

Getting Started with 11.2.X Reports

Workshop Guide CA 11.2.X / December 2022

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1 Introduction

Cognos Analytics - Reporting is a web-based report authoring tool that professional report authors and developers use to build sophisticated, multiple-page, multiple-query reports against multiple databases. With Cognos Analytics - Reporting, you can create any reports that your organization requires, such as invoices, statements, and weekly sales and inventory reports.

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

- Creating a Report
- Formatting our Header
- Formatting our Body
- Creating a List
- Creating Visualizations
- Adding Filters
- Customize
- Test

2 Get Started with your Cognos Analytics Tutorial

2.1 Cognos Analytics User Interface

The goal of the User Interface (UI) is to provide users with a streamlined way to get started using Cognos Analytics and view content and activities pertinent to them.

1. The welcome page provides quick access to the product functionalities, content, samples, and learning materials. This is the perfect place to start exploring Cognos Analytics.

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Hello. Welcome to	Cognos Analytics.		
Cognos Analytics empowers users wi how automated data preparation, dat more confident decisions.	th AI-driven self-service analytics. See a discovery and visualizations can drive		
Watch video Take	a product tour		
 Quick launch 			
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Upload data	Prepare data	Exploration	Present data
Upload or drag and drop spreadsheets, csv files, and other data sources.	Use data modules to clean and connect data from multiple resources.	Quickly find unbiased answers by identifying trends in your data with	Create sophisticated, multi-page, multi-query dashboards, reports, or

2. The **Open menu** is the main access point to the IBM Cognos Analytics content and functionalities. Click the **Open menu** icon in the application bar to access the menu options.



For additional information see <u>Welcome Page</u> in the online IBM Documentation.



2.2 Business Use Case for this Workshop

In this module we're going to show you how you can create a report with a prompt to see the performance of each store based on location by utilizing our current data sources. Reports are good at providing detailed, pixel perfect reports, whether you want an invoice, a multi-page annual report, tables of contents, detailed store performance reports etc.

Financial Manager Data needs in Reporting

The team needs to analyze store performance. We need to create a report that contains:

- An overview of the store that the report is based on
- A list that shows the performance of the store
- A visualization to show sales and weekly aim
- A visualization to show the average occupancy of certain areas of the store



3 What are Cognos Analytics Reports?

Another way to see your data at a more detailed level is with Cognos Analytics Reporting.

With Cognos Analytics - Reporting, you can create any reports that your organization requires, such as invoices, statements, and weekly sales and inventory reports.

Cognos analytics has a wide variety of capabilities in terms of reporting that include:

- **Lists** Use lists to show detailed information from your database, such as product lists and customer lists.
- **Data tables** Use data tables to show detailed information from a source. Similar to lists, the data tables show data in rows and columns. However, unlike in lists, the data is rendered on the browser side, and not on the server side.
- **Crosstabs** Use crosstab reports, also known as matrix reports, to show the relationships between three or more query items. Crosstab reports show data in rows and columns with information summarized at the intersection points.
- **Visualizations version 11.x** IBM Cognos Analytics Reporting has a new visualization technology as of version 11.x.
- **Charts** You can use IBM Cognos Analytics Reporting to create many chart types, such as column, bar, area, and line charts.
- **Legacy visualizations** -You can use legacy visualizations in IBM Cognos reports to visualize data.
- **Maps** Maps help you to do geographic analysis of data by using location data such as regions, cities, and latitude and longitude.
- Active Reports You can use IBM Cognos Analytics Reporting to create active reports highly interactive and easy-to-use type of reports. Active reports are built for business users, allowing them to explore their data and derive additional insight.
- **Relational Reporting Style** The relational reporting style is recommended for relational data sources. Relational data is best represented by lists. This data is organized in IBM Cognos Analytics Reporting by query items.
- **Dimensional Reporting Style** The dimensional reporting style is recommended for dimensionally-modeled relational (DMR) and Online Analytical Processing (OLAP) data sources. Dimensional data is best represented by crosstabs, maps, and charts. This data is shown in IBM Cognos Analytics Reporting in dimensions, hierarchies, levels, and members.
- Adding Prompts to Filter Data 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.
- **Laying Out a Report** When creating a report, a good layout is essential to ensure that the information in the report is presented in a clear and effective manner.
- Working with your external data You can supplement your enterprise data with your



own external or personal data file.

