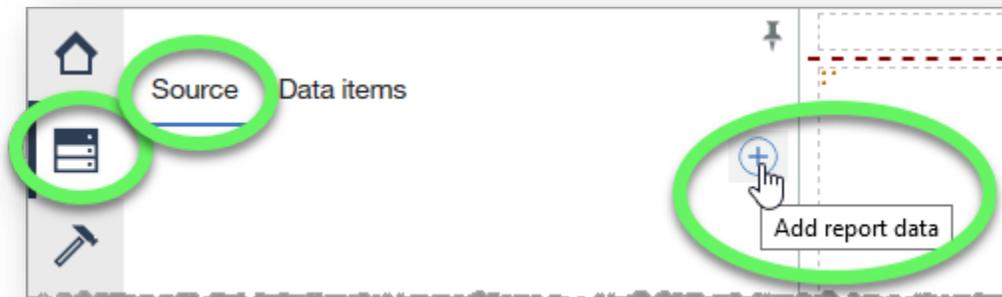
2. Select a template to work with. (In this example, we will use **1 column**.)



Click the **OK** button.

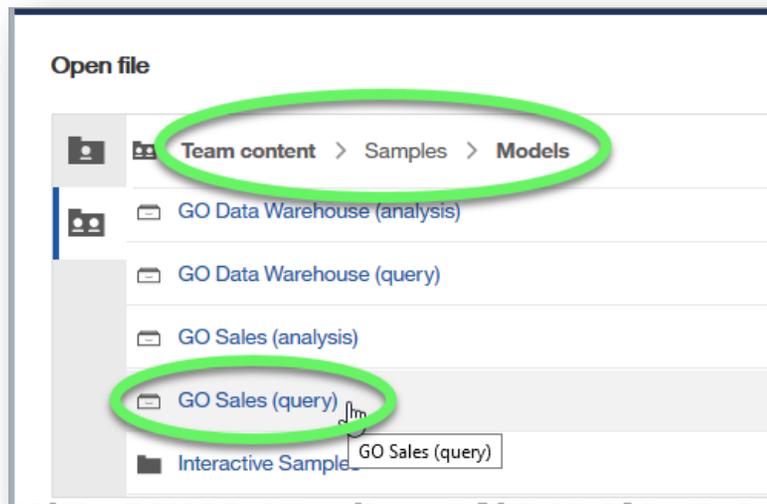


3. Choose a data source for the report. Expand the **Data** button on the Access Content panel if necessary, and click the **Add report data** button (circle plus icon).

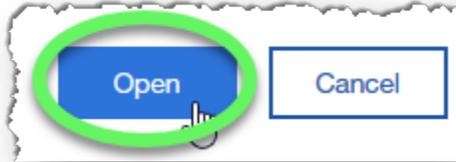


4. In the **Open file** dialog window, locate your data source.

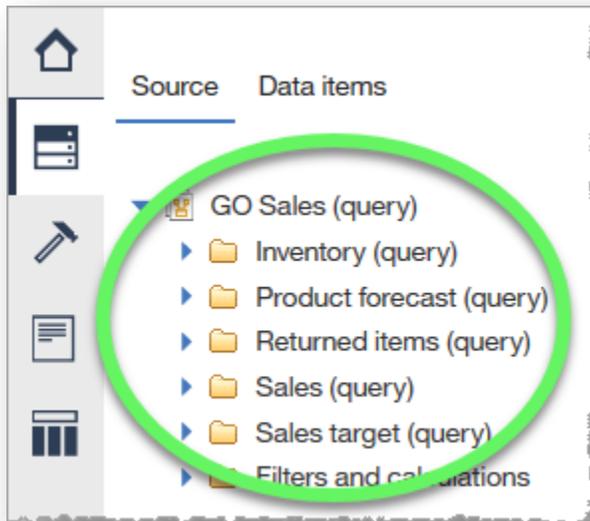
In this example we will use the **GO Sales (query)** sample content.



Click the **Open** button.

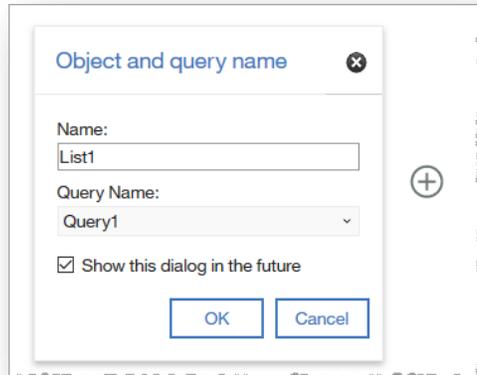


The data is displayed in the **Data** pane.



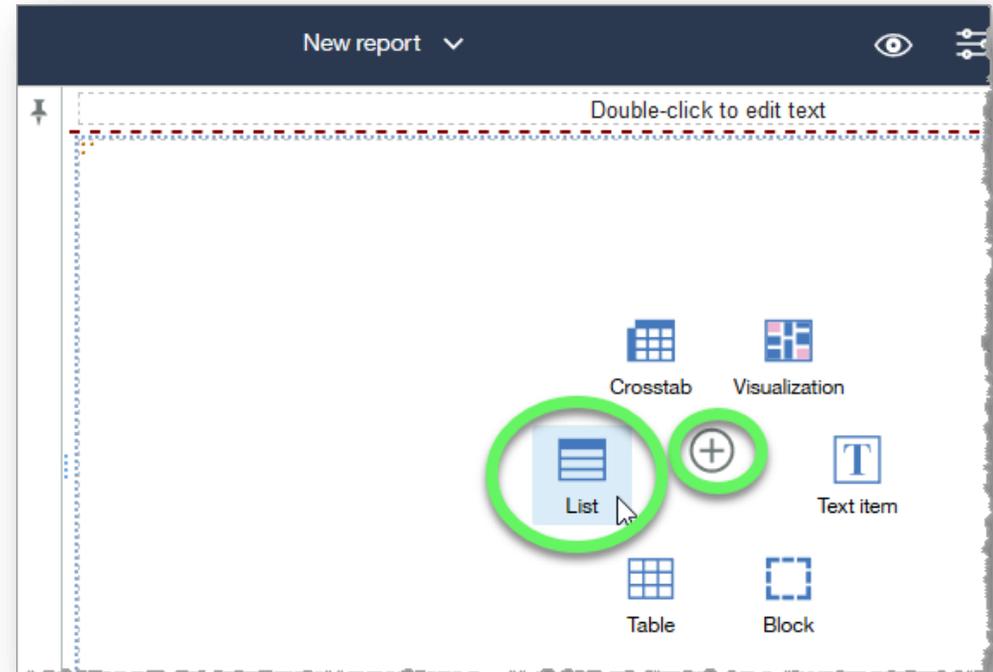
5. Choose a report type by clicking the plus icon in the table cell in the right pane of the screen, and then clicking the **List** icon when the options appear.

The **Object and query name** dialog window appears.



The dialog window titled "Object and query name" contains the following fields and options:

- Name: List1
- Query Name: Query1
- Show this dialog in the future
- Buttons: OK, Cancel



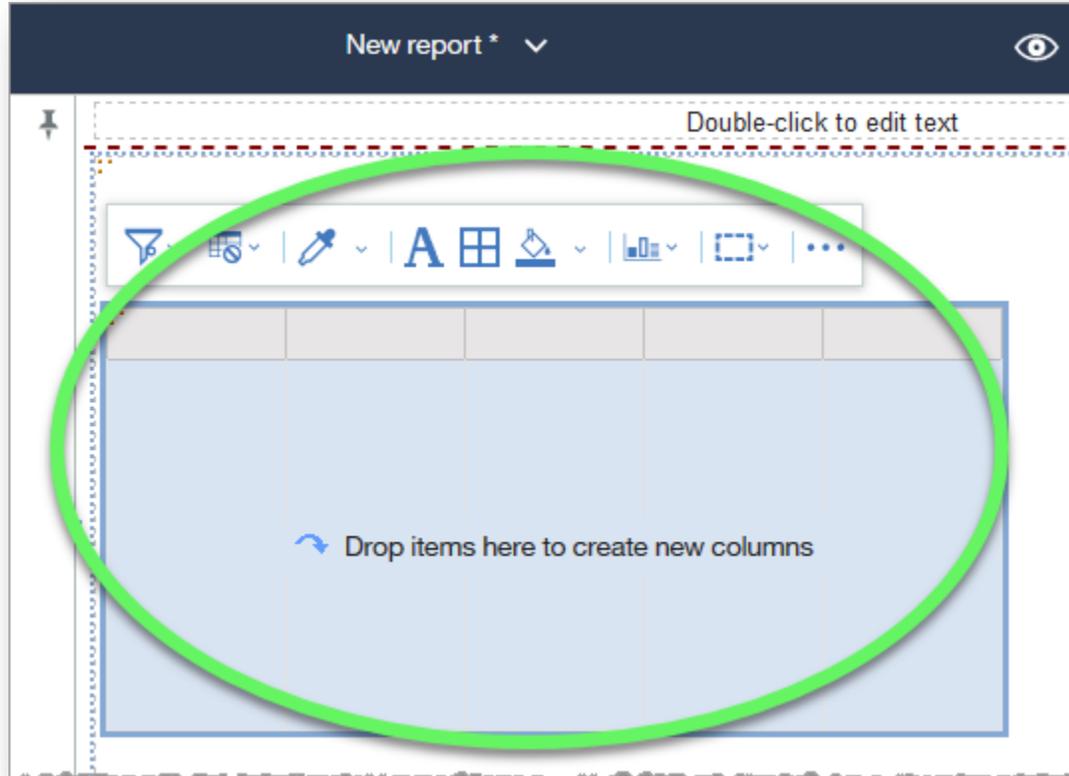
6. Type a name in the **Name** field. In this training example, we want to list all sales representatives by region and position, so we will name the list **Sales Reps**.

Click the **OK** button.



A close-up of the "Name:" field in the dialog window, showing the text "Sales Reps" entered and circled in green.

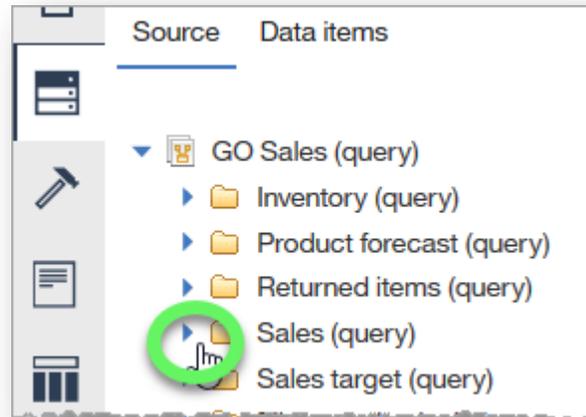
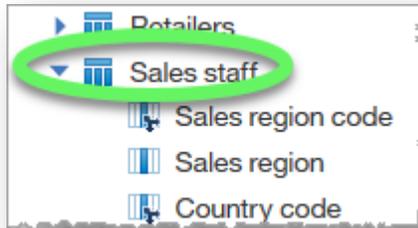
7. A drag-and-drop table appears, as well as a contextual toolbar, which is displayed whenever the table is selected.



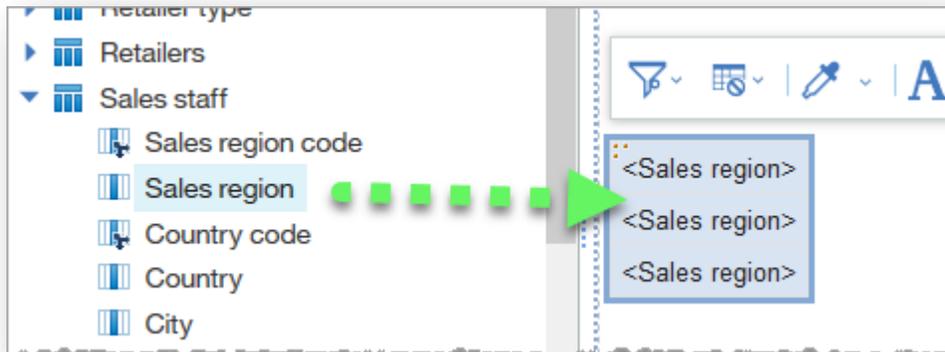
9. Add data to the table.

Click to expand **Sales (query)** in the data source pane.

Under **Sales (query)** expand **Sales staff**.

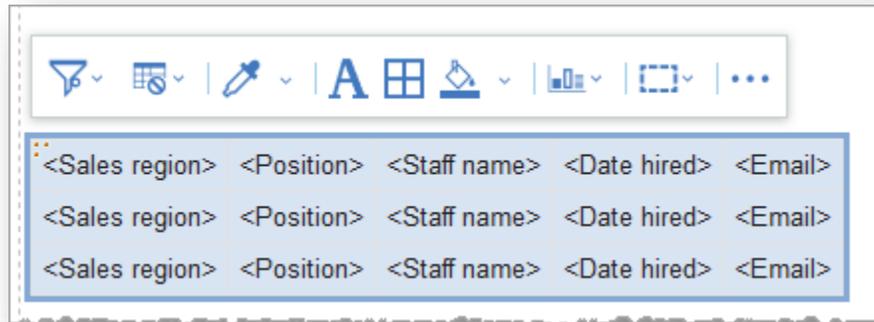


Double-click **Sales region** to add it to the table.



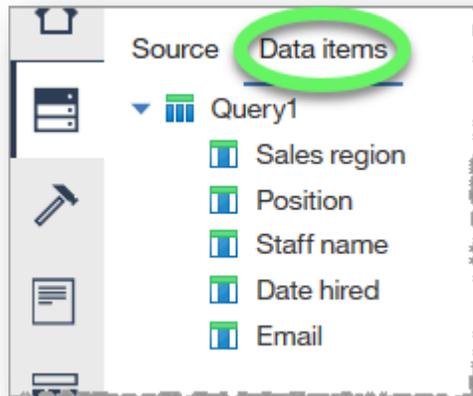
Add **Position**, **Staff name**, **Date hired**, and **Email**.

**Note:** In addition to double-clicking an item to add it to the table, you can right-click and choose **Insert**, or click, drag, and drop an item onto the table.



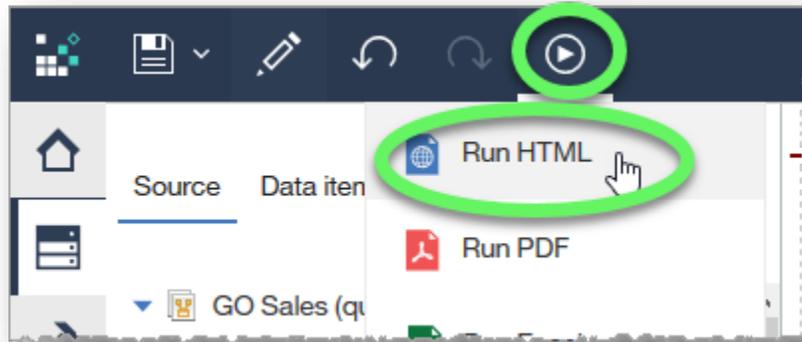
<Sales region>	<Position>	<Staff name>	<Date hired>	<Email>
<Sales region>	<Position>	<Staff name>	<Date hired>	<Email>
<Sales region>	<Position>	<Staff name>	<Date hired>	<Email>

10. Click the **Data items** tab to view the query you've created.

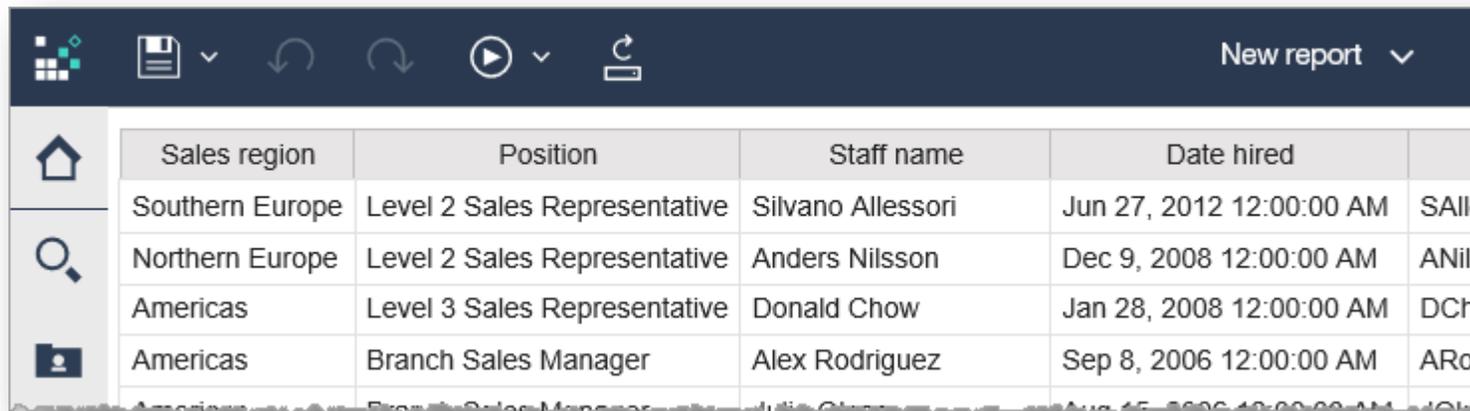


Click the **Source** tab to return to the full list of available data items.

11. Click the **Run options** button in the header bar to expand its options, and choose **Run HTML**.

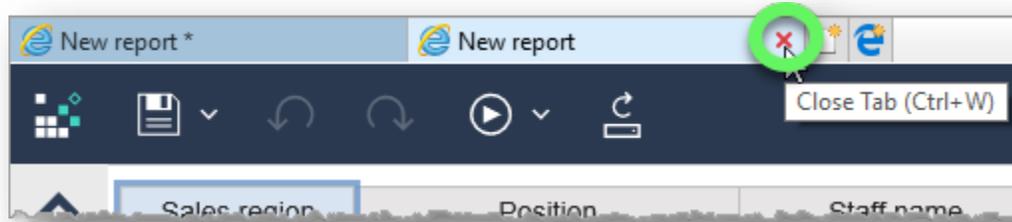


The report opens in a new tab.

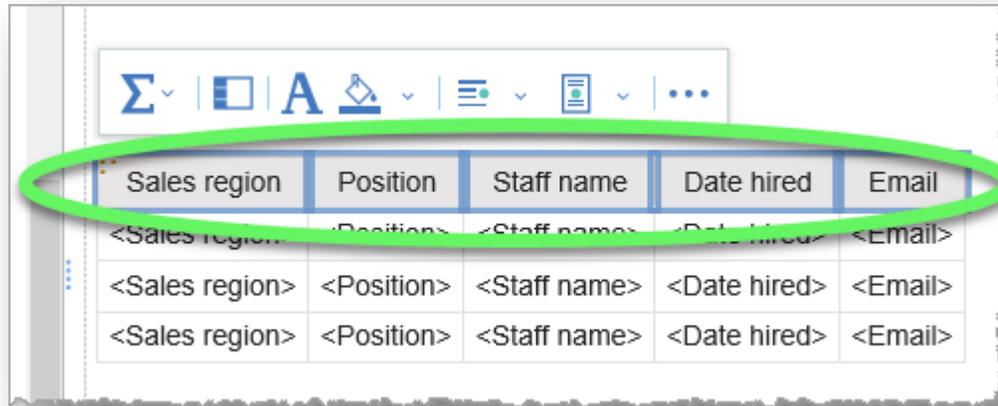


Sales region	Position	Staff name	Date hired	
Southern Europe	Level 2 Sales Representative	Silvano Alessori	Jun 27, 2012 12:00:00 AM	SAIle
Northern Europe	Level 2 Sales Representative	Anders Nilsson	Dec 9, 2008 12:00:00 AM	ANils
Americas	Level 3 Sales Representative	Donald Chow	Jan 28, 2008 12:00:00 AM	DChow
Americas	Branch Sales Manager	Alex Rodriguez	Sep 8, 2006 12:00:00 AM	ARod
Americas	Branch Sales Manager	Julia Ch...	Aug 15, 2006 12:00:00 AM	Julia

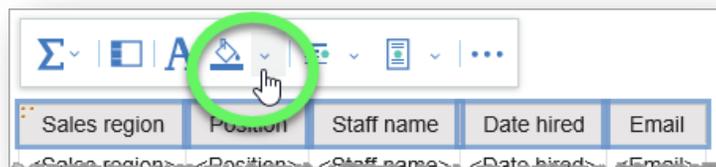
Observe that the report ran with the default formatting. **Close the new tab** in which the report was run; we will format the report next.



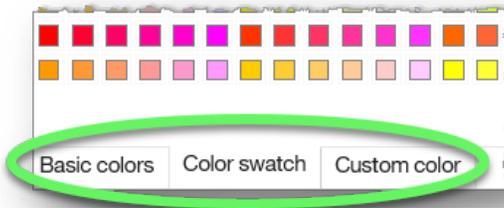
12. Select the cells in the header row in the List Report (select **Sales region** and then Shift-click **Email**). A blue border indicates that a cell is selected.



13. In the contextual toolbar, click the arrow beside the paint bucket icon to expand the **Background color options**.

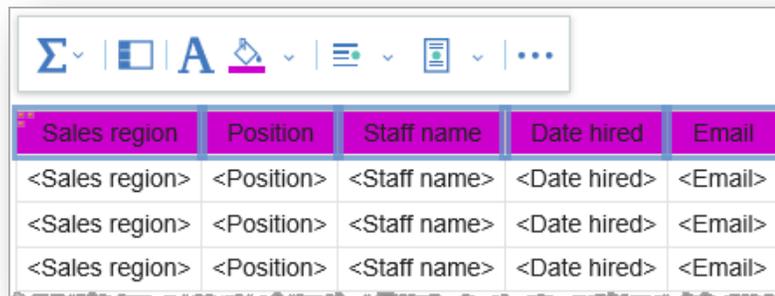


The **Background color options dialog window** has three tabs: **Basic colors** (16 common swatches), **Color swatch** (216 swatches), and **Custom color** (color ramp).

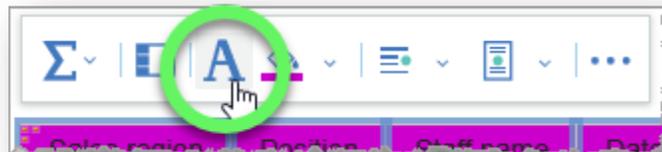


14. Click a color from any of the three options.

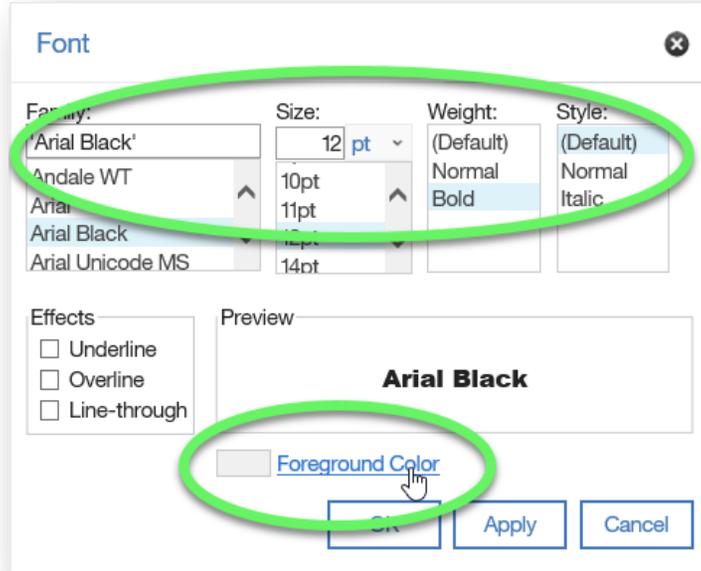
**Note:** If you choose a **Custom color**, you must click the **Apply** link once you've made your choice. If you click a color swatch from **Basic colors** or **Color swatch**, the dialog window closes, and the selected cells are painted with the chosen color.



15. With the header row cells still selected, click the **Font** button to open the Font dialog window.

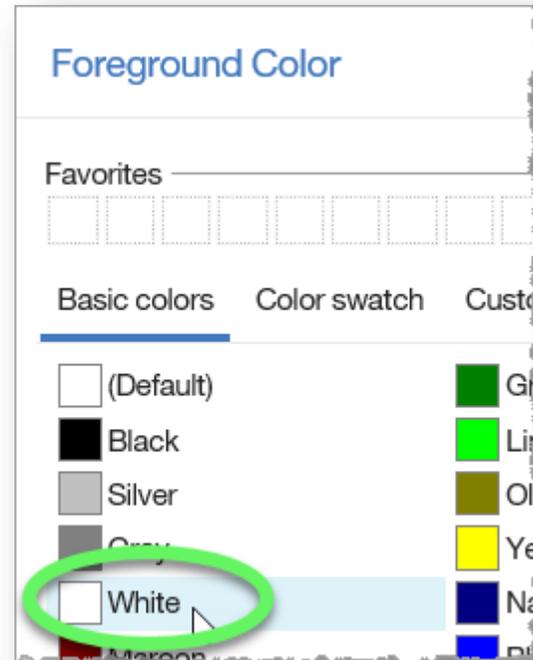


16. Choose options for font, size, etc., and then click the **Foreground Color** link.



17. In the **Foreground Color** dialog window, choose a color that contrasts well with your background color choice so that the headings are easily readable.

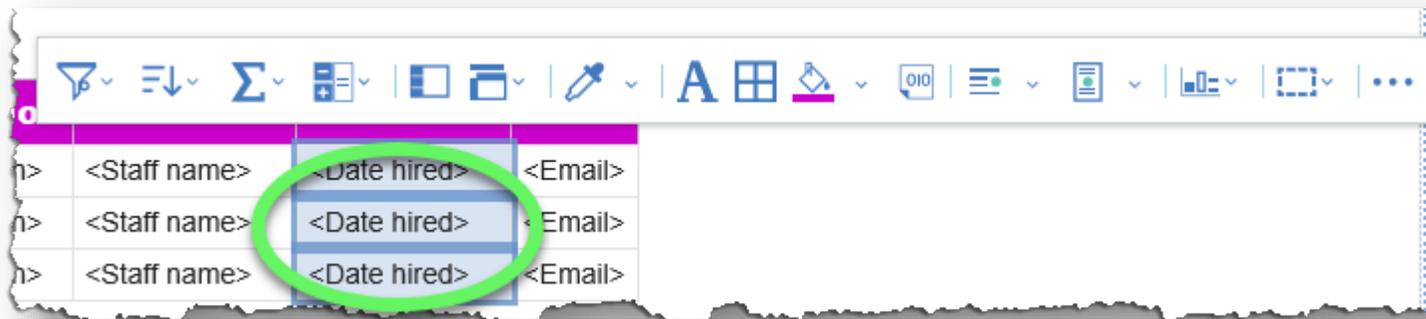
Click the **OK** button to close the Foreground Color window and return to the Font window.



