

## Lab Center – Hands-on Lab

**Session: 8606**

**Session Title: Reporting Reimagined: Introduction to Cognos Analytics Reporting**

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# **Introduction: Getting Started**

## **Introduction to Cognos Analytics**

Cognos Analytics is Modern Self-Service Business Intelligence Platform that provides a sleek and intuitive User Interface. Whether Users are looking for Personal Data Discovery, or to leverage their full enterprise data platform for analysis, IBM Cognos Analytics provides the capabilities to empower everyone in the organization with the insights needed to positively impact decision making.

This workshop designed to give you an opportunity to discover the ease of use of IBM Cognos Analytics V11, IBM's Modern Business Intelligence solution that enhances the efficiency and capabilities of business users, report authors, and administrators alike.

During the workshop you will be shown some of the newest capabilities included in IBM Cognos Analytics, and you will be able to try out some of this functionality for yourself. The new interface was designed in collaboration with existing analytics users and reflects both their experience and expectations for the future. Consumers now have access to interactive reports, dashboard creation is as easy as dragging-and-dropping and power users can perform lightweight data modelling online.

After this workshop you will have a sense of the way in which IBM Cognos Analytics empowers business users to perform data discovery and to create dashboards.

In this workshop, you will experience the following capabilities in IBM Cognos Analytics:

- Cognos Analytics Navigation
- Interact with existing content
- Use the graduated user interface for deeper analysis
- Find Insights in the Information
- Work with Advanced Report Capabilities

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## **Objectives:**

Explore the basic capabilities you anticipate your end users will require to create and schedule their own reports. Also investigate methods of testing the performance or ease certain repetitive requirements the users may encounter.

A secondary objective is to better understand how the Cognos Analytics reporting capabilities and UI compare to the familiar Report Studio interface of the prior version of the Cognos report authoring environment.

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*This scenario takes place in our fictitious outdoors equipment reseller operation named The Great Outdoors. Great Outdoors has used prior versions of the Cognos BI reporting environment for their production reporting needs, but recently upgraded to Cognos Analytics.*

*You are the lead programmer and have been tasked with evaluating the newly upgraded version of the Cognos reporting environment, Cognos Analytics, and to evaluate its suitability for power users at the departmental level to produce their own reports. The users have already started to use dashboards they created themselves, but certain situations require reports to be run and updated on a scheduled basis, and potentially distributed widely throughout the organization.*

*Any report written by end users will be vetted for quality before being widely distributed throughout the enterprise, but if the users can create simple personal reports themselves, it will lead to greater satisfaction for them and less overhead on an already overworked IT department.*

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# Workshop 1 Navigation and Consumption

Cognos Analytics provides the User with a single self-service interface for all their needs. Users can view and consume their reports, interact with their reports, augment existing reports with additional data and manage subscriptions to content. This same User Interface allows the User to create new content. Users do not need to toggle between multiple applications to build reports. The Graduated Interface unique to Cognos Analytics utilizes Intent Driven Authoring. Users simply identify their intent of what type of object they need to build, and the UI will automatically bring up the capabilities needed to do so. By keeping the User in the same consistent interface, it eliminates the confusion around what tools to use.

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**Workshop Duration:** 20 minutes

**Audience:** Consumers and Report Author

**Capabilities:** Report Authoring Interface

**Prerequisite Workshop(s):** None

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In this Workshop, you will:

- Interact with existing content
  - Use the Graduated Interface for deeper analysis
  - Managing Subscriptions
- 

*There are several basic capabilities users must have before actually authoring of reports. The users must easily find and run existing production reports, interact with them in a straight-forward and reasonably intuitive manner, and (depending on their authority) even modify them to make unique, personal versions.*

*Users have complained that is it sometimes hard to find specific reports amongst the large number in the enterprise system. They have also expressed a desire to be able to schedule their own reports so they are not dependent on schedules set by IT.*

*We'll test these capabilities using some existing reports provided by IT.*

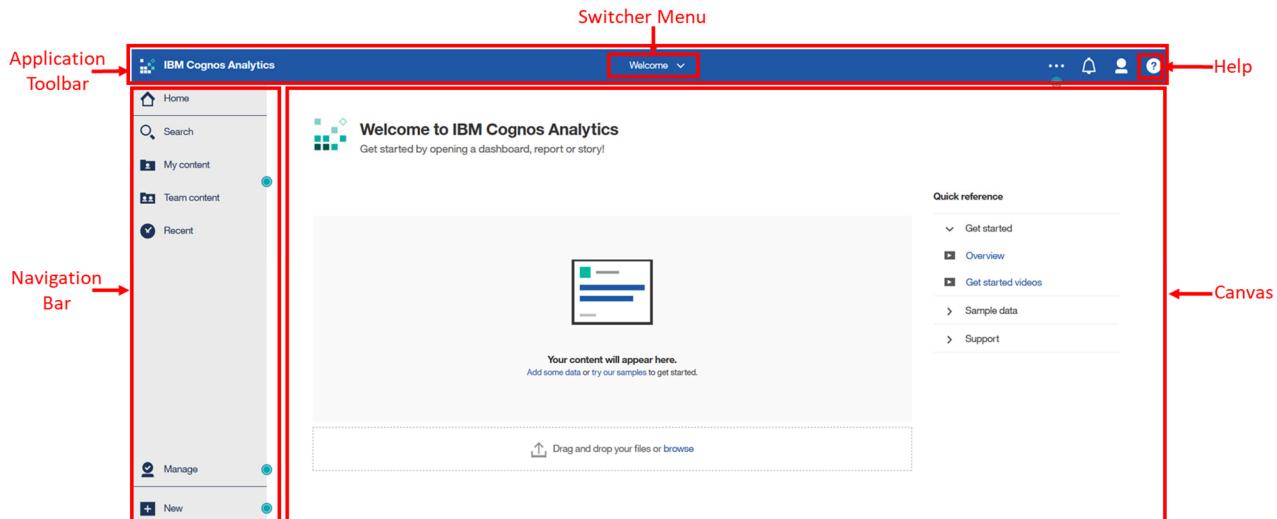
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## 1.1 Getting Started with IBM Cognos Analytics

- \_\_1. Open Chrome (preferred) or FireFox to launch IBM Cognos Analytics and bring up the login page.

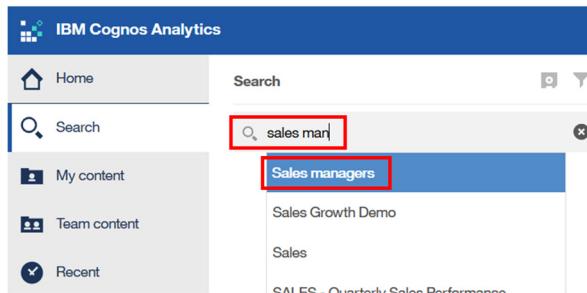


- \_\_2. Use the pull-down arrow next to “**Select Namespace**” to select **IBMDemo**.
- \_\_3. User ID: **administrator**
- \_\_4. Password: **IBMDem0s**
- \_\_5. The User Experience brings you directly into the completely new Cognos Analytics User Interface (UI). All Cognos Analytics Users begin their navigation here.



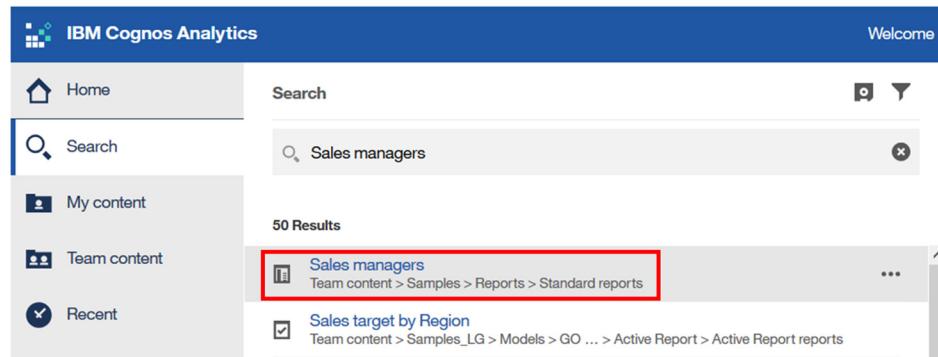
- \_\_6. Once you begin working with content, the canvas will update with your recently used items. In your workshop instance, you may see recent content in the canvas.
- \_\_7. From the navigation panel, click on “**Search**” to open the search menu.

- \_\_\_8. Begin to type “**Sales Managers**” in the **Search** field.



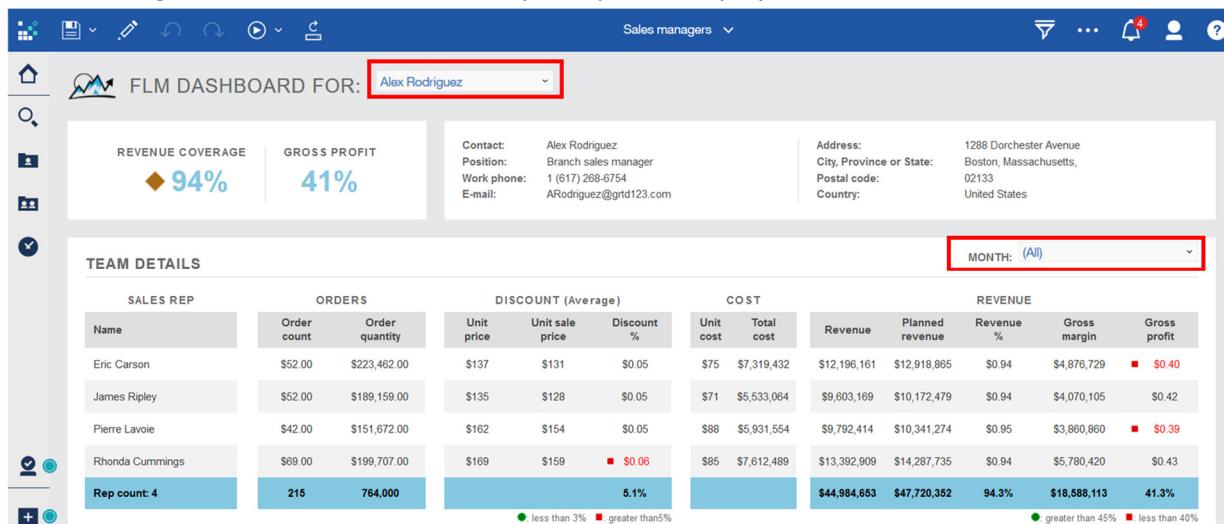
The screenshot shows the IBM Cognos Analytics interface. In the top right corner, there is a search bar with the text "sales man" typed into it. Below the search bar, a dropdown menu is open, showing several search results. The result "Sales managers" is highlighted with a red box. Other results listed include "Sales Growth Demo" and "Sales". The left sidebar contains navigation links for Home, Search, My content, Team content, and Recent.

- \_\_\_9. Click on “**Sales Managers**” to open a listing of all matching results. Click on the “**Sales managers**” report shown in the path below to open.



The screenshot shows the search results page in IBM Cognos Analytics. The search bar at the top contains the text "Sales managers". Below the search bar, it says "50 Results". A list of reports is displayed, with the first item, "Sales managers", highlighted with a red box. The report path is shown as "Team content > Samples > Reports > Standard reports". Below this, another report is listed: "Sales target by Region" with the path "Team content > Samples\_LG > Models > GO ... > Active Report > Active Report reports". The left sidebar has the same navigation options as the previous screenshot.

- \_\_\_10. Once the report renders, notice that the **Navigation panel** on the left side has minimized to provide more space for the report to expand and maximize size to fit the canvas. This report is a sample of a typical standard enterprise report. It is highly formatted and uses prompt pull-downs for the User to select how they wish to filter the report. Use the **pull down** menus to change the **Sales Manager** and **Month** to see the report dynamically update.

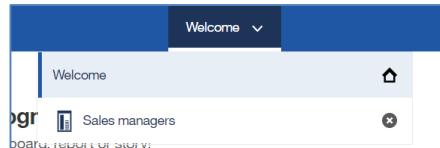


The screenshot shows an enterprise dashboard titled "FLM DASHBOARD FOR: Alex Rodriguez". At the top, there are two summary metrics: "REVENUE COVERAGE 94%" and "GROSS PROFIT 41%". Below these, there is contact information for "Alex Rodriguez" and address details for "1288 Dorchester Avenue, Boston, Massachusetts, 02133, United States". On the right, there is a dropdown menu labeled "MONTH: (All)". The main section is titled "TEAM DETAILS" and contains a table with columns for Sales Rep, Orders, Discount (Average), Cost, and Revenue. The table rows show data for Eric Carson, James Ripley, Pierre Lavoie, Rhonda Cummings, and a summary row for "Rep count: 4". The table includes various numerical values and percentage calculations. A legend at the bottom indicates color coding for certain data points.

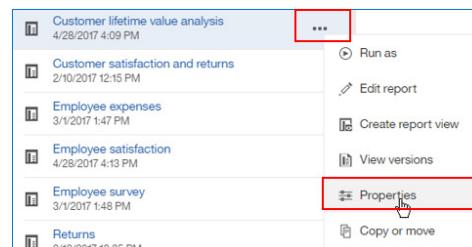
## 1.2 Interacting with Existing Reports

*Now that we know how to search for content, let's go a little deeper to learn more by performing some analysis.*

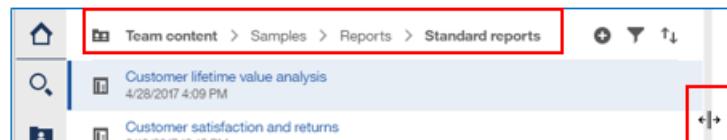
- \_\_11. Return to the Home Page if you are not already there by selecting **Welcome** from the **Navigation menu** (top center of application toolbar):



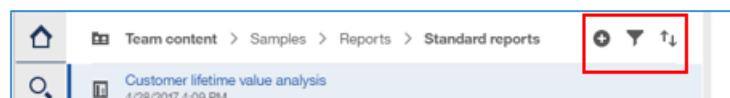
- \_\_12. Click on **Team content** to open the panel to view content.
- \_\_13. Navigate to **Samples>Reports>Standard reports**. The User may now see the list of reports available. From here, the User can get more information on the reports listed by right-clicking on a report name or clicking on the ellipse (...) and opening **Properties**, which shows details such as the owner of the report, data last modified etc.



- \_\_14. Notice the breadcrumb at the top to preserve the file path reference for the User. If you cannot see the complete breadcrumb trail, slide the **splitter bar** to make it wider.



- \_\_15. Besides the breadcrumb the user can also create new folders, filter the objects listed to narrow down the results based on the object type, or change the sort order of the list.

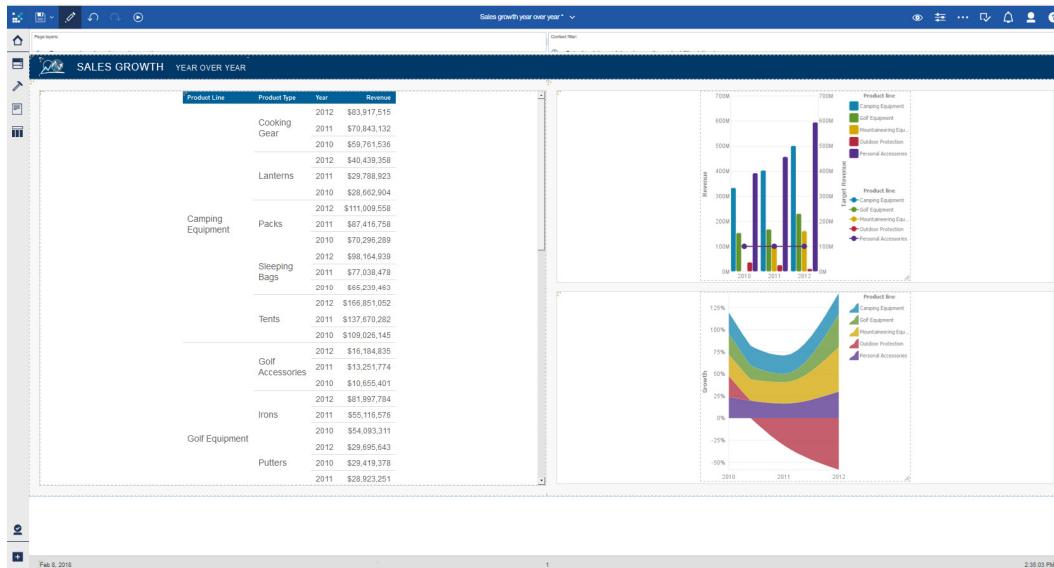


*The goal of this NEW Cognos Analytics User Experience is to eliminate separation of the consumption and authoring experience, which previously required Users to toggle between multiple interfaces. Cognos Analytics provides the User with a single UI for all capabilities. This is a paradigm shift from other BI tools in that the User does not begin their interaction based by determining the application they need to work in, but rather, they begin based on their intent of what they are working to accomplish.*

16. From **Standard Reports**, click on “Sales growth year over year” report to open.

The screenshot shows the 'Standard reports' section of the Cognos Analytics interface. On the left is a navigation sidebar with links for Home, Search, My content, Team content, and Recent. The main area lists various reports with their names, dates, and times. The 'Sales growth year over year' report from 8/3/2017 at 12:25 PM is highlighted with a red box.

*The report opens in the interactive report viewer on the **canvas** where Users may now interact with, and make modifications to, reports and then save those changes for more personalized content.*



*Dedicated Professional Report Authors are no longer responsible for defining and building out the User Interaction capabilities within a report. Nor do they need to build and maintain multiple report versions to support varying User preferences. In the NEW Cognos Analytics UI, all reports become interactive and utilize On Demand Toolbars to expose capabilities to the User directly from where they are in the report.*

*This Guided Analytics approach was developed to provide Users the capabilities they need when and where they need them.*

- \_\_17. Let's start with a review of the list report on the left. Click on the column header "Product Line". Users are now presented with an **On-Demand Toolbar** which provides a variety of interactions available to interact with this report object. This on-demand toolbar provides the capabilities to filter, sort, summarize, explore, group/ungroup, or even change the report chart type. These On-Demand toolbars are context specific and available to the User in every section of the report.