- **Using conditions** You can define conditions to control what users see when they run a report. Conditions can apply to specific items in a report. For example, you can define a conditional style to highlight exceptional data, such as product revenue that exceeds your target.
- **Bursting reports** Burst a report to distribute its contents to various recipients. Bursting is the process of running a report once and then dividing the results for recipients who each view a subset of the data.
- Format data Format data in a report to improve readability. For example, you can show all date values in the order year, month, and day. If you do not set Data Format properties here, data is formatted according to the properties set in the model. If the properties were not set in the model, data is formatted according to the International Components for Unicode (ICU) formats.
- **Using query macros** A macro is a fragment of code that you can insert in the Select statement of a query or in an expression. For example, add a macro to insert a new data item containing the user's name.
- **Drill through access** Using drill through access, you can move from one report to another within a session while maintaining your focus on the same piece of data. For example, you select a product in a sales report and move to an inventory report about that product.
- Working with multiple pages Divide a report into multiple pages and add navigation elements to make it easier to use.
- **Managing existing reports** After you have created a report, you can make changes or enhancements, such as setting up the report for bursting.
- **Limitations when using dimensional data sources** There are limitations when authoring or running reports against dimensional data sources.
- Limitations When Producing Reports in Microsoft Excel Format There are limitations when producing reports in Microsoft Excel format.
- **Prompt API for IBM Cognos Analytics with Watson** The JavaScript Prompt API provides report authors with a method of customizing prompt interaction in the reports they author.
- Legacy Map Manager maps This appendix describes the Map Manager maps functionality that has been replaced by new maps functionality as described in other areas of this document.

4 Creating a Report

For this exercise we will be begin by creating a new Report. This new Report will be created to visualize each store's performance based on sales. By creating this report, we can understand which store is performing best and understand what actions are needed to improve each store's performance.

4.1 Creating a New Report

1. Cognos Analytics provides reporting, a web-based report authoring tool that professional report authors and developers use to build sophisticated, multiple-page, multiple-query reports against multiple databases. You will start with creating a report for our Store Performance. On the home page after clicking "**IBM Cognos Analytics with Watson**".



Since we are going to create a report, navigate to the hamburger menu in the top left, select + New"-> "Report"



2. Next select the "1 column" template and click "Create"

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	Create a report Select a template and theme for	r your report						Cancel Create
	Templates The	Blank active report	1 beside 2	1 beside 2 active report	1 column	Ā		T
	1 column active report	2 by 2	2 by 2 active report	2 by 3	2 by 3 active report		I	
	2 column active report	2 columns	2 over 1	2 over 1 active report	2 row active report		Template: 1 column Theme:	
	2 rows	3 column active report	3 columns	5 tab active report	5 tabs			

3. Now that we have our page created, we need to select a data source. Click "Select a source" -> "11.2.3 Workshop"->" Data modules" -> Select "Coffee sales and Marketing" -> click "Open". You should now see your Data source loaded on the left.

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4.2 Formatting our Header

With our data source loaded we are going to start by editing the Header for our "Store Performance Report".

1. Double click the part that says, "Double-click to edit text" and type "Store Performance Report" into the box when the text prompt pops up and click "OK".

Text		×
Store Performance Repor	t	
Cancel	ок	
		1

4. In the properties tab click font under the Font & Text section and select size "20pt", "Normal" weight, and "Verdana" family. Then for the Foreground Color set it to "#6600FF" in the "Color swatch" section then Click "OK".

Font							×	Foreground co	lor		
Family:		Size:		Wei	ght:	Styl	e:				
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Times-PDF		16	pt	۲	Normal	0	Normal	Basic colors	Color swatch		
Trebuchet MS		18	pt	0	Bold	0	Italic				
Verdana		20	pt						#6600FF		
Effects: Underline Overline	Preview		Verc	lana	a						
Line-through	Cancel	Foregrou	Ind Color	,		OK					Set as favorite
	CallCet		Apply			UK			Cancel	Apply	

5. After formatting the text, we need to format the spacing in the header. Click the header block on the top, you should see "Block" under properties. Click "Padding" in the properties section and set the "Top padding" and "Bottom padding" to 20 px then click "OK". The result should look like this.