18. Click the **OK** button on the **Font** window to close the dialog and return to the report.

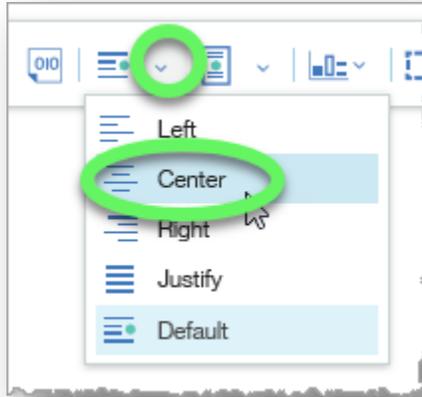


19. Click a cell under the **Date Hired** heading to select the data cells for that heading.

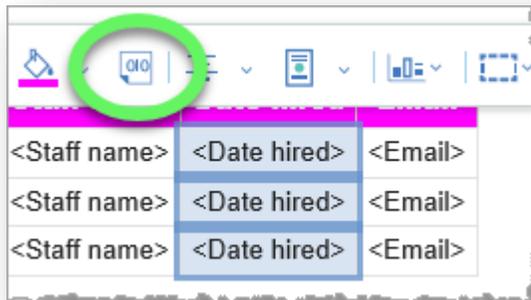


Note that the toolbar contains more options for data cells than heading cells. We will examine those options in later lessons.

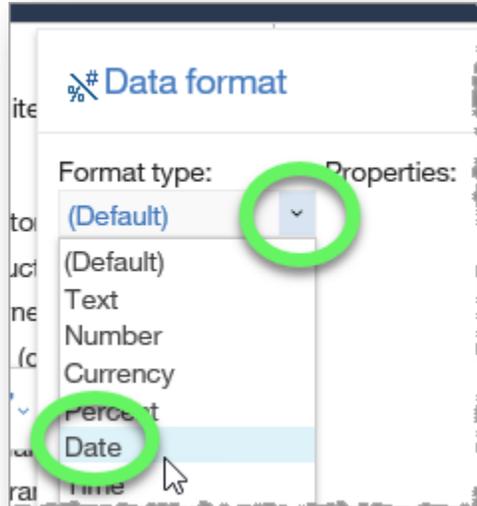
20. Expand the **Horizontal alignment options** list, and choose **Center**.



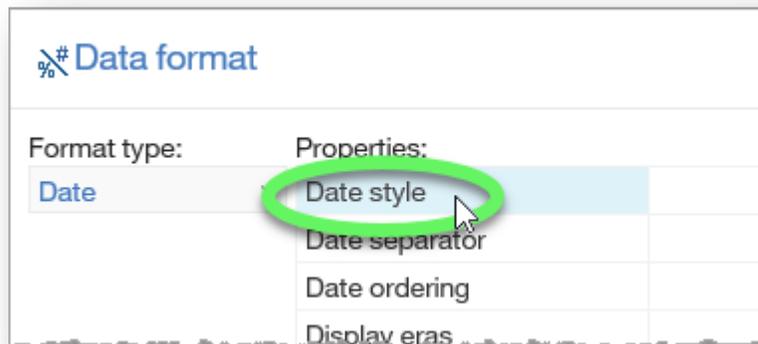
21. Click the **Data format** button (curled page icon with % symbol) in the contextual toolbar.



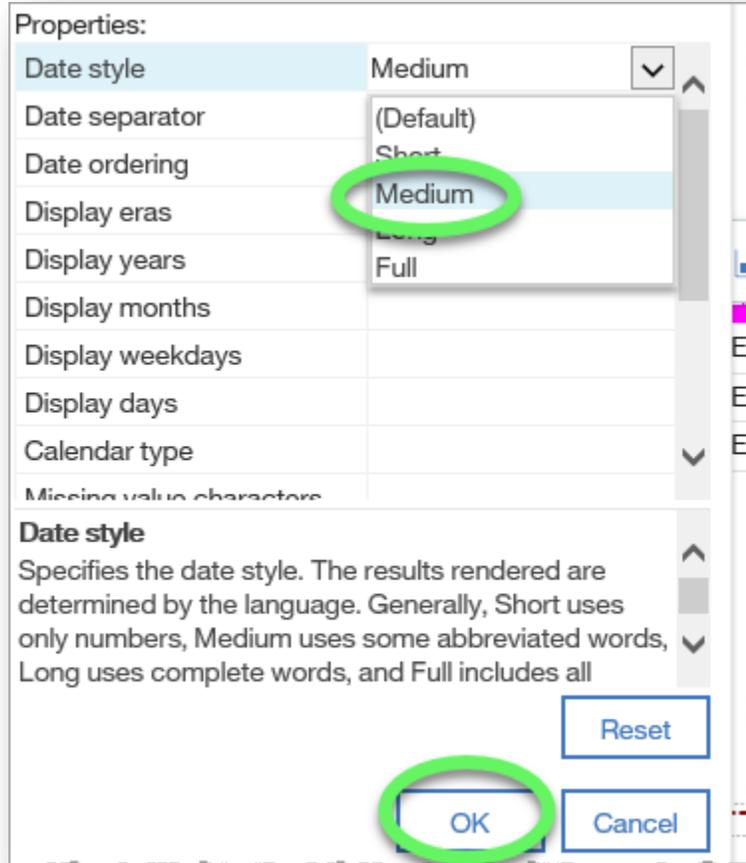
22. In the Data format dialog window, expand the **Format type** field and choose **Date**.



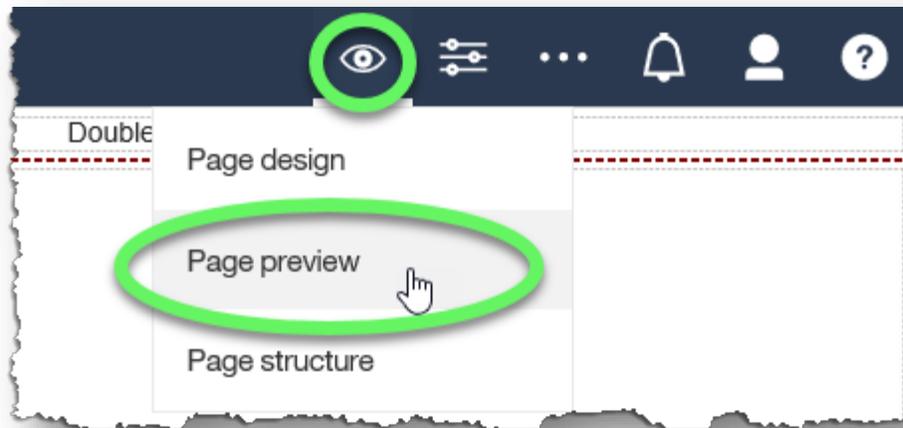
23. In the **Properties** field, choose **Date style**.



24. Expand the **Date style** options, select **Medium**, and click the **OK** button.



25. Rather than run the report again, we'll check our results by changing the Page view. Click the **Page views** (eye) icon on the right side of the header bar to expand its options, and then click **Page preview**.



26. The Hire dates are center aligned in the chosen date format.

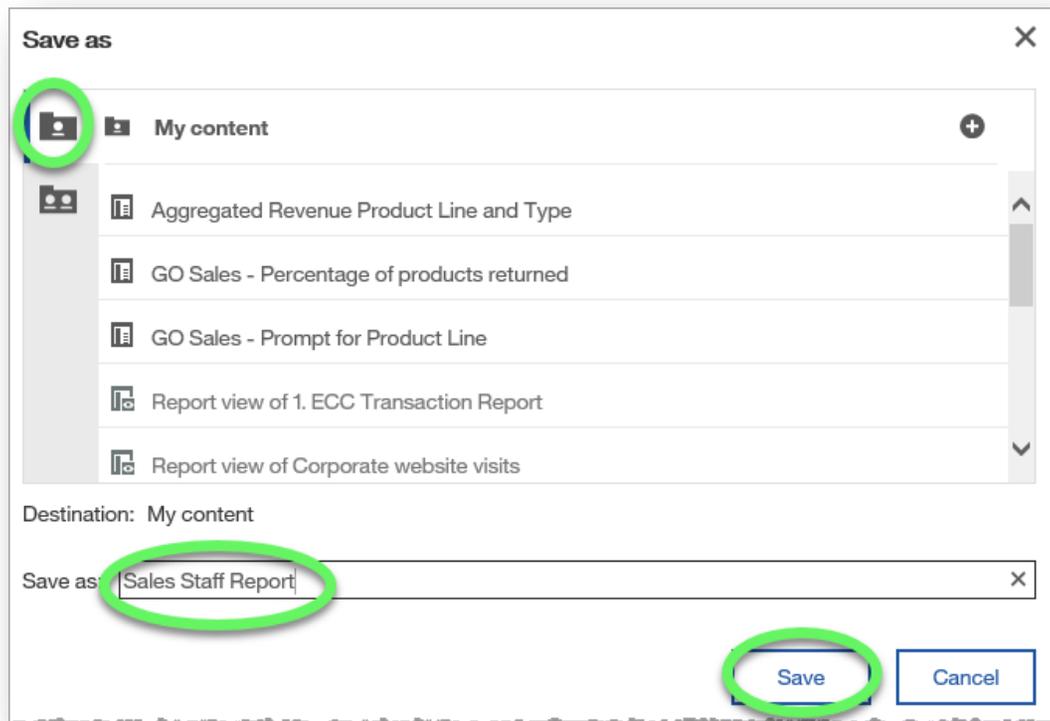
A screenshot of a report table with a pink header. The table has three columns: "Staff name", "Date hired", and a third column (partially visible). The "Date hired" column is highlighted with a green circle. The data rows are as follows:

Staff name	Date hired	
Silvano Alessori	Jun 27, 2012	SAlles
Anders Nilsson	Dec 9, 2008	A Nilsson
Donald Chow	Jan 28, 2008	D Chow
Alex Rodriguez	Sep 8, 2006	A Rodriguez
Julie Olsen	Aug 15, 2006	J Olsen
Kwei-Ping Kao	Jan 8, 2007	KKao@
Walter Taylor	Oct 10, 2008	WTaylor

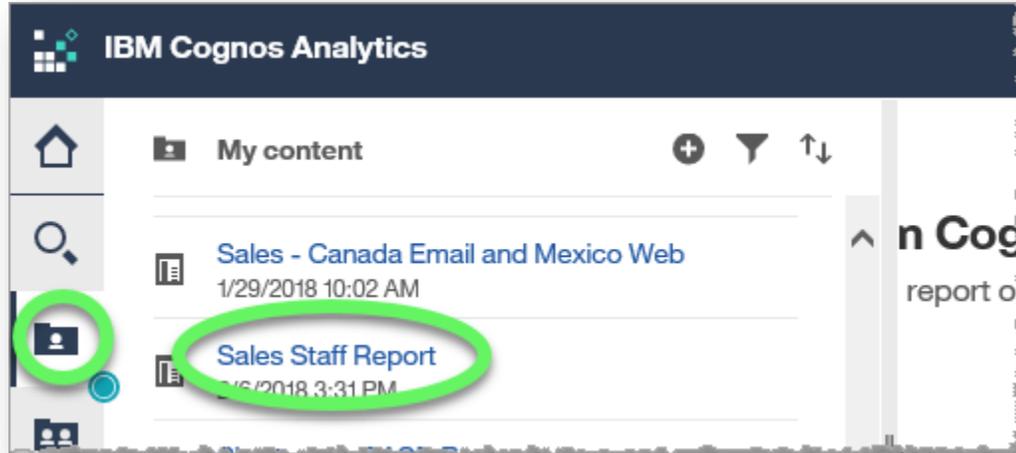
27. Click the **Save** button to save your report.



28. In the **Save as** dialog window, click the **My content** icon, type a name for the report in the **Save as** field, and click the **Save** button.



29. Hereafter, the report can be quickly accessed in **My content**.



**END OF PROCEDURE.**

**You have successfully created and formatted a List Report.**

# Sorting Lists

The ability to sort lists is important, especially with large reports. Cognos Analytics makes it very easy to sort by the information in a column.

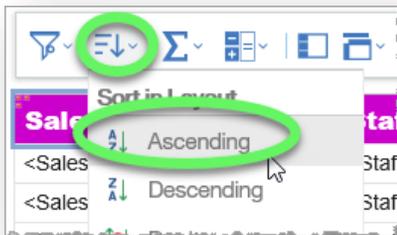
## Procedure:

In this exercise, we will sort the Sales Rep report we created in the previous procedure by Sales Region.

1. With the report you created in the previous lesson open in **Page design view**, click the **Sales region** heading to reveal the contextual toolbar.



2. Click the **Sort** icon to expand its options and click **Ascending** to sort the sales regions alphabetically from A to Z.



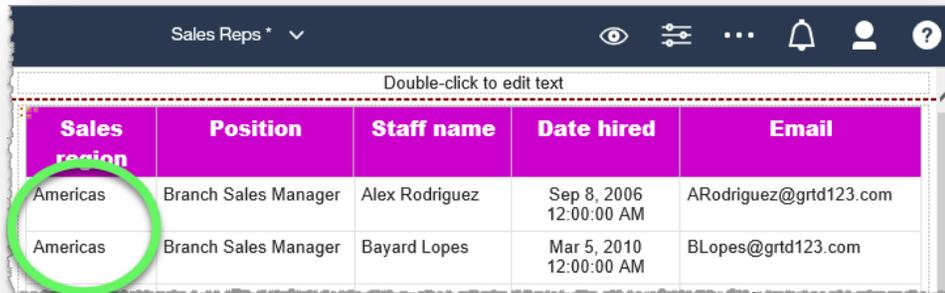
Observe that the Sales region heading now has an upward-pointing arrowhead icon to the right of its title, indicating that the column is sorted in Ascending order.



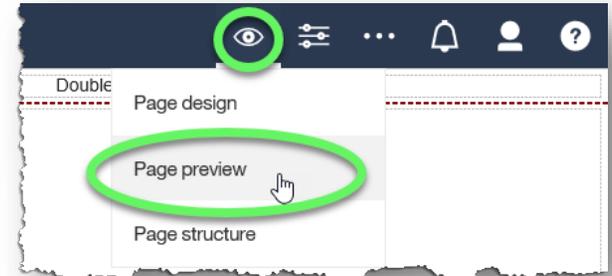
3. Rather than run the report again, we'll check our results by changing the Page view.

Click the **Page views** (eye) icon on the right side of the header bar to expand its options, and then click **Page preview**.

Observe that the **Sales region** column is sorted with "Americas" appearing first but note that the arrowhead icon is gone.



Sales region	Position	Staff name	Date hired	Email
Americas	Branch Sales Manager	Alex Rodriguez	Sep 8, 2006 12:00:00 AM	ARodriguez@grtd123.com
Americas	Branch Sales Manager	Bayard Lopes	Mar 5, 2010 12:00:00 AM	BLopes@grtd123.com



4. To change the sort order to Descending, click the column heading to activate the contextual menu and change the sort using the Sort feature. This can be done in either Page preview or Page design view, and will remain when switching between views.
5. If you want to sort by a different column, expand the sort options on the currently-sorted column and choose **Don't sort** before applying a sort order to another column.

#### END OF PROCEDURE.

You have successfully sorted a list.

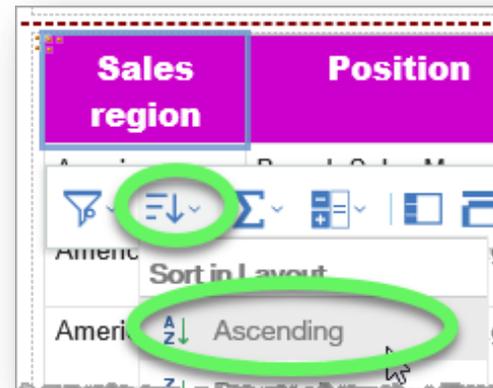
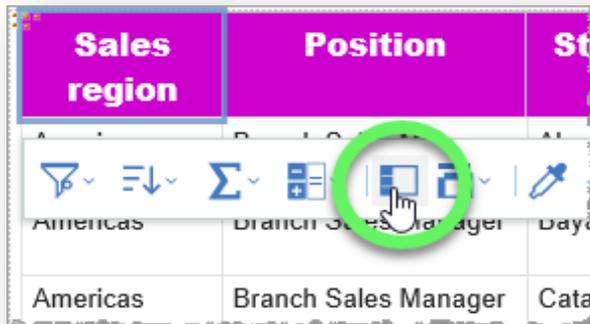
# Grouping Lists

Grouping lists is another feature that makes it easier to locate and read specific data in a report.

## Procedure

In this exercise, we will group the data in the **Sales Reps** report that we created in the *Creating List Reports* procedure by Sales Region and by Position. We will work in **Page preview** to see our results instantly, but you can apply grouping in **Page design** view as well.

1. Sort the column that you wish to group in either Ascending or Descending order.
2. With the **Sales region** column heading still selected, click the **Group/Ungroup** button. Since the column is not yet grouped, this action will group identical data in the column.



4. The **Sales Region** column displays **Americas** only once now that it is grouped.

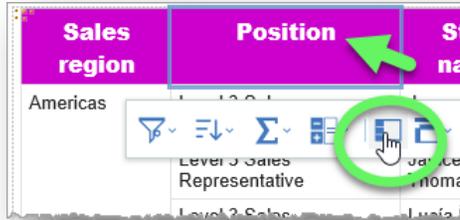
Use the page controls located under the report to confirm that the various Sales regions have been appropriately grouped.



Sales region	Position	Staff name	Date hired	Email
Americas	Branch Sales Manager	Alex Rodriguez	Sep 8, 2006 12:00:00 AM	ARodriguez@grtd123.com
	Branch Sales Manager	Bayard Lopes	Mar 5, 2010 12:00:00 AM	BLopes@grtd123.com
	Branch Sales Manager	Catarina Couto	Nov 5, 2008 12:00:00 AM	CCouto@grtd123.com
	Branch Sales Manager	Corey Wright	Jan 22, 2008 12:00:00 AM	CWright@grtd123.com
	Branch Sales Manager	Georges Saint-Germain	Sep 5, 2007 12:00:00 AM	GSaint-Germain@grtd123.com
	Branch Sales Manager	Gepetto Perez	Jul 29, 2009 12:00:00 AM	GPerez@grtd123.com
	Branch Sales Manager	Julie Olsen	Aug 15, 2006 12:00:00 AM	JOlsen@grtd123.com

Page controls: [Top](#) [Page up](#) [Page down](#) [Bottom](#)

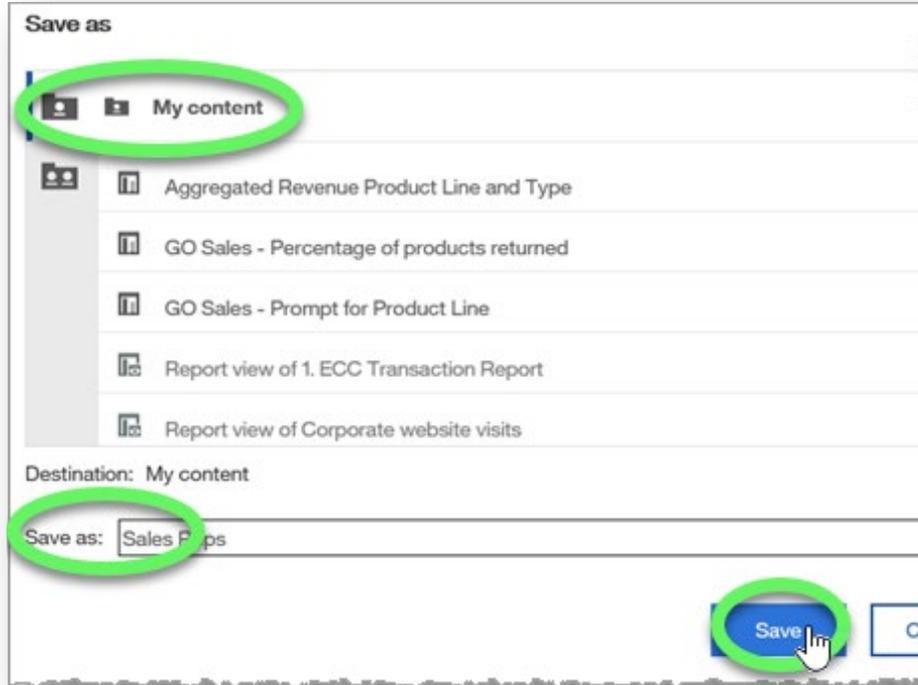
5. Select the **Position** column heading and click the **Group/Ungroup** button to group the positions within each sales region.



Observe that the report is still grouped by **Sales region**, and that **Positions** within each sales region are appropriately grouped as well.

Sales region	Position	Staff name	Date
Americas	Branch Sales Manager	Alex Rodriguez	Sep 8, 2006 1
		Bayard Lopes	Mar 5, 2010 1
		Catarina Couto	Nov 5, 2008 1
		Corey Wright	Jan 22, 2008
		Georges Saint-Germain	Sep 5, 2007 1
		Gepetto Perez	Jul 29, 2009 1
		Julie Olsen	Aug 15, 2006 1
		Sally White	Mar 4, 2009 1
		Samantha Floyd	May 2, 2006 1
	Level 1 Sales Representative	Anna Valdez	Aug 10, 2011 1
		Beatriz Couto	Mar 15, 2010
		Brendon Pike	Feb 24, 2009
		Carole Claudel	Jan 2, 2010 1
		Elaine Varney	Nov 17, 2009 1
		Harold Germaine	Apr 18, 2009 1

6. As always, click the **Save** button and save your report in **My content**.



**END OF PROCEDURE.**

**You have successfully grouped lists.**

# Aggregating Lists

Aggregating data makes it possible to examine trends, make comparisons, and reveal information and insights that would be difficult to discern if viewing the data elements in isolation.

## Procedure

In this example, we will aggregate data to view average revenue data by product line and type.

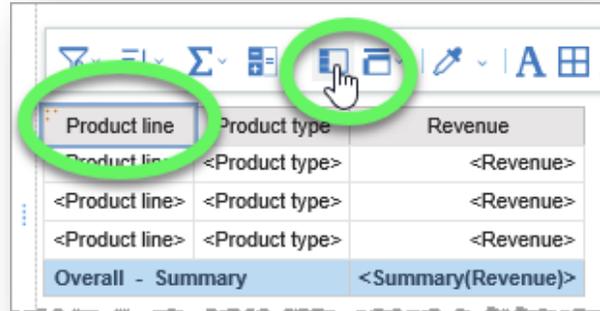
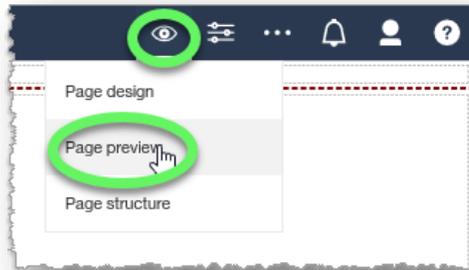
1. Create a list report from the sample GO Sales (query): Sales (query) data that includes **Product line** and **Product type** (from the Products data item), and **Revenue** (from the Sales data item).

The screenshot displays the Cognos Analytics interface. On the left, the 'Data items' pane shows a hierarchical tree structure. Under 'GO Sales (query)', there are sub-items for 'Inventory (query)', 'Product forecast (query)', 'Returned items (query)', and 'Sales (query)'. The 'Sales (query)' item is expanded, showing a list of data items: 'Quantity', 'Unit cost', 'Unit price', 'Unit sale price', 'Revenue', 'Product cost', 'Gross profit', and 'Planned revenue'. The 'Revenue' item is highlighted. On the right, a preview window shows a table with three columns: 'Product line', 'Product type', and 'Revenue'. The table contains three rows of placeholder text: '<Product line>', '<Product type>', and '<Revenue>'. A green oval highlights the table preview.

Product line	Product type	Revenue
<Product line>	<Product type>	<Revenue>
<Product line>	<Product type>	<Revenue>
<Product line>	<Product type>	<Revenue>
Overall - Summary		<Summary(Revenue)>

2. Select the **Product line** column header and click the **Group/Ungroup** button.

Change the page view to **Page preview**.



The data are grouped by Product line, but we need to also group them by **Product type**.

Product line	Product type	Revenue
Camping Equipment	Cooking Gear	\$272,835,984.18
	Lanterns	\$126,925,660.64
	Packs	\$351,880,402.84
	Sleeping Bags	\$309,172,888.35
	Tents	\$528,221,728.02
<b>Camping Equipment - Summary</b>		<b>\$1,589,036,664.03</b>
Golf Equipment	Golf Accessories	\$51,514,343.88
	Irons	\$254,814,337.99
	Putters	\$106,184,271.37
	Woods	\$313,898,414.65
<b>Golf Equipment - Summary</b>		<b>\$726,411,367.89</b>
Mountaineering Equipment	Climbing Accessories	\$81,096,582.48

3. Select the **Product type** column header and click the **Group/Ungroup** button.

Product line	Product type	Revenue
Camping Equipment		\$370,835,884.18
	Packs	\$351,880,402.84

4. Select the **Revenue** column header and click the **Summarize** button in the contextual toolbar to expand its options.

Product line	Product type	Revenue
Camping Equipment	Cooking Gear	\$351,880,402.84
	Lanterns	
	Packs	\$351,880,402.84
	Sleeping Bags	\$309,172,888.35

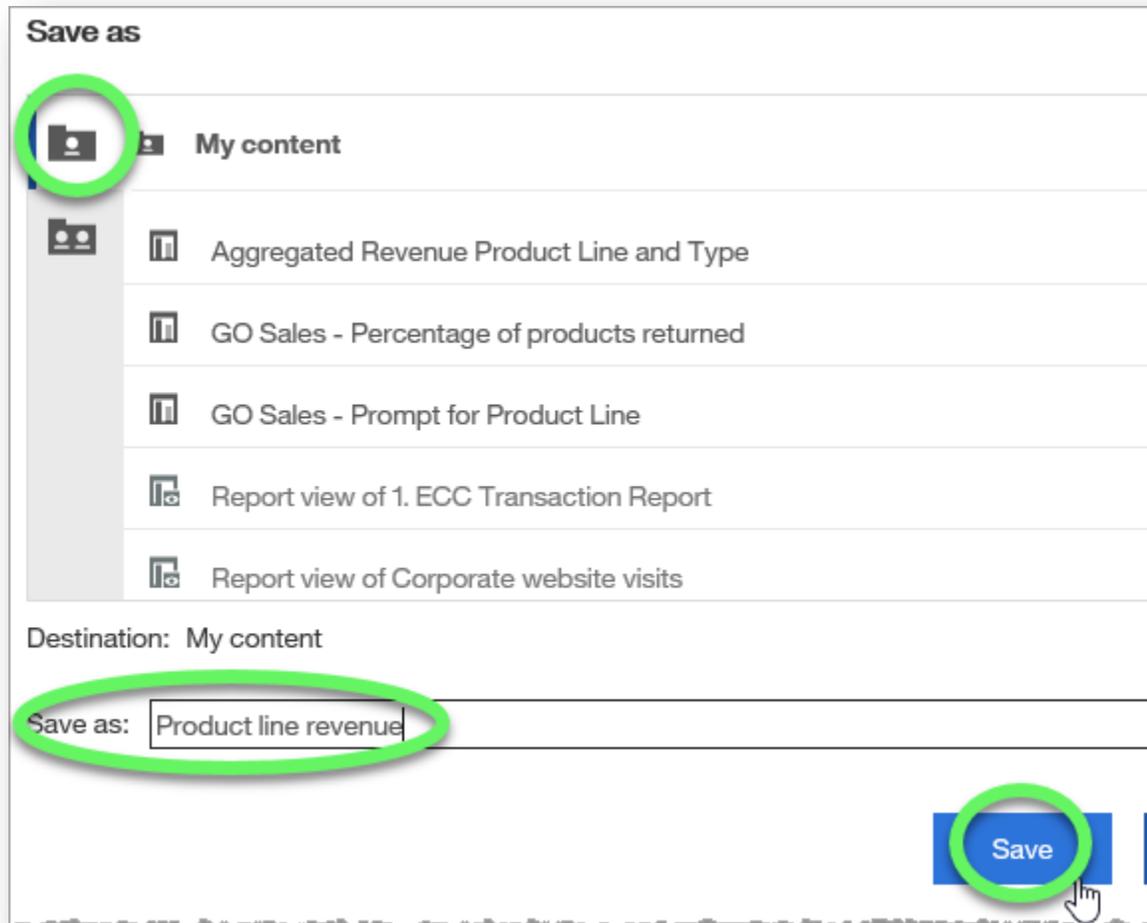
Choose **Average**.

