

Data Analytics Externship Program

Assignment-1

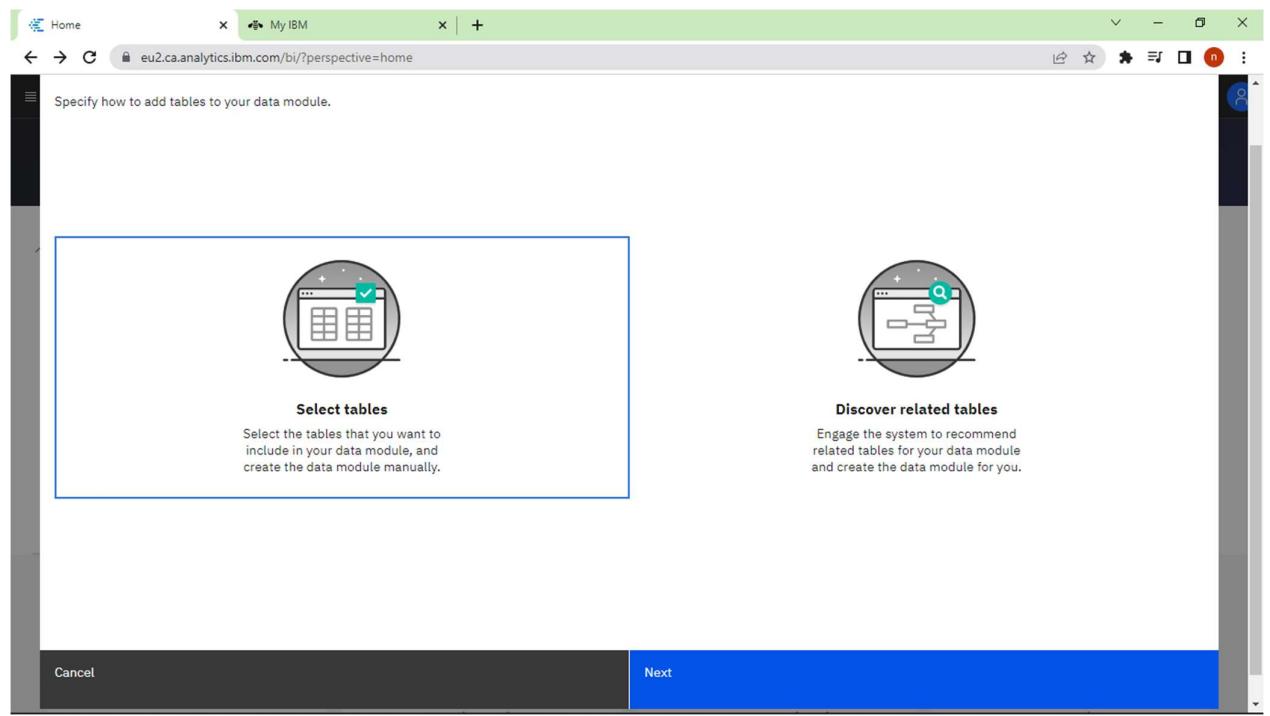
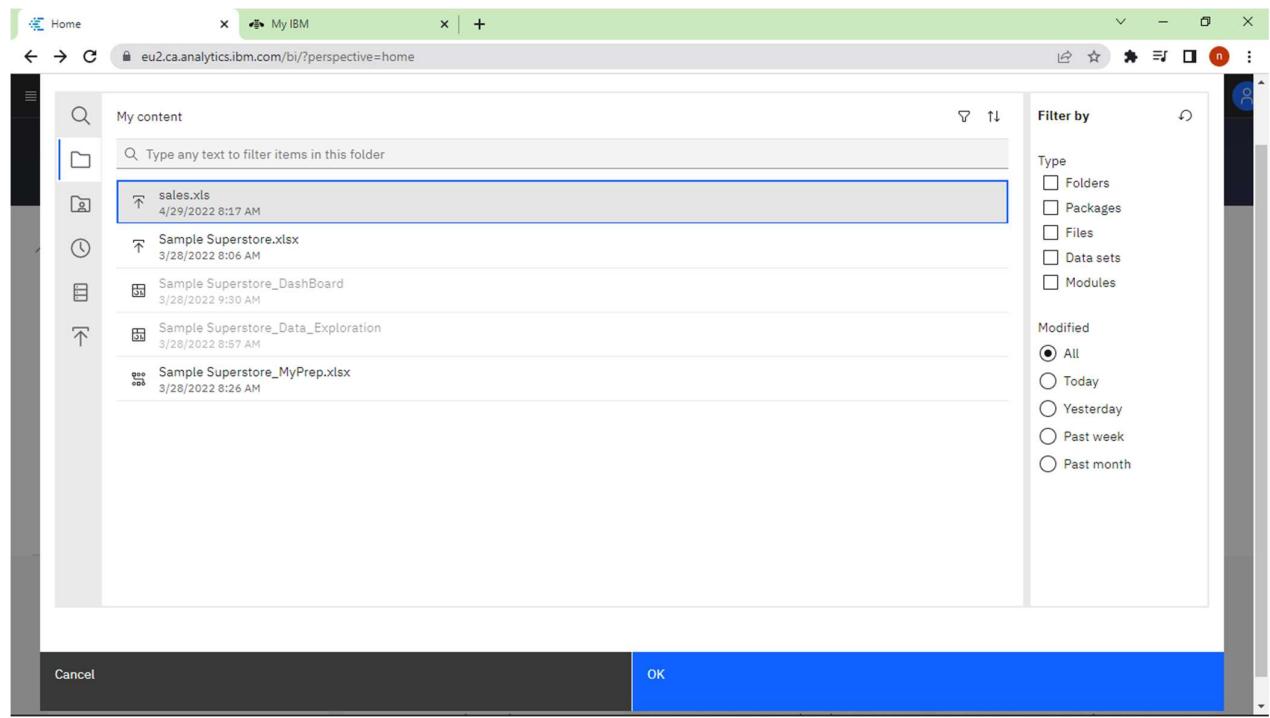
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Email ID: naveen.19bcd7003@vitap.ac.in

Dataset Used: sales.csv

Uploading Dataset

The screenshot shows the IBM Cognos Analytics with Watson interface. At the top, there's a navigation bar with tabs like Home, My IBM, and a search bar. Below the navigation is a header with sections for Upload data, Prepare data, Exploration, and Present data. The main area is titled 'Recent' and displays five recent datasets: 'sales.xls', 'Sample Superstore_DashBoard', 'Sample Superstore_Data_Exploration', 'Sample Superstore_MyPrep.xlsx', and 'Sample Superstore.xlsx'. Each dataset card includes a file type icon (xls, docx, etc.), the last accessed date, and a preview icon.