Padding		×	Store Performance Report
Left padding: px ×	Top padding: 20 px Margin Border Padding Content Bottom padding: 20 px ings the same	Right padding: px v	
c	Cancel Apply	ок	⁷ Ωtote Ω1 ©Tire

Click the save icon in the top left **v** to save your report. For the name we will call it "Store Performance Report"

4.3 Formatting our body

For the report our goal is to show the performance of a selected store through charts and graphs.

1. First, we are going to create a title for our first section of the body. Before we do that, we are going to create Table Cells for each part of the body to organize our report. Go to "Insertable Objects" to

the left of the page by clicking this -> select the toolbox -> drag a table into the report canvas-> set the number of columns to 1 and the number of rows to 4 -> click "OK".



2. After creating the Table, you should have a table with 4 rows. Next, we are going to move the table cells to the top of the body to get started on our 1st half of the report. Select the box that contains the table cells by clicking the middle of the body above the grouped table cells and it should look like this.

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3. Go to the top right and click * Properties * Properties * -> * Vertical alignment * -> select * Top *. The result of setting the vertical alignment should look like this.



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4. Now that we have the table cells moved up to align our content, we will add titles and tables to display our data. Go to the "Toolbox", click and hold a "Text item"-> Drag it onto the first "Table Cell". The result should look like this before you add it to the "Table Cell".

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			Table header		

5. For the text enter "Store Overview". Then Click "OK".



6. Select the text item, go to properties on the right-hand side and update the following properties: "Foreground color" -> "Color Swatch" -> Click "#FF0099"-> Click "Set as favorite" right bellow (we will use this color again) -> click "OK". Now the font, Double Click "Font" -> Set "Family" to "Verdana" -> "Size:" to "14 pt." -> Click "OK".

	Foreground color ×
Store Performance Report	Favorites
*	Basic colors Color swatch Custom color
•	
	Set as favorite
² Date D1 OTime	Cancel Apply OK

 Now we will format the "Table Cell" the "Text item" is in, click on the first "Table Cell"-> go to "Properties"-> Double click "Padding" -> set "Left padding" to "20 px" -> click "OK".

	Store Performance Report	
Store Overview		
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	+	
Date	D 1	<u>Ф</u> Т

Save your report

4.4 Creating a List for our Stores

In this section we are going to create a list of Coffee shops for our Store Performance Report.

1. Click the "+" sign on the 2nd row and select the "List". It should look like this.



2. The "Object and query name" window will pop up. Update the "Name:" and "Query name" to "Store Details" then click "OK".

Object and query nam	×							
Name:								
Store Details								
Query Name:								
Store Details		\sim						
Show this dialog in the future								
Cancel	ОК							

3. Go to your data source, Expand "Sales Outlets" and insert columns: "Store Address", "Neighborhood", "City", "Sales Outlet Type", "Store Square Feet", and "Manager ID" to the list in this order by dragging and dropping or double clicking the data item. So far the result should look like this.

				+	
Store Address	Neighorhood	City	Sales Outlet Type	Store Square Feet	Manager ID
Store Address>	<neighorhood></neighorhood>	<city></city>	<sales outlet="" type=""></sales>	<store feet="" square=""></store>	<manager id=""></manager>
Store Address>	<neighorhood></neighorhood>	<city></city>	<sales outlet="" type=""></sales>	<store feet="" square=""></store>	<manager id=""></manager>
Store Address>	<neighorhood></neighorhood>	<city></city>	<sales outlet="" type=""></sales>	<store feet="" square=""></store>	<manager id=""></manager>

4. For the last column we are going to add a column, label it as Location and add a visualization. Change the page editor from Page Design to Page structure. The change page editor menu option is located on the top right-hand side of your screen. Expand the structure untill it looks like this. (The List might appear under a different table row which is not a problem)





5. Go to the left to "Insertable Objects" -> go to "Toolbox"-> Select and insert a "list" item underneath "<Manager ID>". Once you dropped it, the "Object and query name" window will show, replace the "Name:" and "Query name" to "Location".



6. Expand the list column structure, select the list under "List Column Body" and click the delete button at the top. The page structure should look like the image below.





 Select a visualization from the "Insertable Objects ToolBox" -> Click and drag the "Visualization" item and drop it on the "List column body" till it looks like the picture to your right below. If done correctly, the "Visualization Gallery" will come up, search "map" and select the "map" visualization -> click "OK".