Product line	Product type	Revenue
Camping Equipment	Cooking Gear	\$370,835,884.18
	Lanterns	
	Packs	\$351,880,402.84
	Sleeping Bags	\$309,172,888.35
	Tents	\$528,221,721.18
<b>Camping Equipment - Summary</b>		<b>\$1,589,036,663.55</b>
Golf Equipment	Golf Accessories	\$51,514,341.18
	Irons	\$254,814,341.18
	Putters	\$106,184,271.18
	Woods	\$313,898,411.18

5. The report displays the average data as required.

Product line	Product type	Revenue
Camping Equipment	Cooking Gear	\$272,835,984.18
	Lanterns	\$126,925,660.64
	Packs	\$351,880,402.84
	Sleeping Bags	\$309,172,888.35
	Tents	\$528,221,728.02
<b>Camping Equipment - Summary</b>		<b>\$1,589,036,664.03</b>
<b>Camping Equipment - Average</b>		<b>\$317,807,332.81</b>
Golf Equipment	Golf Accessories	\$51,514,343.88
	Irons	\$254,814,337.99
	Putters	\$106,184,271.37
	Woods	\$313,898,414.65
<b>Golf Equipment - Summary</b>		<b>\$726,411,367.89</b>
<b>Golf Equipment - Average</b>		<b>\$181,602,841.97</b>
Mountaineering Equipment	Climbing Accessories	\$81,096,582.48

6. As always, click the **Save** button and save your new report in **My content**.



**END OF PROCEDURE.**

**You have successfully aggregated lists.**

# Applying Conditional Formatting

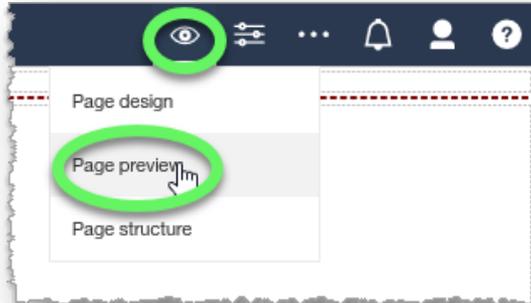
Conditional formatting enables you to highlight exceptional data and draw attention to specific rows.

In this training example, Marketing wants to determine which sales regions have generated the most monthly revenue over the years. They would like to see, at a glance, any region that generated over \$15 million in any given month. We will use conditional formatting to highlight the specific data that Marketing wants to see.

1. Create a report from the sample GO Sales (query): Sales (query) data that includes **Year** and **Month** (from the Time data item), **Sales region** (from the Sales staff data item), and **Revenue** (from the Sales data item).

Year	Month	Sales region	Revenue
<Year>	<Month>	<Sales region>	<Revenue>
<Year>	<Month>	<Sales region>	<Revenue>
<Year>	<Month>	<Sales region>	<Revenue>
Overall - Summary			<Summary(Revenue)>

2. Change the page view to **Page preview** so that we can see our results instantly.



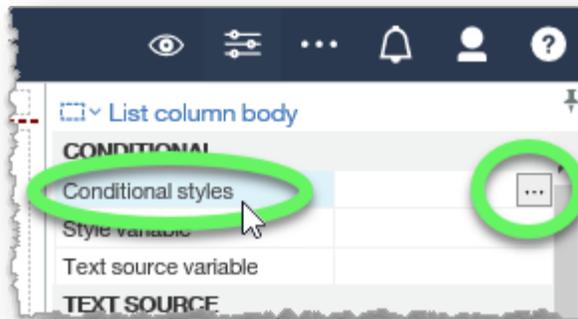
3. Select the cells in the **Revenue** column.

Year	Month	Sales region	Revenue
2010	November	Americas	\$15,062,701.86
2011	July	Americas	\$18,903,026.21
2011	September	Americas	\$19,593,162.26
2012	December	Americas	\$25,996,212.79
2012	November	Americas	\$24,500,780.36
2013	June	Americas	\$32,533,800.61
2012	October	Asia Pacific	\$4,366,940.13
2011	September	Asia Pacific	\$17,057,095.04

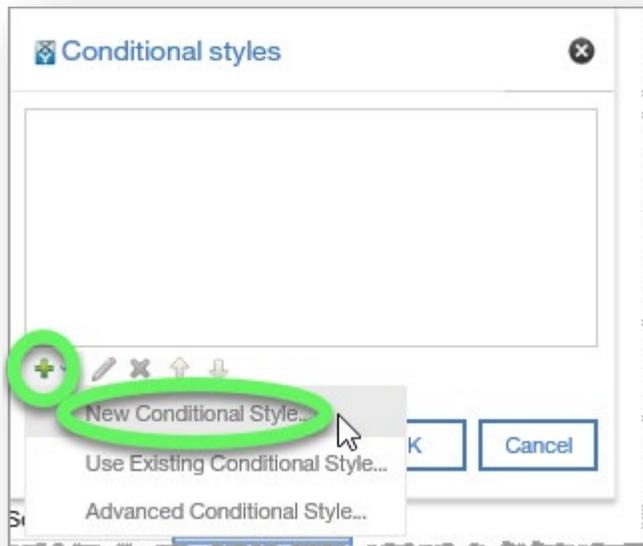
4. Click the **Show properties** button on the right side of the header bar to open the **Properties** pane.



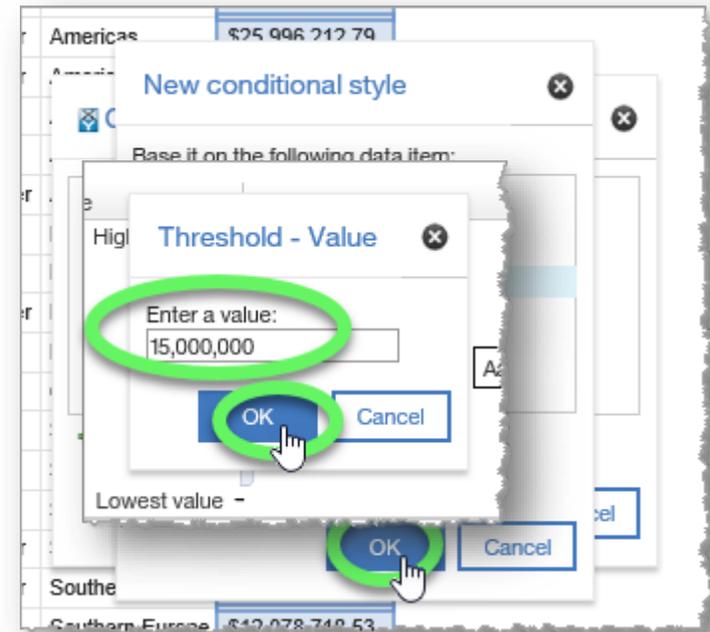
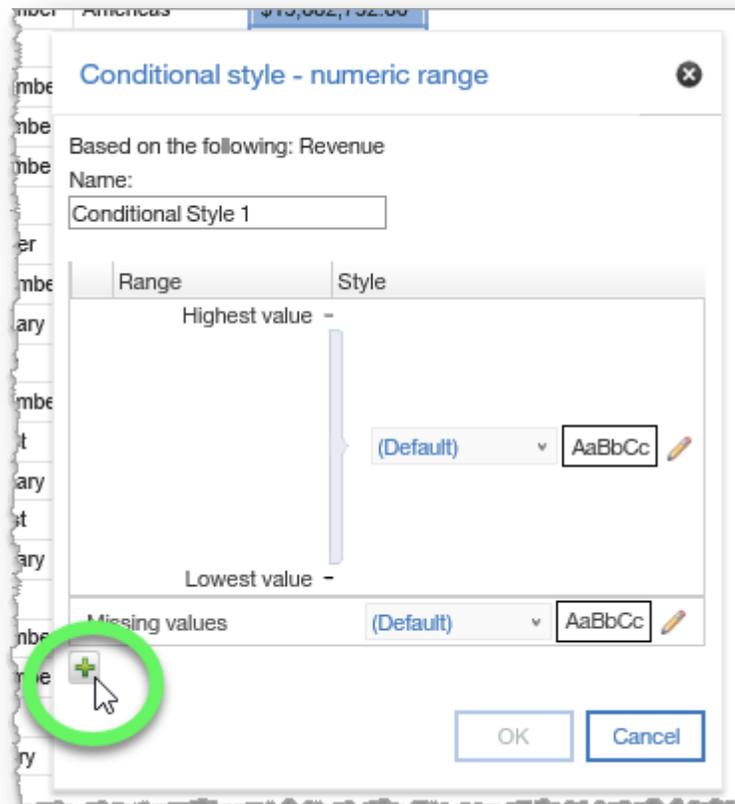
5. In the Properties pane, click the **Conditional styles** link to reveal its options button, and then click the button to open the Conditional styles dialog window.



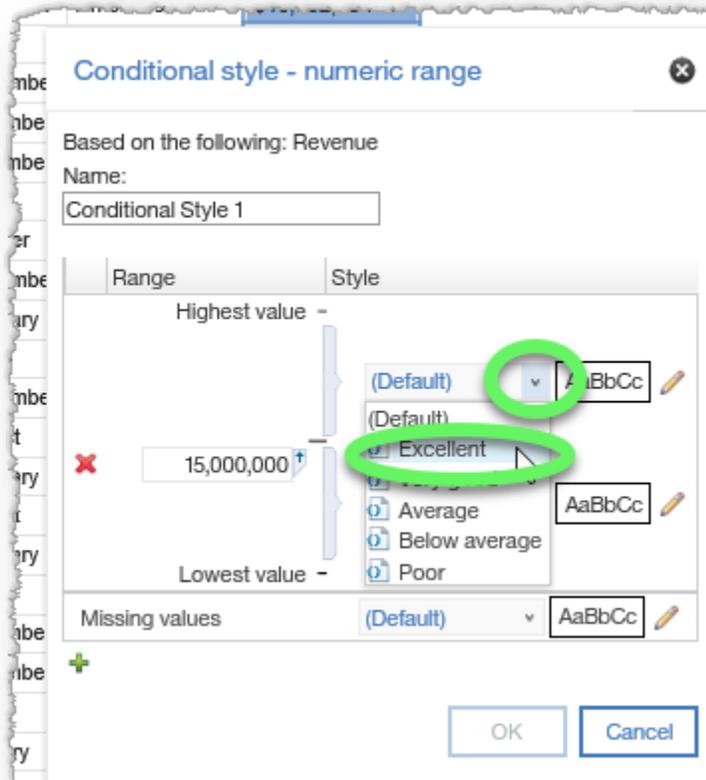
6. Click the **New conditional style** button (+ icon) in the Conditional Styles window to expand its options, and choose **New Conditional Style...**

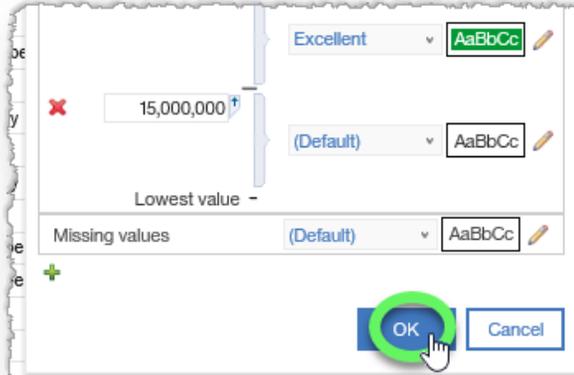


- In the **New conditional style** dialog window, select the appropriate data item, which is **Revenue** in this example, and then click **OK**.
- In the **Conditional style - numeric range** dialog window, click the **New value** button (+ icon).



- In the **Threshold - Value** dialog window, type the value that you want to base the condition on, which is \$15,000,000 in this example, and then click **OK**.
- Back in the **Conditional style - numeric range** window, click the top **(Default)** in the Style section to expand its contents, and then choose **Excellent**, which applies a green background style to any cells in the Revenue column that are above \$15,000,000.

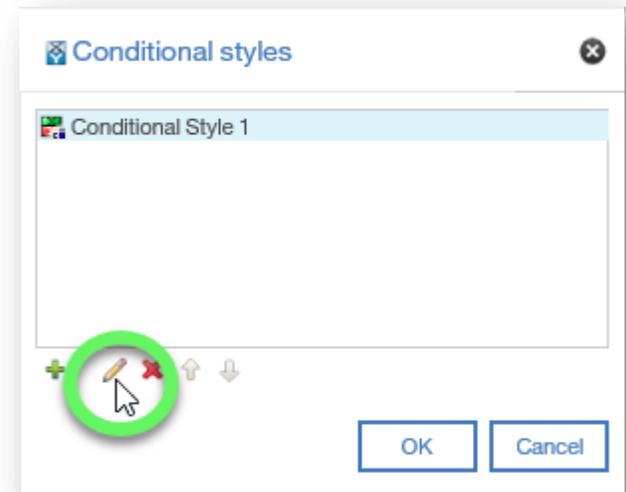


11. Click **OK**.12. The new Conditional style appears in the **Conditional styles** dialog window.

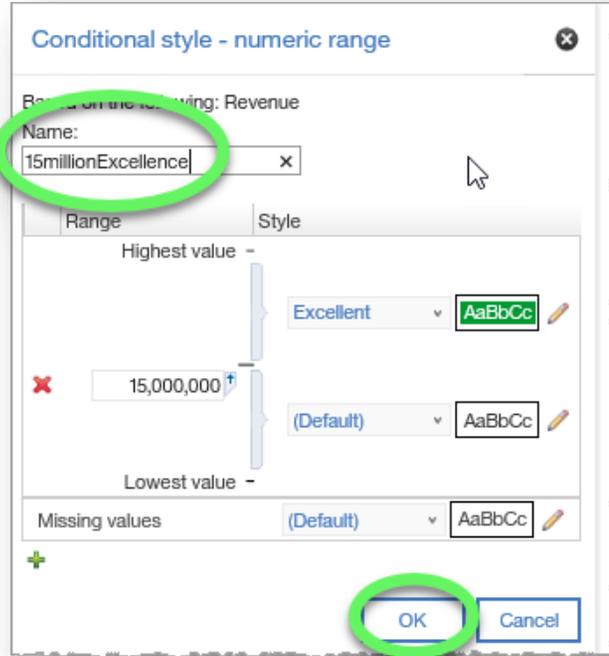
Note that you can edit or delete selected styles (and rearrange their order if there is more than one listed) in the buttons under the list box.

We will edit the name of the conditional style before we close the dialog.

With **Conditional Style 1** selected, click the **Edit button** (pencil icon).

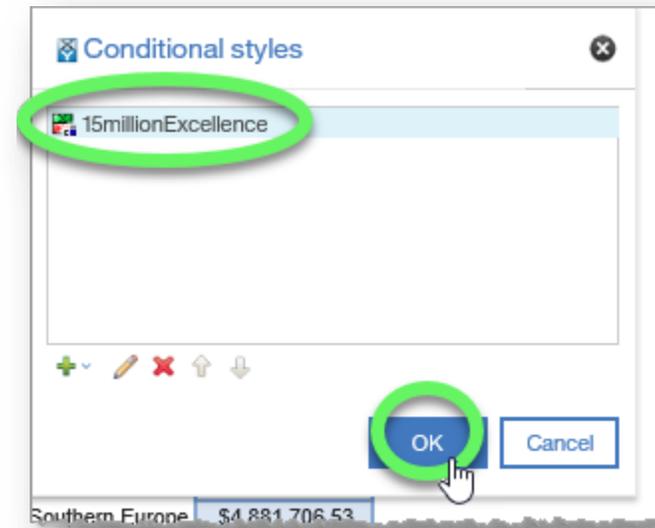


13. In the **Conditional style - numeric range** window, type a descriptive name into the **Name** field, and then click **OK**.

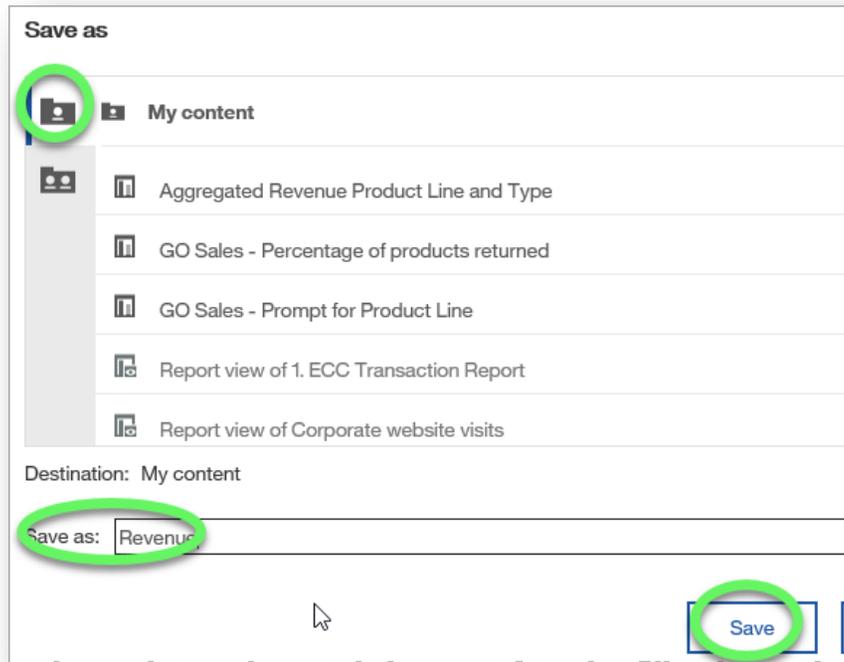


14. The new descriptive name appears in the Conditional styles list, which will make it easier to find if or when you add more conditional styles.

Click **OK** to close the window.



15. Revenue that is in the "Excellent" range is now highlighted with a green background.
16. As always, click the **Save** button and save your new report in **My content**.



Year	Month	Sales region	Revenue
2010	November	Americas	\$15,882,732.86
2011	July	Americas	\$18,903,026.27
2011	September	Americas	\$19,593,162.26
2012	December	Americas	\$25,996,212.79
2012	November	Americas	\$24,500,780.36
2013	June	Americas	\$32,533,800.65
2012	October	Asia Pacific	\$24,366,940.73
2011	September	Asia Pacific	\$17,057,095.04
2012	February	Northern Europe	\$9,931,585.47
2013	March	Northern Europe	\$13,845,407.39
2011	September	Northern Europe	\$7,352,203.04
2011	August	Northern Europe	\$7,409,979.58
2012	February	Central Europe	\$52,583,329.23
2011	August	Southern Europe	\$6,458,905.49

**END OF PROCEDURE.**

**You have successfully applied conditional formatting.**

# Sectioning Lists

Sectioning lists is another way to make reports easier to read.

## Procedure

In this training example, we will develop a list report that organizes products and return quantity by retailer.

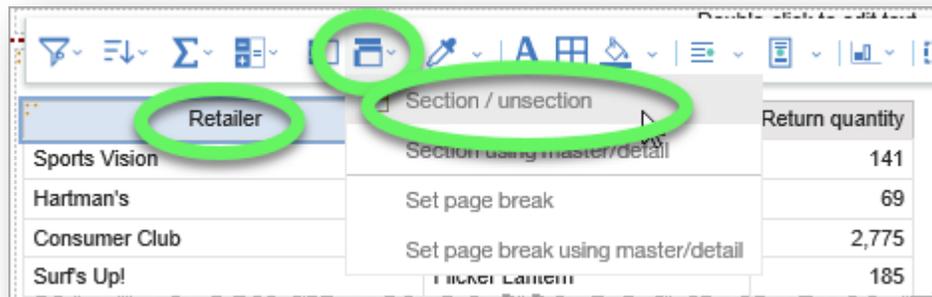
1. Create a list report from the sample GO Sales (query): Returned Items (query) data that includes **Retailer** (from the Retailers data item), **Product** (from the Products data item), and **Return quantity** (from the Returned Items data item) columns.

Retailer	Product	Return quantity
<Retailer>	<Product>	<Return quantity>
<Retailer>	<Product>	<Return quantity>
<Retailer>	<Product>	<Return quantity>
Overall - Summary	<Summary(Return quantity)>	

2. Change the page view to **Page preview** so that we can see our results instantly.



3. Divide the report by each retailer by selecting the **Retailer** column heading, clicking the **Section/Unsection** button in the contextual toolbar to expand its options, and then choosing **Section/Unsection** from the list.



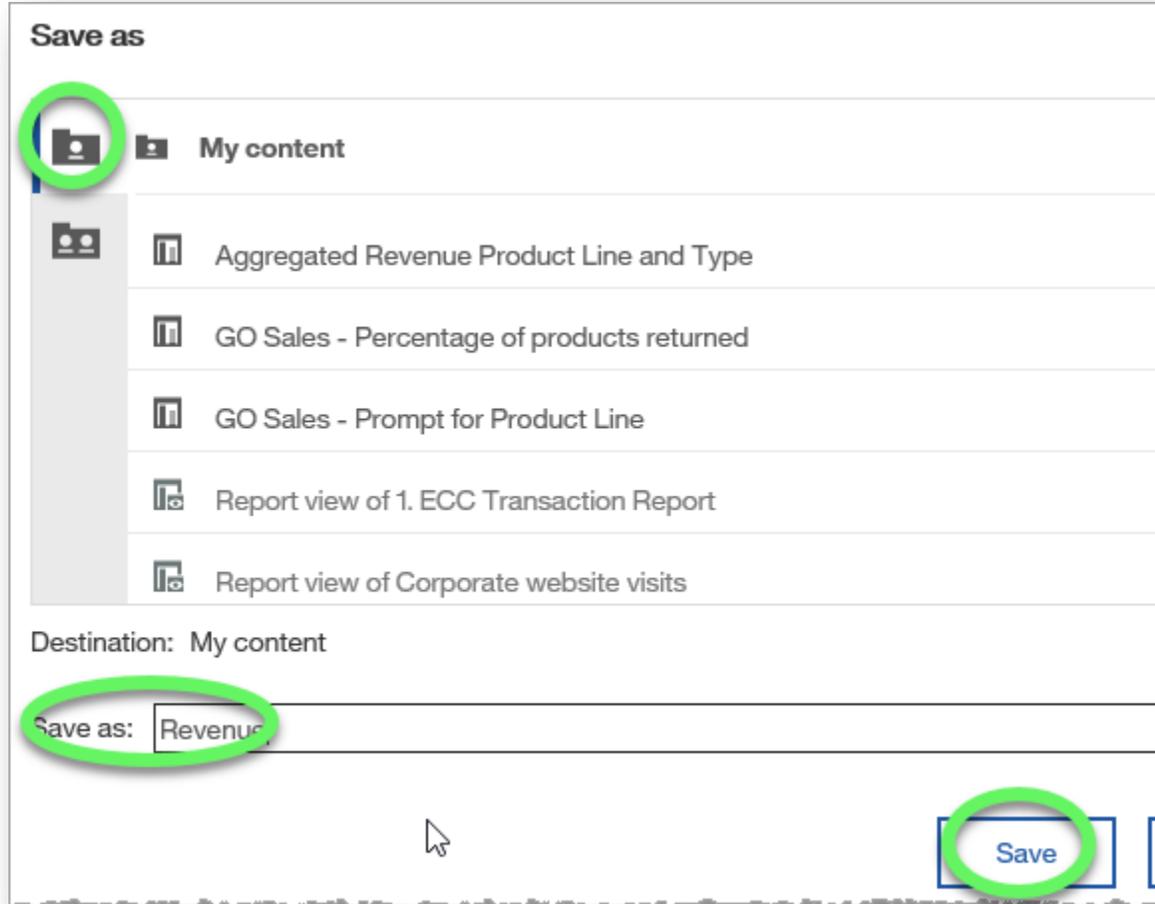
4. The information is sectioned by Retailer.

Product	Return quantity
Canyon Mule Extreme Backpack	56
Cat Eye	105
Dante	14
Fairway	187
Inferno	7
Infinity	11
Legend	32
Maximus	9
Opera Vision	8
Sun Shelter 15	875
Sun Shelter 30	1,016
Trail Star	8
Trendi	105
Zone	229
<b>1 for 1 Sports shop - Summary</b>	<b>2,662</b>

Product	Return quantity
Astro Pilot	22
Blue Steel Max Putter	67
Cat Eye	92
Course Pro Golf and Tee Set	479

5. As always, click the **Save** button and save your new report in **My content**.



**END OF PROCEDURE.**

**You have successfully sectioned lists.**

# Filtering Lists

Filtering lists enables you to focus analysis, exclude irrelevant data, and reduce processing time.

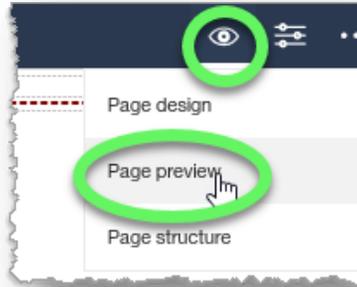
## Procedure

In this example, the marketing staff wants one report that shows gross profit and revenue data for the retailer that generated the most camping equipment revenue in 2013. They want a second report that shows product types for that retailer as well, but only shows product lines that generated over \$5 million in revenue. We will use filters to create these reports.

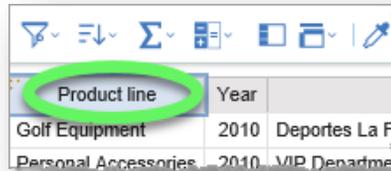
1. Create a list report from the sample GO Sales (query): Sales (query) data that includes **Product line** (from the Products data item), **Year** (from the Time data item), **Retailer** (from the Retailers data item), **Revenue** and **Gross profit** (both from the Sales data item).