Creating Data Preparation flow:



Select tables

Row Id	Row ID	Order ID	Order Date	Order Priority	Order Quantity
1	1	3	10/13/10	Low	6
2	49	293	10/1/12	High	49
3	50	293	10/1/12	High	27
4	80	483	7/10/11	High	30
5	85	515	8/28/10	Not Specified	19
6	86	515	8/28/10	Not Specified	21
7	97	613	6/17/11	High	12
8	98	613	6/17/11	High	22
9	103	643	3/24/11	High	21
10	107	678	2/26/10	Low	44

Previous Cancel OK

Creating Calculation for Year of Order Date:

Create calculation

Name: Year_OrderDate

Components

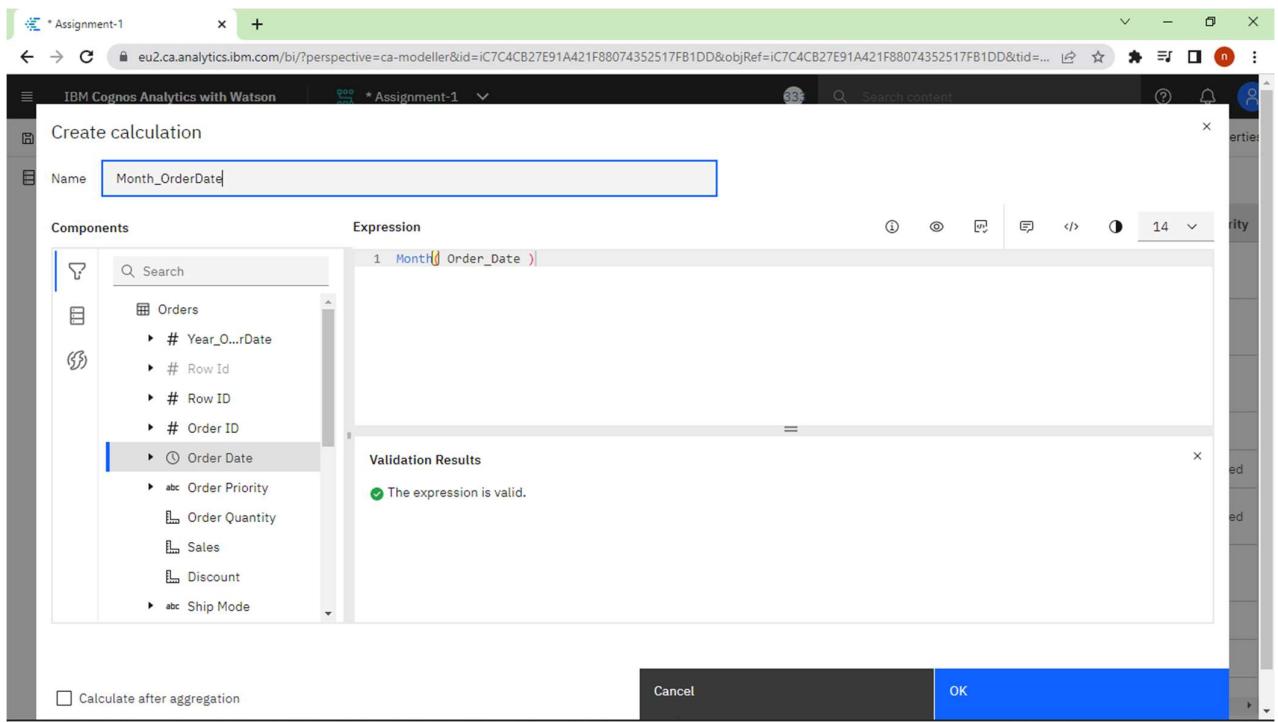
- Orders
 - # Row Id
 - # Row ID
 - # Order ID
 - Order Date
 - # Order Priority
 - Order Quantity
 - Sales
 - Discount
 - # Ship Mode
 - Profit

Expression: 1 Year(Order Date)

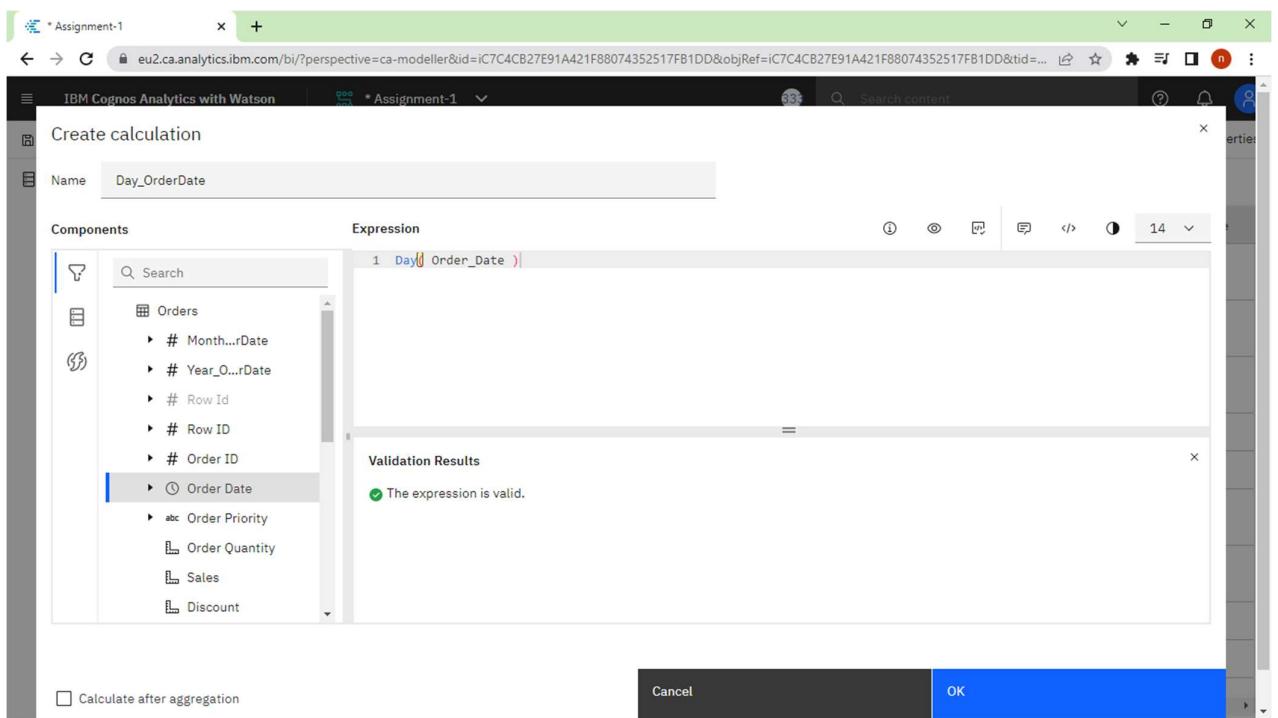
Validation Results: The expression is valid.