The screenshot shows a report titled "SALES GROWTH YEAR OVER YEAR". The first column is "Product Line" (highlighted in blue), followed by "Product Type", "Year", and "Revenue". The data is grouped by Product Line. A tooltip "Group / Ungroup" is shown over the "Group / Ungroup" icon in the On-Demand Toolbar.

Product Line	Product Type	Year	Revenue
Cooking Gear		2012	\$83,917,515
		2011	\$70,843,132
		2010	\$59,761,536
		2012	\$40,439,358

- \_\_18. Click within the list on the "Product Type" to expose the **On Demand Toolbar**. Then Click the **group/ungroup** icon. The report will update based on the selections made. Since the original report was already grouped by Product Type, this causes it to become ungrouped.

The screenshot shows two states of the report. On the left, the "Product Type" column is highlighted, and the "Group / Ungroup" icon in the On-Demand Toolbar is highlighted with a red box. On the right, the "Group / Ungroup" icon is still highlighted, but the report has been updated to show individual items for each product type, such as Tents, Packs, and Sleeping Bags under the Cooking Gear category.

- \_\_19. It is much easier to read with both the product types and product lines are grouped, so click on **Undo** in the Application toolbar.



**TECH TIP:** IF YOU CLICK THE GROUP/UNGROUP ICON AGAIN, IT WILL ALSO RE-GROUP BY PRODUCT TYPE, BUT IT WILL ALSO, BY DEFAULT, ADD A DEFAULT SUMMARY AT THE BOTTOM OF EACH PRODUCT LINE AND TYPE.

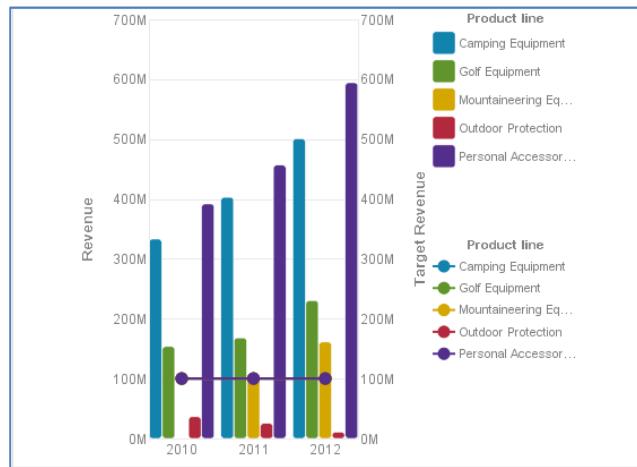
- \_\_20. Click on the "Year" column header on the report and choose Sort from the On Demand Toolbar. Sort Ascending or Descending based on your preference.
- \_\_21. Click on the **Revenue** column header and select **Summarize > Default Summary**. Now each Product Type and Product Line has a Total for Revenue under it.

The screenshot shows two parts of the report. On the left, the "Revenue" column header is selected, and the "Default summary" option in the On-Demand Toolbar is highlighted with a red box. On the right, the report shows a summary row for "Cooking Gear - Summary" with a total revenue of "\$214,522,184".

Year	Revenue	Product Line	Product Type	Year	Revenue
2012				2012	\$83,917,515
2011				2011	\$70,843,132
2010	\$59,761,536			2010	\$59,761,536
2012	\$40,439,358			Cooking Gear - Summary	\$214,522,184

\_\_\_22. The report now is in an easy to consume format where the User can easily Scan the report and identify the revenue trends. As we analyze this report, is there anything that immediately surfaces as interesting, or causes concern? Think about the following:

\_\_\_a. Which product line generated the most revenue in 2011? In 2012?



Answer: \_\_\_\_\_

\_\_\_b. Which product line appears to be the newest addition for the company?

Answer: \_\_\_\_\_

\_\_\_c. What is the general trend of revenues overall?

Answer: \_\_\_\_\_

\_\_\_d. What product lines/product types may be cause for concern based on revenue performance?

Answer: \_\_\_\_\_

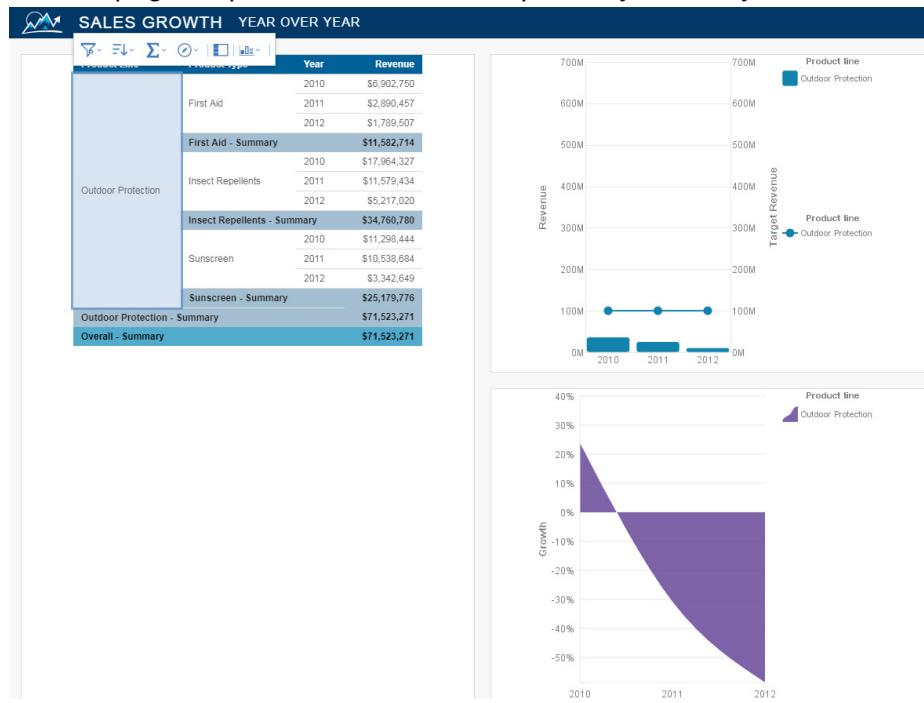
- \_\_\_23. Based on our analysis of the revenue information, it appears that the Outdoor Protection product line has been trending downward for all product types for the last three years. As such, let's focus in on that product line. **Click on "Outdoor Protection"** in the list to bring up the On-Demand Toolbar. (If you don't see it, look toward the bottom of the list.)

The screenshot shows a vertical navigation menu with the following structure:

- Tools - Summary
- Mountaineering Equipment - Summary
- First Aid
- 2010
- 2011
- 2012
- First Aid - Summary**
- Insect Repellents
- 2010
- 2011
- 2012
- Insect Repellents - Summary**
- Sunscreen
- 2010
- 2011
- 2012
- Sunscreen - Summary**
- Outdoor Protection - Summary**

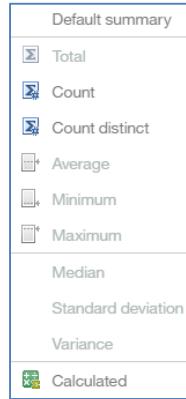
At the bottom of the menu is a toolbar with several icons. The first icon, which looks like a funnel or filter, is highlighted with a red box.

- \_\_\_24. **Click on the Filter Icon and select "Include Outdoor Protection".** Notice how all the report objects on the page respond to the filter and update dynamically.

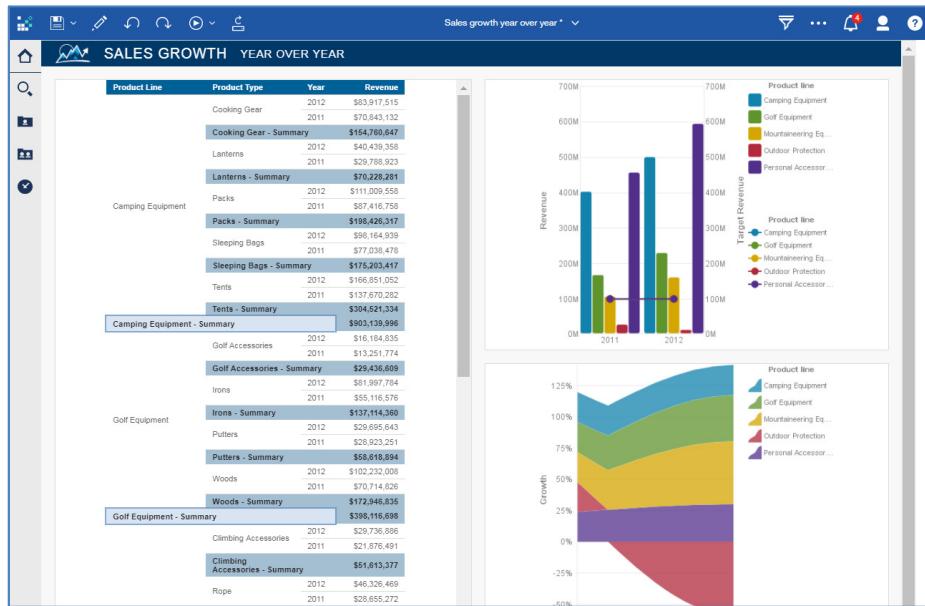


- \_\_\_25. **Click the Undo button**  **on the toolbar to return to the full report. Filter on another Product Line to see how the Revenue and Growth charts dynamically update. Click Undo to again show all Product Line data.**

- 26. Click on **Revenue** column header. Click on the **dropdown** next to the summary icon  $\Sigma$ . The On-Demand Toolbar offers the user several choices on summarization as well as the option to create calculations.



- 27. Earlier in our analysis, we found that Mountaineering Equipment had only two years of history, 2011 and 2012, indicating that perhaps it was a newer addition to the product line. In order to make the reporting consistent for all Product Lines, you can remove 2010 from the report. Click on “2010” in the list report. From the **On-Demand Toolbar**, Click on **Filter** and select “**Exclude 2010**”. Notice that the charts also updated and responded to the filter.



*So far, we have walked through consuming reports as well as interacting with them. And we have seen that our interaction is no longer constrained by the report's design. This self-service interface allows Users to become self-sufficient. And this allows us to empower more Users, thereby extending Analytics further into the organization. But what happens if the User still needs to do more for their analysis? To dig deeper? To investigate even further? The Graduated Interface of Cognos Analytics allows Users to seamlessly transition to have more advanced capabilities as they need them at the click of a single button.*

## 1.3 Progressive Interaction through Graduated Interface

- 28. You may have noticed that once you opened the report, the **application toolbar** changed to offer more capabilities. Once a User is interacting with a report, the additional capabilities are presented to allow the user options to Save, Edit, Undo, Redo, Run and Refresh.



- 29. Select the Edit icon . This takes the User into Authoring mode where they can now interact further with their report including augmenting the data, adding additional items from the toolbox and work with the report objects, pages and queries, all from the updated icons now on the left navigation panel. Note that the Edit icon is highlighted (dark blue) to identify to the User that they are in Authoring mode.



**TECH TIP:** THE EDIT CAPABILITIES ARE GOVERNED BY USER PERMISSIONS THAT HAVE BEEN GRANTED BY THE ADMINISTRATOR. THEREFORE, NOT ALL USERS MAY HAVE AUTHORING CAPABILITIES. IF YOU DO NOT SEE THESE CAPABILITIES IN YOUR ENVIRONMENT, CONTACT YOUR ADMINISTRATOR FOR ASSISTANCE.

- 30. Once in Authoring mode, we can now interact directly with the data sources and augment the report to customize it to our needs. To do so, click on the **Data** icon on the navigation panel.
- 31. The data source is now rendered in the left panel. This allows us to use all the data elements. Click on arrows to expand the data source list and navigate down to **Sales and Marketing (analysis)>Sales>Sales Fact**. All the measures are now listed. You may now augment the report with any of these additional measures.

The screenshot shows the IBM Cognos Authoring interface. On the left, there's a navigation panel with icons for Home, Source, and Data items. Under 'Source', there are several data warehouse entries: 'GO data warehouse (analysis)', 'HR (analysis)', and 'Sales and Marketing (analysis)'. The 'Sales and Marketing (analysis)' entry is expanded, showing sub-items like 'Advertising', 'Inventory', 'Product forecast', etc. The 'Sales' item is also expanded, showing 'Sales fact' as a child item. The 'Sales fact' item is highlighted with a red box. The right side of the screen shows a list of measures under 'Sales fact', including 'Quantity', 'Unit cost', 'Unit price', 'Unit sale price', 'Revenue', 'Gross profit', 'Product cost', 'Planned revenue', 'Gross margin', 'Branch', 'Employee by manager', and 'Employee by region'. These items are also partially highlighted with red boxes.

32. **Left Click and hold** to select “**Gross Margin**”. **Drag** it to the list report just **to the right** of the “Revenue” column. A **flashing vertical line** will appear as you hover over the appropriate drop zone.

The screenshot shows the Report Authoring Interface with the 'SALES GROWTH' report open. On the left, the 'Source' panel displays a hierarchy of data items from the 'GO data warehouse (analysis)' source, including Sales fact, Sales, and Sales fact again. The 'Gross margin' item is highlighted with a red box. On the right, the 'Report' panel shows a table titled 'YEAR OVER YEAR' with columns for Product Line, Product Type, Year, Revenue, and Gross margin. A red box highlights the 'Revenue' column header. A red dashed line indicates the target drop zone for the 'Gross margin' item, which is currently being dragged from the source panel towards the report table.

33. **Release the left mouse button** and the data item will be inserted into place on the report. The report updates and you will also see the On-Demand Toolbar appear with an expanded set of context specific tools.

The screenshot shows the 'SALES GROWTH' report after the 'Gross margin' item has been added. The table now includes a 'Gross margin' column. The 'On-Demand Toolbar' is visible at the top of the report area, showing various reporting and analysis tools.

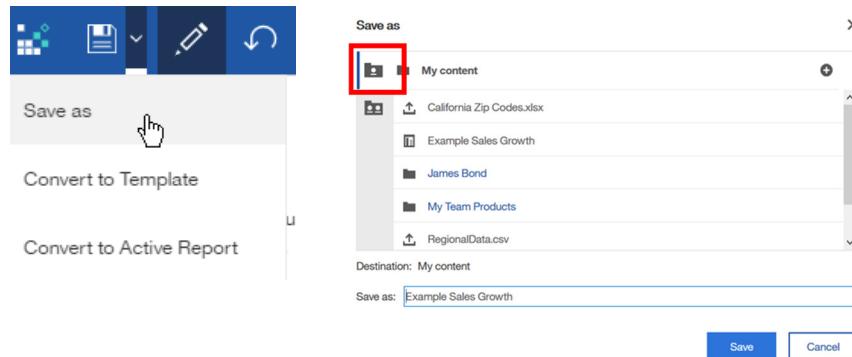
Product Line	Product Type	Year	Revenue	Gross margin
Cooking Gear		2012	\$83,917,515	40%
		2011	\$70,843,132	38%
<b>Cooking Gear - Summary</b>			<b>\$154,760,647</b>	<b>39%</b>
Lanterns		2012	\$40,439,358	45%
		2011	\$29,788,923	42%
<b>Lanterns - Summary</b>			<b>\$70,228,281</b>	<b>44%</b>
Packs		2012	\$111,009,558	40%
		2011	\$87,416,758	40%
<b>Packs - Summary</b>			<b>\$198,426,317</b>	<b>40%</b>
Sleeping Bags		2012	\$98,164,939	40%
		2011	\$77,038,478	39%
<b>Sleeping Bags - Summary</b>			<b>\$175,203,417</b>	<b>40%</b>
Tents		2012	\$166,851,052	32%
		2011	\$137,670,282	31%
<b>Tents - Summary</b>			<b>\$304,521,334</b>	<b>32%</b>
<b>Camping Equipment - Summary</b>			<b>\$903,139,996</b>	<b>37%</b>

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*Users may augment their reports using any of the data available in the data source panel. Additionally, they may also add report objects and visualizations to further enhance their reports. Through the Report Authoring Interface, the graduated capabilities for all professional report development properties may be exposed to Users with those permissions. We will go into these capabilities further in the Report Authoring Workshop.*

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- \_\_34. Now that the report has been augmented with additional data, its time to save the report. **Click** on the **down arrow** next to the **Save** icon on the toolbar and **Select “Save as”**. Navigate to **My Content**. Save as “[Your Last Name] Sales Growth”. **Click Save**.



- \_\_35. **Click** on the **Edit** icon to exit Authoring mode and return to the **canvas**. The **Edit** icon is no longer highlighted indicating to the User they are no longer on **Authoring** mode. Notice that the Navigation menu at the top center of the screen now reflects your report name.
- \_\_36. Navigate back to the **Home Page** by using the **Navigation menu** and selecting **Welcome**.
- \_\_37. **Click** on the **My Content** button to open the Panel. You will now see your saved report. It also appears as the first “recent” tile on the Welcome screen.
- \_\_38. **Click** on the **Search** button to open the Search Pane. **Search** on your last name used when you saved your report. You will see that your report is now listed. If you have a name that is also used in our sample data, you will see all other reports that contain that name.



**TECH TIP:** SAVED REPORTS ARE IMMEDIATELY AVAILABLE IN THE NEW COGNOS ANALYTICS SMART SEARCH AS THERE IS NO SEPARATE JOB REQUIRED TO CREATE AN INDEX. ALL CONTENT IS IMMEDIATELY AVAILABLE FOR SEARCH UPON SAVE.

## Workshop 2 Authoring Reports

In the last exercise, we interacted with an existing report. But what if the report did not already exist? How would we build it? Using Cognos Analytics Authoring a User's have self-service access to quickly and easily build out new content.