Product line	Year	Retailer	Revenue	Gross profit
<Product line>	<Year>	<Retailer>	<Revenue>	<Gross profit>
<Product line>	<Year>	<Retailer>	<Revenue>	<Gross profit>
<Product line>	<Year>	<Retailer>	<Revenue>	<Gross profit>
Overall - Summary			<Summary(Revenue)>	<Summary(Gross profit)>

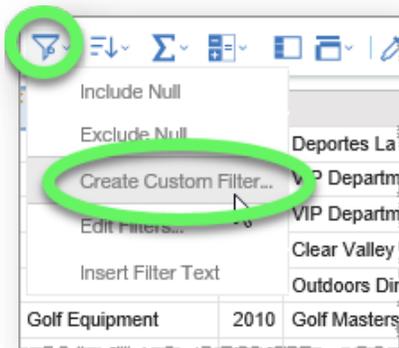
2. Switch to the **Page preview** view so that we can see the report change as we work.



3. Select the **Product line** column heading, where we will add our first filter.

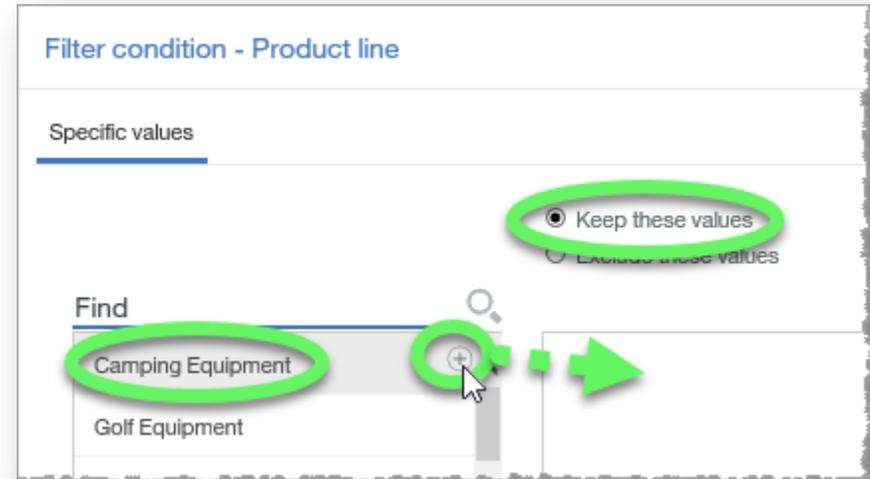


4. Click the **Filter** button in the contextual toolbar to expand its options list, and then click the **Create Custom Filter...** option.

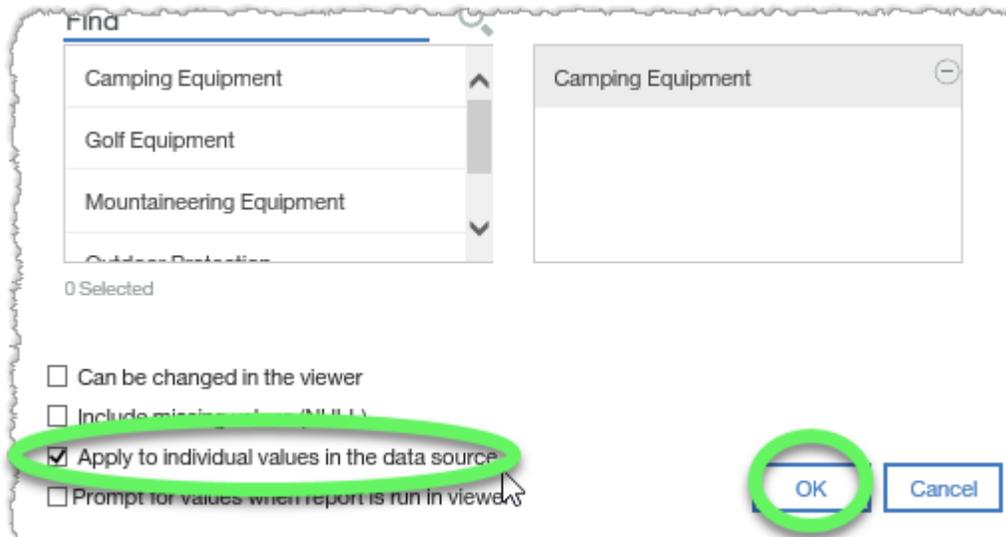


5. In the **Filter condition** dialog window for Product line, make sure that **"Keep these values"** is selected.

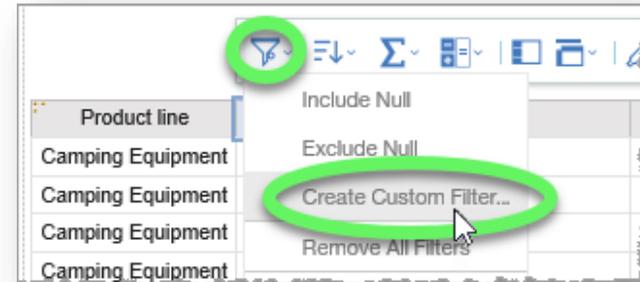
Hover your mouse over **Camping Equipment** to reveal its **Add** button (plus icon), and click it to add Camping Equipment as a value that will be kept when the report is run.



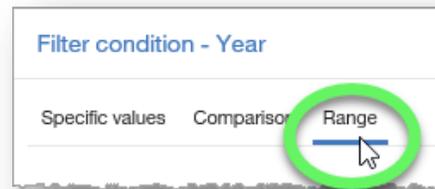
Also make sure that **"Apply to individual values in the data source"** is checked, and then click the **OK** button.



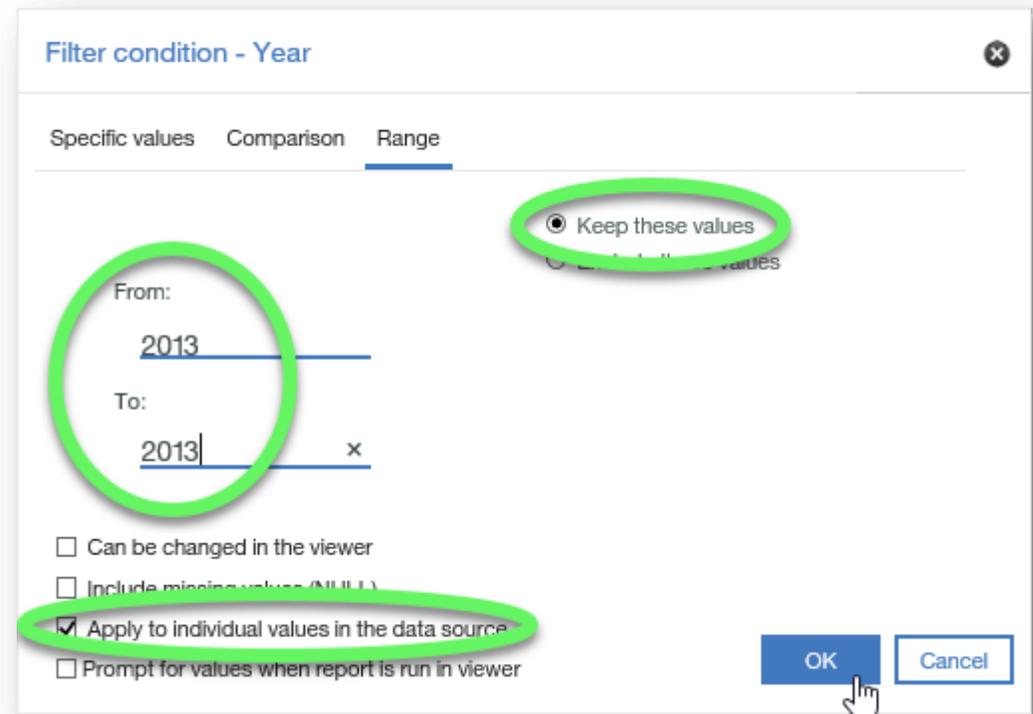
6. Now select the **Year** column heading, expand the **Filter** button, and click **Create Custom Filter...**



7. Since **Year** is numeric, we will specify a range. Click the **Range** tab.



8. We want to return results for 2013 only, so type **2013** in both the **To** and **From** fields, and make sure that both "**Keep these values**" and "**Apply to individual values in the data source**" are selected. Click the **OK** button.



9. Select the **Revenue** column heading and sort the column in **descending** order.

Product line	Year	Revenue
Camping Equipment	2013	\$3,282,242.67
Camping Equipment	2013	\$2,004,572.40
Camping Equipment	2013	\$325,365.88
Camping Equipment	2013	\$1,569,025.78
Camping Equipment	2013	\$960,038.66
Camping Equipment	2013	\$27,515.88

The report is sorted by Revenue in descending order, revealing that Extreme Outdoors generated the most camping equipment revenue in 2013.

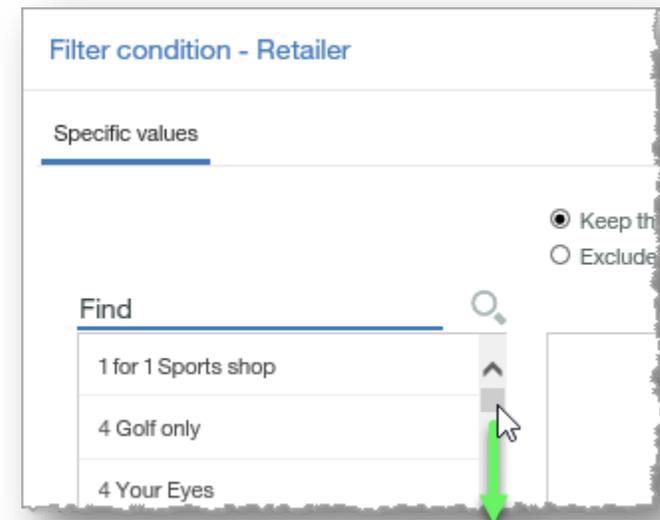
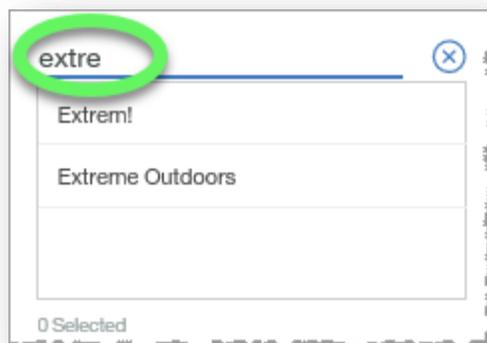
Product line	Year	Retailer	Revenue
Camping Equipment	2013	Extreme Outdoors	\$8,465,561.94
Camping Equipment	2013	Chen Yu Enterprise Co.,	\$7,608,235.66
Camping Equipment	2013	Second Wind Sports	\$5,758,057.73
Camping Equipment	2013	Artículos de Campismo El Aquila, S.A. de C.V.	\$5,728,880.77
Camping Equipment	2013	Naranco de Bulnes	\$5,661,505.41
Camping Equipment	2013	Arjan Aitta	\$5,631,535.96
Camping Equipment	2013	Edward's Department Store	\$5,039,287.83
Camping Equipment	2013	Kanga Kampers	\$4,854,103.51
Camping Equipment	2013	Grand choix	\$4,711,232.36
Camping Equipment	2013	Beach Beds Pty Ltd.	\$4,505,365.18

10. Create a custom filter on the **Retailer** column.

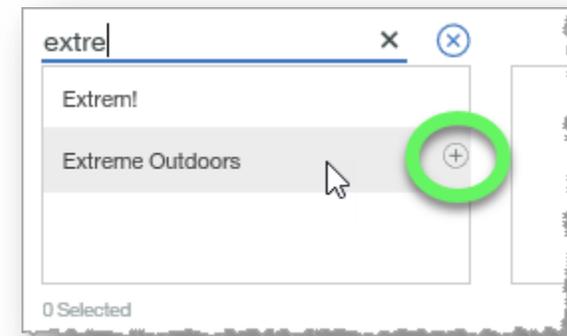
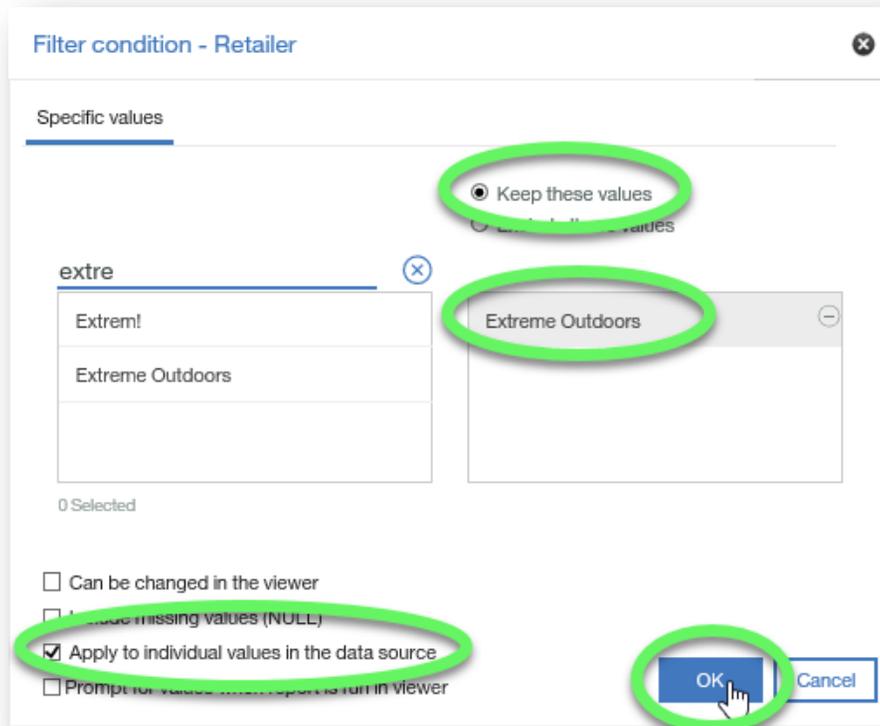
Product line	Year	Retailer	Revenue
Campir	2019	Extreme Outdoors	\$8,465,504.64
Campir		Wind Sports	\$5,758,057.73
Campir		de Campismo El Aquila, S.A. de C.V.	\$5,728,880.77
Campir		Bulnes	\$5,661,505.41
Campir			\$5,631,535.96
Campir		Department Store	\$5,039,287.83
Campir		ampers	\$4,854,103.51
Campir		noix	\$4,711,232.36

11. In the **Filter condition** dialog window, records are sorted in ascending order in the **Find** list, and you can scroll down to locate the record you wish to use in the filter.

You can scroll to locate **Extreme Outdoors** in the list, or click the word **Find** and begin typing the value you wish to locate. The dialog returns results as you type.



12. Hover the desired record to reveal the **Add** button (plus icon) and click it to add the record name as a condition.
13. Verify that "**Keep these values**" and "**Apply to individual values in the data source**" are checked, and then click the **OK** button.



14. The first report that Marketing requested is complete.

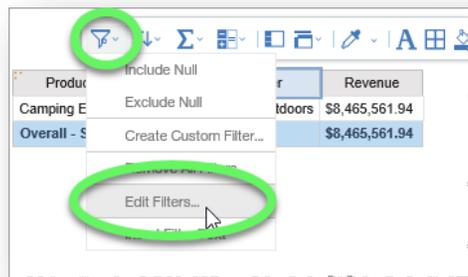
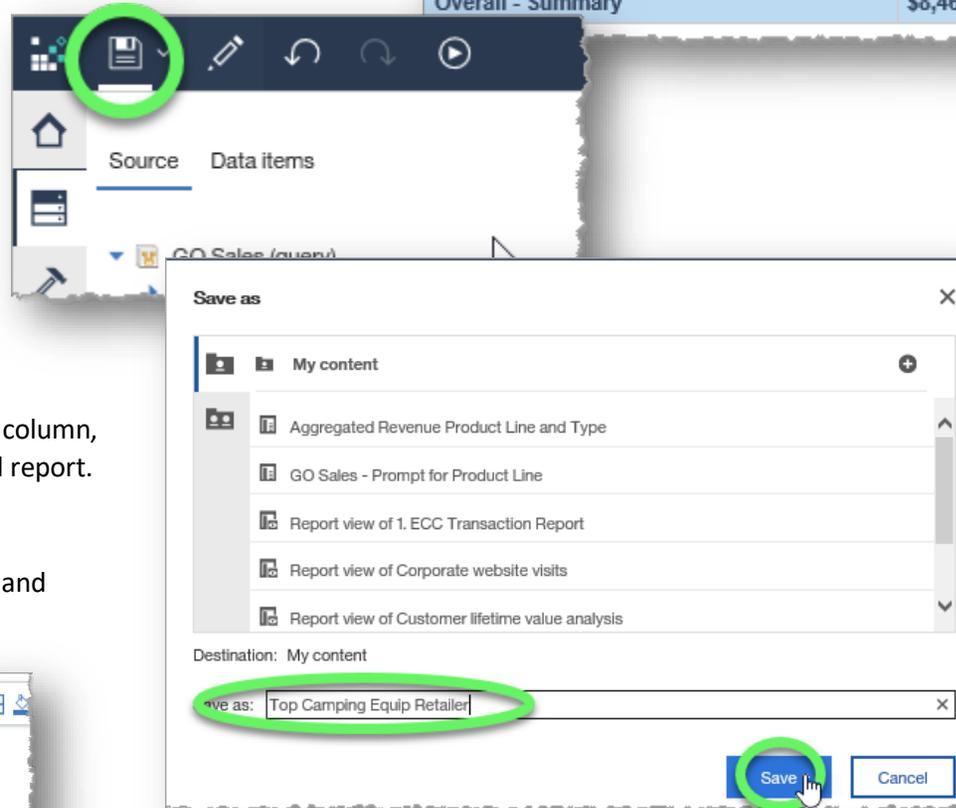
15. Click the **Save** button in the upper left corner of the page to open the **Save as** dialog.

16. Choose a destination, type a name, and click the **Save** button.

17. The second report requested by Marketing should include product types for Extreme Camping, and only show product lines that generated over \$5 million in revenue. We will add the **Product type** column, and edit the filters to create the second report.

18. Select any column heading, click the **Filter** button to expand its options, and choose **Edit Filters...**

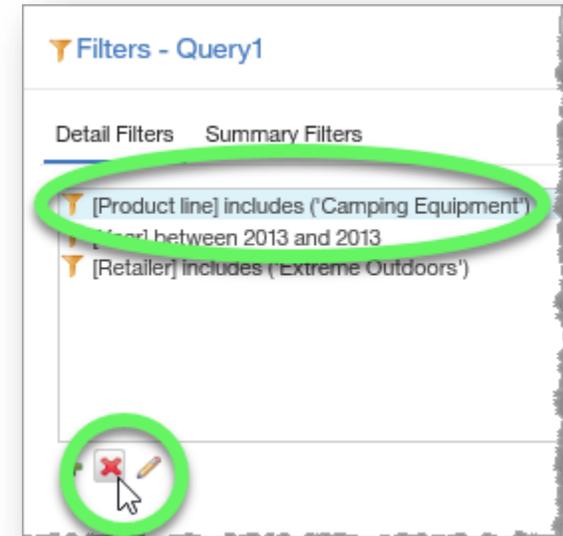
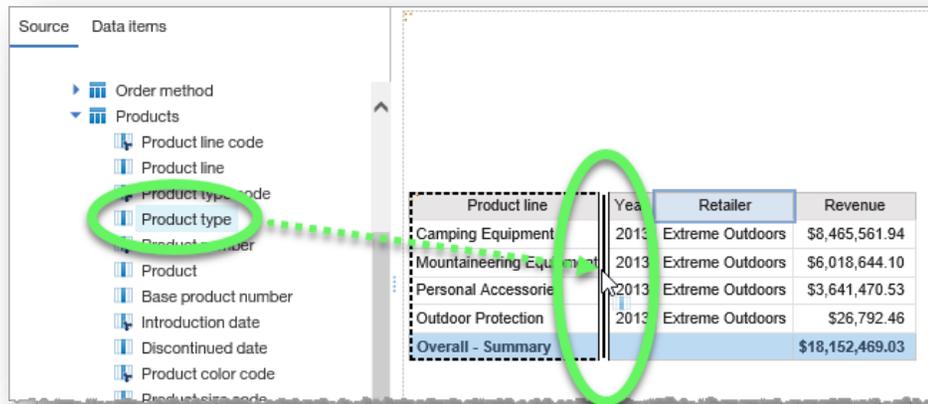
Product line	Year	Retailer	Revenue	Gross profit
Camping Equipment	2013	Extreme Outdoors	\$8,465,561.94	\$3,263,318.96
Overall - Summary			\$8,465,561.94	\$3,263,318.96



19. In the **Filters** dialog window, select **[Product Line] includes ['Camping Equipment']** and click the **Delete** button (red X icon). Click the **OK** button to close the dialog window and return to the report.

**Note:** Alternatively, you could click the **Edit** button (pencil icon) and add or remove specific products to the filter. In this report, we don't want to filter any of the product lines, so deleting the filter is the more efficient step.

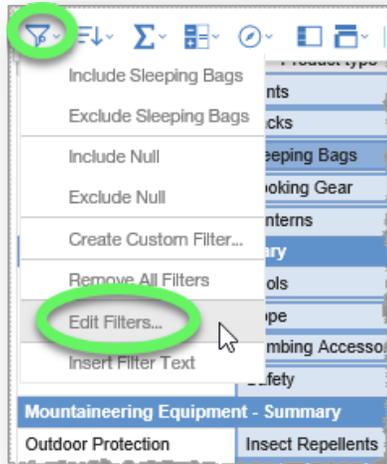
20. Click and drag **Product type** (from the Products data item) from the source pane to the report, releasing the mouse when a black, vertical line appears between the **Product line** and **Year** columns. (This is another way to add columns to a report.)



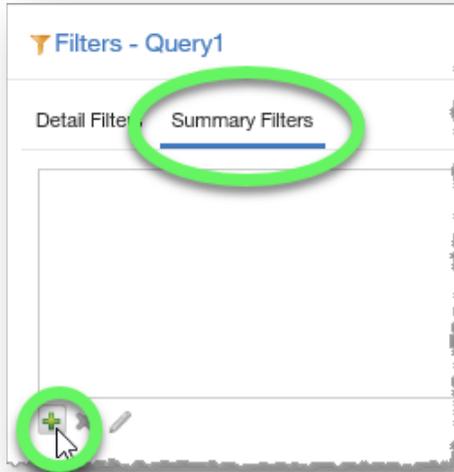
21. Select the **Product line** heading and click the **Group** button from the contextual toolbar.



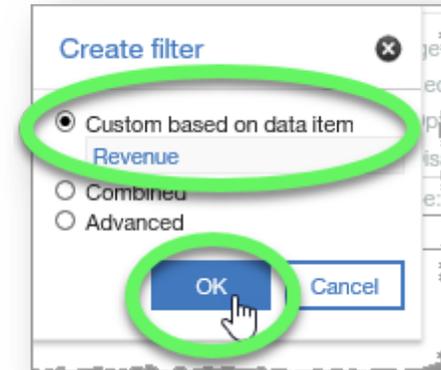
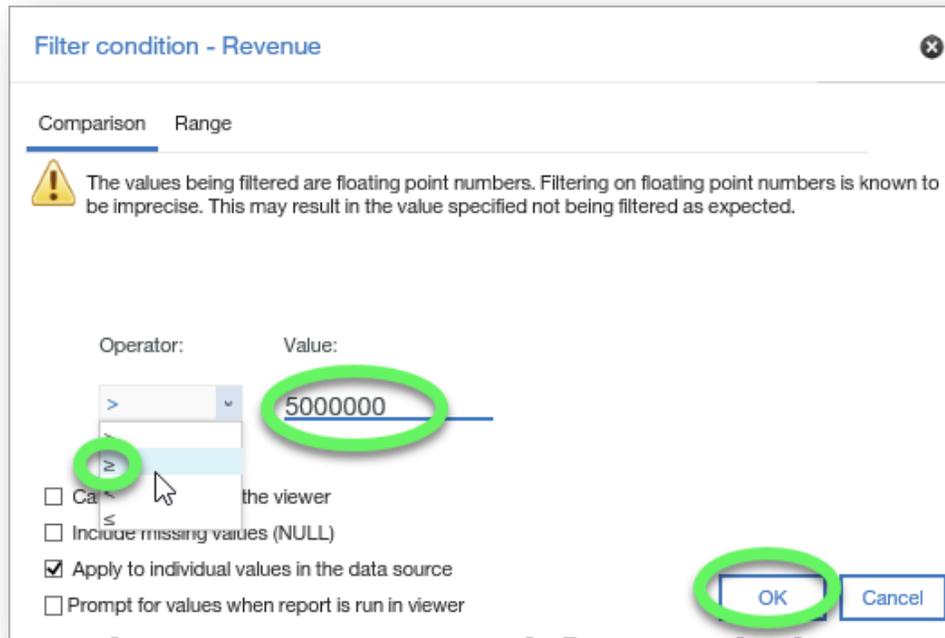
22. Select any report cell to display the contextual toolbar, expand the **Filter** icon, and click **Edit Filters...**



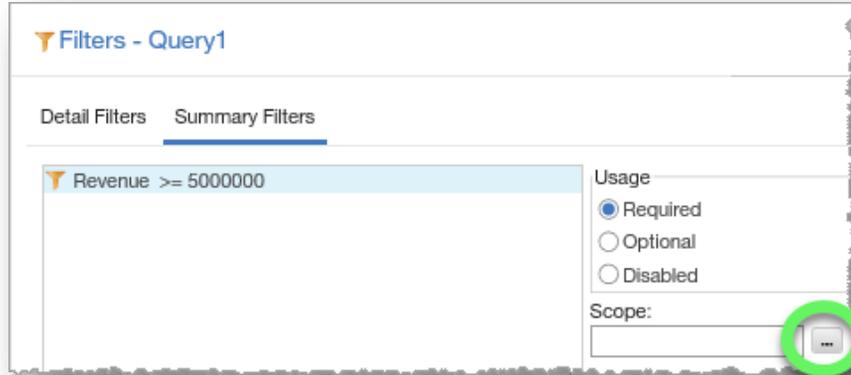
23. In the **Filters - Query** dialog window, click the **Summary Filters** tab and then click the **Add (+ icon) button**.