- 8. Next we will change the "Properties" in the "Visualization" and the "List column body". Click on "Visualization" under "List column body"-> go to properties -> select "size" under visualization and change specifications to "Width:" 100% and "Height:" 215 px -> click "OK". Then click on "List column body" -> go to properties -> select "Size & overflow" under Positoning and set the "width:" to 35%-> Click "OK".
- 9. Switch the "Change Page editor" on the Top Right to "Page Design". Select the map visualization in the list and it should look like the image below. Change "Regions" to "Latitude/Longitude".

Regions © Locations * Drop item here \blacksquare Location color Drop item here \blacksquare Location extrusion height Drop item here Extra Data Drop item here	Inl.		X MAL		Ι <u>α</u> Π	2 MAR
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		62	D and D		R.	O To

10. Go to "Insertable Objects" on the left -> click on "sources" -> Expand the "Sales Outlets" table-> add "Latitude" column and under "Latitude". Then do the same for Longitude which is also under "Sales Outlet". For the "Label" add "Store Address" under "Label". Update the Column title from "List" to "Location". After clicking the "List" column go to -> Properties and set "Text" to "Location", the result should look like this.

et	Store Square Feet	Manager ID	Location
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La	atitude/longitude	~	
0	Latitude *		
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Ś	> Label		
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٣.	Point size		Q
D	rop item here		

11. To make our map more appealing we are going to format the columns. Click each "List Column Title" select "Background Color", Custom color, enter color code "#00CCCC" under #RGB and click ok. Select "Foreground Color", switch to "White" and click OK. Select "Font" and set the "Weight:" to "Bold" and "Family:" to "Verdana".

Store Address	Neighorhood	City	Sales Outlet Type	Store Square Feet	Manager ID	Location

12. Now we will set the "Size & overflow" and "Width:" to "100%". With the table list selected by clicking the 📴 at the corner go to "properties" -> double click "Size & overflow" and set the

"Width:" to "100%"-> click "OK". The chart should look like this when selected.

Store Address	Neighorhood	City	Sales Outlet Type	Store Square Feet	Manager ID	Location
<store address=""></store>	<neighorhood></neighorhood>	<city></city>	<sales outlet="" type=""></sales>	<store feet="" square=""></store>	<manager id=""></manager>	
<store address=""></store>	<neighorhood></neighorhood>	<city></city>	<sales outlet="" type=""></sales>	<store feet="" square=""></store>	<manager id=""></manager>	
<store address=""></store>	<neighorhood></neighorhood>	<city></city>	<sales outlet="" type=""></sales>	<store feet="" square=""></store>	<manager id=""></manager>	

13. Next we will center the text vertically and horizontally. Select the list by clicking 🖹 > under "properties" -> select "Horrizontal alignment" and set it to "center". For Vertical alignment centering, select each column below the column header -> click "Vertical alignment" and set it to "Middle". The list should look like the image below.

Store Address	Neighorhood	City	Sales Outlet Type	Store Square Feet	Manager ID	Location
<store Address></store 	<neighorhood></neighorhood>	<city></city>	<sales outlet<br="">Type></sales>	<store square<br="">Feet></store>	<manager ID></manager 	
<store Address></store 	<neighorhood></neighorhood>	<city></city>	<sales outlet<br="">Type></sales>	<store square<br="">Feet></store>	<manager ID></manager 	
<store Address></store 	<neighorhood></neighorhood>	<city></city>	<sales outlet<br="">Type></sales>	<store square<br="">Feet></store>	<manager ID></manager 	

14. Now we will add a filter for the list of stores. Navigate to the "Store Details" query.

$\leftarrow \rightarrow$	Report ^ Queries	> 🖬 Store Details		
>% ¶	🖹 Report			
	🗅 Pages			
Ī	Page1		+	🖓 Deta
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60	🗅 Queries			
	Store Details			
	🖬 Query1			
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15. Select "Add" in "Detail Filters".