**Workshop Duration:** 45 minutes

**Audience:** Consumers and Report Author

**Capabilities:** Report Authoring Interface

**Prerequisite Workshop(s):** None

In this Workshop, you will:

- Author a new report
- Customize the Toolbox
- Work with Visualizations
- Add a Map to the Report
- Work with Report Properties

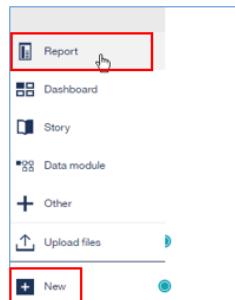
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*Now that we've reviewed some basic use and scheduling capabilities, we will move on to see how easy it is to author a report. We will create a simple report using some basic lists, charts, and a map.*

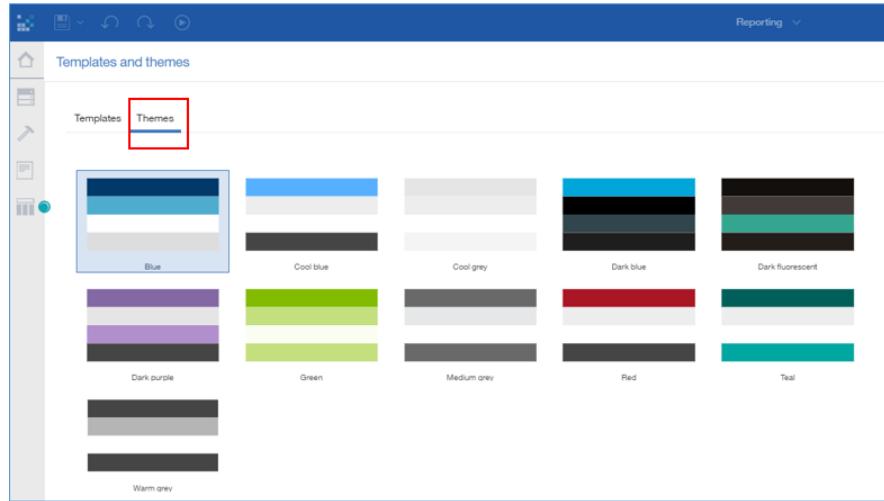
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### 2.1 Authoring New Content

- 1. Using the **Navigation Menu**, go to the **Welcome** page.
- 2. From the lower left of the **Navigation Panel**, select “New”. This opens up the intent-driven authoring options of Report, Dashboard, Story, and Data Module. **Select “Report”** to open the Report Authoring Interface.

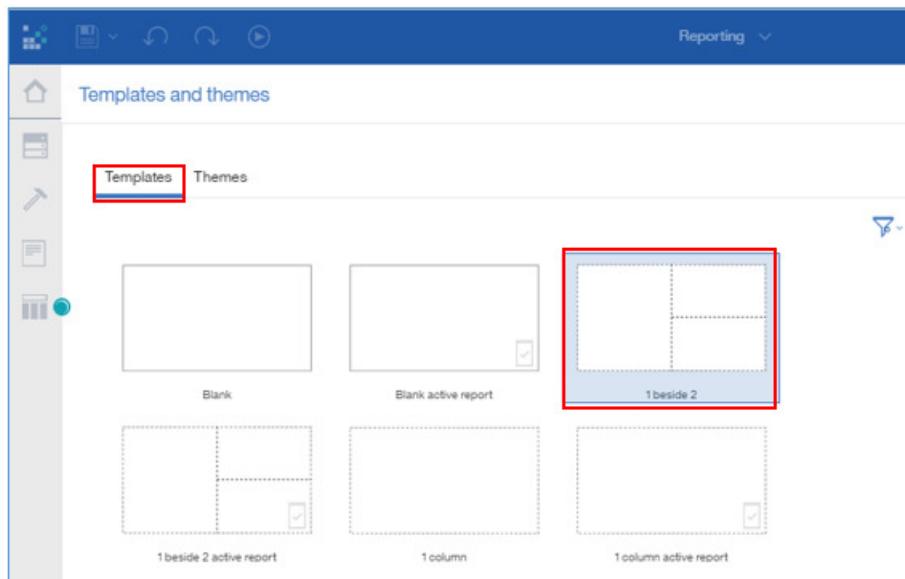


3. The User is brought to the Templates and Themes panel. **Select the Themes tab.** There are several “out of the box” color schemes for Users to choose from. **Select the “Blue” theme and Return to the Templates tab.**



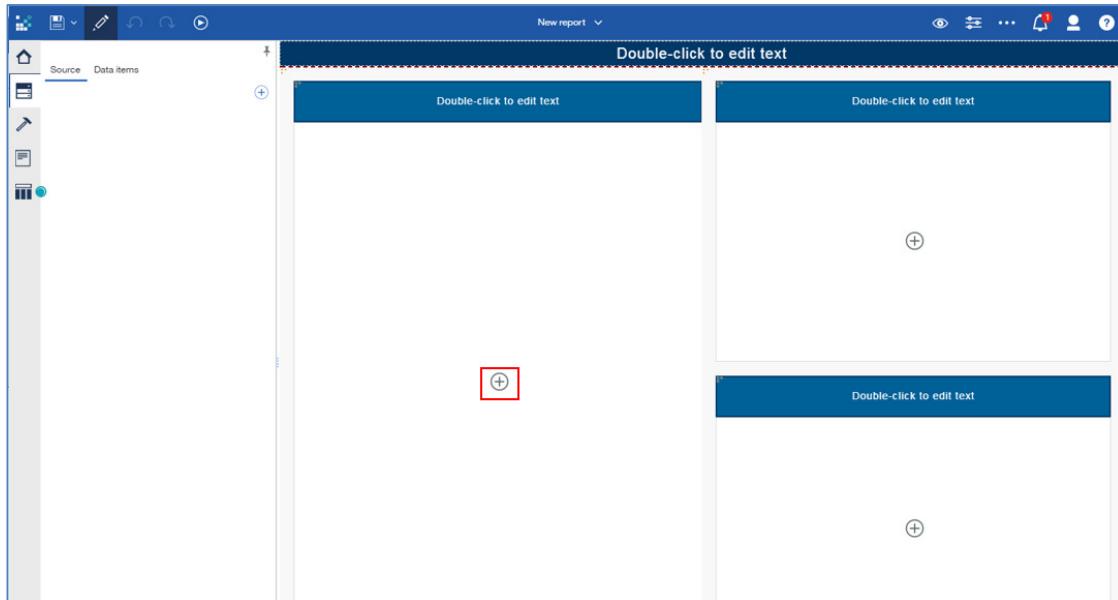
**TECH TIP:** CUSTOM THEMES MAY BE CREATED TO ALLOW USERS TO LEVERAGE THEIR CORPORATE COLOR SCHEMES.

4. Templates simplify the Report build by allowing Users to quickly assemble content into layouts based on best practices. **Select the “1 beside 2” template and click OK.**

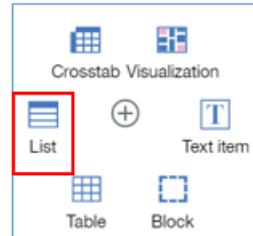


*The report template with the selected theme renders in the authoring interface. The User now has a jumpstart on creating a visually appealing report and just needs to add the content to complete.*

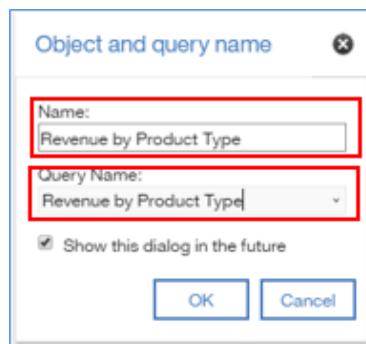
- \_\_\_5. Notice that each of the report objects has an Add  button. Click on the  button in the left report object.



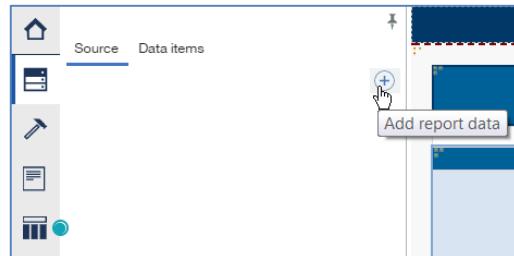
- \_\_\_6. This button is used as a shortcut to quickly add objects to the report. Additional objects are available, but these represent the most commonly used objects and provide the User an easy starting point in building report objects by selecting the object type from where it will be placed in the report. For this report you will start with adding a list object. **Select List**.



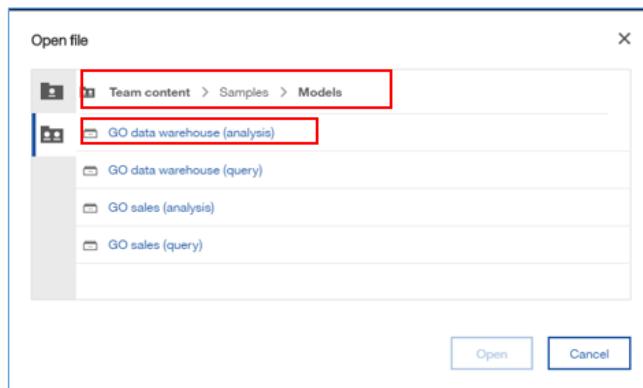
- \_\_\_7. The Object and Query Name window will appear. Best practices state that relevant and identifiable names be given to all objects. Change both the **Name** and **Query Name** to “Revenue by Product Type”. This will make it easier for the User to identify the related objects should they need to go back to reference the report object specifications at a later date, or if other Users are working with the report.



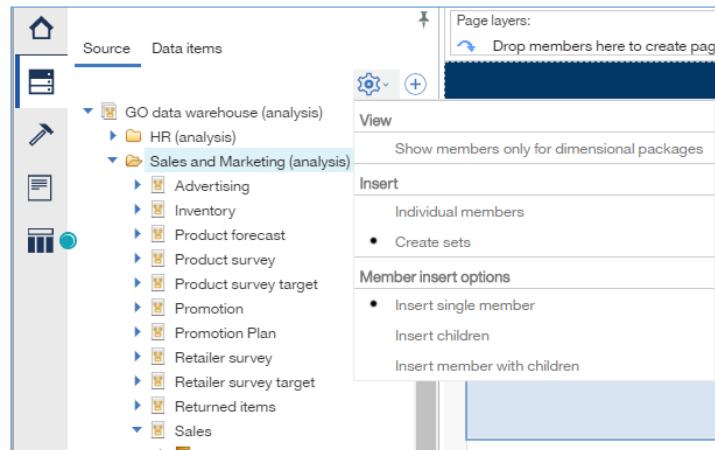
- \_\_8. Now that we are in the Authoring mode, notice that the navigation panel has minimized to provide more space for the User to work with the Authoring Interface. The Data Panel has also been exposed so the User may select their desired data source. **Click on Add report data**  to select the data source to be used.



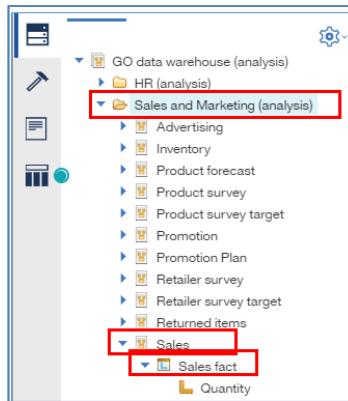
- \_\_9. **Click on Team content folder.** Navigate to **Team Content>Samples>Models>GO data warehouse (analysis)**. Notice that as you click through the folder structures, a breadcrumb appears at the top. After selecting **GO data warehouse (analysis)**, **click Open**.



- \_\_10. The data panel now lists the data from the data source selected. The default view is the Metadata Tree. This allows the user to see the hierarchy levels since this is a dimensional data source. The user also has the option to view the actual data members (data values). **Click on the drop down arrow** beside the 'gear' icon  at the top of the data source panel to familiarize yourself with the options. **Click on the 'gear'** again to return to the Metadata Tree view as we will use this view to build our report



- \_\_11. The user may now navigate through the contents of the data source. For our report, we will be focused on Sales information. Using the expand arrows, **navigate to Sales and marketing (analysis) > Sales**. The individual dimensions are now in view. **Expand Sales Fact** and you will now see the **Sales** measures available.



- \_\_12. Navigate into the data to add the items listed below. To add, **drag** each data member into the report object body and **drop** where it indicates “**Drag Items here to create new columns**”. As you add each column, drop it just to the right of the previous column in the drop zone (when the flashing vertical column appears).
- \_\_13. Add the following columns to the report:
- From the **Product** hierarchy, **select Products→Product Line**
  - From the **Product** hierarchy, **select Products→Product Type**
  - From the **Sales** hierarchy, **select Sales fact→Revenue**
  - From the **Sales** hierarchy, **select Sales fact→Planned Revenue**

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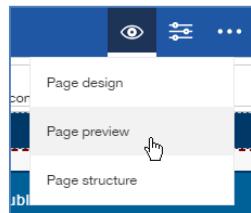
**TECH TIP:** You may also **CTRL+CLICK** on the data members and drag them all over simultaneously. This method will drop the data members in the order they were selected.

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- \_\_14. Notice that the report shows the data selections, but not the values. This indicates that Authoring is currently in the **Page Design** mode. This allows the User to build out the report content without interactively running/rendering the report as it is built.

Product line	Product type	Revenue	Planned revenue
<Product line>	<Product type>	<Revenue>	<Planned revenue>
<Product line>	<Product type>	<Revenue>	<Planned revenue>
<Product line>	<Product type>	<Revenue>	<Planned revenue>
<b>Overall - Summary</b>		<Summary(Revenue)>	<Summary(Planned revenue)>

- \_\_15. To change to **Page Preview** mode, click on the **Page Views** icon  in the upper right of the application toolbar.
- \_\_16. **Select Page Preview** mode. The report's query will run and return the data into the report. While in Preview mode, the query will continue to interactively run and update the data as we continue to build out the report.

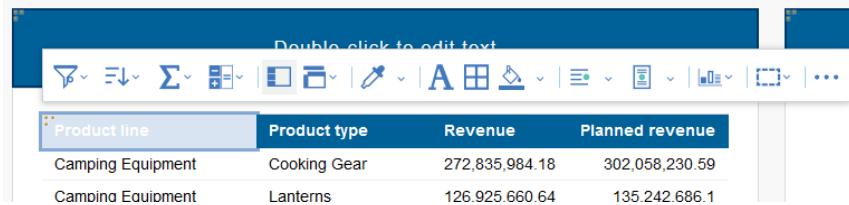


**TECH TIP:** THE MODE USED IS BASED ON USER PREFERENCE. PREVIEW MODE IS USEFUL WHEN THE USER WANTS TO SEE THE DATA AS THE REPORT IS BUILT. DESIGN MODE IS HELPFUL WHEN THE USER WANTS TO QUICKLY ASSEMBLE THE FORMAT OF THE REPORT WITHOUT HAVING THE REPORT RUN INTERACTIVELY WHICH UPDATES THE DATA THROUGHOUT THE BUILD. IT MAY ALSO BE MORE EFFICIENT WHEN THE REPORT IS BEING RUN AGAINST LARGE DATA SETS AND/OR BEFORE FILTERS ARE APPLIED TO NARROW DOWN THE AMOUNT OF DATA RETURNED. DESIGN MODE AND PREVIEW MODE MAY BE USED INTERCHANGEABLY ON ALL OBJECT TYPES.

- \_\_17. We now see that the report object is rendering with the data values.

Double-click to edit text			
Product line	Product type	Revenue	Planned revenue
Camping Equipment	Cooking Gear	272,835,984.18	302,058,230.59
Camping Equipment	Lanterns	126,925,660.64	135,242,686.1
Camping Equipment	Packs	351,880,402.84	375,110,672.2
Camping Equipment	Sleeping Bags	309,172,888.35	333,438,429.7
Camping Equipment	Tents	528,221,728.02	557,274,647
Golf Equipment	Golf Accessories	51,514,343.88	57,447,817.34
Golf Equipment	Irons	254,814,337.99	273,337,322.37
Golf Equipment	Putters	106,184,271.37	124,789,301.4
Golf Equipment	Woods	313,898,414.65	334,686,523
Mountaineering Equipment	Climbing Accessories	81,096,582.48	84,589,657.16
Mountaineering Equipment	Rope	114,426,644.73	120,761,636.12
Mountaineering Equipment	Safety	83,236,883.98	88,099,404

- \_\_18. Currently the list report is rather long and difficult to consume so grouping and subtotals would be helpful. We can do this using the **On-Demand toolbars**. Select the **Product Line** column. Notice that in Authoring, the **On-Demand toolbar** has an expanded set of report functions to help with the build.



Double click to edit text			
Product line	Product type	Revenue	Planned revenue
Camping Equipment	Cooking Gear	272,835,984.18	302,058,230.59
Camping Equipment	Lanterns	126,925,660.64	135,242,686.1

- \_\_19. Select the **Group/Ungroup** icon  to group the report on Product Line.



Product line	Product type	Revenue	Planned revenue
Camping Equipment	Cooking Gear	272,835,984.18	302,058,230.59
	Lanterns	126,925,660.64	135,242,686.1
	Packs	351,880,402.84	375,110,672.2
	Sleeping Bags	309,172,888.35	333,438,429.7
	Tents	528,221,728.02	557,274,647
Camping Equipment - Summary		1,589,036,664.03	1,703,124,665.59

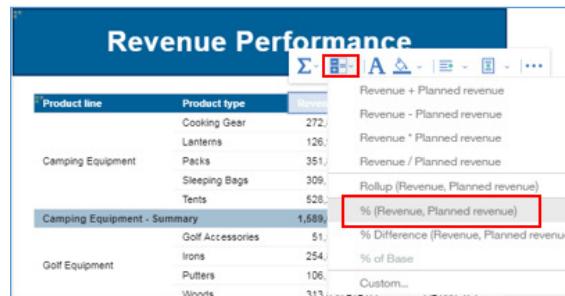
- \_\_20. Since we used a prebuilt report template, we already have a section to easily add a report header. **Double-click** on where it says “**Double-Click to edit text**” in the report header section to edit. **Name** the section “**Revenue Performance**”.
- \_\_21. Notice that the Report Header has its own **On-Demand** toolbar. Use this **On Demand** toolbar to **format your report headers** to your liking (example shows Arial,18pt, bold font).