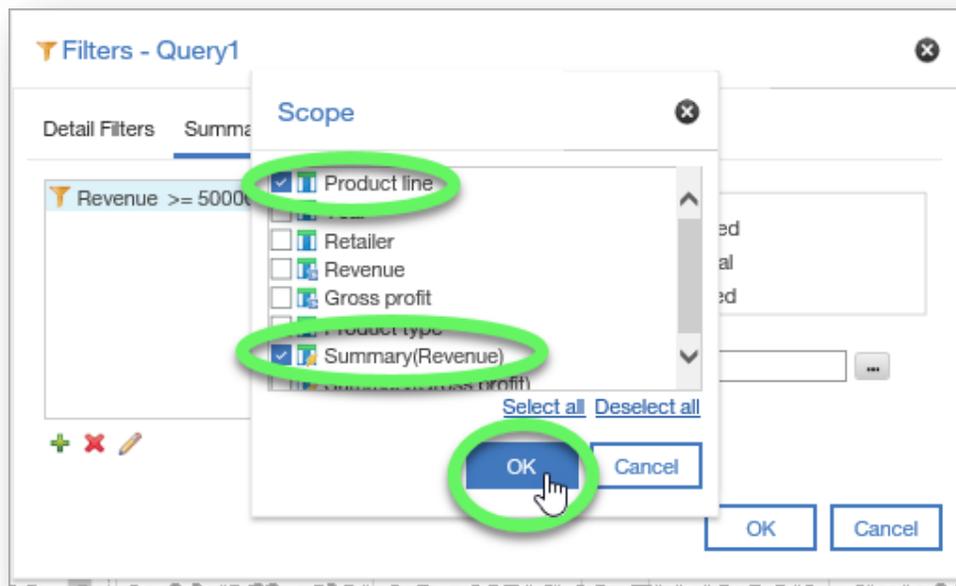
24. In the **Create filter** dialog window that appears, select **Revenue** from the **Custom based on data item** list, and then click **OK**.
25. In the **Filter condition - Revenue** dialog window that appears, type **5,000,000** in the **Value** field, and select the **Greater than or equal to ( $\geq$ )** symbol from the **Operators** options list and then click **OK**.



26. In the **Filters - Query1** dialog window that reappears, click the **Scope** list button.

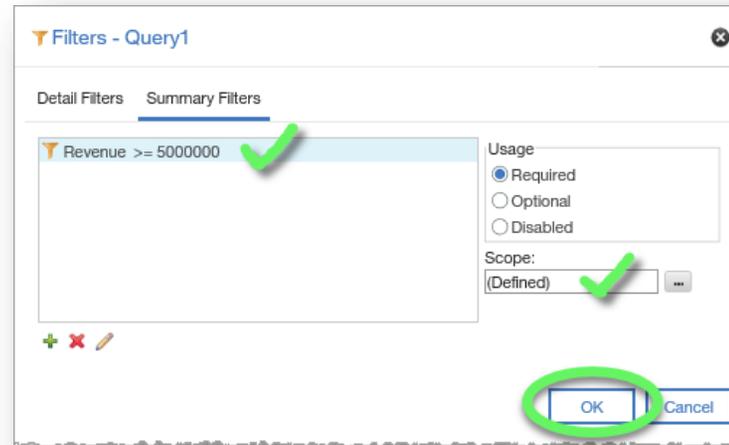


27. Put check marks beside **Product line** and **Summary(Revenue)** and then click the **OK** button.



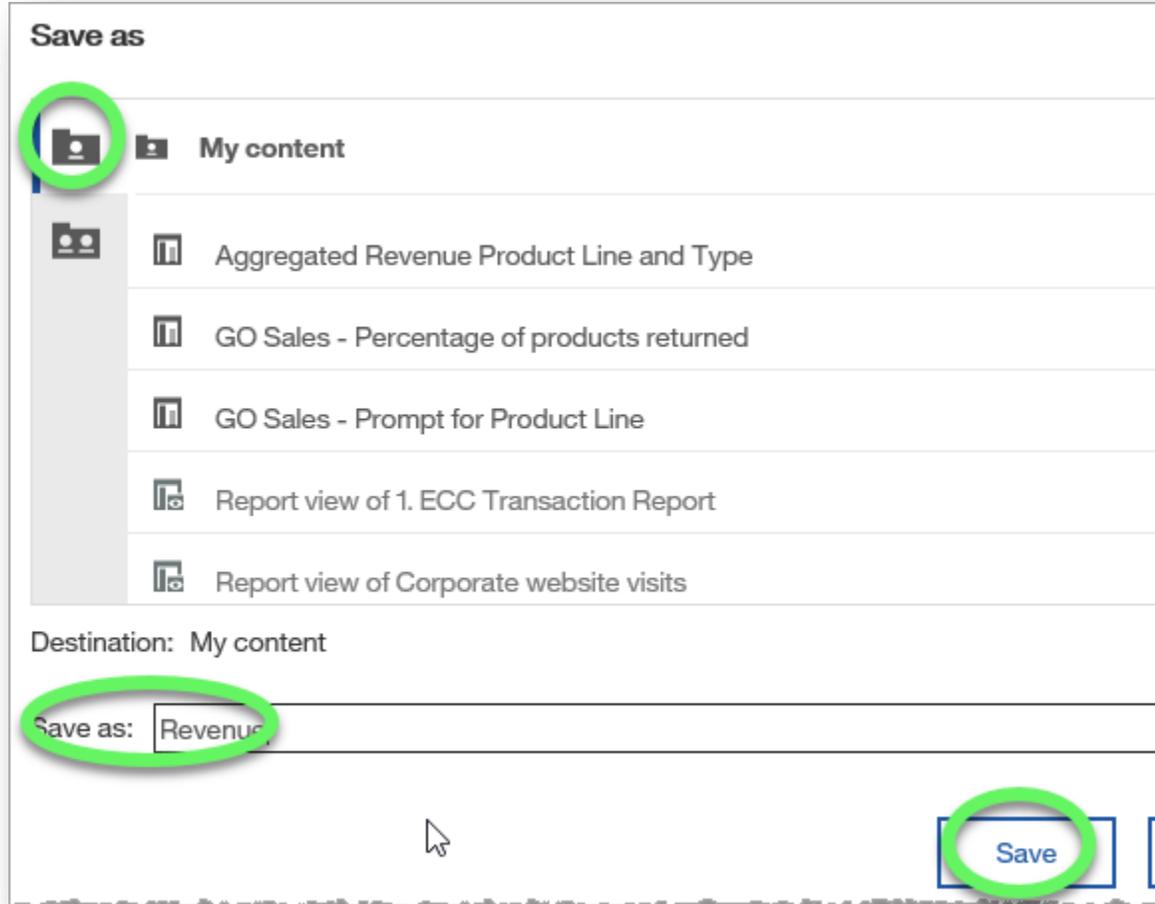
28. Verify that the summary filter includes the options necessary to create the desired filter, and then click the **OK** button.

29. The report now lists product types for the top seller, showing only product lines that generated over \$5 million in revenue, as requested by the marketing staff.



Product line	Product type	Year	Retailer	Revenue	Gross profit
Camping Equipment	Tents	2013	Extreme Outdoors	\$2,517,185.19	\$821,193.93
	Packs	2013	Extreme Outdoors	\$2,037,985.88	\$829,912.62
	Sleeping Bags	2013	Extreme Outdoors	\$1,784,106.50	\$723,281.17
	Cooking Gear	2013	Extreme Outdoors	\$1,406,200.40	\$573,260.76
	Lanterns	2013	Extreme Outdoors	\$720,083.97	\$315,670.48
<b>Camping Equipment - Summary</b>				<b>\$8,465,561.94</b>	<b>\$3,263,318.96</b>
Mountaineering Equipment	Tools	2013	Extreme Outdoors	\$2,171,189.41	\$907,479.73
	Rope	2013	Extreme Outdoors	\$1,384,416.39	\$438,319.81
	Climbing Accessories	2013	Extreme Outdoors	\$1,376,780.35	\$705,515.85
	Safety	2013	Extreme Outdoors	\$1,086,257.95	\$427,427.23
<b>Mountaineering Equipment - Summary</b>				<b>\$6,018,644.10</b>	<b>\$2,478,742.62</b>
<b>Overall - Summary</b>				<b>\$14,484,206.04</b>	<b>\$5,742,061.58</b>

30. As always, click the **Save** button and save your new report in **My content**.



**END OF PROCEDURE.**

**You have successfully filtered lists.**

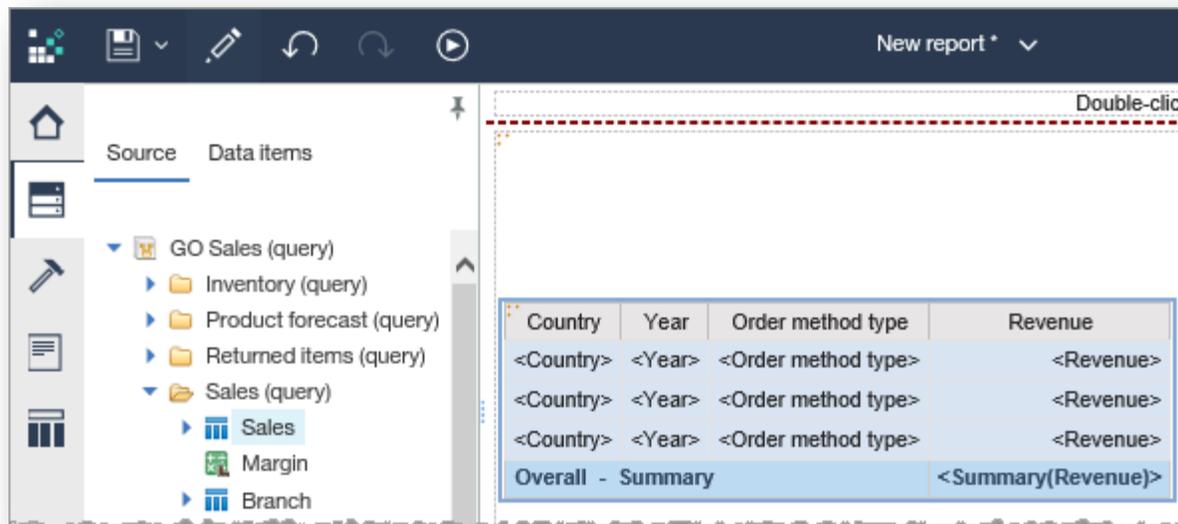
# Filtering Lists Using Boolean Filters

Using Boolean logic in filtering data allows you to limit, widen, or define parameters for returning results by using Boolean operators such as AND and OR.

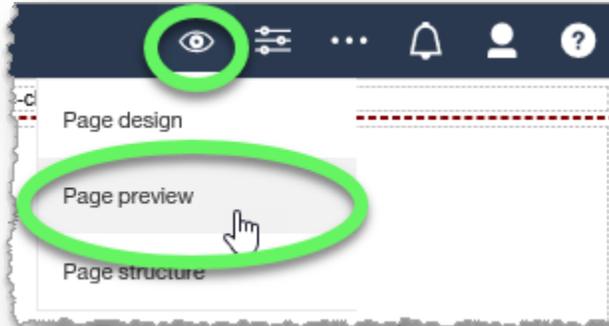
## Procedure

In this training example, the marketing staff would like to see one report that shows revenue data for Web sales in Mexico and Email sales in Canada. This report will require using Boolean filters and grouping.

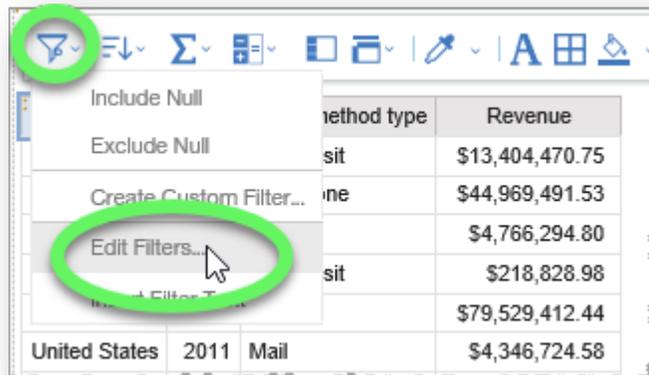
1. Create a list report from the sample GO Sales (query): Sales (query) data that includes **Country** (in the Branch data item), **Year** (Time data item), **Order method type** (Order method data item), and **Revenue** (Sales data item).



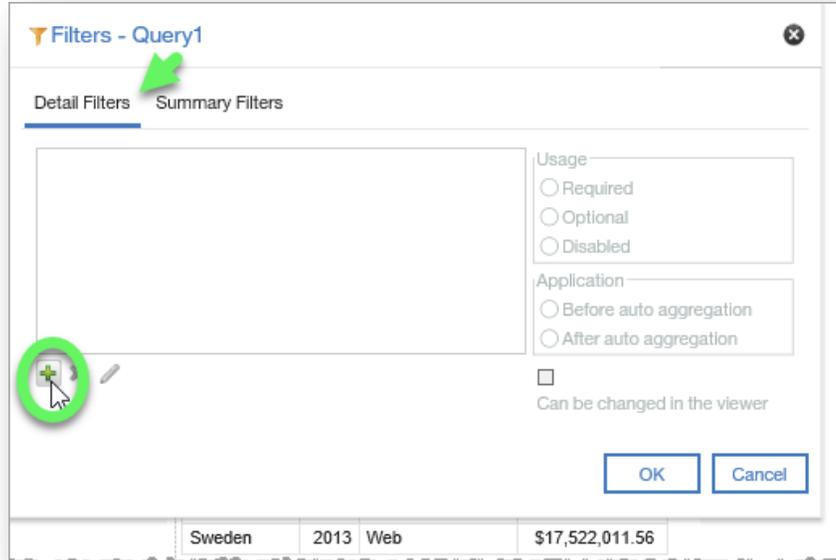
2. Switch to **Page preview** to more easily view the changes we make to the report in the upcoming steps.



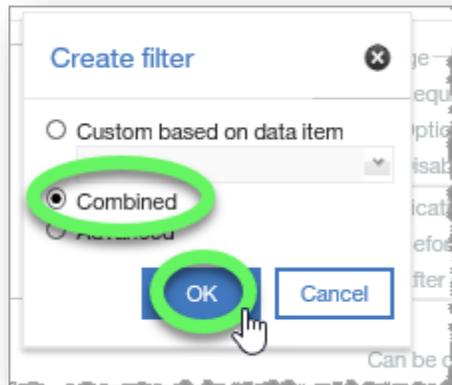
3. Select any item in the list report to reveal the contextual toolbar, expand the **Filter options** and choose **Edit Filters...**



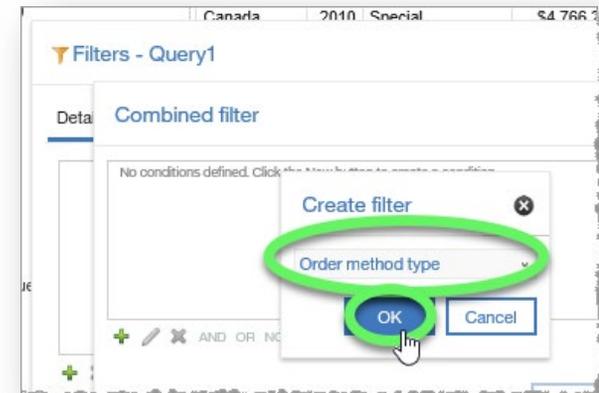
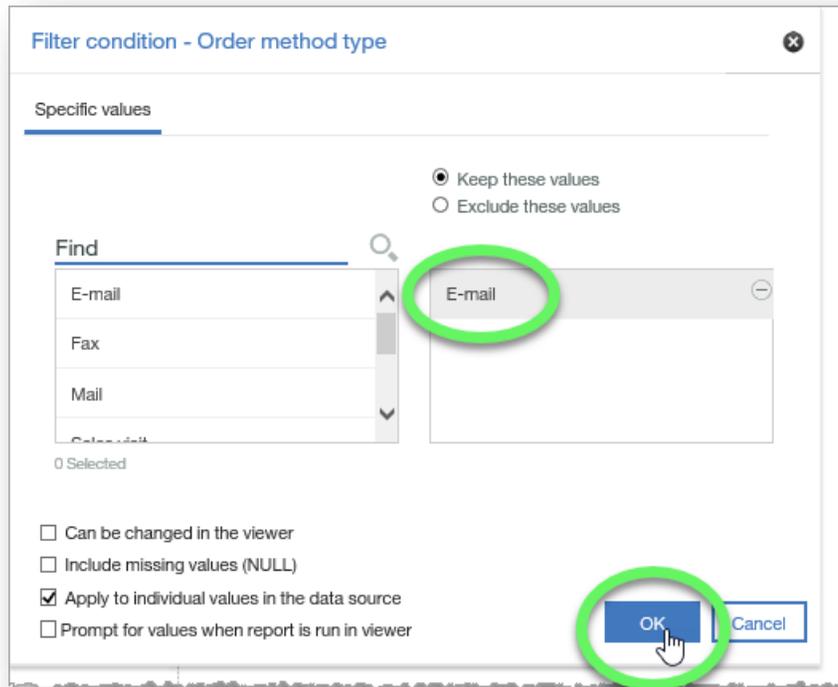
4. In the **Detail Filters** section of the Filters dialog window, click the **Add** (+ icon) button.



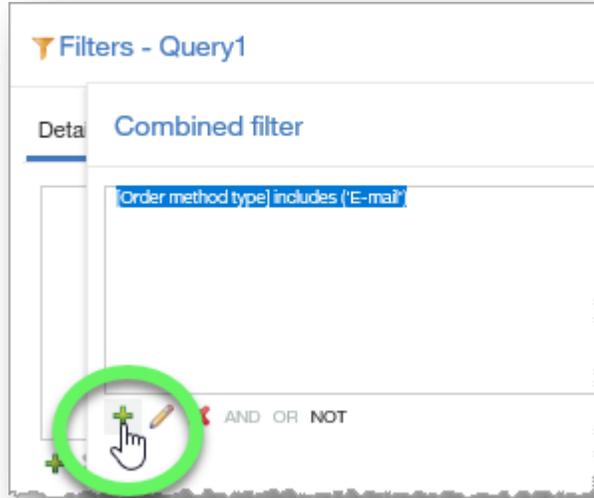
5. In the **Create filter** dialog window, select **combined** and click **OK**.



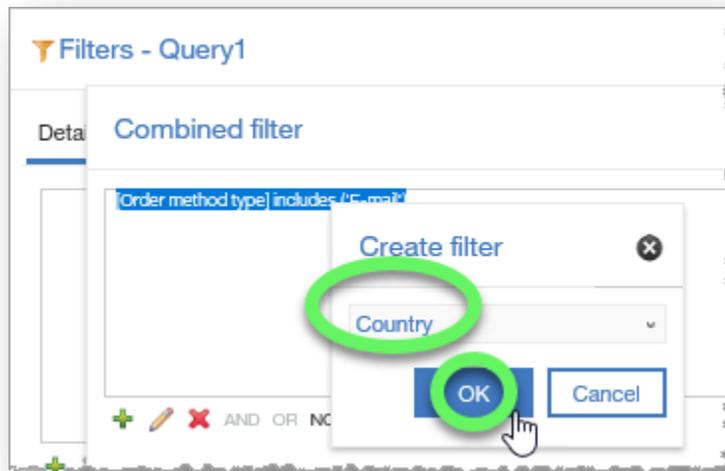
- The **Combined filter** dialog window opens and instantly launches another **Create filter** dialog window. Expand the list and choose **Order method type**, and then click **OK**.
- In the **Filter condition - Order method type** dialog window, add **E-mail** as a filter and then click **OK**.



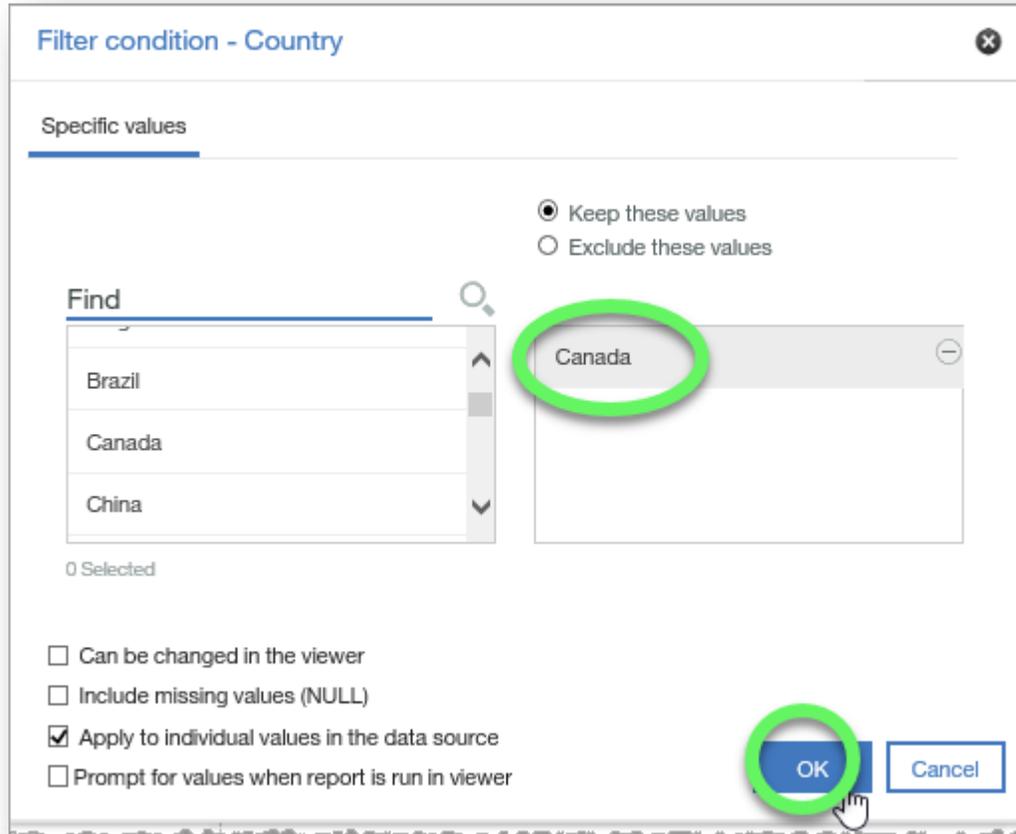
8. In the **Combined filter** dialog window, click the **Add** button (+ icon) to add another condition.



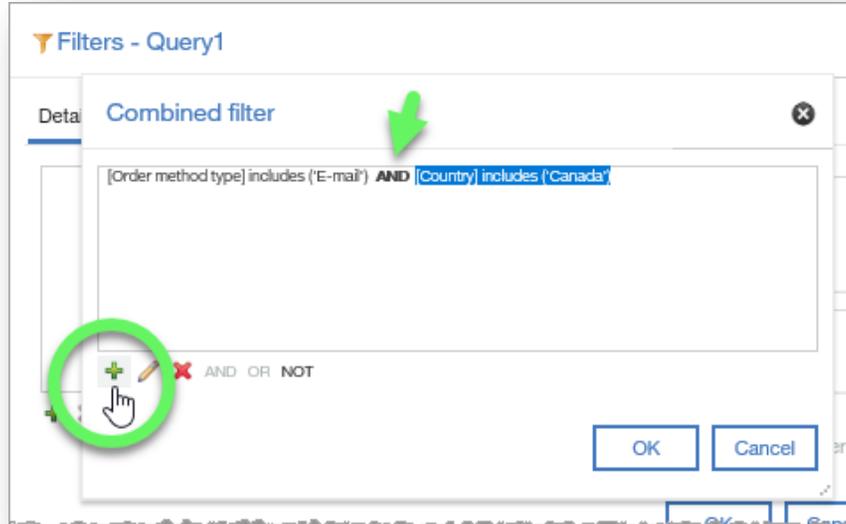
9. In the **Create filter** dialog window, select **Country** from the list, and click **OK**.



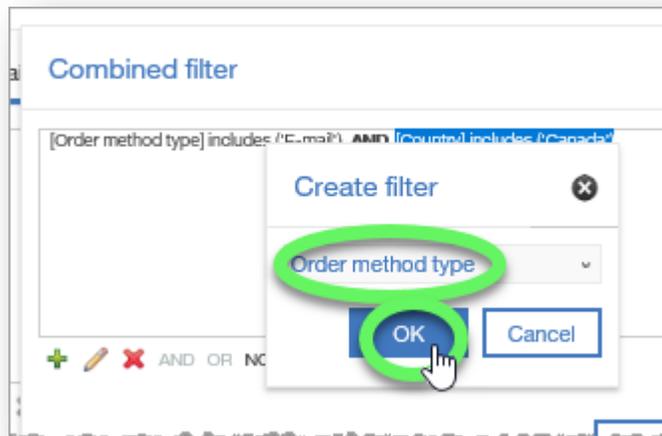
10. In the **Filter condition - Country** dialog window, add **Canada** and click **OK**.



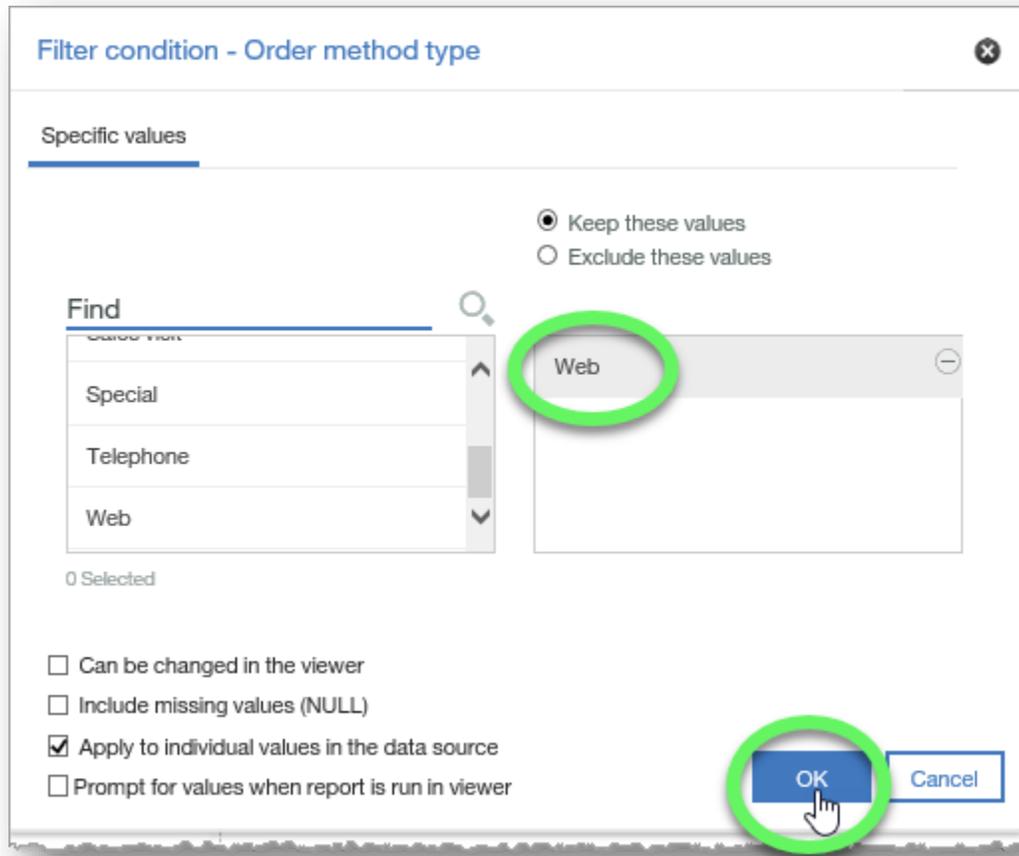
11. Observe that the **AND** operator separates the two filter conditions. Click the **Add** button (+ icon) again.