× 1 (h v 1 13		Add
T Data Items +		+
T Store Address		
T Neighorhood		
T City		
■ Sales Outlet Type		
T Store Square Feet		
🖬 Manager ID		
	∑ Summary Filters	+

16. A new window will open, navigate to "Data items" — — — Drag and Drop "Store Address" into the "Expression Definition:" box -> then type "=?store?" and click "OK".(?store? is a prompt parameter we will use later in the report)

Data items

 Composition 	nents: jress ood tlet Type jare Feet ID	Express [Store]	iion Definition: Address]=?store? rmation:		
	- //	 Tipe	Errora		

17. Next we will change the name of the Query of our Map visualization to "Location". Navigate to "Query1" -> Go to properties -> select name and update to "Location".



18. Go to the "Detail Filters" and click "Add". When the "Detail Filter Expression – Location" window

opens, -> go to "Data items" — — Drag and Drop "Store Address" into the "Expression Definition:" box -> type "=?store?" and click "OK".

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🗊 Data Items	+	♡ Detail Filters	+
T Latitude		√ [Store Address]=?store?	
🖬 Longitude			
T Store Address			

19. Save the report

4.5 Creating a list for Product Sales

For the next section of our report we will be focused on creating visualizations based on store performance.

First we are going to add a title for the bottom half of the report. Go to "Insertable objects" ->
 "toolbox"-> click and drag "Text Item" into the next available table cell at the bottom -> for the
 text type "Store Performance". Update the text Properties, set "Padding" to "Left: 20 px",
 "Foreground color" to "#FF0099" which is in "Favorites", set "Font" to "14 pt" and "Verdana". It
 should look like this.



2. Now that we added the title we are going to add a table below it to store Charts, Table lists, and Heat maps. Go to "Insertable Objects" -> "Toolbox" -> insert the table below our text, it should look like this before dropping it.

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> DATA CONTAINER	<store Address></store 		<city></city>	<sales outlet<br="">Type></sales>	<store square<br="">Feet></store>			
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	<store Address></store 	<neighorftood></neighorftood>	<city></city>	<sales outlet<br="">Type></sales>	<store square<br="">Feet></store>	<manager ID></manager 		
	Store P	erformance						

3. Once the "Insert table" window pops up set the "Number of columns:" to 2 and "Number of rows:" to 1 and click OK.

Insert table	×
Table size	
Number of colum	nns: 2
Number of rows:	1
Table style	
Maximize	width
Show bord	lers
Control	OK
Cancel	UK

Select the plus + sign on the left column to add another table. In the Insert Table" window set the "Number of columns:" to 1, "Number of rows:" to 2 and click "OK". The final result for formating the bottom half of our body should look like this.

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Store Address	Neigho	rhood	Ci	ty	Sale 1	s Out Type	let	Stor	e Squa Feet	re	Mana	iger)	Location
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tore Idress>	<neigho< td=""><td>rhood></td><td><c< td=""><td>ity></td><td><sales Type></sales </td><td>Outlet</td><td>t</td><td><store Feet></store </td><td>Square</td><td></td><td><manaş ID></manaş </td><td>ger</td><td></td></c<></td></neigho<>	rhood>	<c< td=""><td>ity></td><td><sales Type></sales </td><td>Outlet</td><td>t</td><td><store Feet></store </td><td>Square</td><td></td><td><manaş ID></manaş </td><td>ger</td><td></td></c<>	ity>	<sales Type></sales 	Outlet	t	<store Feet></store 	Square		<manaş ID></manaş 	ger	
Store Pe	rforman	ce											

4. Now we will add in our List for Product sales for our stores. Click the plus sign in the "Table Cell" located on the top left and click "List".

			.,,-			
						7 1
<store Address></store 	<neighorhood></neighorhood>	<city></city>	<sales outlet<br="">Type></sales>	<store square<br="">Feet></store>	<manager ID></manager 	* **
<store Address> inserts a list s used to pre results in a list</store 	<neighorhood> container that sent query st fashion.</neighorhood>		Text item Block Table List	<store square<br="">Feet></store>	<manager ID></manager 	\$
Store P	erformance	Ш	Visualization			
		+				
						Ŧ

5. Set the "Name:" and "Query Name:" to "Product Sales". Then click "OK".

Object and query na	me	×
Name:		
Product Sales		
Query Name:		_
Product Sales		\sim
Show this dialog	in the future	
Cancel	ок	

6. The List should look like this.



7. We will now add sources to our List. Navigate to "Insertable Objects" -> "Sources"-> Expand "sales receipt" -> add "Quantity", and "Sales" columns. Expand "Sales Outlet" table and add



"Weekly Aim" column to the list, it should look like this.