Calculate after aggregation Cancel OK

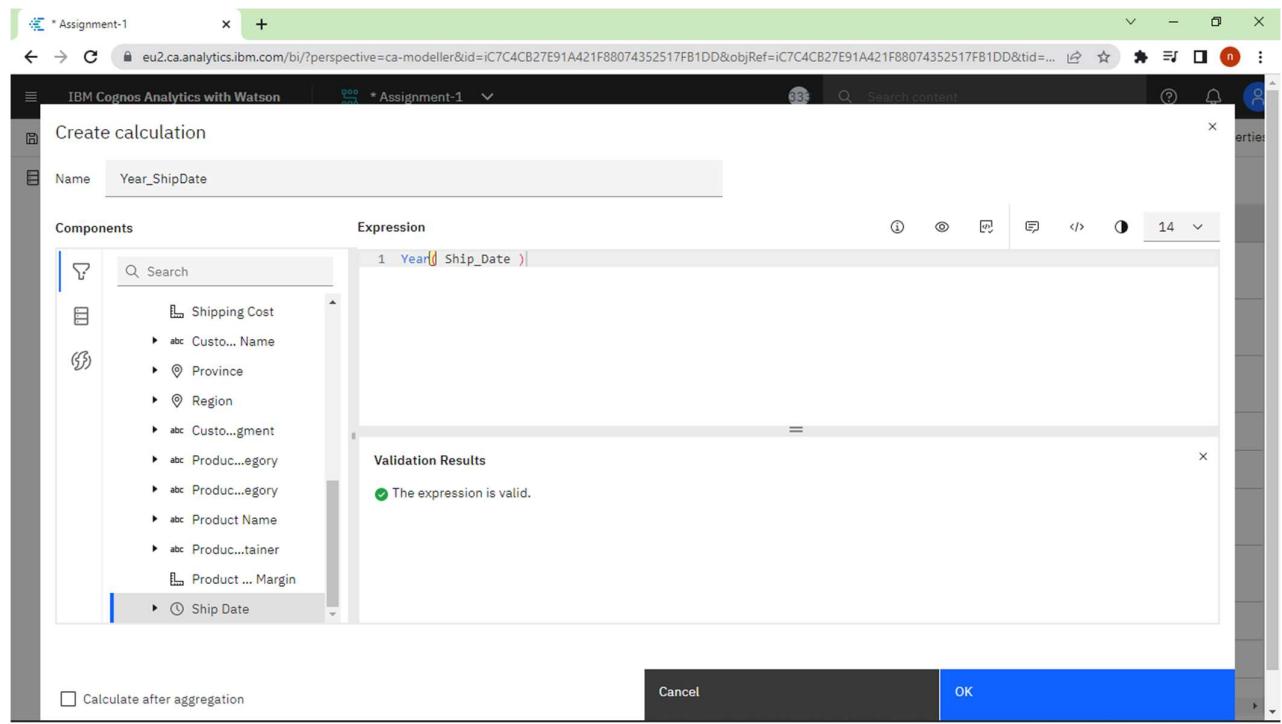
Creating Calculation for Month of Order Date:



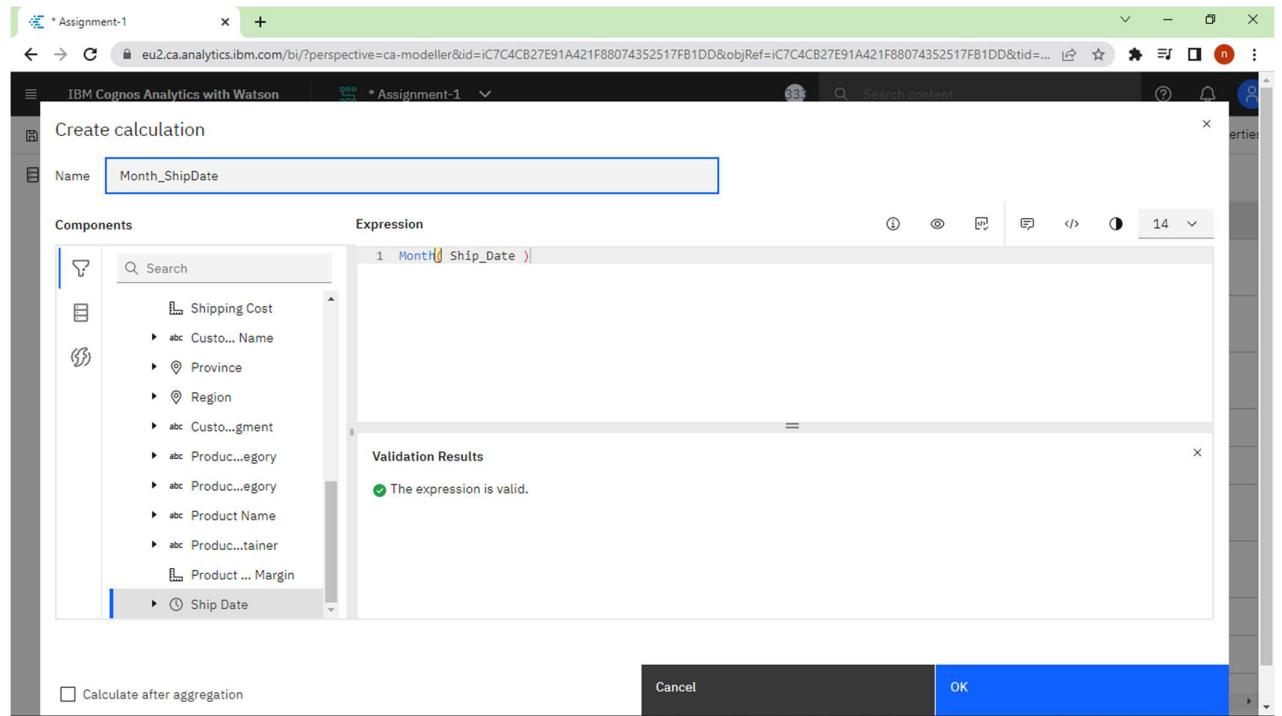
Creating Calculation for Day of Order Date:



Creating Calculation for Year of Ship Date:



Creating Calculation for Month of Ship Date:



Creating Calculation for Day of Order Date:

The screenshot shows the 'Create calculation' dialog in IBM Cognos Analytics. The 'Name' field contains 'Day_ShipDate'. The 'Components' pane on the left lists various dimensions and measures, including 'Shipping Cost', 'Province', 'Region', 'Customer', 'Product Category', 'Product Subcategory', 'Product Name', 'Product Margin', and 'Ship Date'. The 'Expression' field contains the formula '1 Day(Ship_Date)'. A validation message at the bottom states 'The expression is valid.' There is also a checkbox for 'Calculate after aggregation'.

Changing all the new values to Time:

The screenshot shows a data grid in IBM Cognos Analytics. The data module is 'Assignment-1'. The grid displays six columns: Day_ShipDate, Month_ShipDate, Year_ShipDate, Day_OrderDate, Month_OrderDate, and Year_OrderDate. The data rows include: (20, 10, 2010, 13, 10, 2010); (2, 10, 2012, 1, 10, 2012); (3, 10, 2012, 1, 10, 2012); (12, 7, 2011, 10, 7, 2011); (30, 8, 2010, 28, 8, 2010); (30, 8, 2010, 28, 8, 2010); (17, 6, 2011, 17, 6, 2011); (18, 6, 2011, 17, 6, 2011); (25, 3, 2011, 24, 3, 2011); and (26, ?, 2010, 26, ?, 2010).

IBM Cognos Analytics with Watson * Assignment-1

Grid Relationships Custom tables

Day_OrderDate Month_OrderDate Year_OrderDate Row Id Row ID Order ID

Day_OrderDate	Month_OrderDate	Year_OrderDate	Row Id	Row ID	Order ID
13	10	2010	1	1	3
1	10	2012	2	49	293
1	10	2012	3	50	293
10	7	2011	4	80	483
28	8	2010	5	85	515
28	8	2010	6	86	515
17	6	2011	7	97	613
17	6	2011	8	98	613
24	3	2011	9	103	643
26	?	2010	10	107	678

Calculating Cost Price:

IBM Cognos Analytics with Watson * Assignment-1

Create calculation

Name: Cost Price

Components Expression

1 Unit_Price * Order_Quantity

Validation Results: The expression is valid.

Calculate after aggregation:

Cancel OK

Assignment-1

IBM Cognos Analytics with Watson

* Assignment-1

Search content

Properties

Data module

Grid Relationships Custom tables

Cost Price Day_ShipDate Month_ShipDate Year_ShipDate Day_OrderDate Month_OrderDate

233.64 20 10 2010 13 10

10199.84 2 10 2012 1 10

234.63 3 10 2012 1 10

5879.700000000001 12 7 2011 10 7

413.82000000000005 30 8 2010 28 8

139.44 30 8 2010 28 8

87.6 17 6 2011 17 6

940.719999999999 18 6 2011 17 6

2900.939999999996 25 3 2011 24 3

229.12 26 ? 2010 26 ?