12. In the **Create filter** dialog window, expand the list and select **Order method type** and then click **OK**.

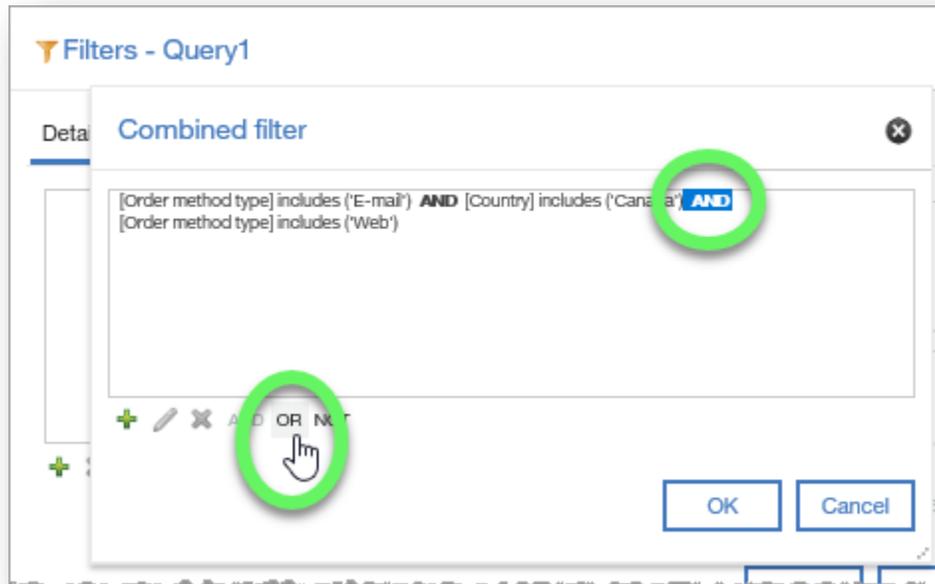


13. In the **Filter condition - Order method type** dialog window, add **Web** as a condition and click **OK**.

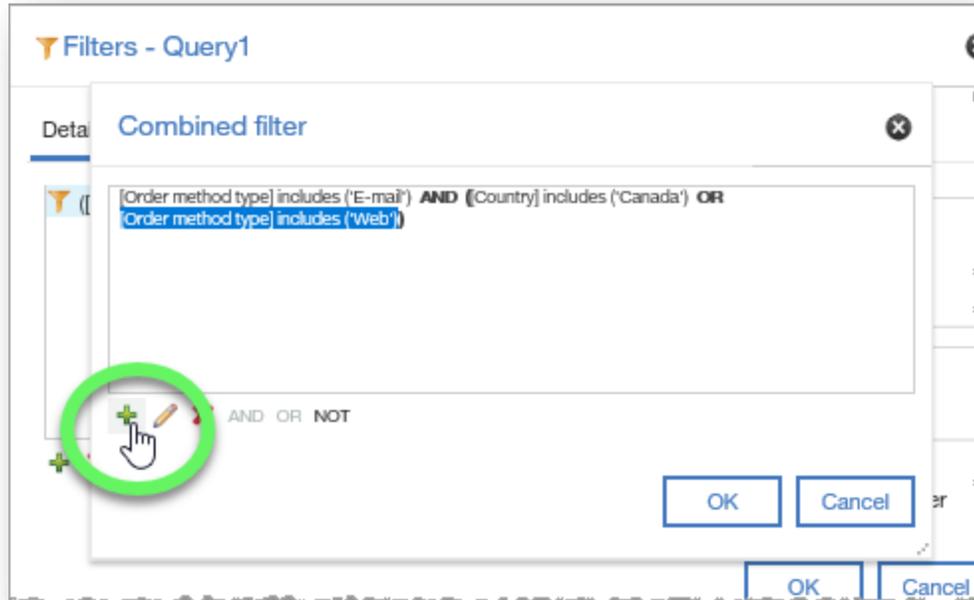


14. In the **Combined filter** dialog window, the new condition was added behind another **AND** operator.

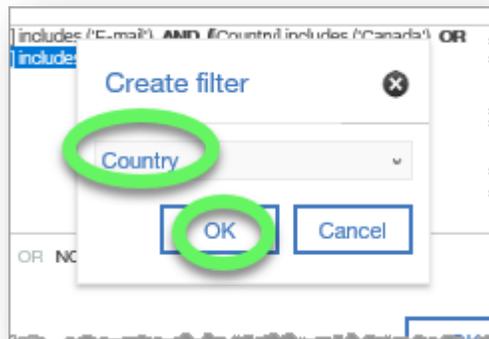
Click to select the second **AND** and then click the **OR** button to change the operator.



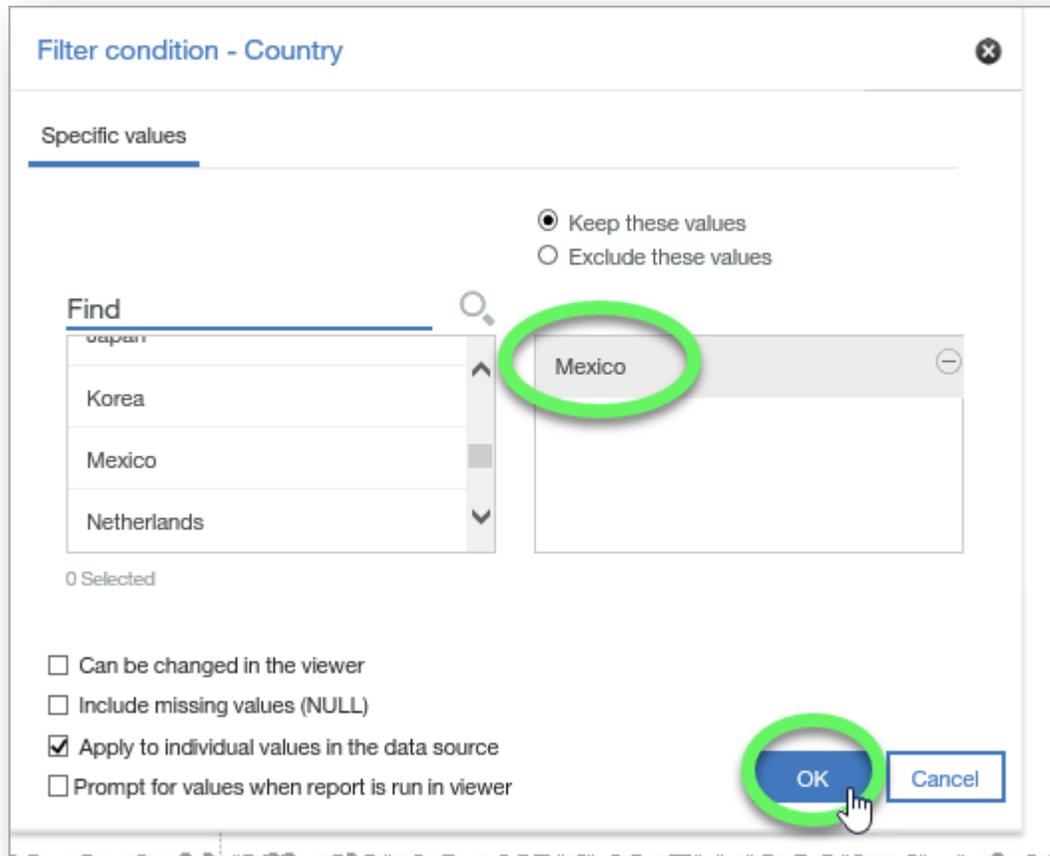
15. Click the **Add** button to add the final condition.



16. Choose **Country** and click **OK**.



17. In the **Filter condition - Country** dialog window, add **Mexico** as a condition and click **OK**.



18. Check the filter for accuracy. The report should filter for **(E-mail AND Canada) OR (Web AND Mexico)**. Observe that the parentheses are not positioned correctly in our combined filter.



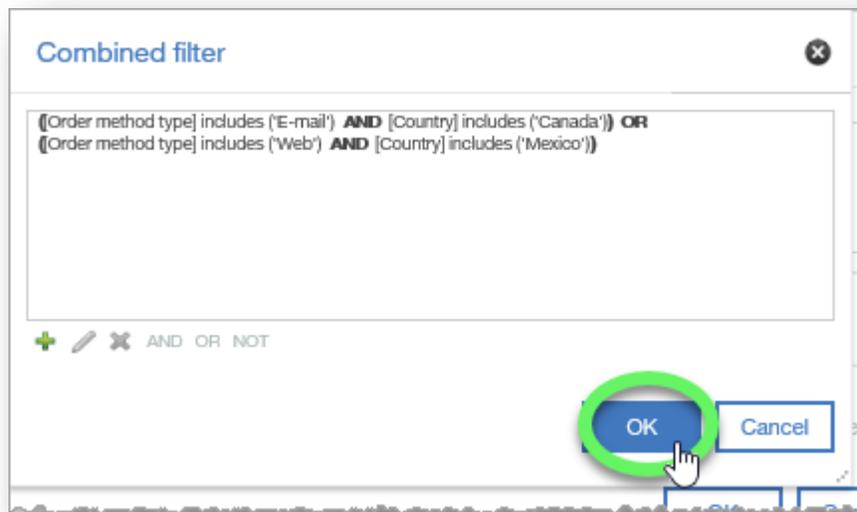
19. Use Ctrl + click to select the first two filter conditions, E-mail and Canada, and click the **AND** button.



20. Repeat the steps for next two filter conditions, Web and Mexico, and make sure the operator separating the two combined filter conditions is **OR**.



21. Click **OK** to close the **Combined filter** dialog window.



22. Click **OK** to close the **Filters** dialog window as well.

23. The filters have been combined to return a report that only lists Email revenue for Canada, and Web revenue for Mexico. Group the **Country** column to better view the results.

Country	Year	Order method type	Revenue
Canada	2010	E-mail	\$20,309,137.51
	2011	E-mail	\$9,403,869.06
	2012	E-mail	\$6,480,589.74
	2013	E-mail	\$4,403,161.66
<b>Canada - Summary</b>			<b>\$40,596,757.97</b>
Mexico	2010	Web	\$4,251,899.15
	2011	Web	\$13,886,304.99
	2012	Web	\$43,724,327.72
	2013	Web	\$32,341,116.79
<b>Mexico - Summary</b>			<b>\$94,203,648.65</b>
<b>Overall - Summary</b>			<b>\$134,800,406.62</b>

**Filters - Query1** ✕

Detail Filters   Summary Filters

---

(((Order method type] includes ('E-mail')) AND ([Country] i...

Usage

Required

Optional

Disabled

Application

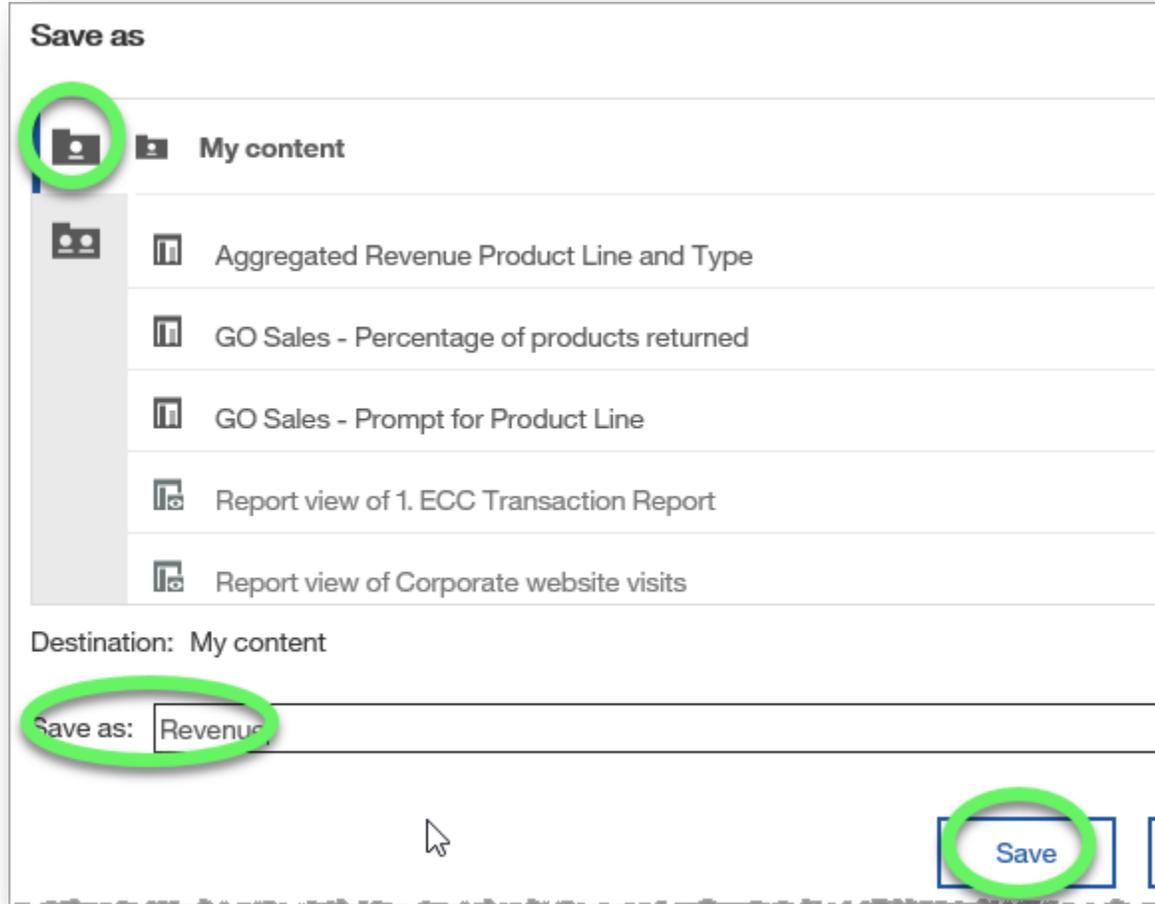
Before auto aggregation

After auto aggregation

Can be changed in the viewer

+ ✕ ✎
OK
Cancel

24. As always, click the **Save** button and save your new report in **My content**.



**END OF PROCEDURE.**

You have successfully filtered lists using Boolean Filters.

# Setting up Prompts

A prompt is a filter that is satisfied at report run time.

## Procedure

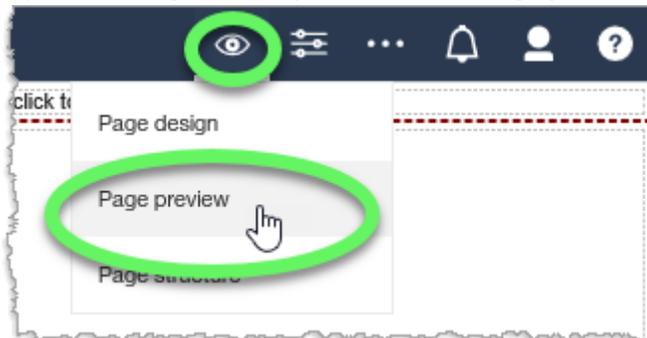
In this training example, the call center representatives need a report that allows them to quickly view product information for a particular product line.

1. Create a report from the sample GO Sales (query): Sales (query): with the following columns: **Product line, Product type, Product, Introduction date, Product description** (all from the Products data item).

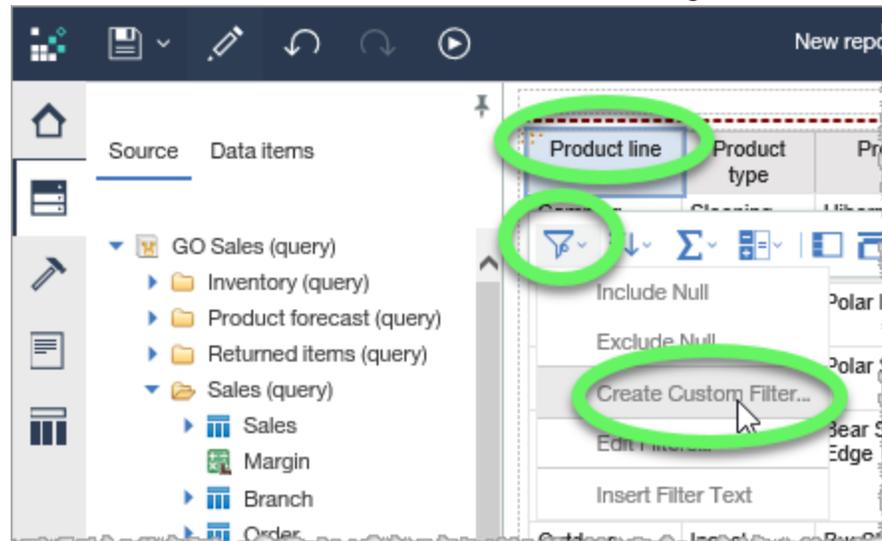
Double-click to edit text

Product line	Product type	Product	Introduction date	Product description
<Product line>	<Product type>	<Product>	<Introduction date>	<Product description>
<Product line>	<Product type>	<Product>	<Introduction date>	<Product description>
<Product line>	<Product type>	<Product>	<Introduction date>	<Product description>

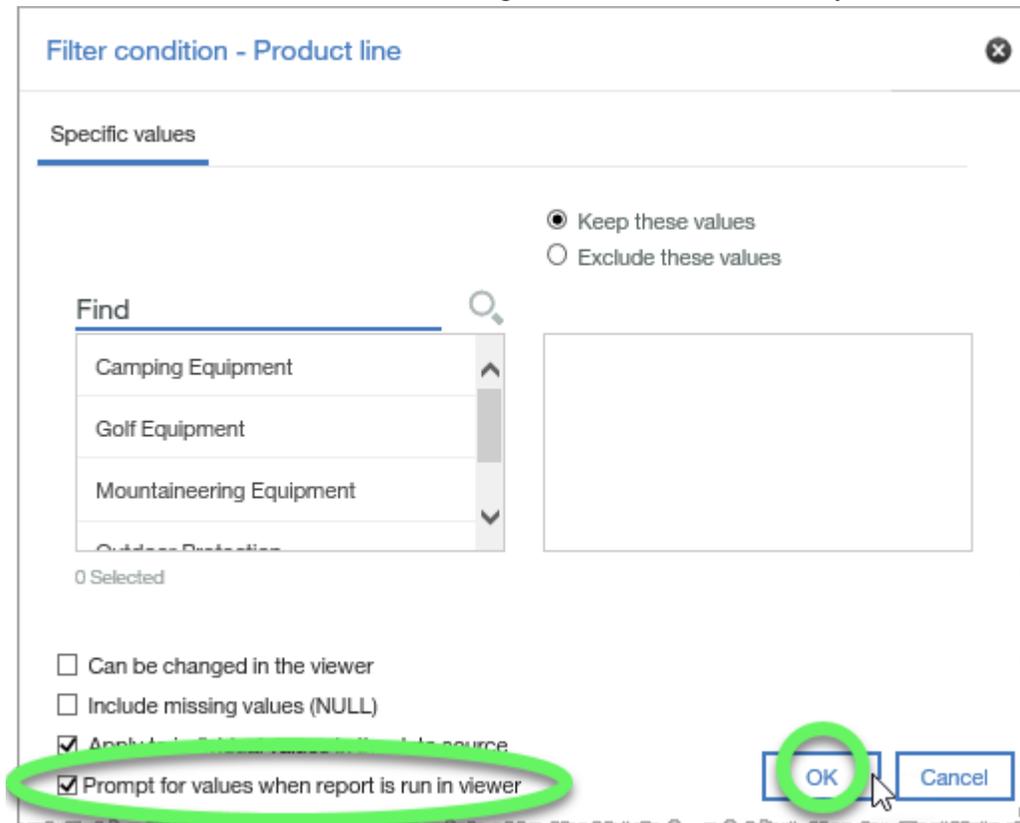
2. Expand the **Page views** options and click **Page preview**.



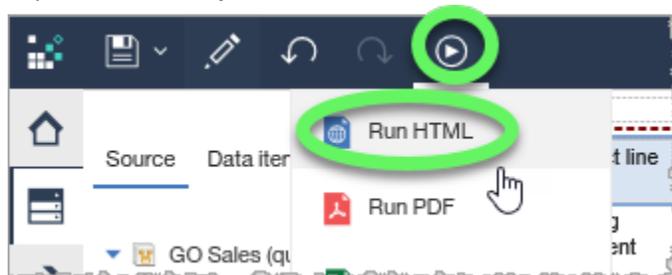
3. Create a custom filter on the **Product line** column heading.



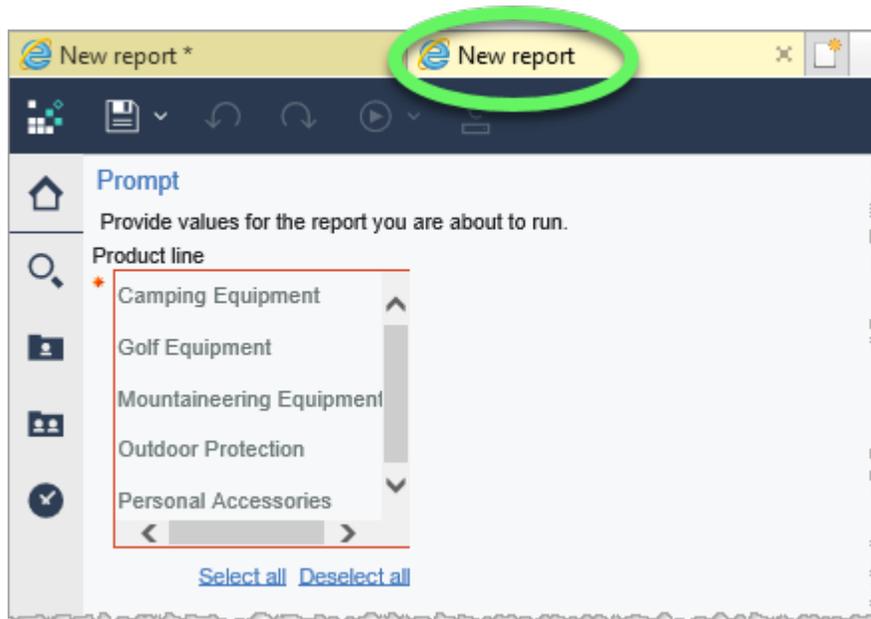
4. In the **Filter condition - Product line** dialog window, check mark **Prompt for values when report is run in viewer** and then click the **OK** button.



5. Expand the **Run options** list and select **Run HTML**.



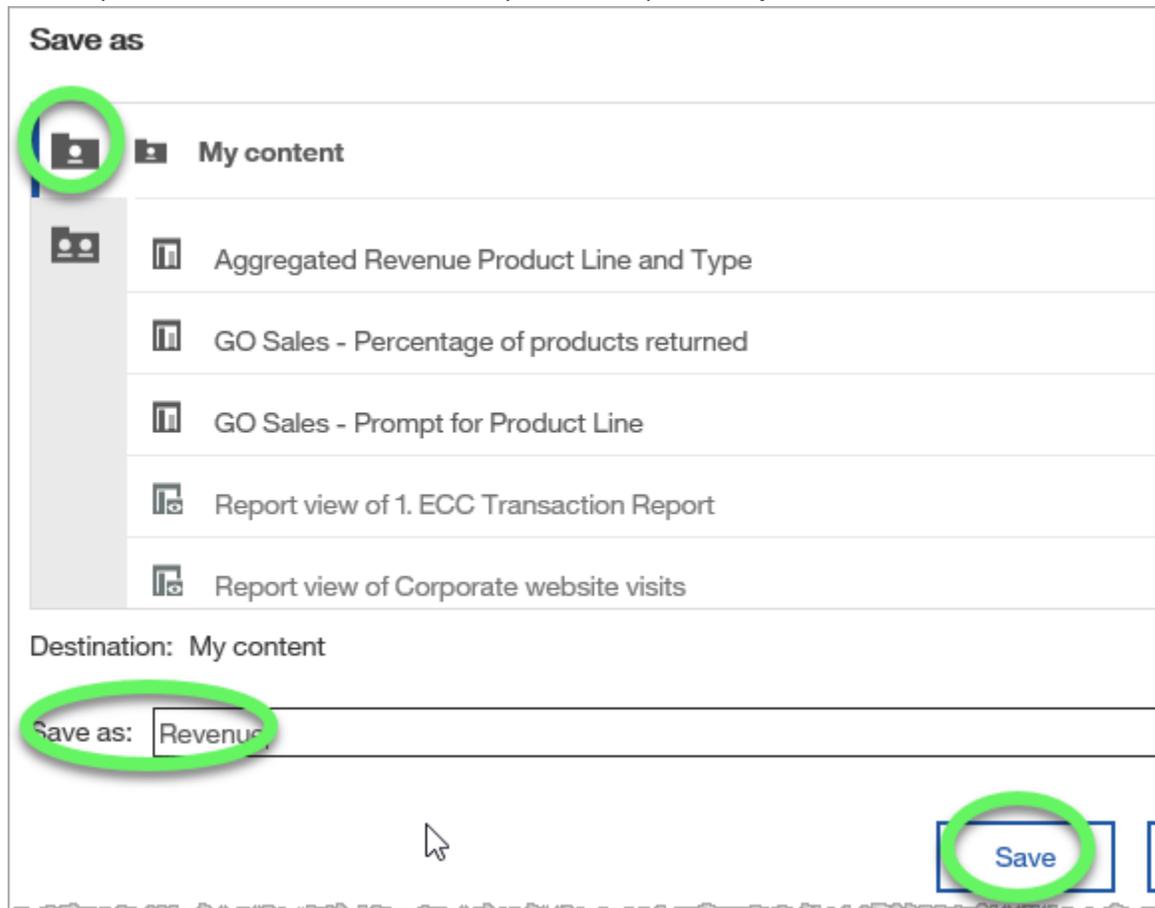
- The report opens in a new tab, and prompts for a **Product line** value.



- Select one or more values in the **Product line** list (Ctrl + click to select multiple values) and then click the **OK** button at the bottom of the page to continue running the report.



8. As always, click the **Save** button and save your new report in **My content**.



**END OF PROCEDURE.**

**You have successfully set up Prompts.**

# Calculating Data

In this training example, we will add a calculation column to a list report to determine what percentage of the products shipped from inventory were returned.

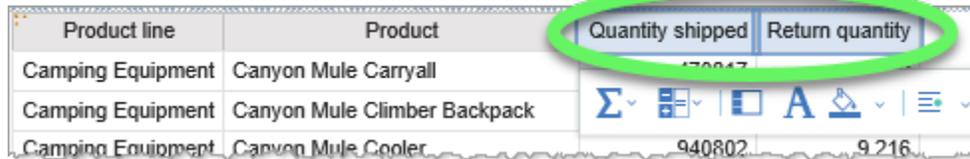
1. Create a list report from the sample GO Sales (query): Inventory (query) data that includes **Product line** and **Product** (from the Products data item), **Quantity Shipped** (from the Inventory data item), and **Return quantity** (from the Returned items (query), Returned Items data item).