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*The report is looking good, but you still need a bit more information. One other piece of information you are interested in is to see how Revenue is tracking against Planned Revenue. Since this is not a calculation provided in the data source, you can quickly add a calculation directly in the report.*

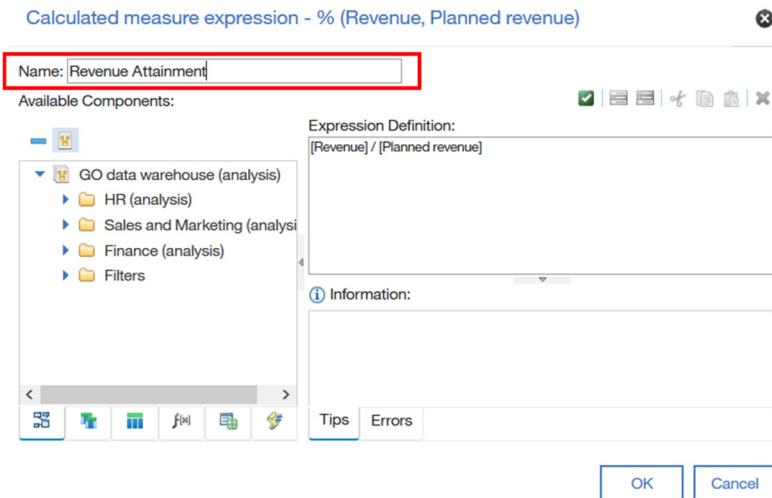
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- \_\_22. Select **Revenue** and hold down the **control** key while you then click **Planned Revenue**. Both will be highlighted and the **On-Demand Toolbar** will appear. Click on the **Insert Calculation icon** . Select **% (Revenue, Planned Revenue)**.



Revenue Performance			
Product line	Product type	Revenue	Planned revenue
Camping Equipment	Cooking Gear	272,	Revenue + Planned revenue
	Lanterns	126,	Revenue - Planned revenue
	Packs	351,	Revenue * Planned revenue
	Sleeping Bags	309,	Revenue / Planned revenue
	Tents	528,	Rollup (Revenue, Planned revenue)
Camping Equipment - Summary		1,589,	<b>% (Revenue, Planned revenue)</b>
Golf Equipment	Golf Accessories	51,	% Difference (Revenue, Planned revenue)
	Irons	254,	% of Base
	Putters	106,	Custom...
	Woods	313,	

23. A new column has been inserted into the report with the calculated attainment rate of Revenue as a percentage of Planned Revenue. To change the column name, **double-click** on the **column header** to open the **Calculated measure eExpression window**. From here, the User may change the column name and build complex calculations. **Change the Name to “Revenue Attainment”.**



24. Click OK. Your report should now appear as follows:

Revenue Performance				
Product line	Product type	Revenue	Planned revenue	Revenue Attainment
Camping Equipment	Cooking Gear	272,835,984.18	302,058,230.59	90.33%
	Lanterns	126,925,660.64	135,242,686.1	93.85%
	Packs	351,880,402.84	375,110,672.2	93.81%
	Sleeping Bags	309,172,888.35	333,438,429.7	92.72%
	Tents	528,221,728.02	557,274,647	94.79%
Camping Equipment - Summary		1,589,036,664.03	1,703,124,665.59	93.30%
Golf Equipment	Golf Accessories	51,514,343.88	57,447,817.34	89.67%
	Irons	254,814,337.99	273,337,322.37	93.22%
	Putters	106,184,271.37	124,789,301.4	85.09%
	Woods	313,898,414.65	334,686,523	93.79%
Golf Equipment - Summary		726,411,367.89	790,260,964.11	91.92%
Climbing		81,096,582.48	84,589,657.16	95.87%

25. Click on dropdown arrow on **Save** icon on the **Main toolbar**. Click **Save As**. Navigate to **My Content** and save the report as “[your last name] - Cognos Analytics Report”. You will now see the name of the report rendering in the Navigation Menu.

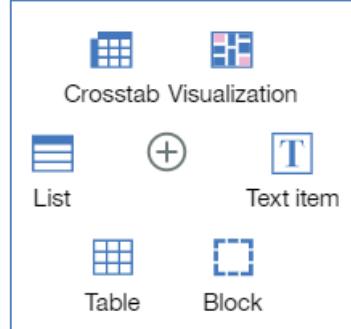
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*By using the Graduated Interface of Cognos Analytics, in just minutes we were able to very quickly and easily build the same type of report object as we worked with before. And, we were able to augment it even further with calculations for measures that we needed for our analysis. The best part is that we did this without having to open multiple applications; it was all available to us through a single User Interface.*

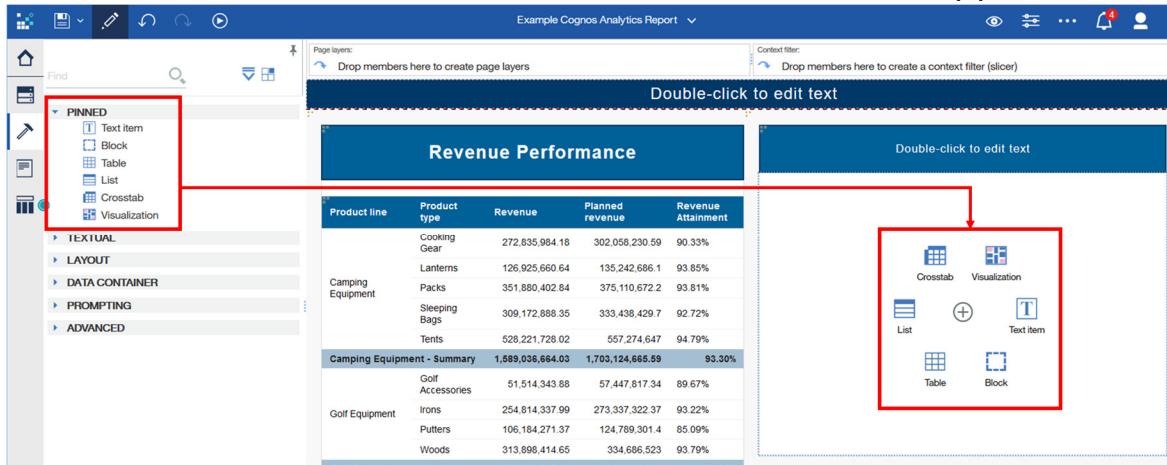
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## 2.2 Customizing the Toolbox

- 26. Let's build out the remaining two report objects on our template. Go to the data container in the Upper right report section, click on the **Add button**  in the data container. Notice the six (6) choices provided from the toolbox for report object types.



- 27. The report objects shown come from the **Pinned toolbox** items. To view the **Toolbox** items, click on the **toolbox** icon  from the **Navigation panel** on the left.
- 28. Click on the **arrow** next to **PINNED** to expand and show the **toolbox** items that have been pinned. These are the items that will render in the data container when the (+) box is selected.



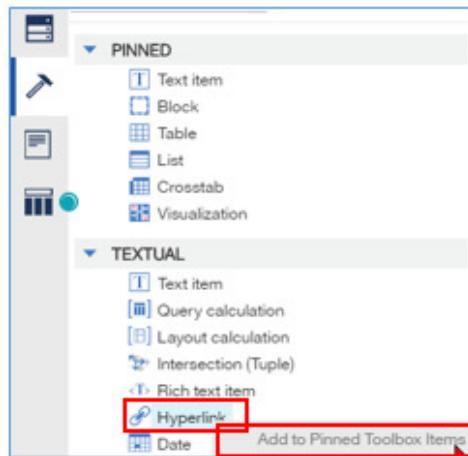
The screenshot shows the Cognos Analytics Report interface. On the left, the **Navigation panel** is open, with the **PINNED** section expanded, showing items like Text item, Block, Table, List, Crosstab, and Visualization. A red box highlights this section. In the center, there is a report titled "Revenue Performance" with a table of data. On the right, a toolbox window is open, displaying icons for Crosstab, Visualization, List, Text item, Table, and Block. A red box highlights this toolbox window.

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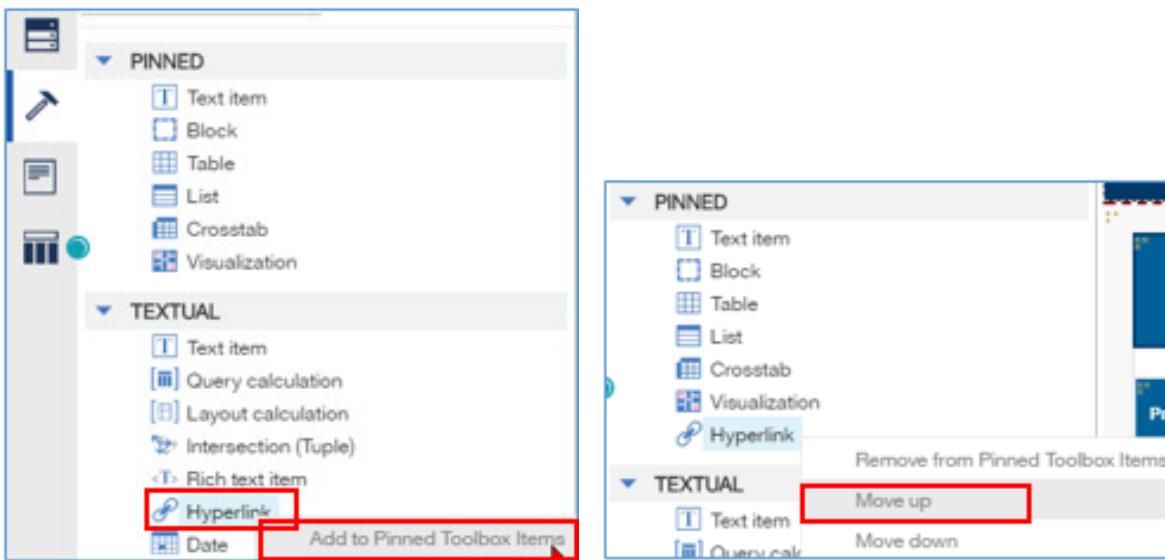
*The **toolbox items** in the **PINNED** section are the commonly used report items; somewhat like a favorites list. However, there are many more toolbox options available for use. The toolbox items have been organized into groups based on type. Any toolbox item may be added to the **PINNED** toolbox items.*

---

29. Expand **Textual** tools then right click on **Hyperlink** and click “Add to Pinned Toolbox items”. Notice that it is now added to the bottom of the list of PINNED items.



30. Click on the  $\oplus$  sign of the data container on the upper right. Notice that the same six toolbox items appear; that it did not add the newly PINNED visualization toolbox item. This is because the selections shown are generated from the **first six (6) toolbox items** listed in **PINNED**. Users may reorder their Pinned toolbox items so that their favorite Top 6 items are in the first six toolbox items in the list. These may be updated by the User at any time. To change the order of the PINNED toolbox items, simply right click on an item and choose to either move it up or down in the list, or remove it from the list.



- 31. Right click on **Hyperlink** and select **Move Up**. The list is reordered to reflect the change. Click on the **+** sign in the data container and notice that Hyperlink is now an option to select.

The screenshot shows the Cognos Analytics Authoring Interface. On the left, the 'PINNED' section of the tools palette is open, with 'Hyperlink' highlighted and a red box around it. The main area displays a report titled 'Revenue Performance' with a table of revenue data for various product categories. On the right, a data container pane shows a list of visualization types, with 'Hyperlink' also highlighted and a red box around it. A red arrow points from the pinned tools palette to the 'Hyperlink' entry in the data container.

- 32. We will not be working with hyperlinks but we will be working with Visualizations, so right-click on **Hyperlink** in the PINNED section and select **Move Down**. This allows us to keep it as a pinned favorite, but it will not currently render in our Top 6 options.

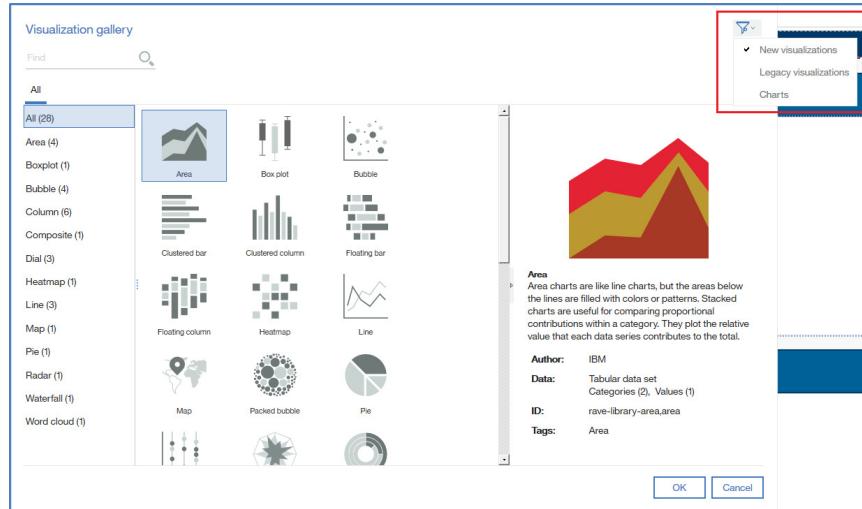
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*This customization of the Cognos Analytics' Authoring Interface makes it even easier for Users to create content quickly as it puts the functions they need where they need it and allows them to personalize it for their personal preferences.*

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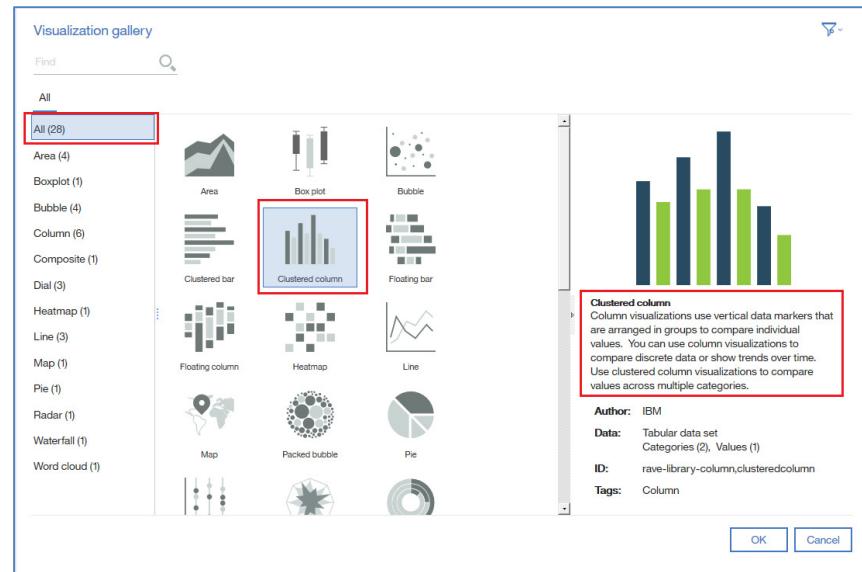
## 2.3 Working with Visualizations

- \_33. Use the **Add button**  in the data container **Select Visualization**. The **Visualization Gallery** appears and the User may choose from hundreds of Visualizations. Different types of visualizations are available by using the filter icon in the upper right corner. **Select New Visualizations** (may be selected by default).

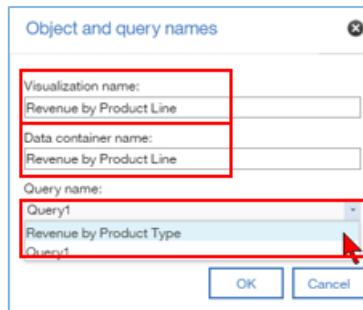


- \_34. With New visualizations selected, **scroll through** the **Visualization Gallery** and **click** on some that appeal to you. To narrow down your search, use the check boxes to choose types of visualizations. As you select the various visualizations, the panel on the right updates to show a larger sample of the visualization along with an explanation and suggested use cases for each.

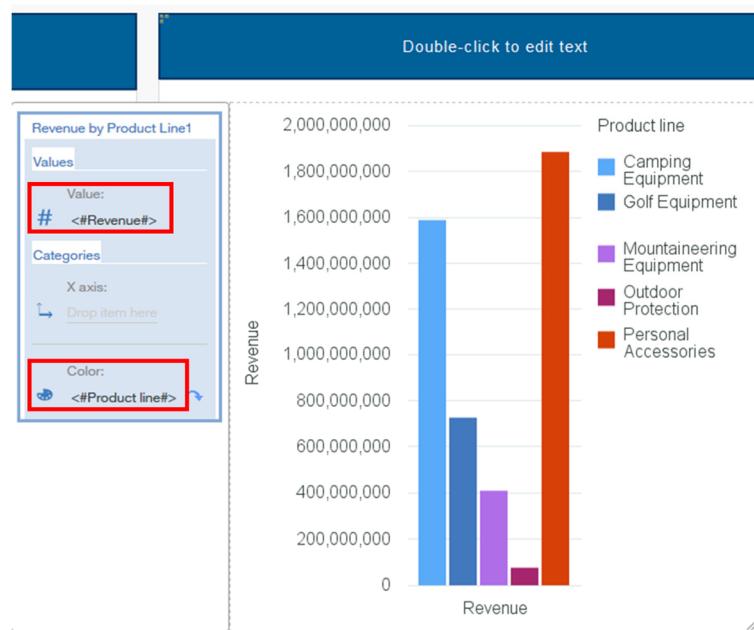
**Select Clustered column and click OK.**



- \_\_35. Change the **Visualization Name** and the **Data container name** to “Revenue by Product Line”.
- \_\_36. Use the **pull-down arrow** under **Query name** to select the same query we used for the List report, “Revenue by Product Type”. Click OK.