•	Store Pe	rformar	าce
	Quantity	Sales	Weekly Aim
	<quantity></quantity>	<sales></sales>	<weekly aim=""></weekly>
	<quantity></quantity>	<sales></sales>	<weekly aim=""></weekly>
	<quantity></quantity>	<sales></sales>	<weekly aim=""></weekly>
	1 Date		

- Update the list properties. Click on each list column title and update the following properties: Set "Background color" to "#00CCCC", under custom color, enter the #RGB code. Set the "Foreground Color" to "White" -> double click "Font" set "Weight:" to "Bold" and "Family:" to "Verdana" then "Horizontal alignment" to "Center".
- 9. Update the names of "Sales" and "Weekly Aim". Click on the "Sales" column title -> click on "Properties" expand "Source Type:", select "Text", and set the text to "Sales (\$)". Update "Weekly Aim" and set the text to "Target (\$)". The result should look like this.

- 10. Next, we will change the "Weekly Aim" data item to show specific results for our store performance and change the Name. Navigate to the "Product Sales" Query.
- 11. Select "Weekly Aim" data item and set the "Name" as "Target", "Detail Aggregation" to Average, and "Summary aggregation" to "None".

	Report ~ Queries >	III Product Sales			Data Item	
~ '					✓ DATA ITEM	
	Pages				Туре	Data Item
10	Page1 + Prompt pages			+	Name	Target
Σ					Label	
Σ	🗅 Queries				Expression	[C].[C_Coffee_sales_and
Σ	회 Store Details				Detail aggregation	Average
	H Location				Summary aggregation	None
	Product Sales				Pre-sort	Don't sort
	🗅 Classes				Detail	Automatic
	မှိ Variables		∑ Summary Filters	+	Calculation intersection	n Show value
					Solve order	

12. Next, lets add conditional formatting to the sales column. Navigate to "Page1" -> Select the "Sales (\$)" Column body -> Click on "Properties"-> select "Conditional Styles" -> "New Conditional Style"



("+") -> "Advanced Conditional Style".

$\leftarrow \rightarrow$					-	→ Report > Pages >	🗅 Page1						🛆 Page design	✓ i the properties
` ´	Report i ages /					₩ × © & × 8	8 FI	ΣΘΞ	⊞ Ø~	∿ ⊞ ≙	~ 🖻 🖻		til ~ List column bod	у
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	🖸 Page1	St	'ore De	rtorma	nce	Quantity Cales	Clarger						Data format	
		50		i lornia	nec	<quantity> <saws></saws></quantity>	< targets						Drill-through definitions	
						<quantity> <sales></sales></quantity>	clargets						Group span	
	Prompt pages												Border	
												er 🚽 🗸 👘	Padding	
Ct	C Quarias												Box type	
SL	D Queries												COLOR & BACKGROUN	D
													Background image	
	Store Details												Background effects	
				+									Background color	
	_							+ 2					Y FONT & TEXT	
	Location							Nes	v Conditional Style	a			Font	
		City	Color	Store	Ma			Use		nal Style			Horizontal alignment	
3		City	Sales	Store	Ma			40	anced Conditional	1 Style			Vertical alignment	
Ad	🖬 Product Sales		Outlet	Square									White space	
			Type	Foot									Spacing & breaking	
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	L Classes												Size & condition	
													V DATA ITEM	
	12 Variables												Type	Data Item
	s variables												Conditional styles	
					· ·								Specifies the conditions a	nd styles used to style the
						1 🖸 Date				11			() Time coject.	