Product line	Product	Quantity shipped	Return quantity
<Product line>	<Product>	<Quantity shipped>	<Return quantity>
<Product line>	<Product>	<Quantity shipped>	<Return quantity>
<Product line>	<Product>	<Quantity shipped>	<Return quantity>
Overall - Summary		<Summary(Quantity shipped)>	<Summary(Return quantity)>

2. Switch to **Page preview** so that we can see the report change as we work.

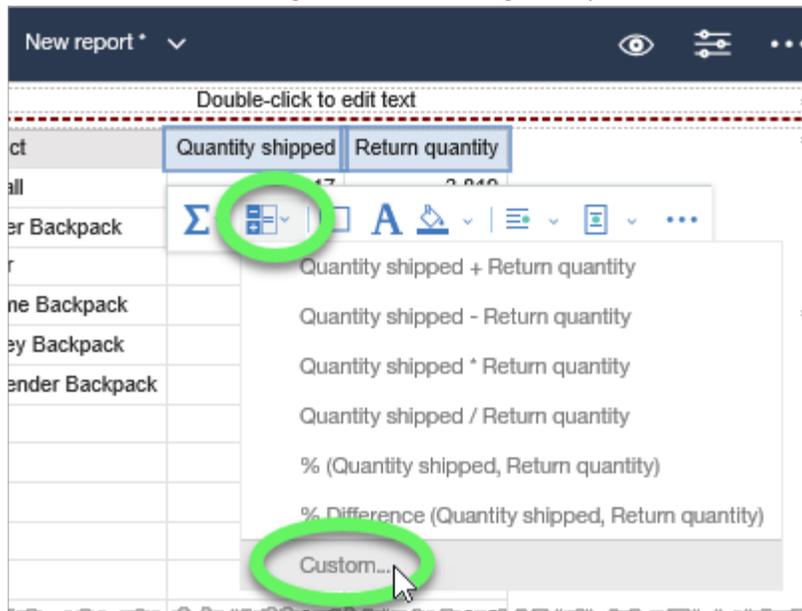


3. Select the column headings of the data to be used in the calculation. For this training example, ctrl + click to select both the **Quantity shipped** and **Return quantity** column headings.



Product line	Product	Quantity shipped	Return quantity
Camping Equipment	Canyon Mule Carryall	170817	
Camping Equipment	Canyon Mule Climber Backpack		
Camping Equipment	Canyon Mule Cooler	940802	9216

4. Click to expand the **Insert Calculation** options and note that there are several pre-determined options for inserting a calculation based on the selected column headings. For this training example, click **Custom**.



5. In the **Insert custom calculation** dialog window, expand the Operation list and select **% (percentage)**, select the **% (Return quantity, Quantity shipped)** radio button in the Calculation section, and for the New data item name, select **Use the custom name** and type **Percentage returned** in the

name field. Then click **OK**.

**Insert custom calculation** [Close]

Operation:  
% (percentage) [v]

Calculation

% (Quantity shipped, Return quantity)  
 % (Return quantity, Quantity shipped)

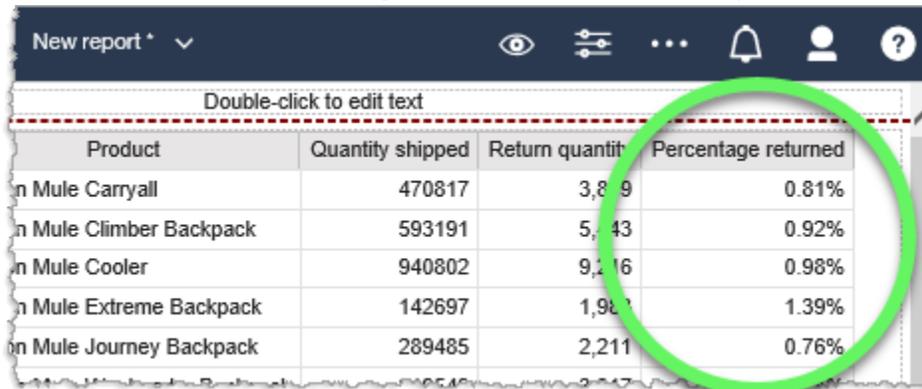
New data item name

Use the default name  
% (Return quantity, Quantity shipped)

Use the custom name  
Percentage returned

[OK] [Cancel]

6. The calculated column **Percentage returned** is added to the report.



The screenshot shows a Cognos Analytics report interface. At the top, there is a dark blue header with the text "New report" and several icons. Below the header is a table with the following columns: Product, Quantity shipped, Return quantity, and Percentage returned. The data rows are:

Product	Quantity shipped	Return quantity	Percentage returned
n Mule Carryall	470817	3,899	0.81%
n Mule Climber Backpack	593191	5,443	0.92%
n Mule Cooler	940802	9,216	0.98%
n Mule Extreme Backpack	142697	1,987	1.39%
n Mule Journey Backpack	289485	2,211	0.76%

A green circle highlights the "Percentage returned" column.

7. As always, click the **Save** button and save your new report in **My content**.

**Save as**

**My content**

- Aggregated Revenue Product Line and Type
- GO Sales - Percentage of products returned
- GO Sales - Prompt for Product Line
- Report view of 1. ECC Transaction Report
- Report view of Corporate website visits

Destination: My content

Save as: Revenue

Save

**END OF PROCEDURE.**

**You have successfully calculated data.**

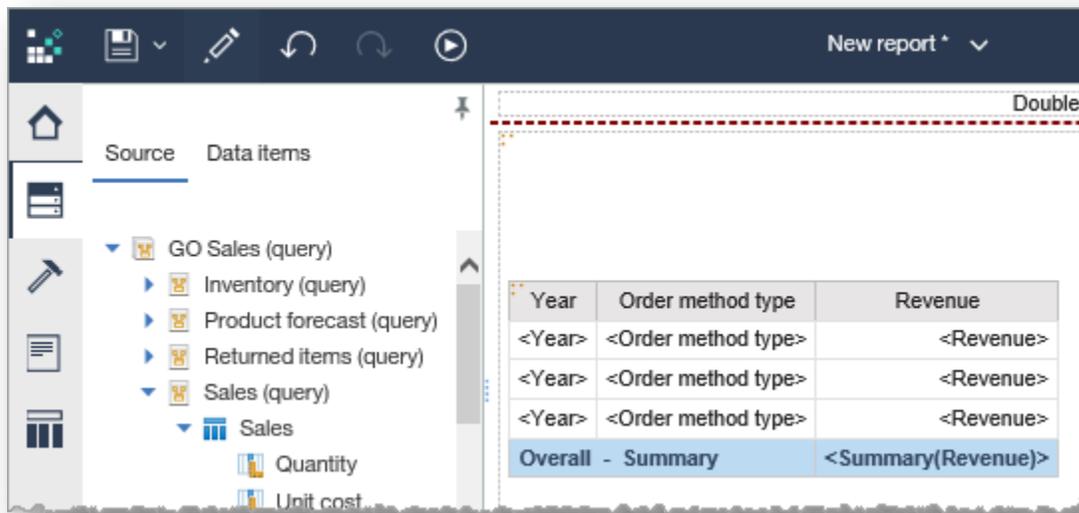
# Creating a Crosstab Report

Comparative analysis uses a report, such as a crosstab report (a.k.a. pivot table), to show summary measure values as intersections of row and column data.

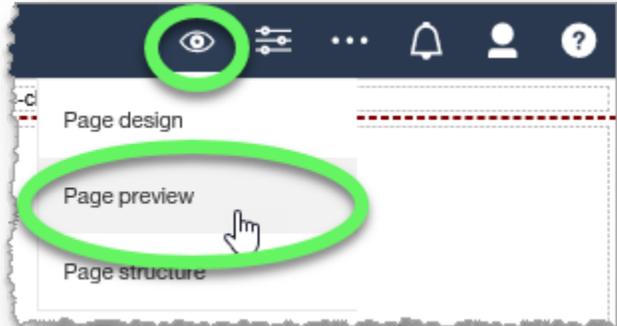
## Procedure

For the purposes of this training example, the sales planning group wants to compare annual revenue by order method. We will create a crosstab report, as it offers the best way to present results.

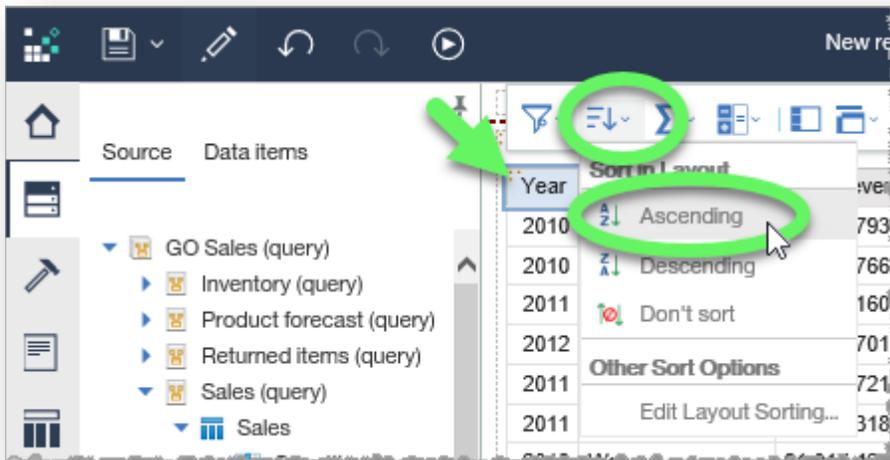
1. Create a list report from the sample GO Sales (query): Sales (query) data that includes **Year** (in the Time data item), **Order method type** (Order method data item), and **Revenue** (Sales data item).



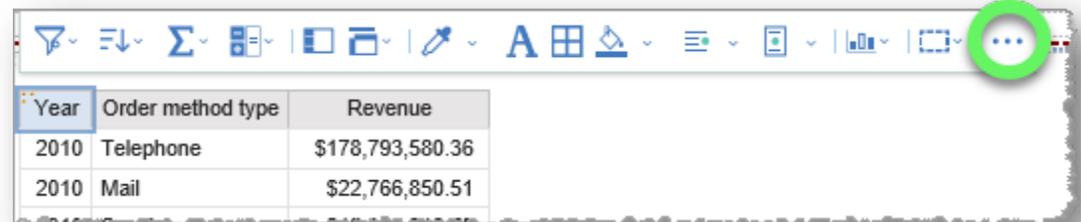
2. Switch to **Page preview** to more easily view the changes we make to the report in the upcoming steps.



3. Select the **Year** column heading and sort in ascending order.



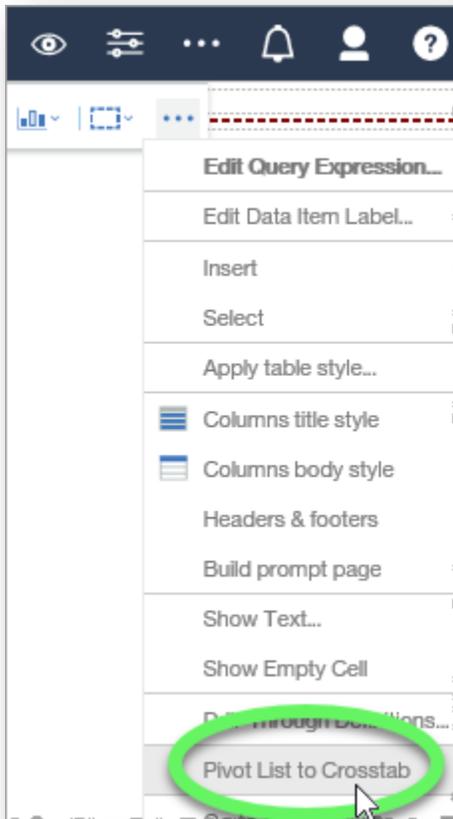
4. Click the **More** button (ellipses) at the far right of the contextual toolbar to display more options.



The screenshot shows a contextual toolbar with various icons for filtering, sorting, and styling. The 'More' button, represented by three horizontal ellipses, is circled in green. Below the toolbar is a table with the following data:

Year	Order method type	Revenue
2010	Telephone	\$178,793,580.36
2010	Mail	\$22,766,850.51

5. Select **Pivot List to Crosstab** from the listed options.



6. Because Year is selected when you choose 'Pivot List to Crosstab' the values of Year become the columns. Because Revenue is a measure it becomes the content of the crosstab cells. If you have more than one measure, they appear as columns. The remaining data item, 'Order method type' become the rows. If you have multiple unselected columns, that are not measures, they appear as rows and nested rows. The remaining data item, 'Order method type' become the rows. If you have multiple unselected columns, that are not measures, they appear as rows and nested rows.

Revenue	2010	2011	2012	2013	Summary
Telephone	\$178,793,580.36	\$107,160,284.09	\$37,199,842.80	\$17,832,073.81	\$340,985,781.06
Sales visit	\$101,072,721.10	\$79,721,524.37	\$73,918,652.38	\$55,481,936.15	\$310,194,834.00
Fax	\$28,639,472.14	\$19,896,187.76	\$13,445,559.93	\$8,092,322.18	\$70,073,542.01
E-mail	\$95,402,796.21	\$44,318,886.43	\$23,701,042.57	\$16,420,318.95	\$179,843,044.16
Mail	\$22,766,850.51	\$16,013,779.49	\$6,905,730.44	\$404,978.53	\$46,091,338.97
Special	\$13,905,918.75	\$10,769,180.34	\$1,006,100.01	\$1,670,121.15	\$27,351,320.25
Web	\$473,771,464.65	\$881,315,747.68	\$1,339,714,172.77	\$1,017,434,523.30	\$3,712,235,908.40
<b>Summary</b>	<b>\$914,352,803.72</b>	<b>\$1,159,195,590.16</b>	<b>\$1,495,891,100.90</b>	<b>\$1,117,336,274.07</b>	<b>\$4,686,775,768.85</b>

7. As always, click the **Save** button and save your new report in **My content**.

**END OF PROCEDURE.**

**You have successfully created a crosstab report.**

The screenshot shows the 'Save as' dialog box. At the top, it says 'Save as'. Below that, there is a list of content folders under the heading 'My content'. The folders listed are: 'Aggregated Revenue Product Line and Type', 'GO Sales - Percentage of products returned', 'GO Sales - Prompt for Product Line', 'Report view of 1. ECC Transaction Report', and 'Report view of Corporate website visits'. Below the list, it says 'Destination: My content'. At the bottom, there is a 'Save as:' field with the text 'Revenue' entered. To the right of the field is a 'Save' button. Green circles highlight the 'Save as:' field and the 'Save' button.

# Creating a Nesting Crosstab Report

Nesting crosstabs are used to compare data at varying levels of detail and in report organization.

## Procedure

In this training example, we will create a report that shows the sales revenue by sales region, country, and city.

1. Create a list report from the sample GO Sales (query): Sales (query) data that includes **Sales region** and **Country** (in the Sales staff data item), **Year** (Time data item), and **Revenue** (Sales data item).

The screenshot shows the Cognos Analytics report designer interface. On the left, the 'Data items' pane is expanded to show the 'Sales (query)' data item, with 'Sales' as a sub-item. Under 'Sales', several data items are listed: Quantity, Unit cost, Unit price, Unit sale price, Revenue (highlighted), and Product cost. The main report area displays a nesting crosstab report with the following structure:

Sales region	Country	Year	Revenue
<Sales region>	<Country>	<Year>	<Revenue>
<Sales region>	<Country>	<Year>	<Revenue>
<Sales region>	<Country>	<Year>	<Revenue>
Overall - Summary			<Summary(Revenue)>

- Switch to **Page preview** to more easily view the changes we make to the report in the upcoming steps.
- Select the **Year** column heading, click the **More** (ellipses) button on the far right of the contextual toolbar to expand its options, and choose **Pivot List to Crosstab**.

The screenshot shows a Cognos Analytics report editor interface. The main report area displays a table with columns: Sales region, Country, Year, and Revenue. The 'Year' column header is circled in green. Below the table is a contextual toolbar with various icons. A menu is open over the 'Year' column, and the 'Pivot List to Crosstab' option at the bottom of the menu is circled in green. The top navigation bar includes a 'New report' dropdown, an eye icon (circled in green), and other utility icons.

Sales region	Country	Year	Revenue
Americas	United States	2013	\$126,305,726.63
Americas	Mexico	2013	\$32,341,116.79
Northern Europe	Sweden	2011	\$22,770,212.11
Northern Europe	Sweden	2010	\$17,780,084.81
Central Europe	France	2011	\$45,745,704.79
Central Europe	Switzerland	2010	\$295,529,033.90
Southern Europe	Austria	2010	\$13,866,004.52
Americas	Mexico	2011	\$35,589,920.02
Asia Pacific	Korea	2012	\$48,993,648.20
Asia Pacific	Australia	2013	\$29,323,674.25
Northern Europe	Netherlands	2013	\$33,459,084.00
Northern Europe	Finland	2010	\$27,206,118.41

This screenshot shows the top navigation bar of the Cognos Analytics report editor. The 'Page preview' option is circled in green, and a mouse cursor is pointing at it. Other options visible in the bar include 'Page design' and 'Page structure'. The eye icon in the top bar is also circled in green.

4. Because Year is selected when you choose 'Pivot List to Crosstab' the values of Year become the columns. Because Revenue is a measure it becomes the content of the crosstab cells. If you have more than one measure, they appear as columns. Because there are 2 remaining data items, 'Sales Region' and 'Country', they become the nested rows.

Revenue		2011	2012	2013	2010	Summary
Americas	Brazil	\$22,580,246.05	\$28,939,868.92	\$21,447,899.23	\$17,566,891.21	\$90,534,905.4
	United States	\$131,677,071.69	\$164,986,189.21	\$126,305,726.63	\$110,834,974.32	\$533,803,961.8
	Mexico	\$35,589,920.02	\$50,770,840.19	\$32,341,116.79	\$22,359,707.90	\$141,061,584.9
	Canada	\$49,366,410.09	\$67,341,094.59	\$53,511,041.09	\$41,468,882.87	\$211,687,428.6
	Summary	\$239,213,647.85	\$312,037,992.91	\$233,605,783.74	\$192,230,456.30	\$977,087,880.5
Northern Europe	Sweden	\$22,770,212.11	\$28,629,690.81	\$23,089,905.72	\$17,780,084.81	\$92,269,893.4
	Netherlands	\$31,959,640.39	\$42,550,836.35	\$33,459,084.00	\$25,243,944.19	\$133,213,504.9
	Finland	\$35,485,794.15	\$45,967,540.48	\$35,396,299.54	\$27,336,419.44	\$144,855,733.6

5. Select the **Sales region** by clicking on any cell in the Sales region column and sort by descending order.

Revenue		2011	2012	2013	2010	Summary
Americas	Brazil	\$22,580,246.05	\$28,939,868.92	\$21,447,899.23	\$17,566,891.21	\$90,534,905.4
	United States	\$131,677,071.69	\$164,986,189.21	\$126,305,726.63	\$110,834,974.32	\$533,803,961.8
	Mexico	\$35,589,920.02	\$50,770,840.19	\$32,341,116.79	\$22,359,707.90	\$141,061,584.9
	Canada	\$49,366,410.09	\$67,341,094.59	\$53,511,041.09	\$41,468,882.87	\$211,687,428.6
	Summary	\$47.85	\$312,037,992.91	\$233,605,783.74	\$192,230,456.30	\$977,087,880.5
Northern Europe	Sweden	\$22,770,212.11	\$28,629,690.81	\$23,089,905.72	\$17,780,084.81	\$92,269,893.4
	Netherlands	\$31,959,640.39	\$42,550,836.35	\$33,459,084.00	\$25,243,944.19	\$133,213,504.9
	Finland	\$35,485,794.15	\$45,967,540.48	\$35,396,299.54	\$27,336,419.44	\$144,855,733.6

- Expand the **Sales staff** data item in the Source pane and drag **City** to the right of the **Country** column, releasing the mouse when a solid black vertical line appears between the Country column and the first **Year** column.

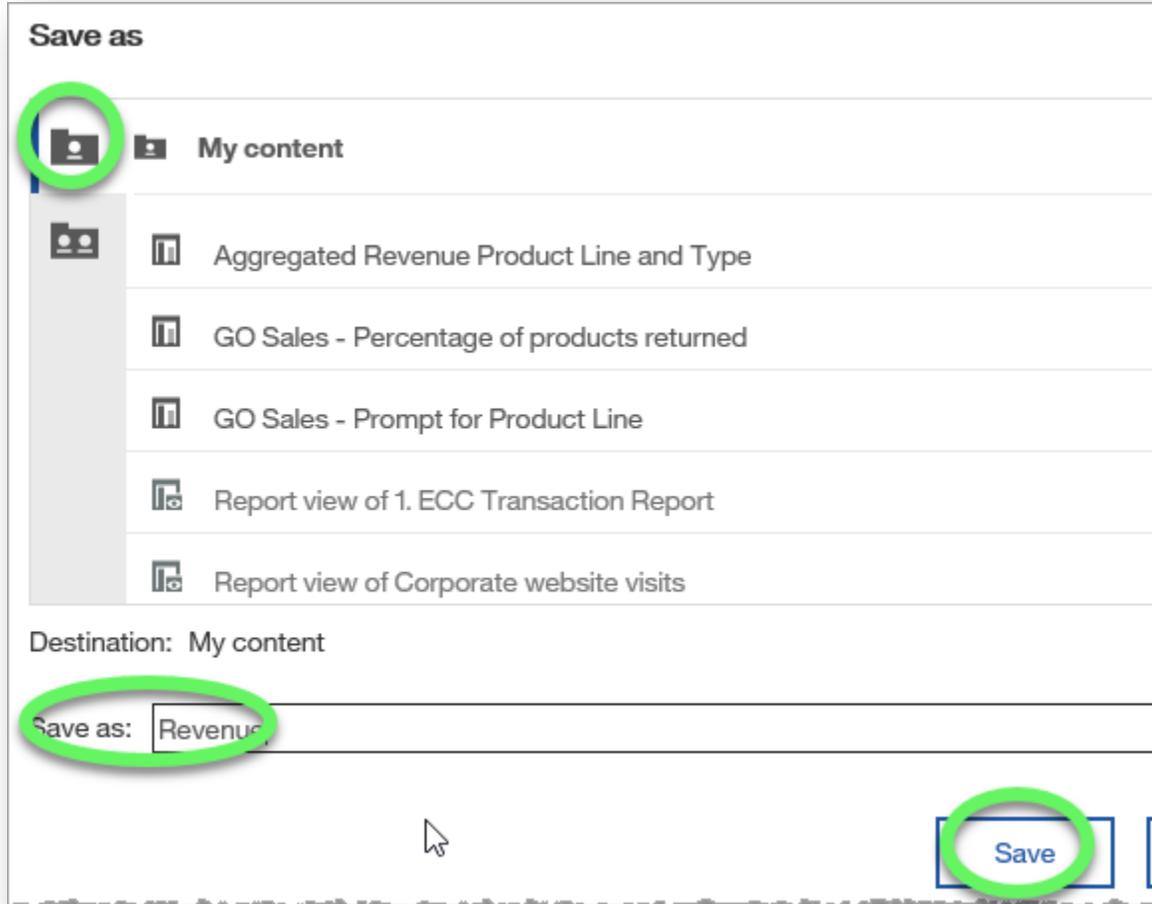


- The **City** column is now nested within the Country column.

The screenshot shows the resulting pivot table after nesting the 'City' column within the 'Country' column. The table is structured as follows:

Revenue			2010	2011	2012
Southern Europe	Italy	Milano	\$22,227,856.92	\$31,113,988.15	\$45,622,153.53
	Austria	Wien	\$13,866,004.52	\$19,343,686.48	\$28,348,967.66
	Spain	Bilbao	\$20,230,164.18	\$27,822,178.46	\$41,467,572.14
	Summary		\$56,324,025.62	\$78,279,853.09	\$115,438,693.33
Northern Europe	Netherlands	Amsterdam	\$25,243,944.19	\$31,959,640.39	\$42,550,836.35
	Sweden	Kista	\$17,780,084.81	\$22,770,212.11	\$28,629,690.81
	Finland	Kuopio	\$27,206,118.41	\$35,485,794.15	\$45,967,540.48
	Summary		\$70,230,147.41	\$90,215,646.65	\$117,148,067.64
Central Europe	Switzerland	Zürich		\$15,522,736.97	\$25,388,932.34
		Genève	\$295,529,033.90	\$365,267,010.50	\$456,726,018.48
	United Kingdom	London	\$22,729,066.18	\$29,929,640.16	\$36,573,360.12
		London	\$18,554,578.76	\$17,585,523.41	\$20,535,762.12

8. As always, click the **Save** button and save your new report in **My content**.



**END OF PROCEDURE.**

**You have successfully created a nesting crosstab report.**

# Using Comparative Calculations

In this training example, we will create a report for product line unit sales amounts (unit price minus unit sale price) by sales region.

1. Create a list report from the sample GO Sales (query): Sales (query) data that includes **Sales region** (in the Sales staff data item), **Product line** (Products data item), and **Unit Price** and **Unit sale price** (Sales data item).

The screenshot shows the Cognos Analytics report designer interface. On the left, the 'Data items' pane is expanded to show the 'Sales' data item, with 'Unit sale price' selected. The main report area displays a table with the following structure:

Sales region	Product line	Unit price	Unit sale price
<Sales region>	<Product line>	<Unit price>	<Unit sale price>
<Sales region>	<Product line>	<Unit price>	<Unit sale price>
<Sales region>	<Product line>	<Unit price>	<Unit sale price>
Overall - Summary		<Summary(Unit price)>	<Summary(Unit sale price)>

2. Select the **Unit price** and **Unit sale price** headings (Ctrl + click), and click the **Insert Calculation** button to expand its options.

Sales region	Product line	Unit price	Unit sale price
<Sales region>	<Product line>	<Unit price>	<Unit sale price>
<Sales region>	<Product line>	<Unit price>	<Unit sale price>
<Sales region>	<Product line>	<Unit price>	<Unit sale price>
<b>Overall - Summary</b>		<Summary(Unit price)>	<Summary(Unit sale price)>

3. Choose **Unit price - Unit sales price**. (Alternatively, you could click **Custom...** and manually create this calculation, but Cognos Analytics saves you time by giving you possible options for inserting calculations based on your selections.)