- \_\_37. Click on the **Data icon** from the **Navigation panel** on the left to open the **Data Source Panel**.
- \_\_38. Click on **Data Items** to view the data items in the current query.
- \_\_39. Drag and drop the **Data Items** into the data slots as follows:
- \_\_a. Revenue, into Value
  - \_\_b. Product line into Color




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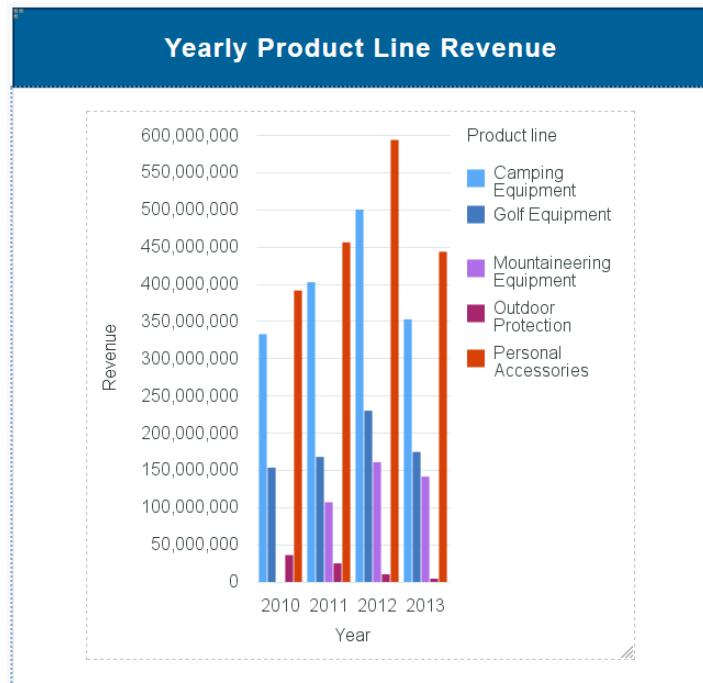
*As the data items are entered into the data slots, the visualization renders. For this analysis you would like to add in years as a dimension. This data can easily be added to the existing query.*

---

- 40. Click on the **Source** tab in the data panel. Expand **Sales & Marketing Analysis>Sales>Time**. From **Time** dimension, drag **Year** into the **X-axis** data slot.

The screenshot shows the Cognos Analytics Report Designer interface. On the left, the 'Source' tab is selected in the data panel, which lists various dimensions and facts. A red box highlights the 'Time' dimension under 'Sales'. In the center, there's a report titled 'Revenue Performance' containing a table of revenue data by product line and type. To the right is a bar chart titled 'Revenue by Product Line' showing revenue from 2010 to 2013. A context filter dialog is overlaid on the chart, with the 'X axis:' field set to '<#Year#>'. The chart legend identifies five product lines: Camping Equipment (blue), Golf Equipment (dark blue), Mountaineering Equipment (purple), Outdoor Protection (dark purple), and Personal Accessories (red).

- 41. Change the name in the heading to “**Yearly Product Line Revenue**” and format it to match our first data container (Arial, 18pt font, bold). Your report object will now appear as follows:



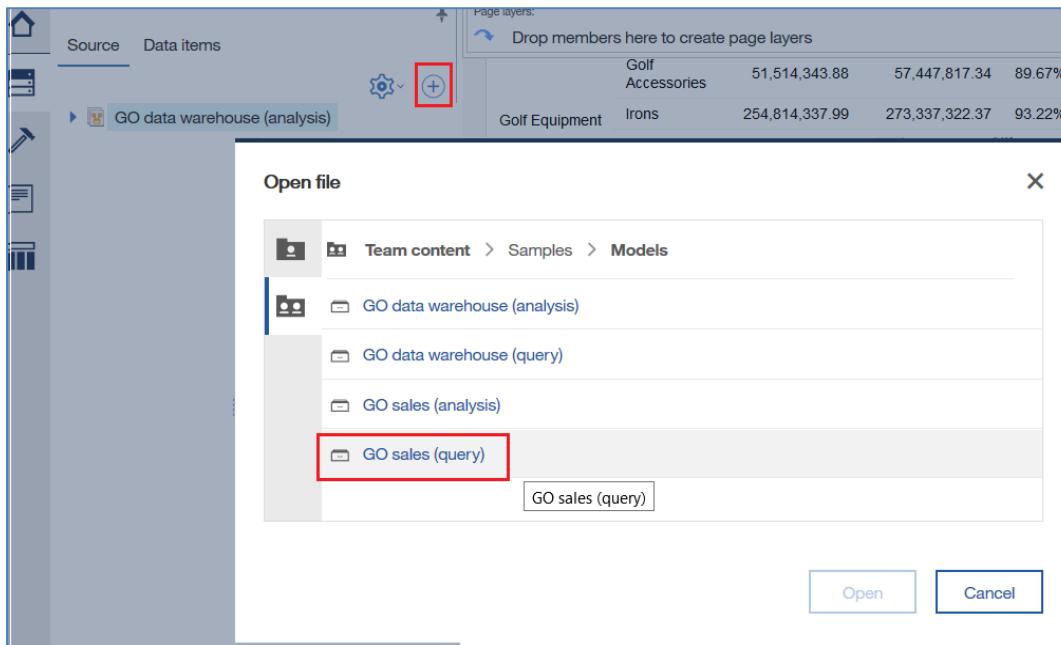
## 2.4 Adding a map to the report

—42. For the last report object, we'd like to add a map visualization using a relational FM package.

Click the **Add Report data** button  on the data source panel to add another data source.

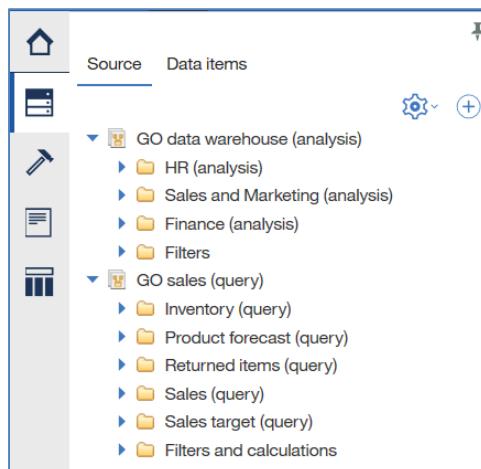
Navigate to **Team Content>Samples>Models** and select the **Go Sales (Query)** FM package.

Click Open.

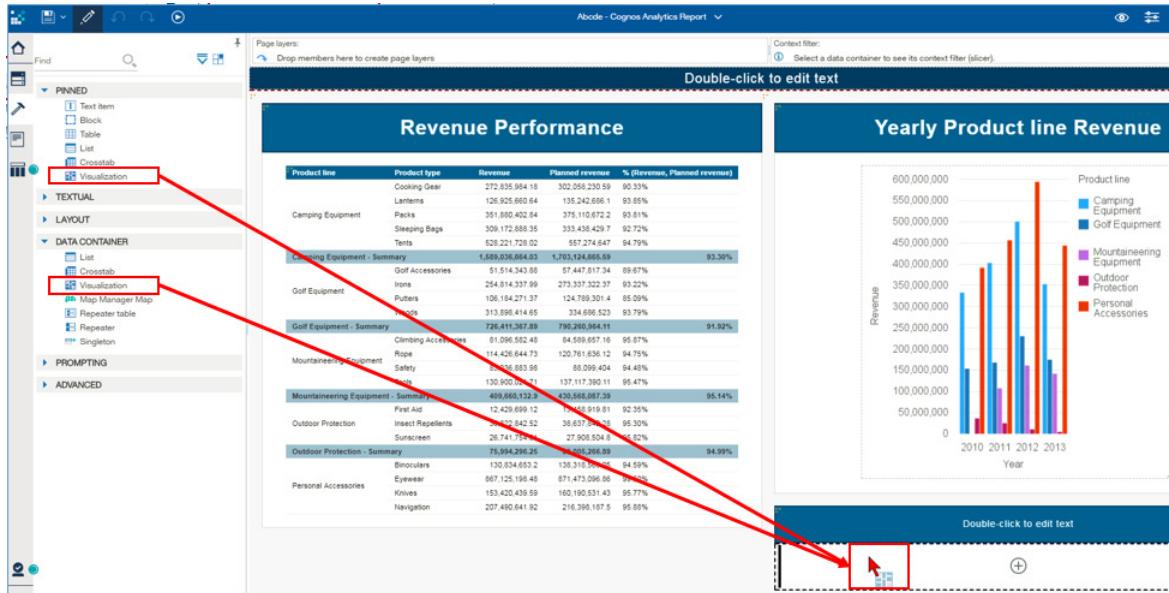


—43. When you bring a new data source into an existing report, Cognos Analytics will verify that the report will still be valid with that data source. Click OK

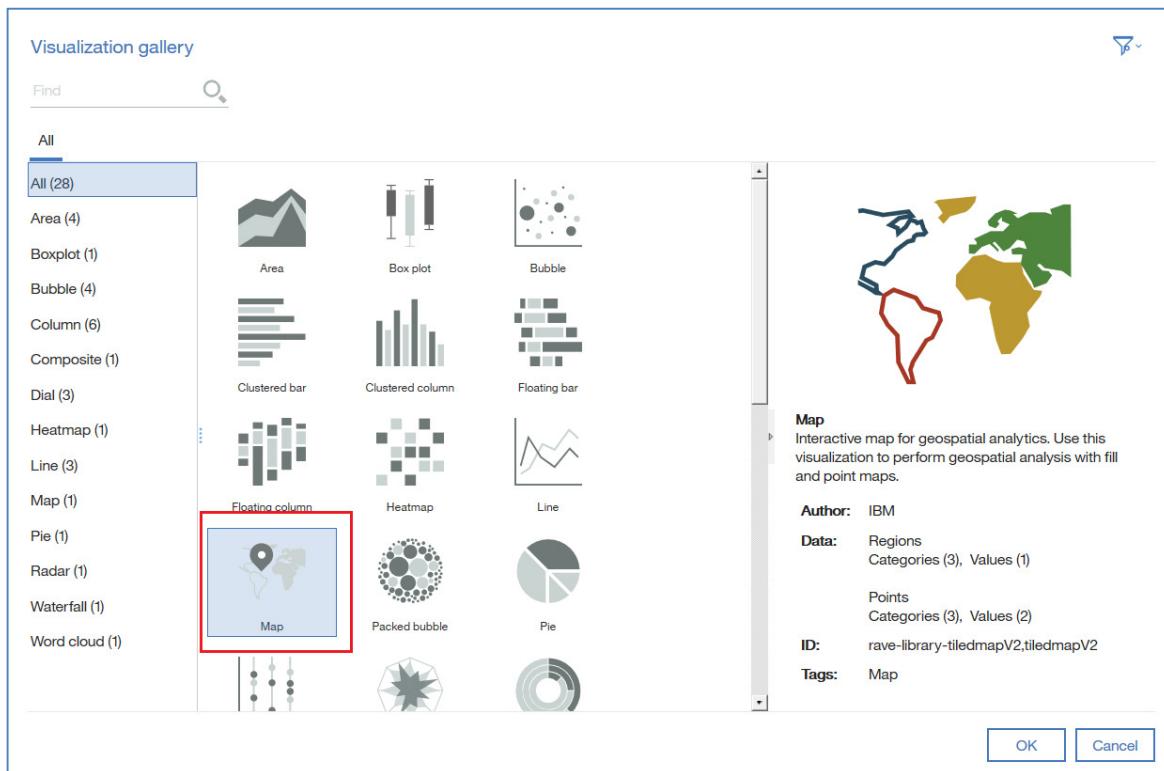
—44. Both packages are now listed under the source panel.



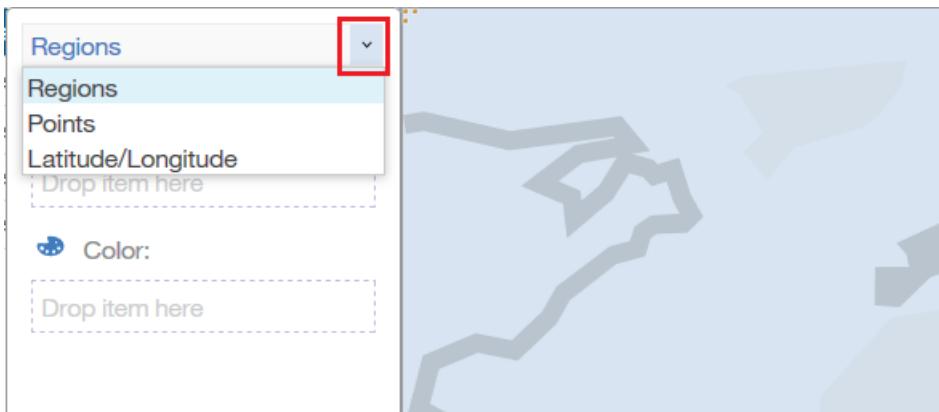
- 45. From the **Tools** palette, under **Pinned** or **Data Container**, select **Visualization** and drag it into the last available template space on the page. (You may also use the **+** icon and select **Visualization** as we did previously).



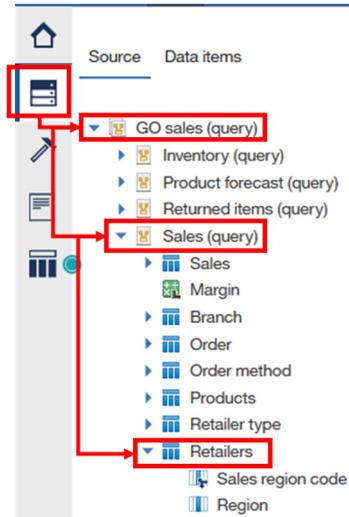
- 46. Select **Map** then click **OK**



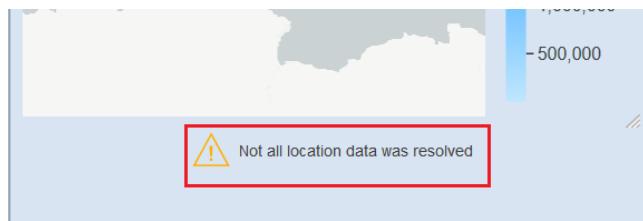
- \_\_47. You can create three layers when authoring maps in reporting: **Regions** layer, **Points** layer and **Lat/Long** layer. First, we'll work with Regions. **Select the Regions layer** using the drop-down arrow at the top of the visualization pane.



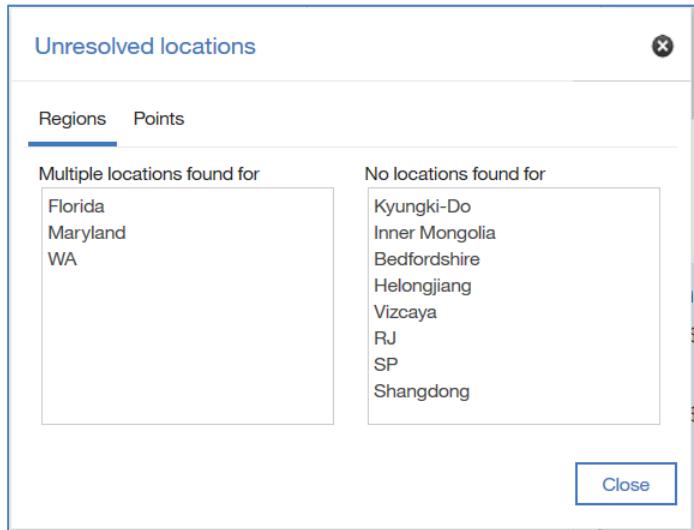
- \_\_48. Return to the **Data** panel. From the **Source** tab, **expand** the newly added **GO sales (query)** package, then **expand Sales (query)>Retailers**.



- \_\_49. Drag **Retailer Province-State** into the **Location** slot.  
\_\_50. **Expand Sales** and **drag Quantity** to **Color**.  
\_\_51. The map will render, but you will see a data warning icon appear at the bottom of the map.

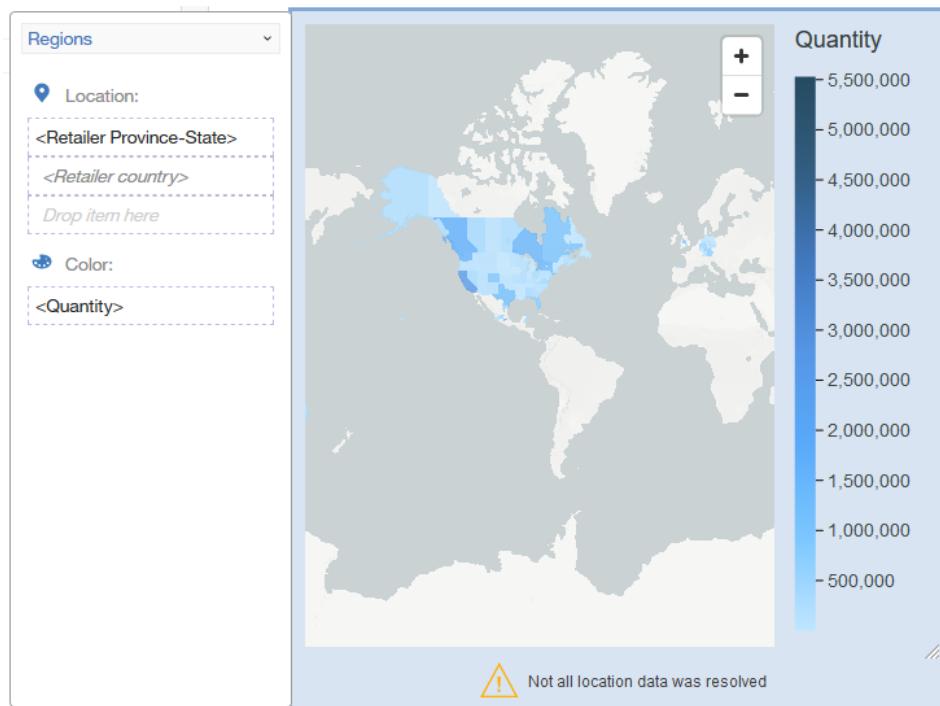


- \_\_52. Click on the warning icon  A dialog appears to advise users if there are locations with ambiguity (multiple locations found) and/or if there are locations not matching to known to the mapping polygons (no locations found). In this example, we see there are three data points that appear in multiple locations.