- 13. Set the "Name:" to "Store Performance". Then we will add 2 conditions for the sales, Click the "+" sign "New Advanced Condition" -> when the "Report Condition" window comes up -> Go to "Available Components" under "Product Sales" select and drag "Sales" into the "Expression Definition:" box then type ">=" then drag "Target" from under "Product Sales" into the "Expression Definition:" -> Click "OK". The expression definition should look like this "[Product Sales].[Sales]>=[Product Sales].[Target]".
- 14. Select "Edit Style" *next* to the Condition we made -> Click "Background Color" -> "Custom color" and type "66CC33" under "#RGB" color-> Click "Apply" -> and "OK".
- 15. The next conditional format we will be adding is to highlight when Sales go below target earnings. Add a new "New Advanced Condition" -> when the "Report Condition" window comes up -> Go to "Available Components" under "Product Sales" and drag "Sales" into the "Expression Definition:" box then type "<" then drag "Target" under "Product Sales" into the "Expression Definition:" -> Click "OK". The expression definition should look like this "[Product Sales].[Sales]<[Product Sales].[Target]".
- 16. Now we will add a color for the condition we just created. Click "Edit Style" -> when the "Style" window comes up select "Background Color" -> "Custom Color", type "#FF0066" into "#RGB" color-> Click "Apply". Click "OK" on all opened windows.
- 17. We need to add additional data items to the "Product sales" query. Navigate to the "Product Sales" Query -> Go to "Insertable objects" -> "Sources" -> Expand "Dates" -> add "Week_ID" to the query.
- 18. Select "Week_ID" -> go to "Properties" -> set "Name:" to "Week ID" "Detail Aggregation" to "Default" then "Summary Aggregation" to "Default".
- 19. Go to Insertable objects -> Sources -> Expand "Sales outlets" -> Drag and drop "Store Address" into "Data items".
- 20. Expand "Products" -> add "Product Group", "Product Category", "Product Type", and "Product" into "Data items".



- 21. Add a "Detail Filter". From "Data items" -> Drag and drop "Store Address" into "Expression Definition" box then type "=?store?" -> The expression should look like "[Store Address]=?store?" -> click "OK".
- 22. Repeat the steps above to add a filter for "Week ID" The "Expression Definition" should look like "[Week ID] <> 18".

Save the report.

4.6 Creating a Bar chart visualization for Store Performance

For the next part of our Report we are going to add a bar chart visualization to track a store performance.

1. To add a barchart to the Body in our Report, Go to "Insertable Objects" -> "Toolbox" -> Click and Drag the "Visualization" item and drop it in botton left table cell. It should look like this before dropping the visualization into the canvas.



2. After dropping the "Visualization" item you will be prompted with a "Visualization Gallery" window. In the search bar type "Target Column" click the item and click "OK". This is what the Bar chart should look like so far.



3. We will now input items for our chart. For the first item go to "Insertable Objects" -> Data items -> Product Sales -> Click and drag the "Week ID" into the "Bars" section until it starts blinking black as shown below.



4. For the 2nd element, click and drag the "Sales" item into the "Length" section.



5. For the target, Click and drag the "Target" item into the "Target" section until it starts blinking black as shown below.



Click the save icon in the top left 🔤 to save your report.

4.7 Creating a Heat map visualization for Store Performance

For this section we are going to be setting up a Heatmap for the most common areas of our stores

- 1. Go to "Insertable Objects" -> "Toolbox" -> "Visualization" and insert it in the right of the canvas.
- 2. When you get prompted with the "Visualization Gallery", search for the custom visualization "Coffee Shop Schematic" then click "OK". The bottom part of the report should look like this.



3. Navigate to "Insertable Objects" -> "Sources" -> Expand "Table Occupancy" add "Table Number" under "Locations", and "Average Occupancy" item under "Location Color". The end result will look like this.

Store Pe	rformance	9		
Quantity	Sales (\$)	Target (\$)		
<quantity></quantity>	<sales></sales>	<target></target>		
Quantity>	<sales></sales>	<target></target>	Regions ~	
Quantity>	<sales></sales>	<target></target>		
			Locations	
			<table number=""></table>	Counter
_	- 1		Docation color	
_	_		<average occupancy=""></average>	
		. .	Extra Data	9
			Drop item here	
				0

4. Next we will go to the Queries tab to rename "Query 1". Click "Query1" -> go to "Properties"-> set the "Name:" to "Heatmap".



Click the save icon in the top left **b** to save your report.

4.8 Adding a prompt page to run the report by store location

For this section we are going to be adding a prompt page to our report to easily select and see the store performace report by a specific location

1. Navigate to the prompt pages folder to add a prompt page. Insert a page in the layout.



2. Click the "+" sign to add a prompt page.



3. Now that we have our prompt page we will add a query. Navigate to "Queries".



4. Insert a new query.



- 5. Once the Query is added, rename it "Location prompt".
- 6. Next we will add Data Items to our Query. Double click the "Location prompt" Query -> go to the left to "insertable objects" -> click "Sources" -> Expand "Sales Outlets" -> Drag and drop "Store Address" to "Data Items".