Creating Navigation for Ship Date:

Assignment-1

IBM Cognos Analytics with Watson

* Assignment-1

Search content

Properties

Data module

Create navigation path

Name: Year_ShipDate - Day_ShipDate

Select and order the columns to use in the navigation path.

Day_ShipDate Month_ShipDate Year_ShipDate

Month_ShipDate Day_ShipDate

Creating Navigation for Order Date:

The screenshot shows the 'Create navigation path' dialog in IBM Cognos Analytics with Watson. The 'Name' field is set to 'Year_OrderDate - Day_OrderDate'. The left pane lists various columns under the 'Orders' data module, including 'Day_ShipDate', 'Month_ShipDate', 'Year_ShipDate', 'Day_OrderDate', 'Month_OrderDate', 'Year_OrderDate', 'Row ID', 'Order ID', 'Order Date', 'Order Priority', and 'Ship Mode'. The 'Day_OrderDate' column is selected and highlighted with a blue border. The right pane shows a preview of the navigation path with three columns: 'Year_OrderDate', 'Month_OrderDate', and 'Day_OrderDate', all from the 'Orders' data module.

Creating Navigation for Product Category:

The screenshot shows the 'Create navigation path' dialog in IBM Cognos Analytics with Watson. The 'Name' field is set to 'Product Category - Product Name'. The left pane lists various columns under the 'Orders' data module, including 'Row ID', 'Order ID', 'Order Date', 'Order Priority', 'Ship Mode', 'Customer Name', 'Province', 'Region', 'Customer Segment', 'Product Category', 'Product Sub-Category', 'Product Name', 'Product Container', and 'Ship Date'. The 'Product Name' column is selected and highlighted with a blue border. The right pane shows a preview of the navigation path with three columns: 'Product Category', 'Product Sub-Category', and 'Product Name', all from the 'Orders' data module.

Creating Navigation for Region:

The screenshot shows the 'Create navigation path' dialog in IBM Cognos Analytics with Watson. The 'Name' field is populated with 'Region - Customer Name'. On the left, a search bar and a list of columns from the 'Assignment-1' data module are shown. On the right, a list of columns is being selected for the navigation path. The selected columns are: 'Region' (Orders), 'Province' (Orders), and 'Customer Name' (Orders). A preview pane on the right shows a grid of data with columns 'OrderDate' and 'Month_OrderDate'.

The screenshot shows the 'Grid' view of the 'Assignment-1' data module in IBM Cognos Analytics with Watson. The 'Cost Price' column is currently selected. The data grid displays various columns: Cost Price, Day_ShipDate, Month_ShipDate, Year_ShipDate, Day_OrderDate, and Month_OrderDate. The data in the grid includes values like 233.64, 10199.84, 234.63, etc., across multiple rows corresponding to different order dates.

Creating Exploration:

The screenshot shows the IBM Cognos Analytics with Watson interface. A modal dialog titled "Add a data source to explore" is open. It has tabs for "My content" and "Team content", with "My content" selected. Below the tabs is a table listing data sources:

Name	Type	Last Accessed
Assignment-1	Data module	4/29/2022, 8:55 AM
sales.xls	Uploaded file	4/29/2022, 8:17 AM
Sample Superstore_MyPrep.xlsx	Data module	3/28/2022, 8:26 AM
Sample Superstore.xlsx	Uploaded file	3/28/2022, 8:06 AM

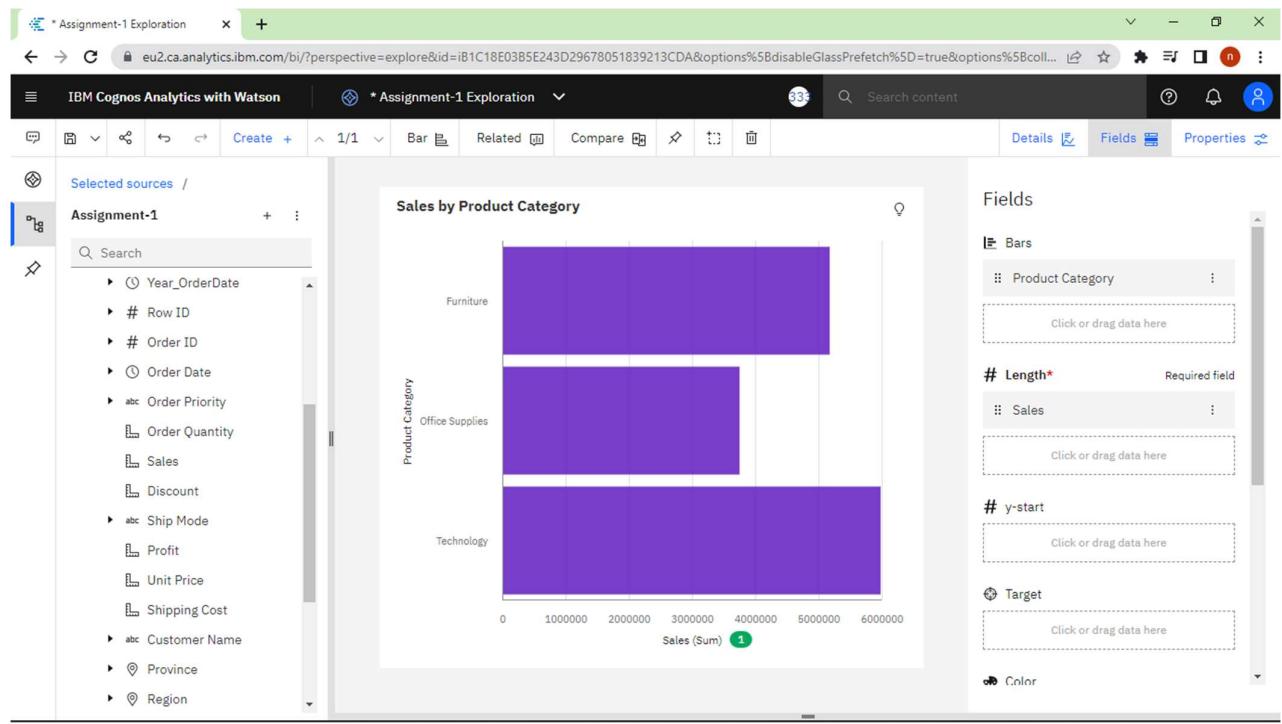
At the bottom of the dialog are "Cancel" and "Add" buttons.