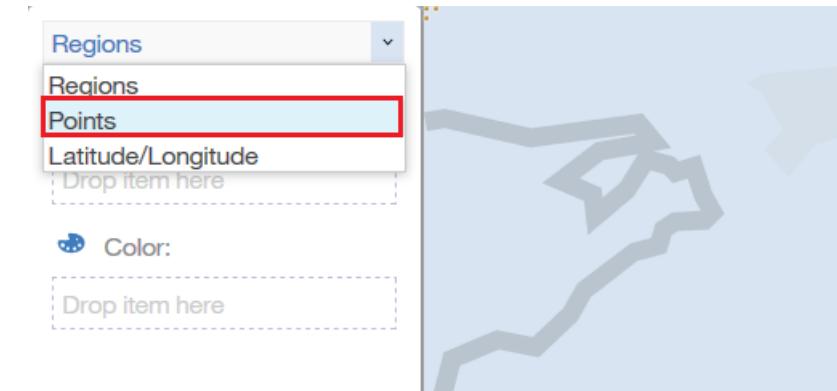


- \_\_53. Click Close

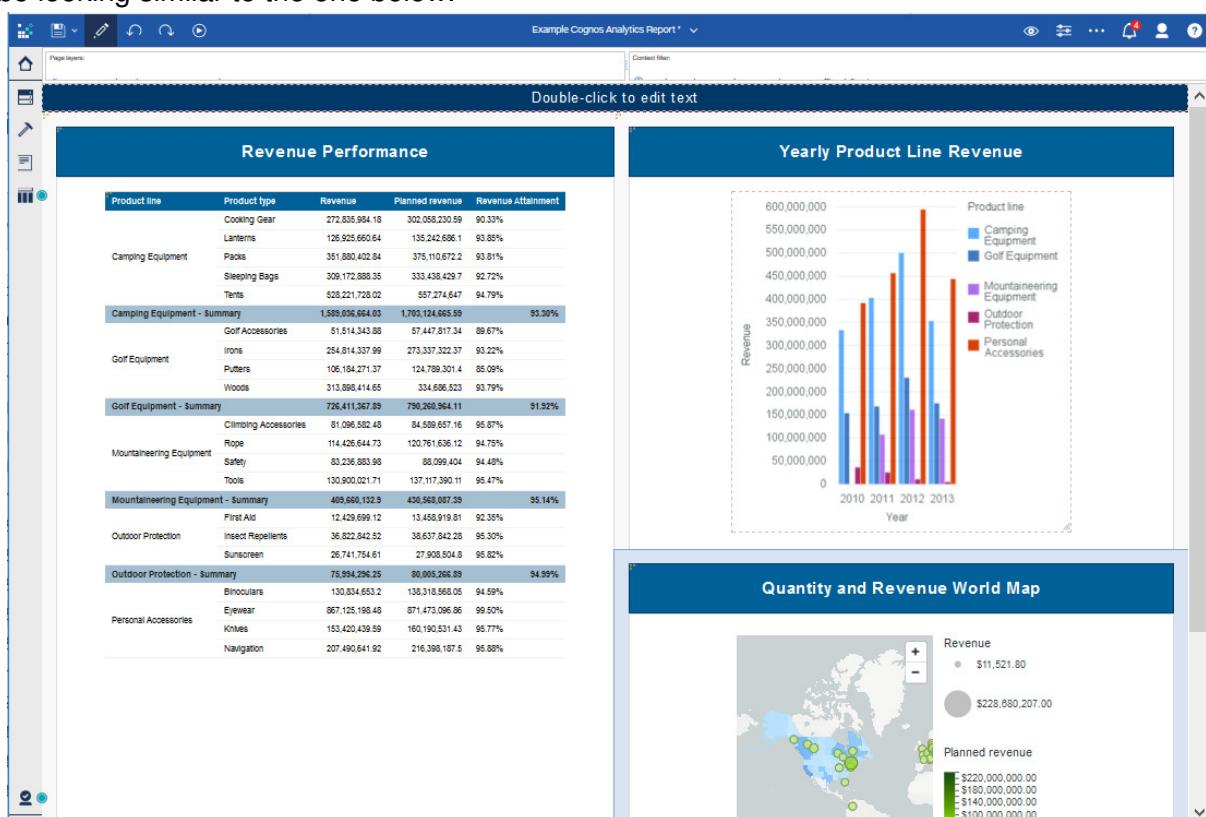
- \_\_54. Cognos Analytics can help resolve location ambiguity by including a clarification item in the slot next to location. Drag **Retailor country** under **Retailer Province-State** into the first clarification slot. Note you can use up to two locations as clarification items. Map slots should look like this:



- 55. Next, let's author the Points layer. From the drop-down arrow at the top of the visualization, select **Points**.



- 56. From **Retailers table**, drag **Retailer site** to the **Location** slot. From the **Sales** fact table, drag **Revenue** to **Size slot** and **Planned Revenue** to **Color slot**.
- 57. Change the title of the map to “**Quantity and Revenue World Map**”. Your report should now be looking similar to the one below:

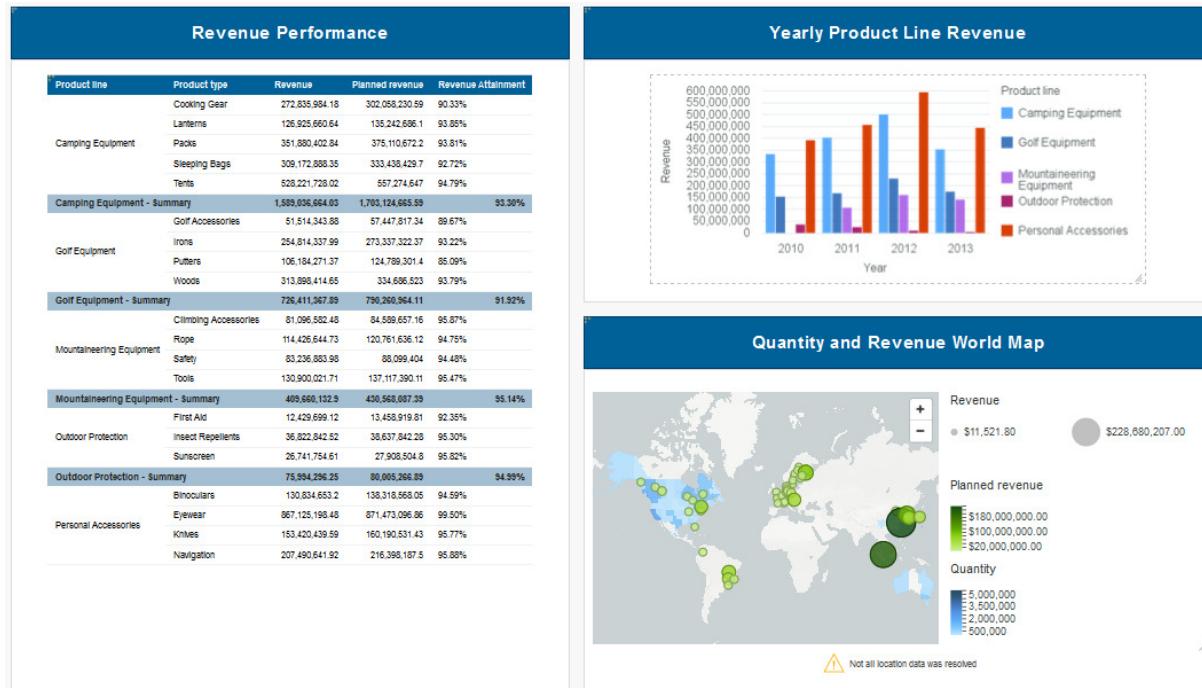


- 58. We can make some adjustments by resizing the charts by dragging them into our desired position. On the clustered bar chart, place your cursor over the lower right corner. It will change to indicating you can drag to resize the chart. **Resize the chart** to reduce the height and increase the width.



- 59. **Resize the Map** to reduce height and increase width.

- 60. Your report should look similar to this:



*Dragging objects make approximate adjustments. For pixel perfect adjustments we can modify values in the **Properties** pane. We'll look at those in the next section.*

- 61. Notice on the **Navigation menu** that your report name has an **asterisk (\*)** behind the name. This indicates that there are unsaved changes to the report. **Click Save**.

Abcde - Cognos Analytics Report \* ▾

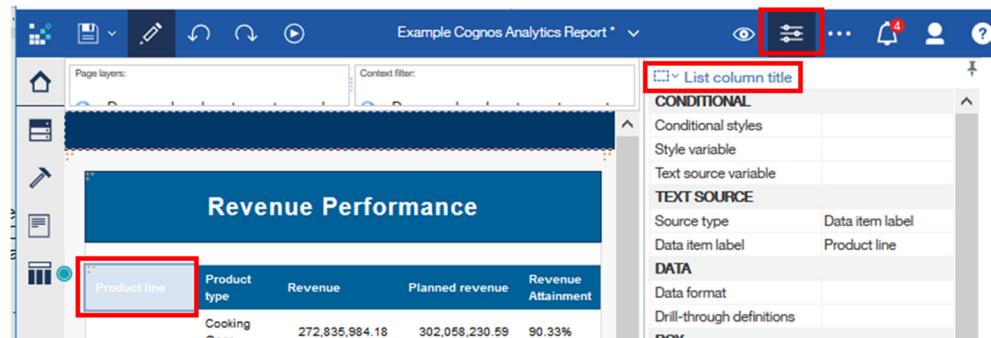
---

*The Authoring experience in Cognos Analytics is graduated in nature as it allows Users to quickly create self-service reports while also providing professional authors the advanced capabilities to develop pixel perfect standardized reports.*

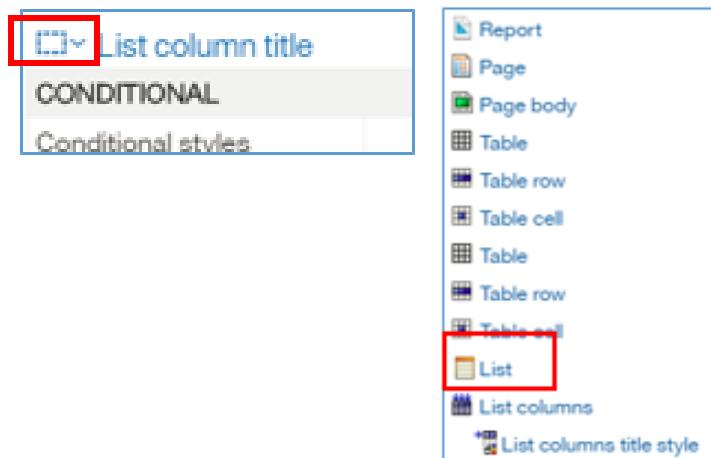
---

## 2.5 Working with Report Properties

- 62. **Click** on the **Properties** icon  on the upper right of the application toolbar. The Properties section allows the report author to create advanced, pixel perfect reports. **Click** on various sections, objects or field on the report. Notice how the Properties section updates based on the exact location you have selected on an object.
- 63. **Click** on the **Product Line header** in the list. Notice, in the Properties pane, you have selected a List column title.



- 64. In reports, objects can contain other objects. You have selected a List column title, but you want to modify the properties of the List. **Select** the **drop-down** arrow and then **select List**. This is a convenient way to select a parent container of another object on the report.



- 65. The display changes to indicate you have selected the **List** object. (You could have also selected the List directly by clicking in a white space of the list).

The screenshot shows the properties panel for a 'List' object. The 'Conditional' section contains 'Conditional styles', 'Style variable', 'Render variable', and 'No data contents' (set to 'No Data Available'). The 'DATA' section contains 'Grouping & sorting' (set to '(Defined)'), 'Query' (set to 'Revenue by Produ...'), 'Rows per page' (set to 'Unavailable'), and 'Master detail relationships'.

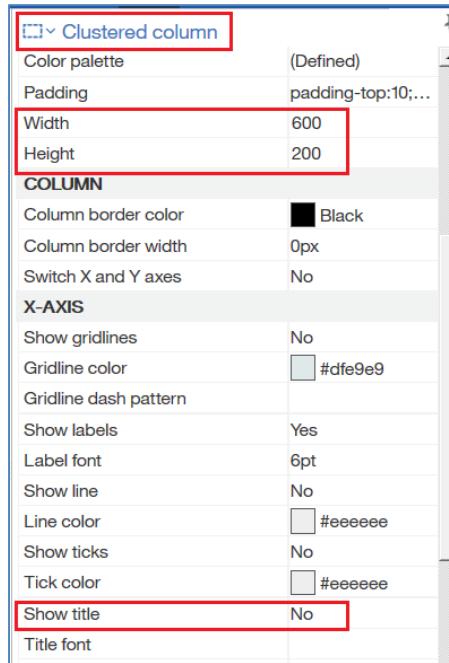
- 66. **Rows per page** property will ensure all rows are returned on the same page from the database. **Scrollable area height** property freezes list column headings and fix the total height of the list object. **Scroll** down the properties list to find and modify these properties as follows:

The screenshot shows the properties panel for a 'List' object. The 'Conditional' section is visible at the top. The 'General' section is expanded, showing 'Contents height' (set to 'Minimal'), 'Column titles' (set to 'At start of list'), 'Scrollable area height' (highlighted with a red box and set to '600'), 'Pagination' (set to '(Defined)'), and 'Render page when empty' (set to 'Yes').

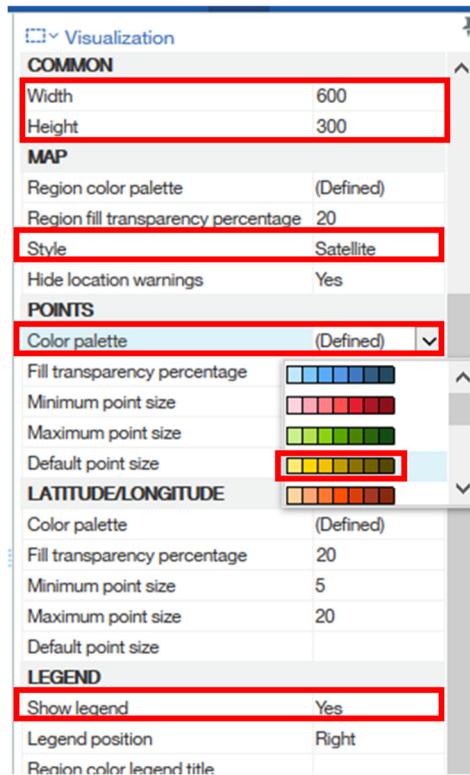


**TECH TIP:** IF ALL ROWS APPEAR ON YOUR PAGE WITHOUT SCROLLING, CHANGE SCROLLABLE AREA HEIGHT TO A SMALLER VALUE TO EXPERIMENT WITH SCROLLING THE DATA.

- 67. Click on the **Column chart** to select it. Scroll down the **properties** list to find and modify the following entries:



- 68. Click on the **map** to select it. Scroll down the **properties** list to find and modify the **Width**, **Height**, **Style**, **Show Legend**, and **set the points color palette** to use the **yellow** color palette.



- 69. Click  to close the properties pane.

\_\_70. Your report should look similar to the following:



- \_\_71. Click the **Edit** icon to exit authoring mode.
- \_\_72. Hover your mouse over the map. Use the scroll button on your mouse to zoom in and out on map. You may also use the +/- buttons on the map to zoom.
- \_\_73. Save your report.

---

*With Cognos Analytics, Users are no longer selecting tools in which to build content. This eliminates the confusion around which tool is best for report building. The new Cognos Analytics Authoring experience may be made available to all users as governed by the User's Permissions set by your Administrator.*

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## Workshop 3 Advanced Report Settings

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**Workshop Duration:** 25 minutes

**Audience:** Consumers and Report Author

**Capabilities:** Report Authoring Interface

**Prerequisite Workshop(s):** None

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In this Workshop, you will:

- Work with My Parameters
  - Use the Interactive Filtering Panel
  - Use the Interactive Performance Assistant
- 

*Now that you're satisfied that Users should be able to create reports themselves, you need to address some issues that concern the IT staff. When we create reports for the Users, we often include prompts, for example, for Product Line or Years. This makes it easier for a generalized report to be used by many different groups to focus in on the areas they support.*

*However, in other reporting solutions there is no way for Users to easily pre-set filters for their personal needs. They complain that they either have to re-enter their prompt values every time they run a report, or save a separate version of a report just for themselves. This creates massive numbers of reports on the system which quickly get out of date. Cognos Analytics lets the IT staff pre-set standardized report prompts, which Users can then set once and have them automatically apply.*

*Additionally, when Users run reports and filter them dynamically, they've complained they have to look in several areas to see what filters they've dynamically applied. The new Interactive Filtering Pane, addresses that complaint.*

*Another issue IT has to deal with on a regular basis is reports that seem to run very slowly, especially if end-users are writing them, since they often don't understand how the queries run. Figuring out which report part is running slowly is often a tedious task. Cognos Analytics Performance Assistant will let you easily run a report that identifies how long each portion of the report takes to execute the query and render the output. This makes it much easier and faster to isolate problem report sections so that you can examine and correct any performance issues.*

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### 3.1 My Parameters

A global parameter is specified at the **system** level, and can be applied across all reports within the application that use the data it refers to. For example, if most of your company's reports are filtered by Department, you can create a global parameter for Department. Taking it one step further, you can assign specific values (e.g. Finance, Accounting, HR, etc.) to the Department global parameter to specific user Roles. In this way, your users will automatically generate reports that are relevant to them.

You can add prompts to a report to add interactivity for users. Prompts act as questions that help users to customize the information in a report to suit their own needs. For example, you create a prompt so that users can select a product type. Only products belonging to the selected product type are retrieved and shown in the report.

Prompts are composed of three interrelated components: **parameters**, **prompt controls**, and **parameter values**. Parameters are based on parameterized filters and form the questions to ask users. Prompt controls provide the user interface in which the questions are asked. Parameter values provide the answers to the questions.

- 1. First you will need to create at least one global parameter for your IBM Cognos Analytics environment. From the left **Navigation panel**, click **Manage** and select **Customization**.



- 2. Click the **Parameters** tab.



**TECH TIP:** YOU CAN DIRECTLY IMPORT THE PARAMETERS CONTAINED IN AN EXISTING REPORT BY CLICKING. Import You can also create parameters manually using New BUT A PARAMETER REPORT IS RECOMMENDED AS MULTIPLE PARAMETERS MAY BE CREATING IN A SINGLE REPORT AND BROUGHT IN SIMULTANEOUSLY.

3. Click Import .
4. Navigate to the report called **Parameter Library (Team Content>Samples>Reports)** that contains the parameters you are interested in and click Select. All the parameters in the report will be imported and shown in the list.