7. Go back to your "Prompt Page1".



- 2. First we will change the title of our prompt page. Double click the part that says, "Double-click to edit text" and type "Store Performance Report" into the box when the text prompt pops up and click "OK".
- 8. We will format the text and spacing. With the title Selected -> go to properties -> double click font under the Font & Text section and select "20pt", "Normal" weight, and "Verdana". For the Foreground Color set it to #RGB "#6600FF" under "custom color-> Click "OK".



Font						×	For	eground co	blor			×
Family:	Si	ze:	Weigl	ht:	Styl	e:						
Verdana	2	0 pt ~	0	(Default)	۲	(Default)	в	asic colors	Color swatch	Custom color		
Times-PDF		16pt	۲	Normal	0	Normal						
Trebuchet MS		18pt	0	Bold	0	Italic						i.
Verdana		20pt							#6600FF			
Effects: Underline Overline Line-through	Preview		dana '								Set as favorite	
	Cancel	App	ly		ок				Cancel	Apply	ок	

9. After formatting the text, we need to format the spacing in the header. Click the header block on the top and it should select the whole header. In the properties section click "Padding" and set the "Top padding" and "Bottom padding" to 20 px then click "OK". The result should look like this.

Padding			×	T → □ → □ → □ → □ → □ → □ → □ → □ →
, adding	Top padding:	20 px ~		Store Performance Report
Left padding: px ~	Margin Border Padding Cont	ent	Right padding: px V	
Make all the sett	Bottom padding:	20 px ~		
c	Cancel	Apply	ок	

10. Next we will format the Body and add our prompt. On the body of the prompt page click the "+" sign -> select "Table" -> set "Number of columns:" to 1 and "Number of rows:" to 4 -> Click "OK".

Store Perfe	Store Performance Report					
			Number of co	lumns: 1		
			Number of ro	ws: 4		
	+		Table style			
	II Text item		Maxim	ize width		
Inserts a table in which objects can be organized in a grid fashion.	III Table		Show b	orders		
	⊞ List ⊞ Crosstab					
	1 Visualization		Canaal	OK		
			->			

- 11. Insert a text item on the first column -> Type "Select your Store:" -> Click "OK".
- 12. Select the text item, go to properties on the right-hand side and update the following properties: "Foreground color" ->select the pink color in your favorites -> click "OK". Update the font, set "Family" to "Verdana" -> "Size:" to "14 pt." -> Click "OK".
- 13. Update the padding on the "Table Cell", set "Left padding" to "20 px" -> click "OK".

Select your Store:		
	+	
	+	

14. Next, we will add a value prompt. Navigate to the "Toolbox" -> "Prompting" -> insert a "Value Prompt" into the 2nd cell in your prompt Body -> when "Prompt Wizard Window" comes up select "use existing parameter" -> select "store" as parameter -> Click "Finish".

Choc Cre aut	ise Parameter ate a new parameter or use ar hored expression.	n existing parameter from a pre	viously
0	Create a new parameter		
۲	Use existing parameter		
	store	~	
0	Use global parameter		

- 15. Let's update the properties of the value prompt. With the value prompt selected go to Properties -> set "Query" as "Location Prompt" -> set "Use value:" and "Display Value" to "Store Address".
- 16. Delete the "Back" and "Next" from the footer as we won't need them.
- 17. To run the report, click the play button near the top left "**RUN HTML**". This will allow your report to be ran automatically as HTML.

Your Prompt page should look like this and the report should look like this.

∞ • ≪ ⊳ • ⊘	⊽ Fibers								
Store Performance Report		E IEM Cognes Analytics with Watson	🛛 🔋 New report 🗸					Q Search contant	• 4 8
Select your Store: 100 Insus Pass -			T S S S S S S S S S S S S S S S S S S S				Store Performance Report		
		Store Address	Belgharhaed Browl	City Mani	Salva Cutlet Type solal	Store Square Foot	Hanager 10		•
		State Protection State Protection State Protection State Sta							•
Canool Finish									



Congratulations! You've completed your first Report and tested it. Your Report may be used to build sophisticated, multiple-page, multiple-query reports against multiple databases.

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