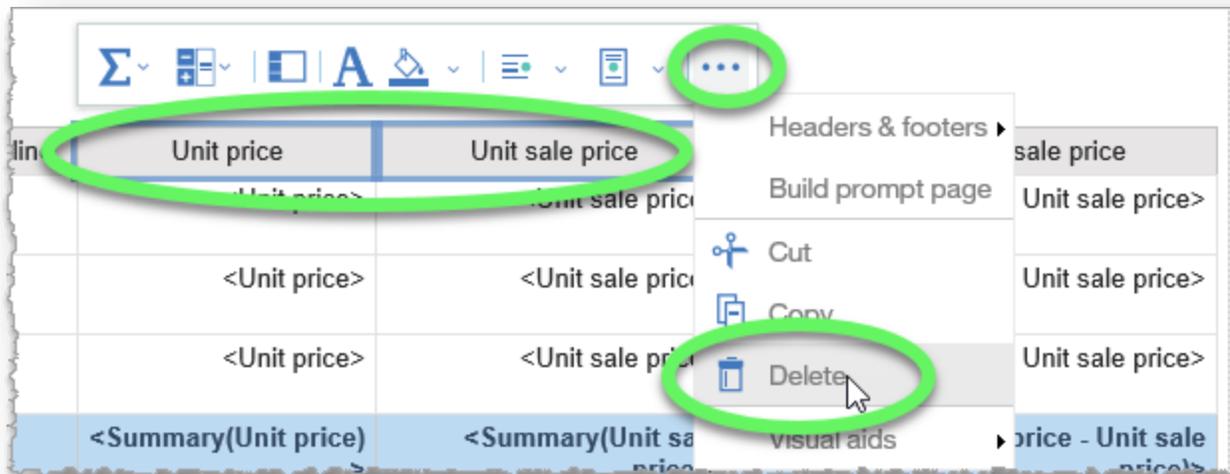
Sales region	Product line		
<Sales region>	<Product line>		
<Sales region>	<Product line>		
<Sales region>	<Product line>		
<b>Overall - Summary</b>		<Sumr	

- Unit price + Unit sale price
- Unit price - Unit sale price
- Unit price \* Unit sale price
- Unit price / Unit sale price
- % (Unit price, Unit sale price)

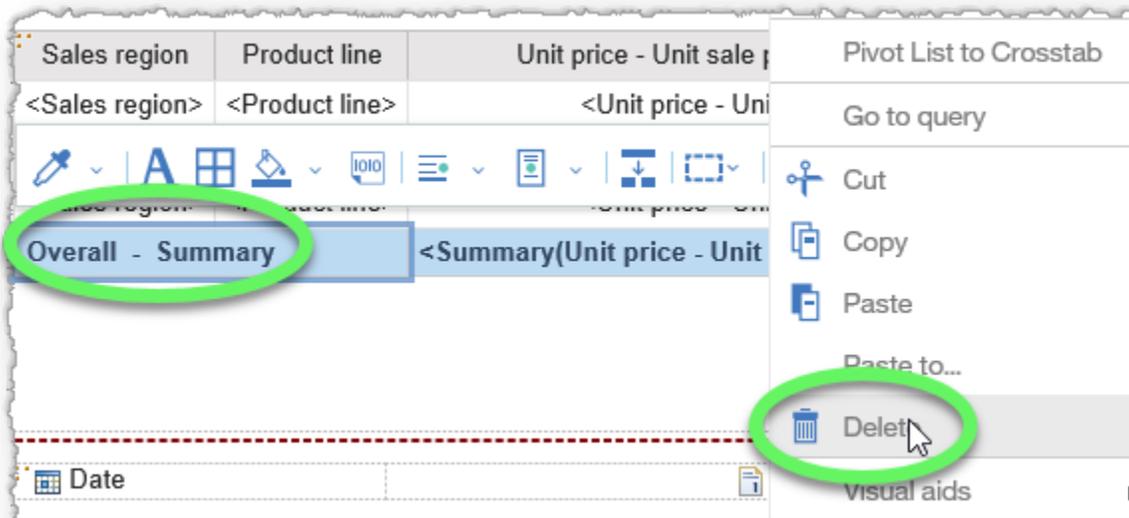
4. The calculated column is added to the report. Next we will delete some unnecessary columns.

Product line	Unit price	Unit sale price	Unit price - Unit sale price
Product	<Unit price>	<Unit sale price>	<Unit price - Unit sale price>
Product	<Unit price>	<Unit sale price>	<Unit price - Unit sale price>
Product	<Unit price>	<Unit sale price>	<Unit price - Unit sale price>
	<Summary(Unit price)>	<Summary(Unit sale price)>	<Summary(Unit price - Unit sale price)>

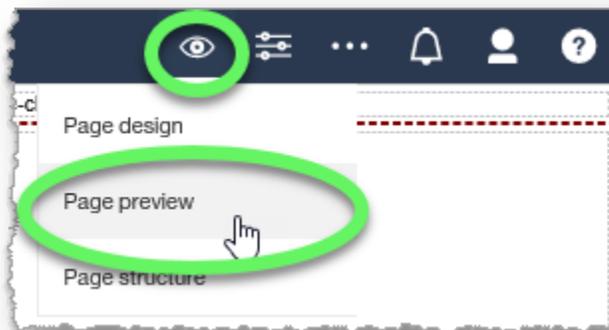
5. Select the **Unit price** and **Unit sale price** column headings (Ctrl + click) and then click the **More** button (ellipses icon) in the contextual toolbar, and choose **Delete** from the list of options. The new column will continue to calculate based on the data in unit price and unit sale price columns, but they do not have to display in the report.



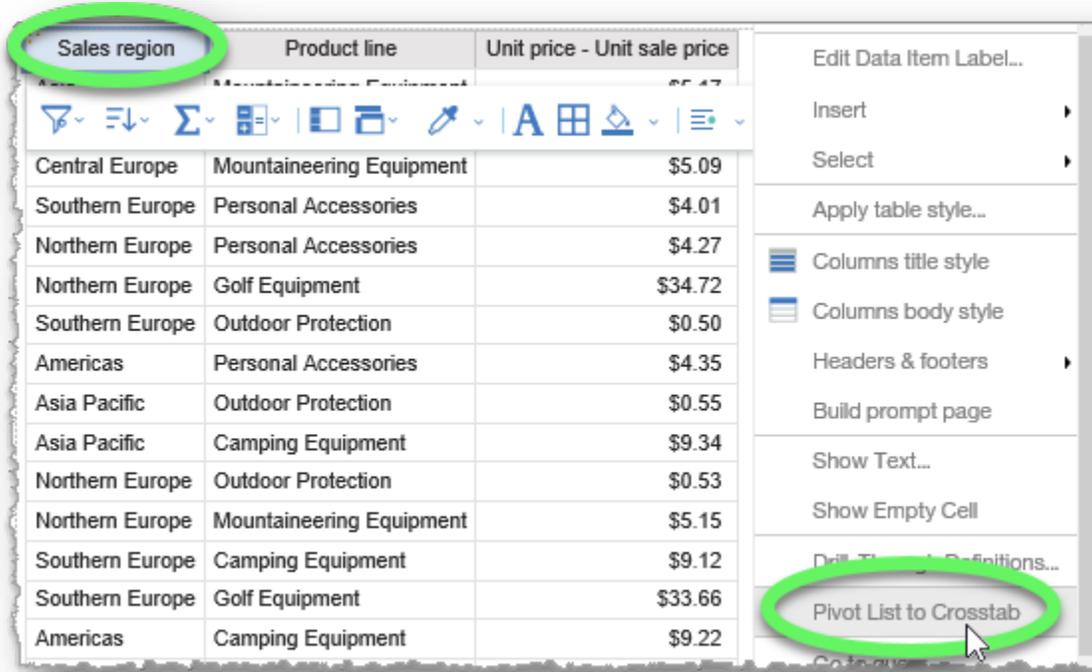
6. We will also remove the Summary row. Select the **Overall - Summary** column heading, click the **More** button (ellipses icon) in the contextual toolbar, and choose **Delete** from the list of options.



7. Switch to **Page preview** to more easily view the changes we make to the report in the upcoming steps.



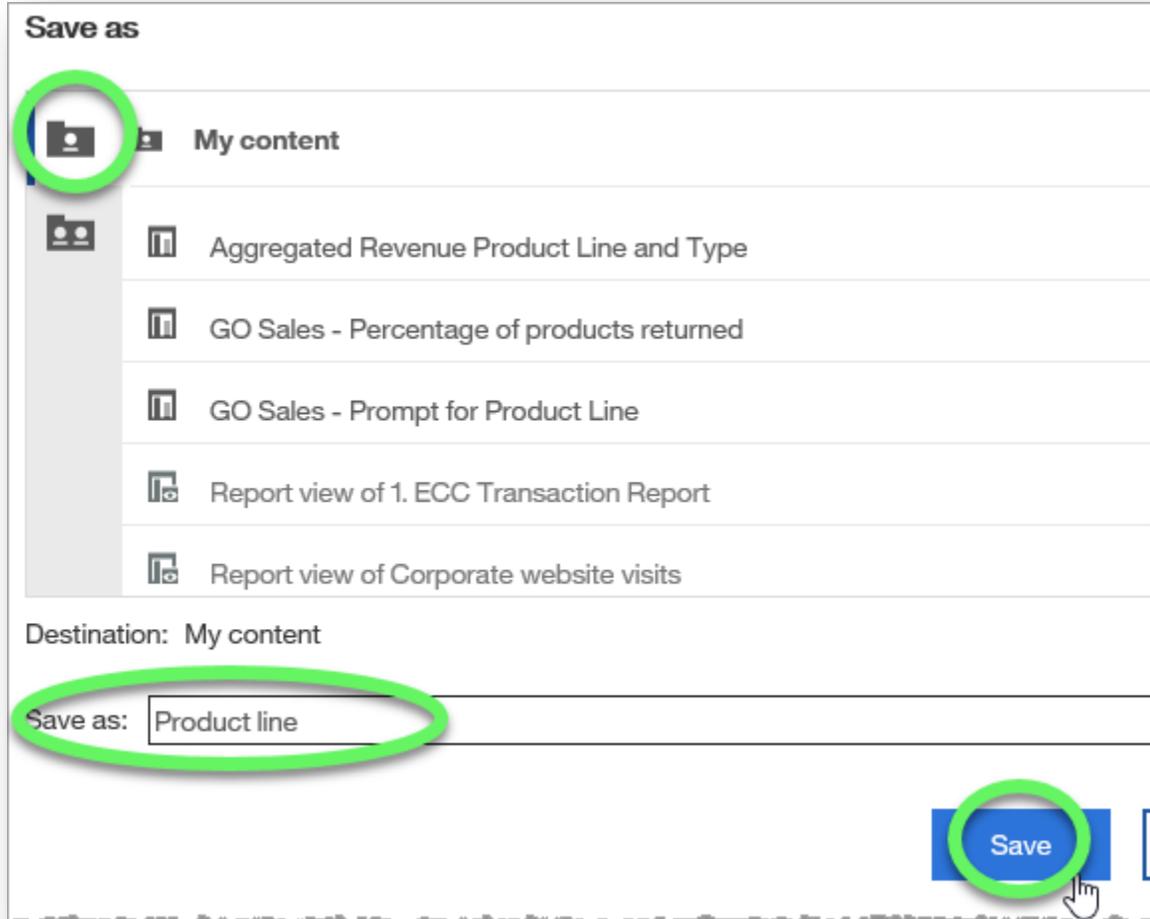
8. Select the **Sales region** column heading, expand the **More** (ellipses) button in the contextual toolbar, and select **Pivot List to Crosstab**.



9. The report displays the unit sales amount (unit price - unit sales price) by product line and region.

Unit price - Unit sale price	Americas	Asia Pacific	Northern Europe	Central Europe	Southern Europe
Personal Accessories	\$4.35	\$4.61	\$4.27	\$0.21	\$4.01
Camping Equipment	\$9.22	\$9.34	\$9.38	\$9.22	\$9.12
Outdoor Protection	\$0.49	\$0.55	\$0.53	\$0.54	\$0.50
Golf Equipment	\$33.66	\$34.06	\$34.72	\$33.46	\$33.66
Mountaineering Equipment	\$5.12	\$5.17	\$5.15	\$5.09	\$5.13

10. As always, click the **Save** button and save your new report in **My content**.



**END OF PROCEDURE.**

**You have successfully used comparative calculations.**

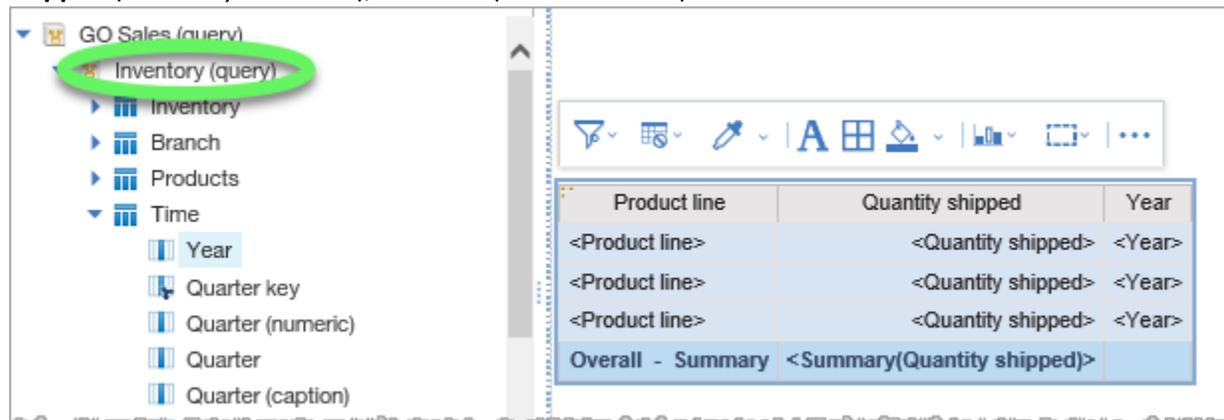
# Creating a Chart Report

Chart reports are used for trending and forecasting. These reports use summarized historical data to make calculated projections.

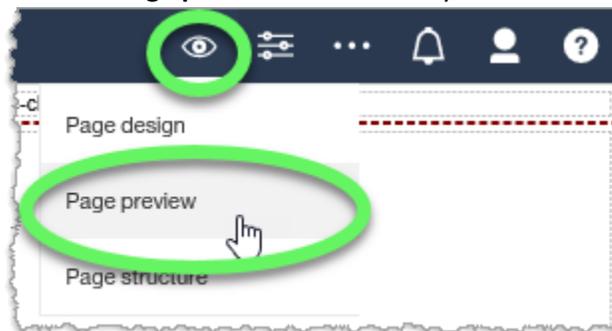
## Procedure

For the purposes of this training example, we will trend quantity shipped data by product line for 2010-2013 to determine supply needs for 2014.

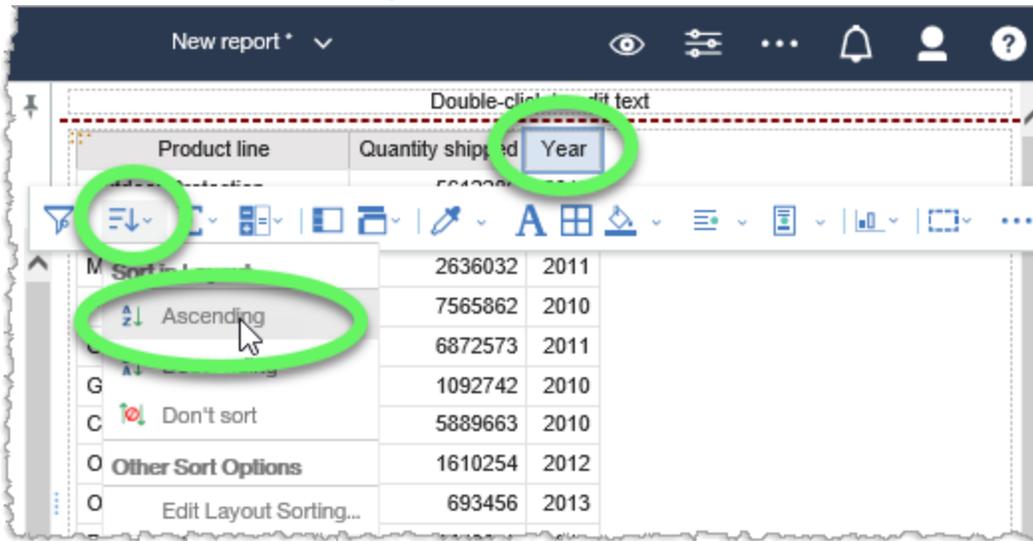
1. Create a list report from the sample GO Sales (query): Inventory (query) data that includes **Product line** (in the Products data item), **Quantity shipped** (Inventory data item), and **Year** (Time data item).



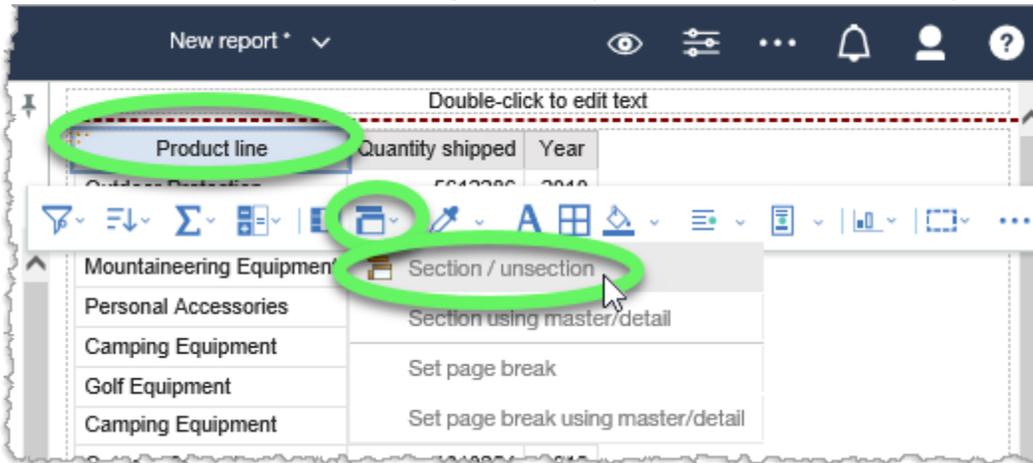
2. Switch to **Page preview** to more easily view the changes we make to the report in the upcoming steps.



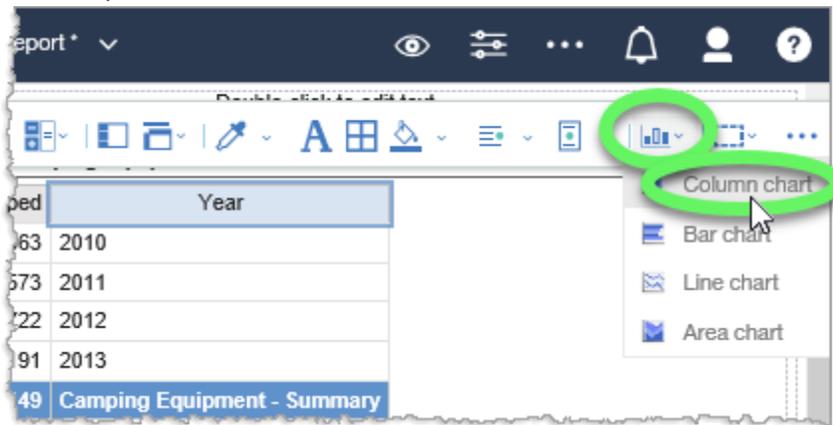
3. Sort the **Year** column in ascending order.



4. Select the **Product line** column heading, click to expand the **Section/Unsection** options and choose the **Section / unsection** link.



5. Select any item in the list to reveal the contextual toolbar, then click the **Change chart type** button to expand its options, and choose **Column chart**.



6. Charts are displayed for each Product line.



7. As always, click the **Save** button and save your new report in **My content**.

**Save as**

- My content**
- Aggregated Revenue Product Line and Type
- GO Sales - Percentage of products returned
- GO Sales - Prompt for Product Line
- Report view of 1. ECC Transaction Report
- Report view of Corporate website visits

Destination: My content

Save as:

**Save**

**END OF PROCEDURE.**

**You have successfully created a chart report.**

# Sorting Charts

Sorting charts assists with chart organization.

## Procedure

In this training example, we will sort an item within a chart.

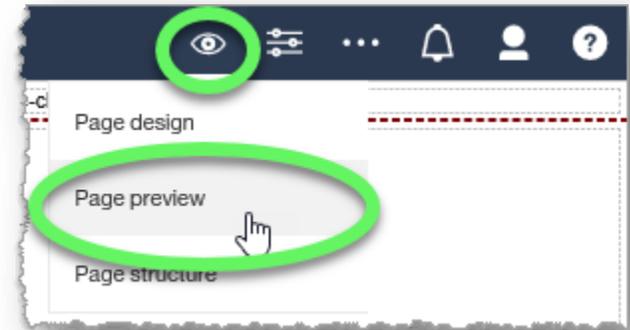
1. Create a list report from the sample GO Sales (query): Sales (query) data that includes **Product line** (in the Products data item), **Year** (Time data item), **Order method type** (Order method data item), and **Revenue** (Sales data item).

The screenshot shows the Cognos Analytics interface for configuring a list report. On the left, the 'Data items' pane is expanded to show the 'Sales' data item, with 'Revenue' selected. The main report area displays a table with the following structure:

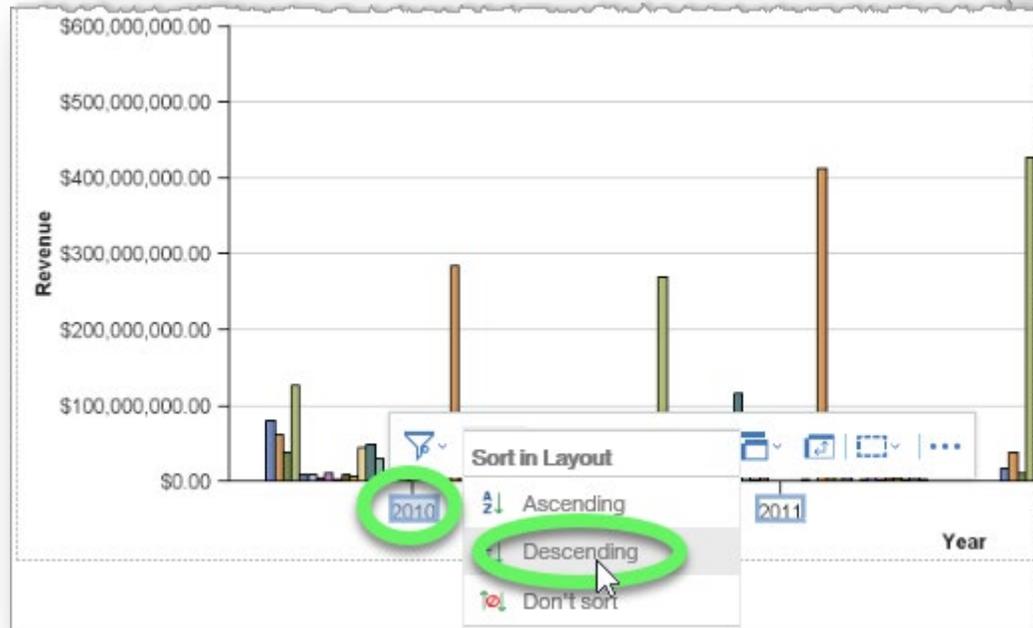
Product line	Year	Order method type	Revenue
<Product line>	<Year>	<Order method type>	<Revenue>
<Product line>	<Year>	<Order method type>	<Revenue>
<Product line>	<Year>	<Order method type>	<Revenue>
Overall - Summary			<Summary(Revenue)>

- Switch to **Page preview** to more easily view the changes we make to the report in the upcoming steps.
- Select the **Year** column heading, click the **More** (ellipses) button on the far right of the contextual toolbar, and select **Pivot List to Crosstab**.

Product line	Year	Order method type	Revenue
Personal Accessories	2010	Web	\$284,622,826.47
Camping Equipment	2010	Fax	\$9,634,763.39
Camping Equipment	2011	Telephone	\$47,562,256.31
Personal Accessories	2011	Mail	\$1,719,745.82
Mountaineering Equipment	2011	Web	\$65,855,489.46
Outdoor Protection	2011	Web	\$16,479,270.80
Golf Equipment	2012	Web	\$203,385,896.61
Personal Accessories	2012	Telephone	\$5,979,547.46
Mountaineering Equipment	2012	Sales visit	\$14,798,621.63
Golf Equipment	2013	Sales visit	\$8,912,340.24
Personal Accessories	2013	Fax	\$886,679.75
Camping Equipment	2012	Special	\$332,095.44
Outdoor Protection	2013	Fax	\$22,614.84
Mountaineering Equipment	2013	Special	\$318,175.50



4. Select the **Order method type** column in the list report to reveal the contextual toolbar, click the **Chart** button to expand its contents, and choose **Column chart**.
5. Select a Year in the Categories axis, click the **Sort** button to expand its options, and click **Descending**.



Order method type	Revenue	Revenue	Revenue	Revenue	Revenue
Telephone	\$80,467,596.88	\$47,562,256.31	\$17,715,451.40	\$8,149	
Sales visit	\$62,069,990.87	\$43,352,874.97	\$37,660,178.39	\$25,528	
E-mail	\$39,124,634.73	\$21,291,005.31	\$10,612,304.02	\$4,871	
Web	\$125,829,519.92	\$270,463,415.88	\$426,353,675.75	\$311,192	
Mail	\$10,015,621.15	\$8,846,759.96	\$2,482,266.26	\$3,550.12	\$21,000
Fax	\$9,634,763.39	\$6,228,274.27	\$5,226,451.57	\$1,964,909.25	\$23,000

6. The chart displays the Years in descending order.
7. As always, click the **Save** button and save your new report in **My content**.

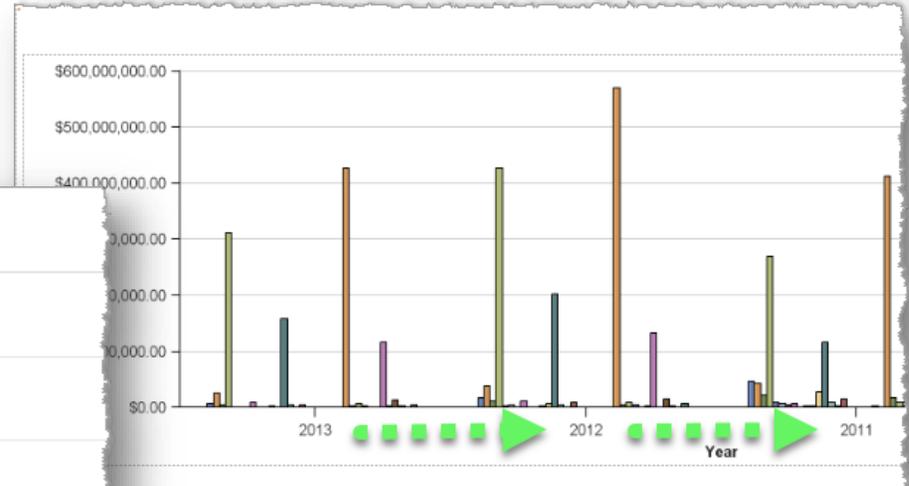
**Save as**

-  **My content**
-  Aggregated Revenue Product Line and Type
-  GO Sales - Percentage of products returned
-  GO Sales - Prompt for Product Line
-  Report view of 1. ECC Transaction Report
-  Report view of Corporate website visits

Destination: My content

Save as:

**Save**



**END OF PROCEDURE.**  
 You have successfully sorted a chart.

**END OF TRAINING AND REFERENCE GUIDE.**