**TECH TIP:** VIEW OR EDIT THE PROPERTIES OF ANY OF THE GLOBAL PARAMETERS BY CLICKING THE MORE ICON AND SELECTING PROPERTIES.

The screenshot shows the 'Customization' interface with the 'Parameters' tab selected. The page title is 'Customization' with a back arrow. Below the tabs are buttons for 'Import' and 'New'. The main area lists parameters: pProductLines, pProductTypes, pProducts, and pRetailerCountries. To the right of pProductTypes is a three-dot menu icon with a red arrow pointing to it, indicating where to click to access properties.

Once you have created at least one global parameter for your Cognos environment, you can assign default values for these parameters to specific **user roles**. This way, your users within that role will not be prompted to provide values each time the report is run.

- 5. Click **Customization** to return to the main **Manage** panel.

The screenshot shows the 'Customization' interface with the 'Parameters' tab selected. The top navigation bar includes 'Themes', 'Extensions', 'Views', and 'Parameters'. Below the navigation is a descriptive text: 'Define parameters to be used across reports.' A toolbar with 'Import' and 'New' buttons is visible. The main content area lists parameters: 'pProductLine' and 'nProductLines'.

- 6. Select **Accounts**:

The screenshot shows the 'Accounts' interface with the title 'Accounts' and the sub-instruction 'Create and manage team members'. It features a user icon icon.

- 7. Select the **Cognos** namespace.

The screenshot shows the 'Namespaces' list interface. The left sidebar has icons for Home, Accounts, and Namespaces. The main area displays a table with columns 'Name' and 'Modified'. Two namespaces are listed: 'Cognos' (selected) and 'IBMDemo'. The 'Cognos' row has a red box around it.

- 8. Select the **System Administrators** role. (Type “**System**” in the search area to quickly find System Administrators role.) Click the **More** (3 ellipses) button ... and open **Properties**.

The screenshot shows the 'Accounts' list interface. The search bar contains 'system' (highlighted with a red box). The breadcrumb navigation shows 'Namespaces > Cognos'. The main area displays a table with columns 'Name' and 'Modified'. One account is listed: 'System Administrators' (highlighted with a red box). The 'More' button (three ellipses) next to the account row is also highlighted with a red box.

9. Click the **Customization** tab. Under **Parameters**, click **Settings**.

System Administrators		Parameters
Owner Unknown	Created: 8/27/2013 9:52 PM Modified: 11/29/2016 12:33 AM Type: Role	<input type="checkbox"/> pProductLines Set values > <input type="checkbox"/> pProductTypes Set values > <input type="checkbox"/> pProducts Set values > <input type="checkbox"/> pRetailerCountries Set values > <input type="checkbox"/> pQuarters Set values > <input type="checkbox"/> pRetailerTypes Set values > <input type="checkbox"/> pOrderMethodTypes Set values > <input type="checkbox"/> pYears Set values > <input type="checkbox"/> pProductLine Set values > <input type="checkbox"/> pYear Set values >
<a href="#">General</a> <a href="#">Customization</a> <a href="#">Members</a> <a href="#">Permissions</a>		
<a href="#">Home page</a> <a href="#">Default &gt;</a> <a href="#">Features</a> <a href="#">Default &gt;</a> <a href="#">Themes</a> <a href="#">Default &gt;</a> <a href="#">Custom folder</a> <a href="#">&gt;</a> <a href="#">Parameters</a> <a href="#">Settings &gt; <span style="border: 1px solid red; padding: 2px;"> </span></a> <a href="#">Advanced</a> <a href="#">&lt; <span style="border: 1px solid blue; padding: 2px;"> </span></a>		

10. Check the **checkbox** beside the parameter **pRetailerCountries** and click **Set values**. Cognos Analytics automatically runs the prompt defined in the Parameter Library report to fetch the available values. Select **Germany** and **United States** then click **Apply**.

Parameters	Set Values
<input type="checkbox"/> pProductLines Set values >	pRetailerCountries: <input type="checkbox"/> Australia <input type="checkbox"/> Austria <input type="checkbox"/> Belgium <input type="checkbox"/> Brazil <input type="checkbox"/> Canada <input type="checkbox"/> China <input type="checkbox"/> Denmark <input type="checkbox"/> Finland <input type="checkbox"/> France <input checked="" type="checkbox"/> Germany <input type="checkbox"/> Italy <input type="checkbox"/> Japan <input type="checkbox"/> Korea <input type="checkbox"/> Mexico <input type="checkbox"/> Netherlands <input type="checkbox"/> Singapore <input type="checkbox"/> Spain <input type="checkbox"/> Sweden <input type="checkbox"/> Switzerland <input type="checkbox"/> United Kingdom <input checked="" type="checkbox"/> United States
<input type="checkbox"/> pProductTypes Set values >	
<input type="checkbox"/> pProducts Set values >	
<input checked="" type="checkbox"/> pRetailerCountries Set values > <span style="border: 1px solid red; padding: 2px;"> </span>	
<input type="checkbox"/> pQuarters Set values >	
<input type="checkbox"/> pRetailerTypes Set values >	
<input type="checkbox"/> pOrderMethodTypes Set values >	
<input type="checkbox"/> pYears Set values >	
<input type="checkbox"/> pProductLine Set values >	
<input type="checkbox"/> pYear Set values >	

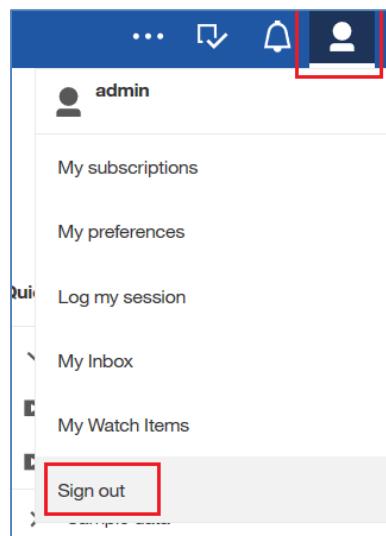
\_\_11. Check the **checkbox** beside the parameter **pYear** and click **Set values**. Enter **2013** and click **Apply**.

Parameters	Set Values
<input type="checkbox"/> pProductLines	Set values > pYear: 2013
<input type="checkbox"/> pProductTypes	Set values >
<input type="checkbox"/> pProducts	Set values >
<input checked="" type="checkbox"/> pRetailerCountries	Set values >
<input type="checkbox"/> pQuarters	Set values >
<input type="checkbox"/> pRetailerTypes	Set values >
<input type="checkbox"/> pOrderMethodTypes	Set values >
<input type="checkbox"/> pYears	Set values >
<input type="checkbox"/> pProductLine	Set values >
<input checked="" type="checkbox"/> pYear	Set values >

OK Cancel Apply Clear

\_\_12. Click **OK** under the **parameter list** to save changes.

\_\_13. Sign out of the system.



- \_\_\_39. When the login screen reappears, use the pull-down arrow next to “**Select Namespace**”.  
**Select IBM Demo.**

- \_\_\_a. **User ID:** administrator
- \_\_\_b. **Password:** IBMDem0s

- \_\_\_14. Now, let’s create a report using the global parameters you just imported. **Click the New ** button on the navigation panel to **create a new report using** the default **blank template** and **Blue theme**.

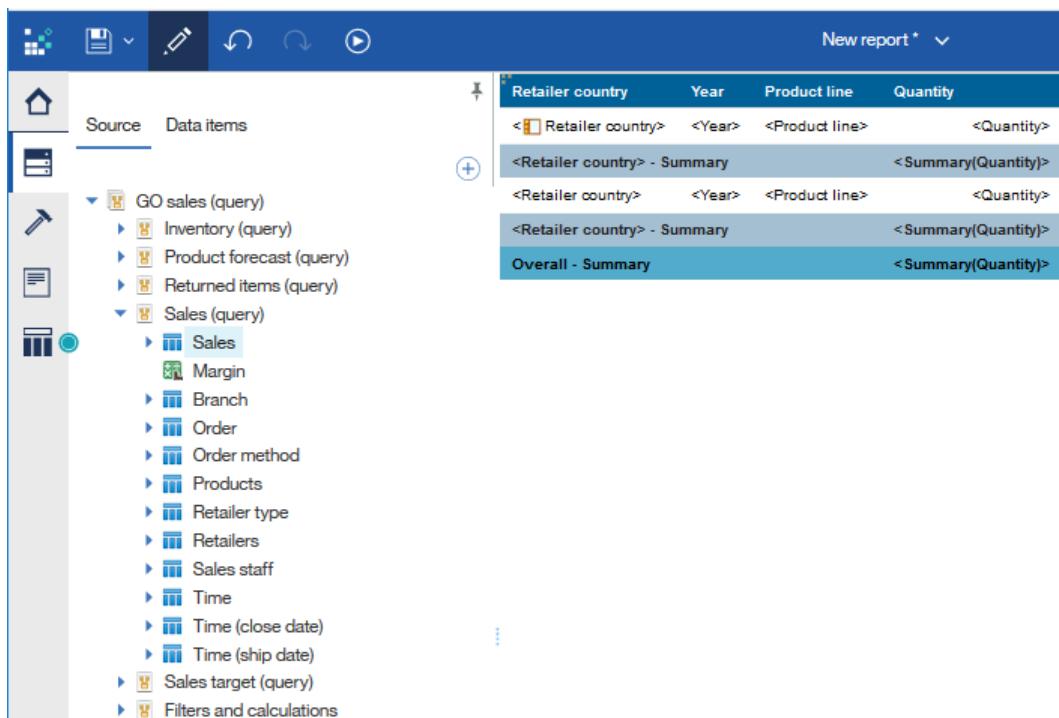
- \_\_\_15. **Add the Go sales (query) package as the data source (Team Content>Samples>Models).**

- \_\_\_16. **Use the Add button  to select a List report. Set the name and query name to “Product Line Sales by Country”. Click OK.**

- \_\_\_17. **Create the List report using the following data items from Sales(query):**

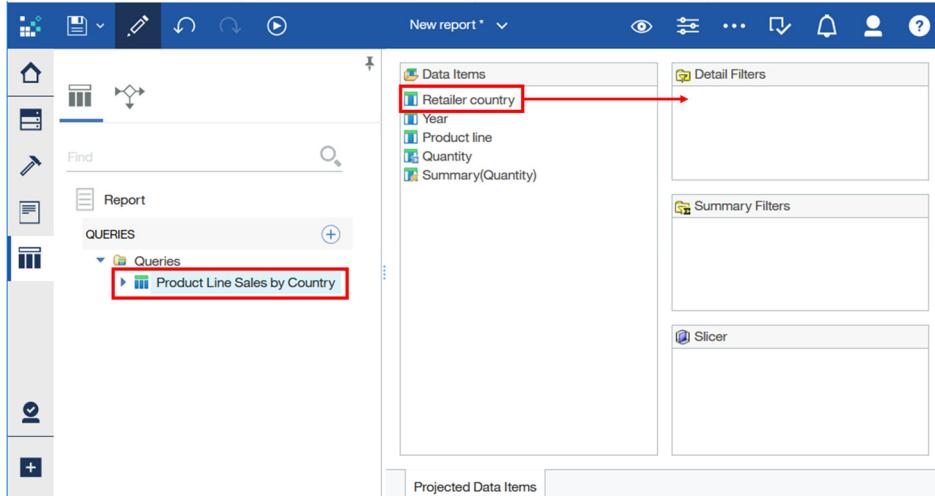
- \_\_\_a. **Retailers>Retailer country**
- \_\_\_b. **Time>Year**
- \_\_\_c. **Products>Product Line**
- \_\_\_d. **Sales>Quantity**

- \_\_\_18. Use the on-demand toolbar to **Group ** on Retailer country column.
- (Refer to section “2.1 Authoring New Content” in this workshop to review steps, as needed.)

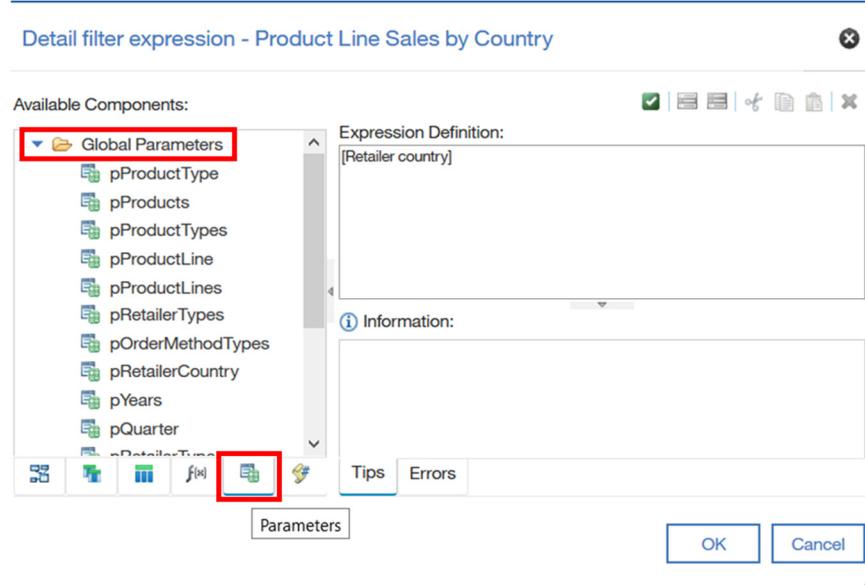


The screenshot shows the IBM Cognos Report Studio interface. On the left, the Source pane lists packages: GO sales (query), Inventory (query), Product forecast (query), Returned items (query), and Sales (query). Under Sales (query), various data items are listed: Sales, Margin, Branch, Order, Order method, Products, Retailer type, Retailers, Sales staff, Time, Time (close date), Time (ship date), Sales target (query), and Filters and calculations. On the right, the Data items pane displays a table structure with four columns: Retailer country, Year, Product line, and Quantity. Below the table, several summary rows are shown: <Retailer country>, <Retailer country> - Summary, <Retailer country> - Overall, and Overall - Summary, each with corresponding summary expressions like <Summary(Quantity)>.

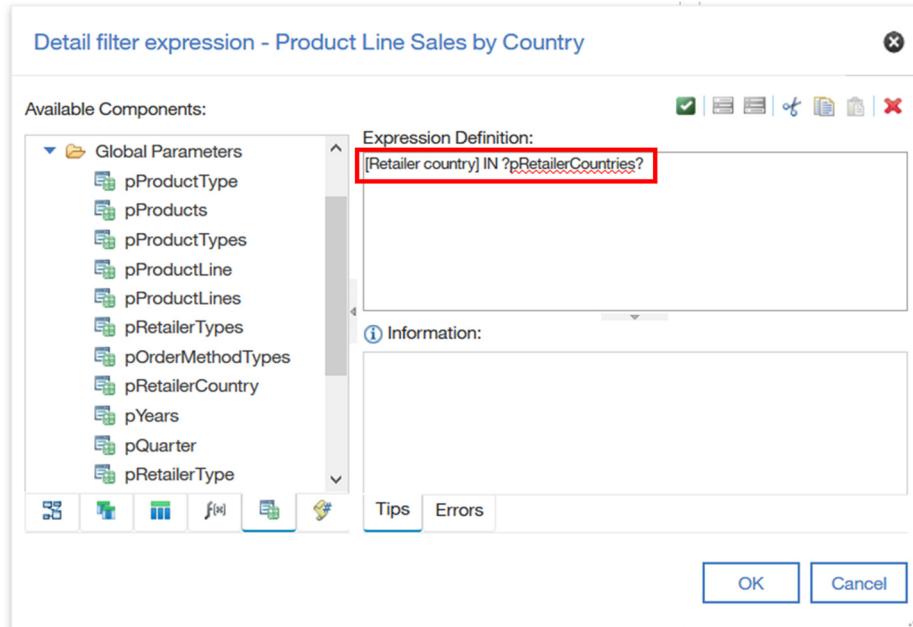
- \_19. Click the **Queries** tab  in the navigation panel. Click on **Product Line Sales by Country**.
- \_20. Drag **Retailer country** to the **Detailed Filters** area to create a new filter.



- \_21. A **Detail filter expression** dialog box will appear. Select the **Parameters** tab (second from the right) at the bottom of the dialog box and expand the **Global Parameters** folder. (The Global Parameters are the set of parameters we created previously).



- \_\_\_22. In the expression dialog box, type “IN” after [Retailer country].
- \_\_\_23. Find **pRetailerCountries** (*not pRetailerCountry which is also an option*) under **Global Parameters** folder, and drag that after the word “IN”. This creates the following expression: **[Retailer country] IN \$pRetailerCountries**.

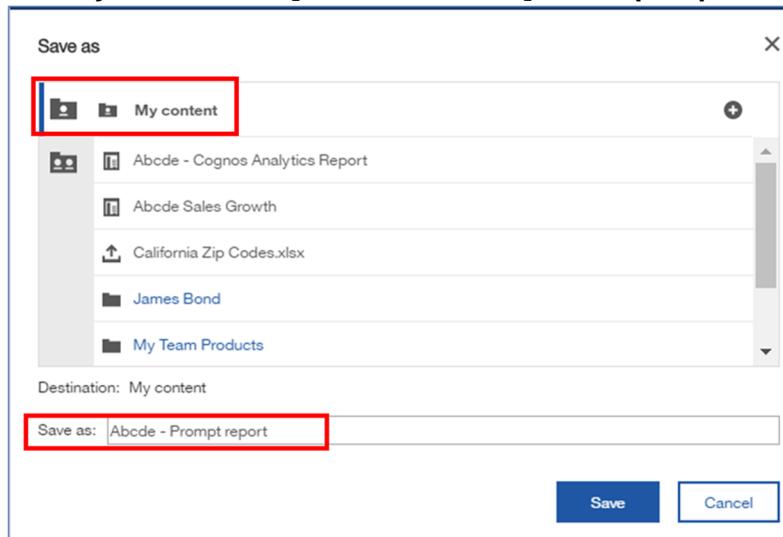


- \_\_\_24. Click **OK** to save the prompt filter.
- \_\_\_25. Repeat the preceding steps to create a **Year** filter using **pYear** (*not pYears which is also an option*) found under the **Global Parameters** folder, except use “=” instead of “IN” in the expression. **Click OK** to save the prompt filter. Your final list of **Detail Filters** should read as follows:

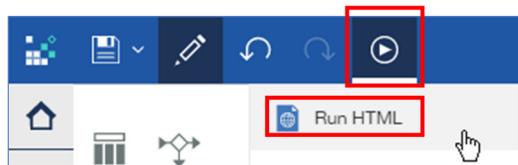


**TECH TIP: USING “IN” IN THE EXPRESSION WILL PROMPT FOR MULTIPLE VALUES. USING “=” WILL ONLY ACCEPT A SINGLE VALUE. THE “IN” EXPRESSION IS NOT CASE SENSITIVE.**

26. Save the report to **My Content** as “[Your Last Name] - Prompt report”.



27. Use the **Run Options** button from the application toolbar to run the report. Select “Run HTML”.



28. The report will render with the defined parameter values being applied automatically.

Retailer country	Year	Product line	Quantity
Germany	2013	Camping Equipment	325,009
	2013	Golf Equipment	60,377
	2013	Mountaineering Equipment	191,581
	2013	Outdoor Protection	37,325
	2013	Personal Accessories	409,376
<b>Germany - Summary</b>			<b>1,023,668</b>
United States	2013	Camping Equipment	959,238
	2013	Golf Equipment	197,077
	2013	Mountaineering Equipment	575,654
	2013	Outdoor Protection	110,561
	2013	Personal Accessories	1,506,112
<b>United States - Summary</b>			<b>3,348,642</b>
<b>Overall - Summary</b>			<b>4,372,310</b>

- \_\_29. Report users can modify the default parameter values and have the report reflect changes by using the My parameter panel. **Click** on the **My Parameters** icon to open. If the User (in this case Admin) changes any of the My Parameter values, they only change for the User making the change and will be retained across sessions. If the User wants to reset the parameter values back to those assigned to the System Administrator role, they may **click Reset** to restore the original parameters set for their role.

The screenshot shows a Cognos Analytics report interface. On the left is a navigation bar with icons for Home, Search, Favorites, and Plus. The main area displays a table of data with columns: Retailer country, Year, Product line, and Quantity. The data includes rows for Germany (2013: Camping Equipment 325,009; Golf Equipment 60,377; Mountaineering Equipment 151,581; Outdoor Protection 37,325; Personal Accessories 409,376), United States (2013: Camping Equipment 959,238; Golf Equipment 197,077; Mountaineering Equipment 575,654; Outdoor Protection 110,561; Personal Accessories 1,506,112), and Overall (Summary 4,372,310). To the right of the table is a 'My parameters' panel. It contains two sections: 'pRetailerCountries:' and 'pYear:'. Under 'pRetailerCountries:', there is a list of countries with checkboxes: Australia, Austria, Belgium, Brazil, Canada, China, Denmark, Finland, France, Germany (which is checked), Italy, Japan, Korea, Mexico, Netherlands, Singapore, Spain, Sweden, Switzerland, United Kingdom, and United States (which is also checked). Under 'pYear:', there is a text input field containing '2013'. At the bottom of the panel are 'Apply' and 'Reset' buttons. A red box highlights the 'My parameters' icon in the top right corner of the report area.

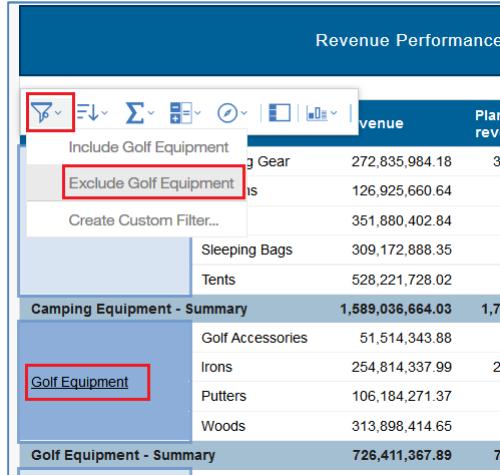
- \_\_30. **Click** on **My Parameters** icon again to close the panel.

## 3.2 Interactive Filtering Panel

*The Filter panel helps report users to manage all filters applied to a report interactively. This also helps users to better understand the report context and modify views accordingly*

- \_\_31. **Click** on the **My Content** icon on the Navigation bar on the left. **Open** the report you created from Workshop 2 (**[Last Name] Cognos Analytics Report**).

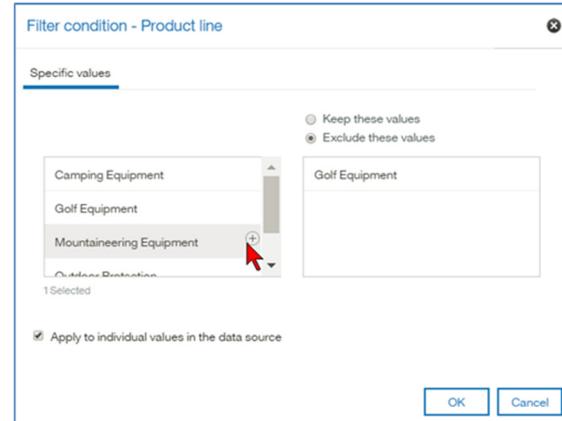
- \_\_32. Click on **Golf Equipment** in the **List** column to select it. From the on-demand toolbar, use the **Filter** icon's  drop down menu to create a filter to exclude **Golf Equipment**.



- \_\_33. The report will update no longer showing Golf Equipment. Click the **Filter**  icon on the upper right of the application bar to open interactive filter panel. You will find the filter we just created from the step above listed here. Click on the **filter** in this panel. The report automatically highlights both List and Column charts with dotted blue lines. This indicates both objects are applying this filter.



- \_\_34. Click on the **Pencil icon**  beside the filter to launch filter dialog and select another value to exclude by clicking the Add button . You can also click the **Remove**  icon to delete this filter. **Add Mountaineering Equipment** to the filters and **click OK**.



- \_\_35. Your report will rerun and now excludes both Product Line filters applied. Both show in the filters panel.

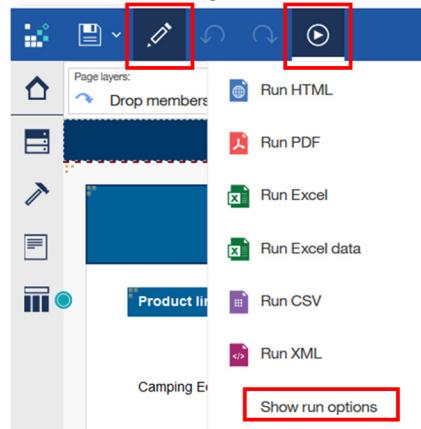


- \_\_36. Click on the **filter** icon again to close the panel.
- \_\_37. Click the **Undo** icon on the application toolbar, and the last filter (Mountaineering Equipment) will be removed.
- \_\_38. Save the report.

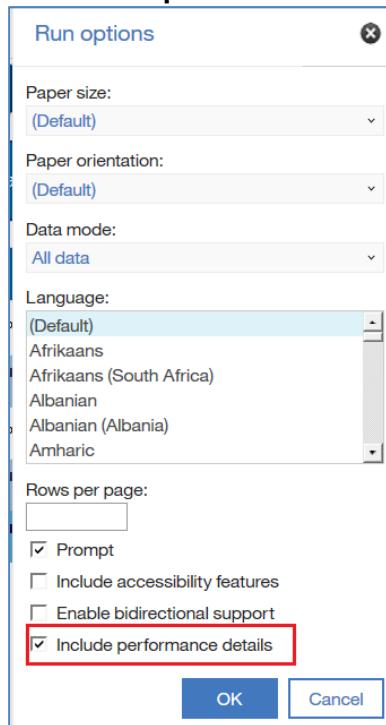
### 3.3 Interactive Performance Assistant

*The Interactive Performance Assistant (IPA) feature in Cognos Analytics is designed for authors who wish to interactively view the performance of their reports. You can set up Performance Assistant to show querying/rendering performance on report objects.*

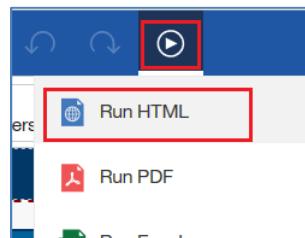
- \_\_39. Click on **Edit** to open report in Edit mode.
- \_\_40. Click the **Run** icon and select **Show run options**.



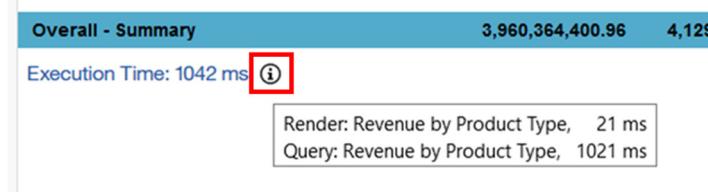
- \_\_41. Check the **checkbox** to enable ‘Include performance details’ and click **OK**.



- \_\_42. Click the **Run** icon and select **Run HTML** format.



- \_\_43. The report will run and render a separate browser tab. Notice that the report now has an “Execution Time” below each report object. Hover over the ⓘ under the **List** object to example Rendering and Query time. Do the same for the **Column** chart.



- \_\_44. Write down the times for each. We will use these as a comparison point in the next step.



**TECH TIP:** MAPBOX® MAPS DO NOT SHOW RENDERING AND QUERY TIME.

- 
- \_\_\_45. **Click** the **run** button again to re-execute the report.
  - \_\_\_46. **Compare** the performance information for the **List** and the **Column** chart against the previous run times you noted. Query time has reduced significantly.
- 



**TECH TIP:** THIS IS A GOOD WAY TO CONFIRM IF QUERY REUSE IS IN PLACE. WHEN QUERY REUSE IS TURNED ON AND YOU RUN A REPORT FOR THE FIRST TIME, THE QUERY IS STORED IN THE CACHE OF YOUR CURRENT SESSION AND REUSED THE NEXT TIME YOU RUN THE REPORT. THE QUERIES ARE KEPT IN THE CACHE FOR EACH USER. THE CACHE IS CLEARED WHEN THE REPORT CONSUMER EXITS THE REPORTING TOOL AND RETURNS TO THE PORTAL OR WHEN THE REPORT SERVER TIMES OUT THE SESSION, TYPICALLY AFTER FIVE MINUTES OF INACTIVITY.

THE FIRST TIME THE REPORT IS RUN AND THE CACHE IS CREATED, THE RESPONSE TIME MAY BE SLIGHTLY NEGATIVELY IMPACTED. THE PERFORMANCE IMPROVEMENT IS REALIZED BY THE REPORT CONSUMER ON EACH SUBSEQUENT REPORT EXECUTION, WHEN THE RESPONSE TIME IS IMPROVED BY AS MUCH AS 80%. THIS PERFORMANCE IMPROVEMENT OCCURS BECAUSE THE REPORT DOES NOT HAVE TO RE-QUERY THE DATABASE. IN ADDITION TO THIS, REDUCED QUERIES TO THE DATABASE YIELDS IMPROVED OVERALL SYSTEM PERFORMANCE, WHICH POSITIVELY IMPACTS ALL USERS.

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*This has been a very exciting exercise. You've been able to successfully complete all evaluations for end users and advanced authors' ability to write reports in Cognos Analytics. You may see that many users will develop dashboards for their personal use, but on those occasions when they find insight they want to share widely and regularly across their departments, reporting provides them with all the capabilities to do so. Additionally, your IT staff will be able to monitor, test, and improve their reports if they need to go enterprise wide.*

*Cognos Analytics will also address those ease of use complaints you've had in the past regarding filtering and customizing. And, Users don't have to open several different applications to perform that work, it is all in one central interface, the same they use for creating their dashboards. Excellent!*

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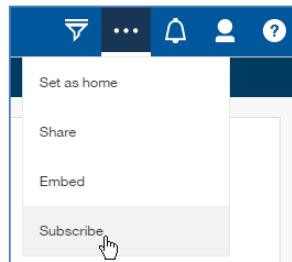
## **Thank you for attending this Cognos Analytics Workshop!!**

We hope you enjoyed your time with us today and are excited to continue working with Cognos Analytics.

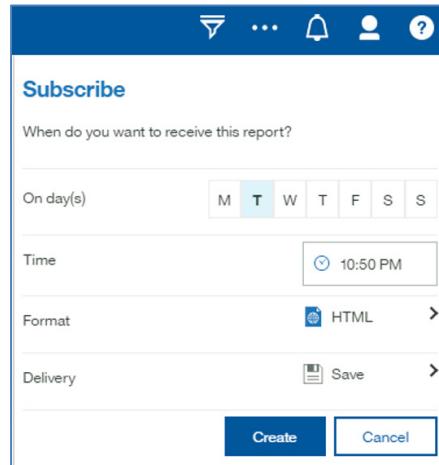
If you are interested in additional workshops and formal training, please reach out to your IBM Sales or Tech Sales Representative or your IBM Business Partners.

## Appendix A: Managing Subscriptions

- 1. Open your saved report “[Last Name] Sales Growth”.
- 2. With the report open on the canvas, the **More**  button presents options to set that the report as home or to subscribe to the report.
- 3. The “**Set as Home**” capability allows the User to select the current report to render on their home page when they sign in to Cognos Analytics. It replaces the white welcome screen you see in the workshop environment we are using today. Both Reports and dashboards may be set as home pages.

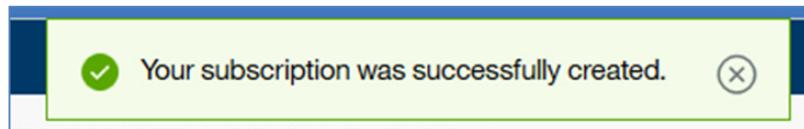


- 4. Users have the ability to subscribe to content and personalize the delivery schedule, frequency and format of subscriptions. Click on “**Subscribe**” to open the scheduler.



- 5. In the subscribe window, the User may set up their scheduling preferences for Days, Time, Delivery Format and Delivery method. For “On Day(s)” select all **weekdays**. For **Time**, Set to **2-3 minutes ahead** of the time shown. (It renders the time that the window was opened. For this environment, it uses the Cloud server time so it will not reflect our current time zone).
- 6. Click the arrow to the right of **Format** to see the output options available. Select **HTML** and **Click Done**.

- 7. Click the arrow to the right of **Delivery** to select your delivery option. You may either have the report sent to you via email, print the report or save the report on the system. Select “Save the report”. Click Done.
- 8. Click **Create**. You will receive a confirmation message of the subscription just below the navigation menu.



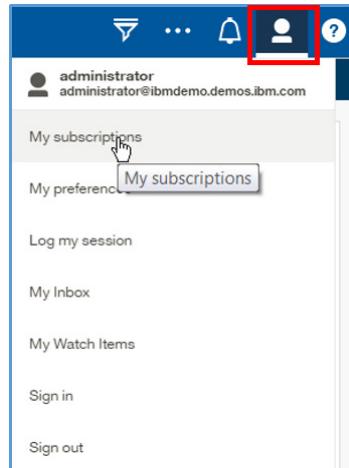
- 9. Once subscribed, Cognos Analytics will alert the User under **Notifications** as each subscription is available. The number of Alerts on the Notifications button indicates the number of unread notifications. (Yours will appear shortly since we set it for just a few minutes in the future.)



- 10. Once you see the alert appear on your Notifications, Click on the **Notifications** button to open the **Notifications panel**. You will now see your report at the top of the list. Click on the report to open the detail. Click outside the panel to close.

A screenshot of a web interface. At the top, there's a dark blue header bar with white icons: a magnifying glass, three dots, a bell with a red '1', a user profile, and a question mark. Below this is a light blue sidebar titled "Notifications". It contains a single item: "A new version of the report 'My Abcde Sales Growth' is available." followed by the date "10/11/2017". To the right of the sidebar is the main content area. It has a header "Back" and a status line "Type: Message Status: Read Owner: administrator". Below this is a message: "A new version of the report 'My Abcde Sales Growth' is available." with a timestamp "Oct 11, 2017 12:17 AM". At the bottom of the content area is a link "My Abcde Sales Growth (HTML, English)".

- 11. Over time, Users may wish to modify their subscriptions. To do so, click on your **Personal Menu** and select **My Subscriptions**.



- 12. The **My Subscriptions Panel** Opens and shows a complete listing of all subscriptions belonging to the User. The User may now see a list of subscriptions, whether or not they are enabled, the Owner and when it was last modified. **Click** on the **down arrow** next to a subscription to see additional capabilities. **Click** on the “**Modify this subscription**” and “**View Versions**” to open the panels.

The screenshot shows the 'My subscriptions' page. On the left is a navigation bar with Home, Search, My content, Team content, and Recent. The main area has a title 'Subscriptions' with a chart showing 1 Enabled subscription and 0 Disabled. Below the chart is a table with columns 'Enabled', 'Subscription name', 'Owner', and 'Modified'. One row is shown: 'Enabled' (checkbox checked), 'Subscription name' (My Abcde Sales Growth - Every Mon, Tues, Wed, Thurs, Fri at 12:32 AM), 'Owner' (administrator), and 'Modified' (Oct 11, 2017 12:31 AM). To the right of the table are three buttons: 'Modify this subscription' (with a red box around it), 'View versions', and 'Delete this subscription'.

- 13. Users may easily enable/disable subscription schedules by using the check boxes next to each subscription. If a User no longer needs a subscription, it may be deleted. **Click** on the **down arrow** next you're your report and select “**Delete this subscription**”. A confirmation message will appear under the navigation menu at the top center of the screen. You have a few seconds, while the message appears to Undo your deletion, after that, the subscription is deleted permanently.

The screenshot shows the 'My subscriptions' page. The navigation bar is identical to the previous screenshot. The main area shows a table with one row. The 'Enabled' column has a checkbox that is unchecked. The 'Subscription name' column shows a message: 'The subscription was deleted. Click to undo.' The 'Owner' and 'Modified' columns show administrator and Oct 11, 2017 12:31 AM respectively. The 'Modify this subscription', 'View versions', and 'Delete this subscription' buttons are visible.



**CAUTION: BE VERY CAREFUL WHEN DELETING SUBSCRIPTIONS AS THERE IS NO WARNING MESSAGE CONFIRMING THE REQUEST FOR DELETION.**



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