The screenshot shows the IBM Cognos Analytics with Watson interface. A modal dialog titled "Save as" is open. It has a "Name" field containing "Assignment-1 Exploration" and a "Selected destination" dropdown set to "My content". Below the destination is another table listing items:

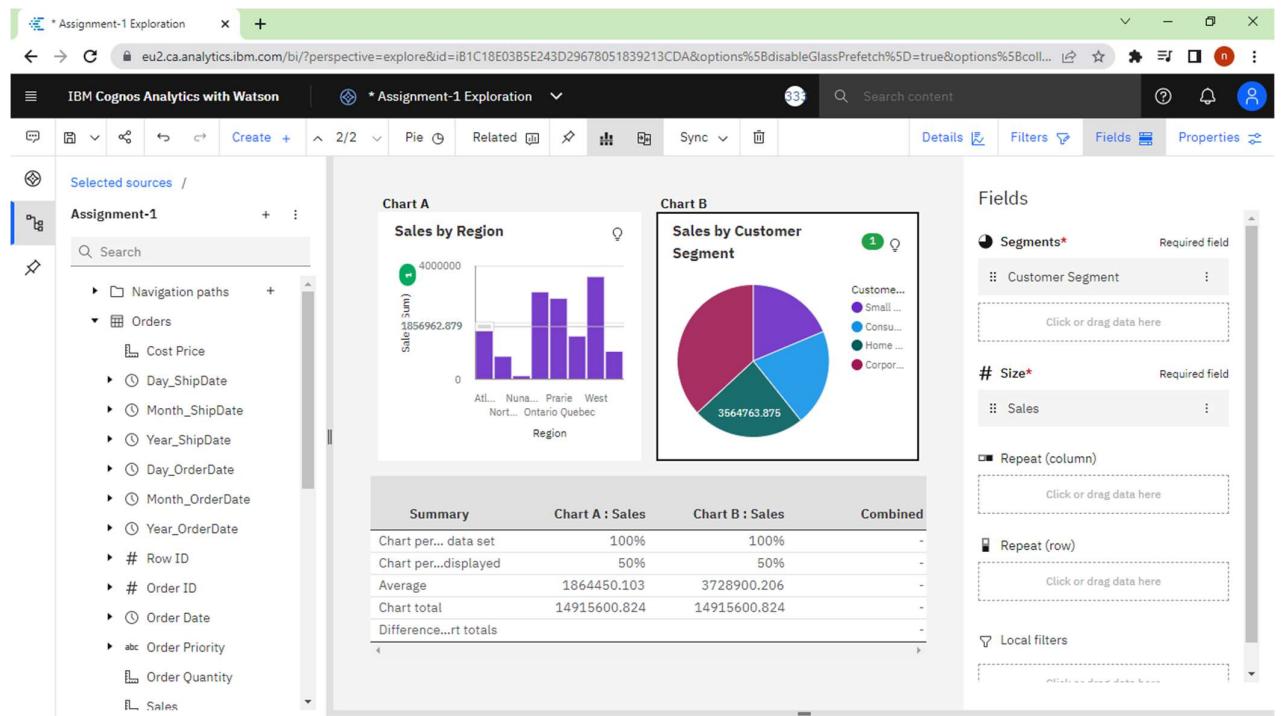
Name	Type	Last Accessed
Assignment-1	Data module	4/29/2022, 8:55 AM
sales.xls	Uploaded file	4/29/2022, 8:17 AM
Sample Superstore_DashBoard	Dashboard	3/28/2022, 9:30 AM
Sample Superstore_Data_Exploration	Exploration	3/28/2022, 8:57 AM

At the bottom of the dialog are "Cancel" and "Save" buttons.

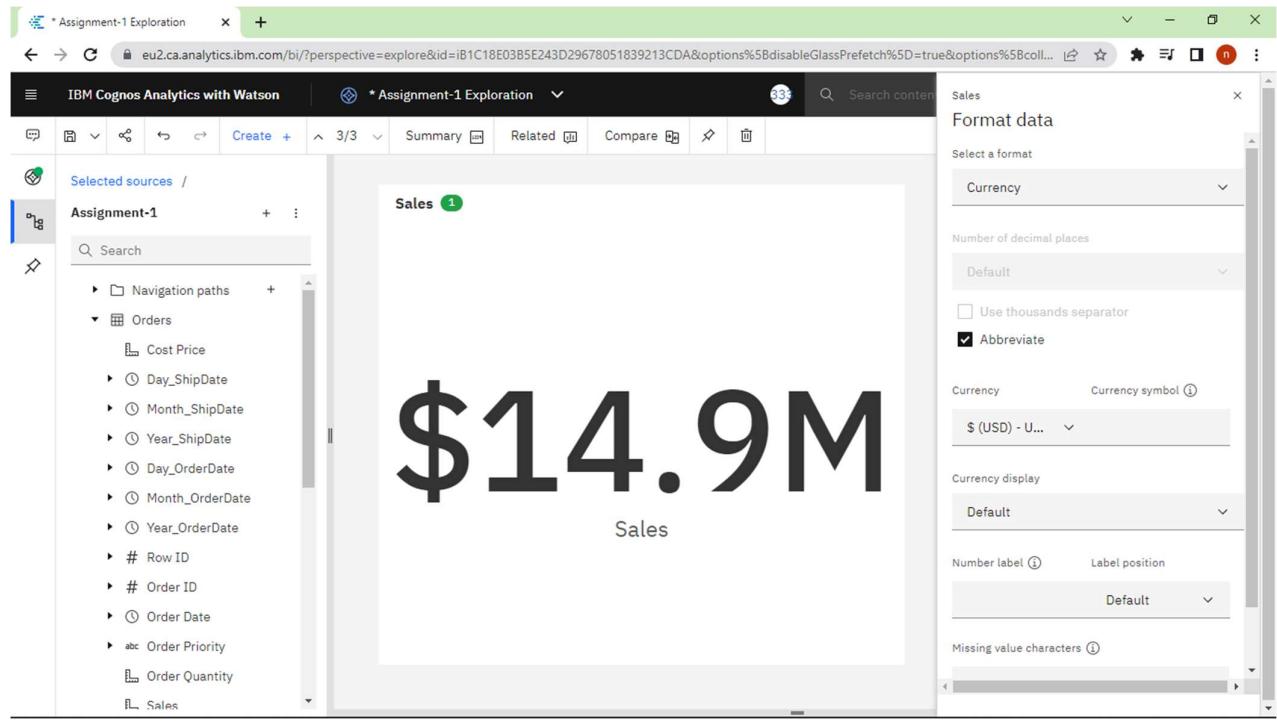
Sales by Product Category:



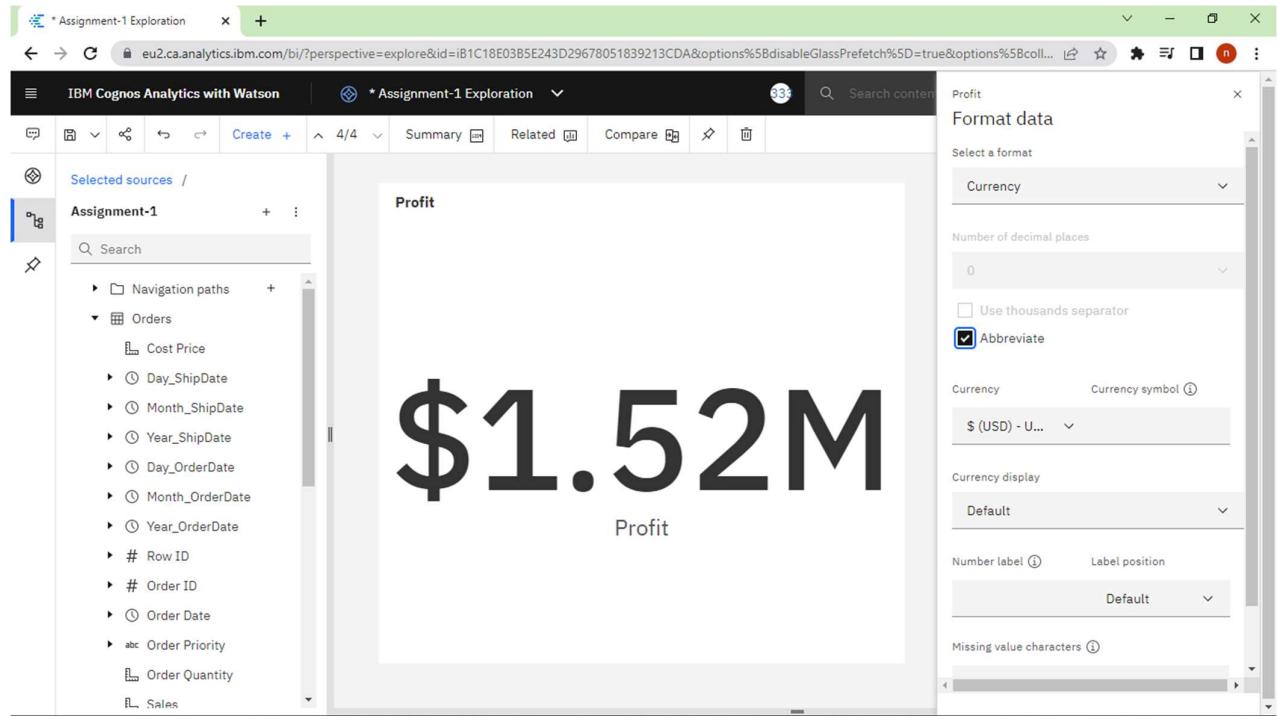
Sales by Region and Sales by Customer Segment:



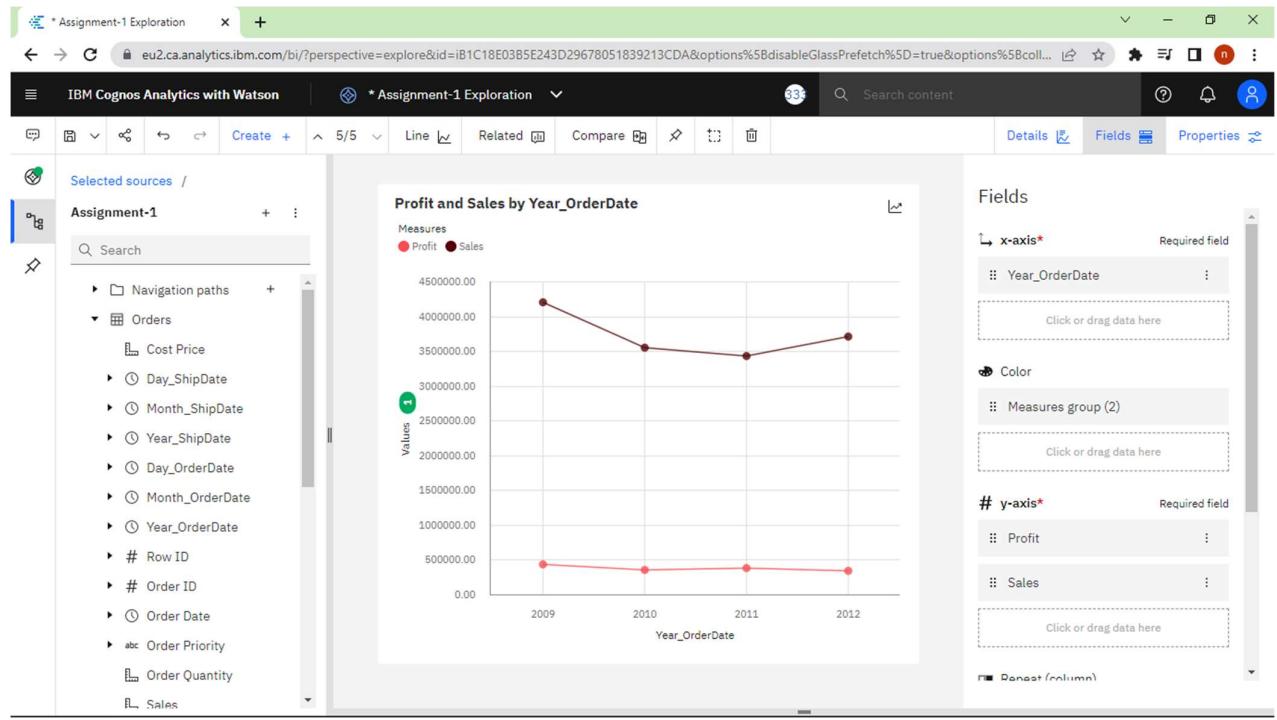
Sales Summary:



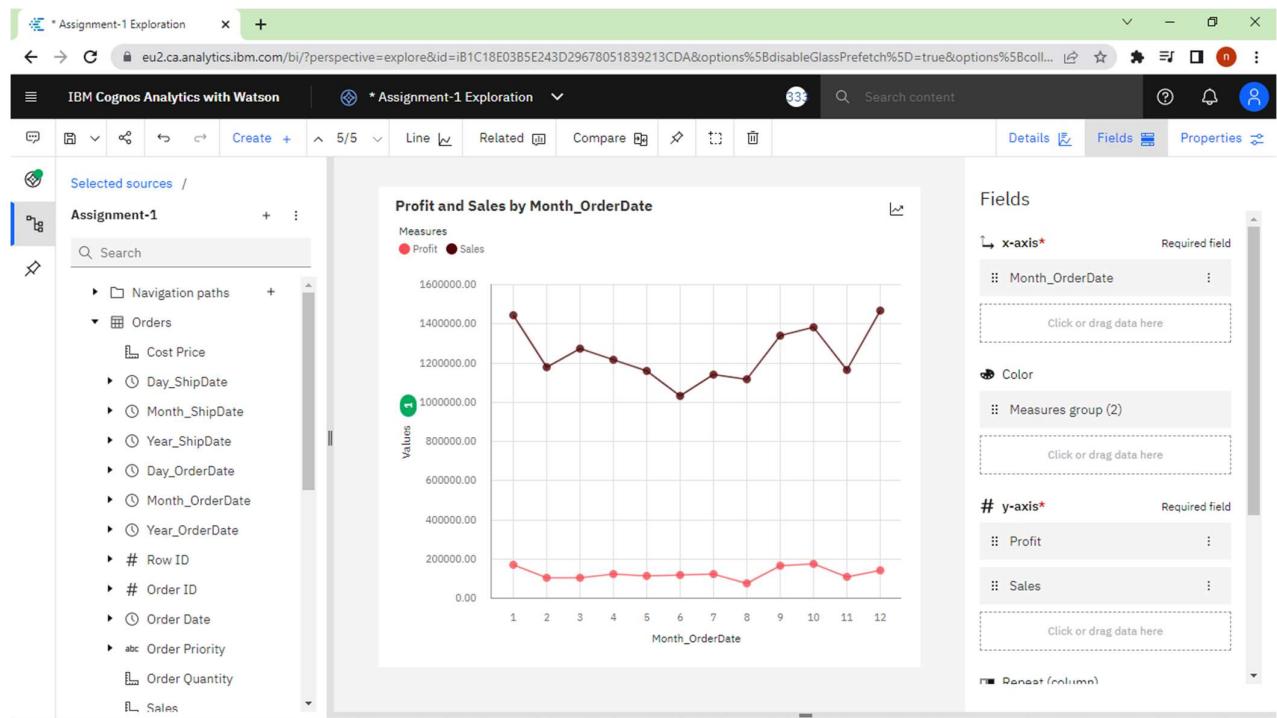
Profit Summary:



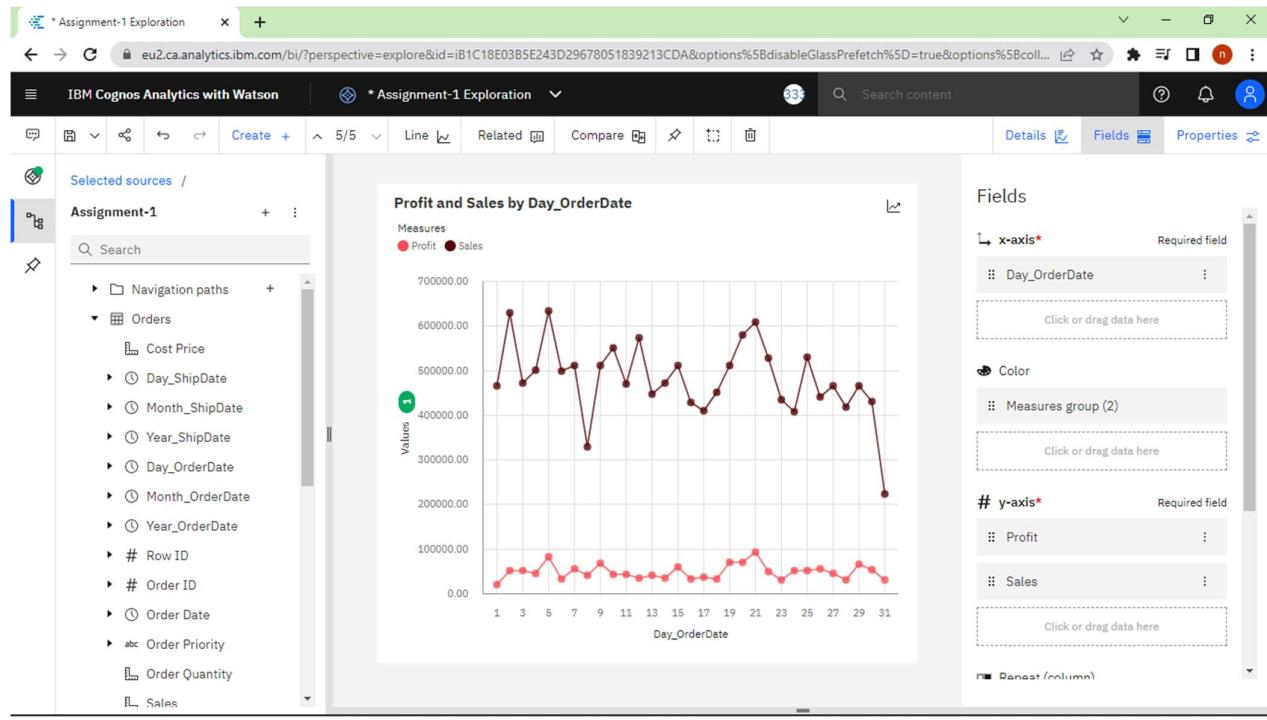
Profit and Sales by Year OrderDate:



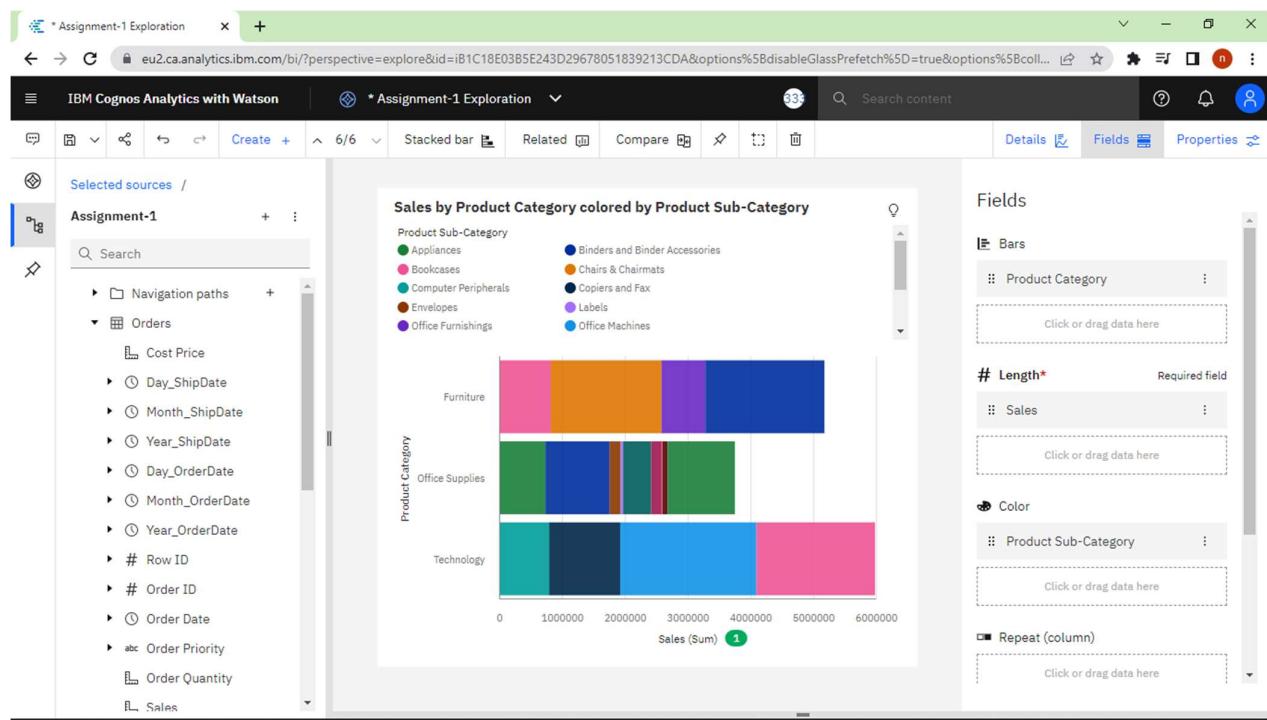
Profit and Sales by Month OrderDate:



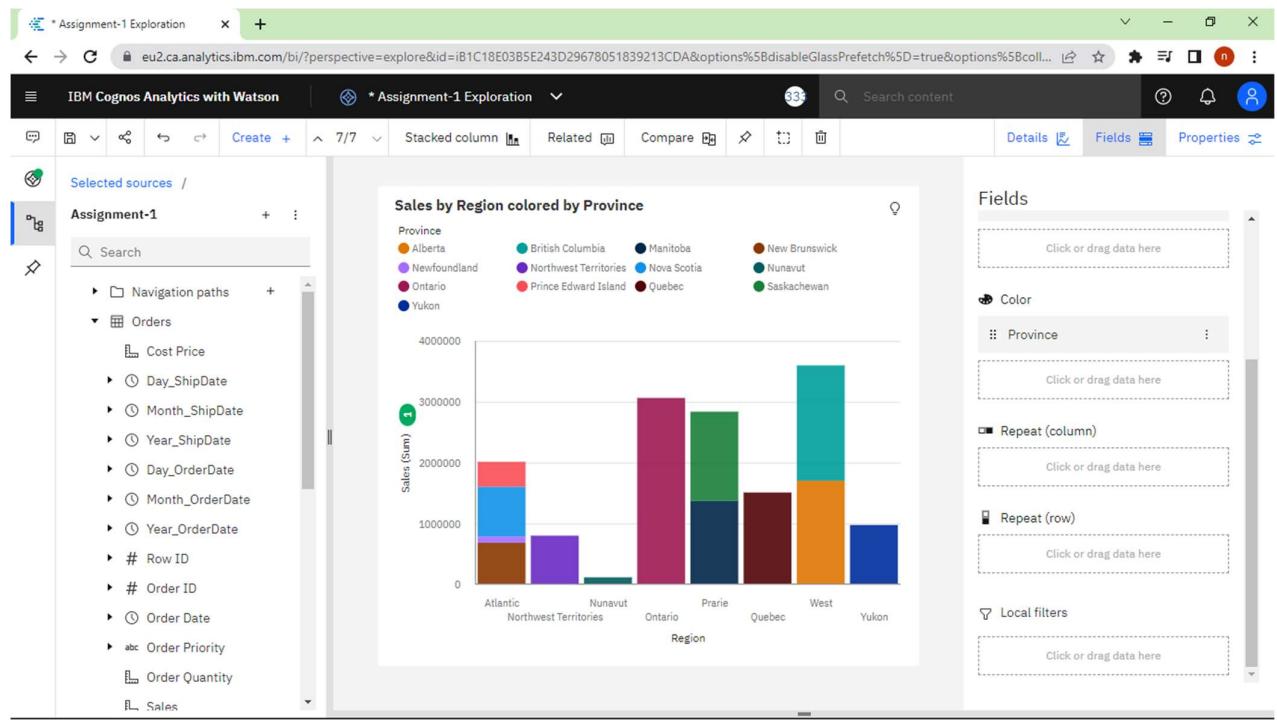
Profit and Sales by Day OrderDate:



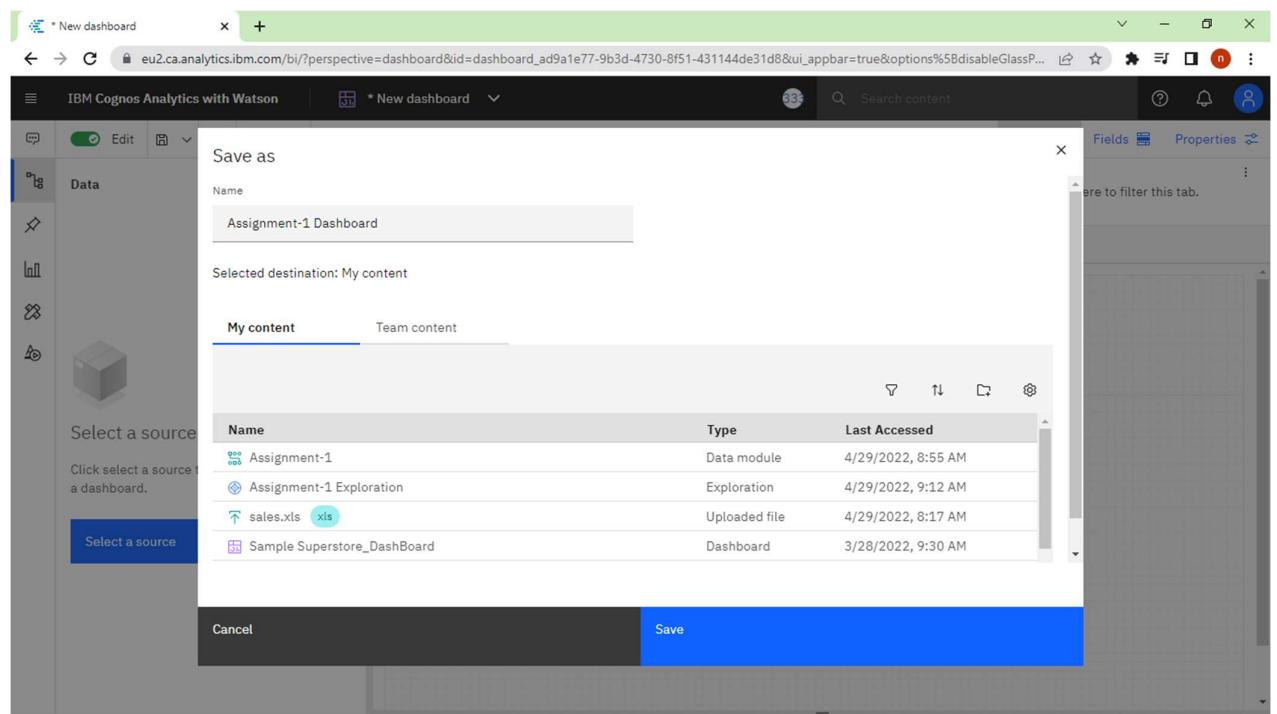
Sales by Product Category coloured by Product Sub-Category:

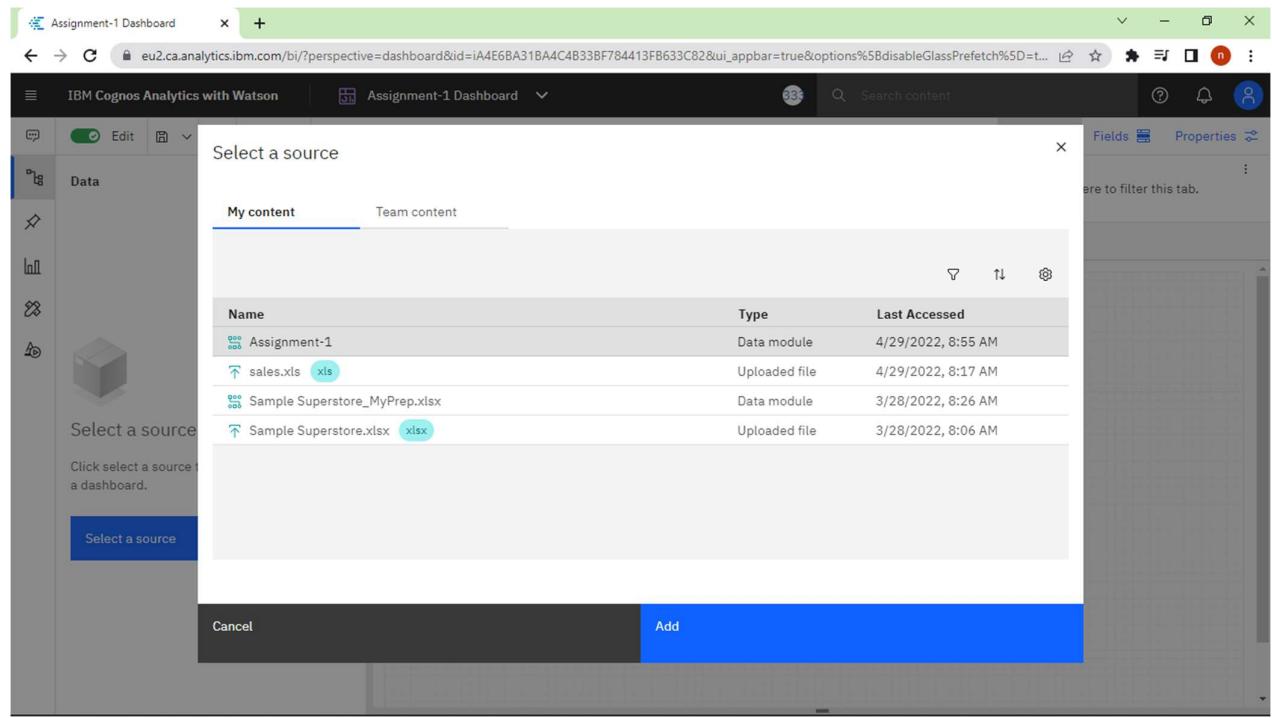


Sales by Region coloured by Province:



Creating Dashboard:





Sales Summary:

The screenshot shows the 'Assignment-1 Dashboard' with a visualization titled 'Tab 1'. The visualization displays a large value '\$14.9M' with the label 'Sales' underneath. To the right of the visualization, a message states 'No visualization selected' and 'Select a visualization to manage the field settings.' On the left side, the 'Selected sources / Assignment-1' pane is visible, showing a tree structure of data fields including 'Navigation paths', 'Orders' (with sub-fields like 'Cost Price', 'Day_ShipDate', etc.), and 'Sales'.

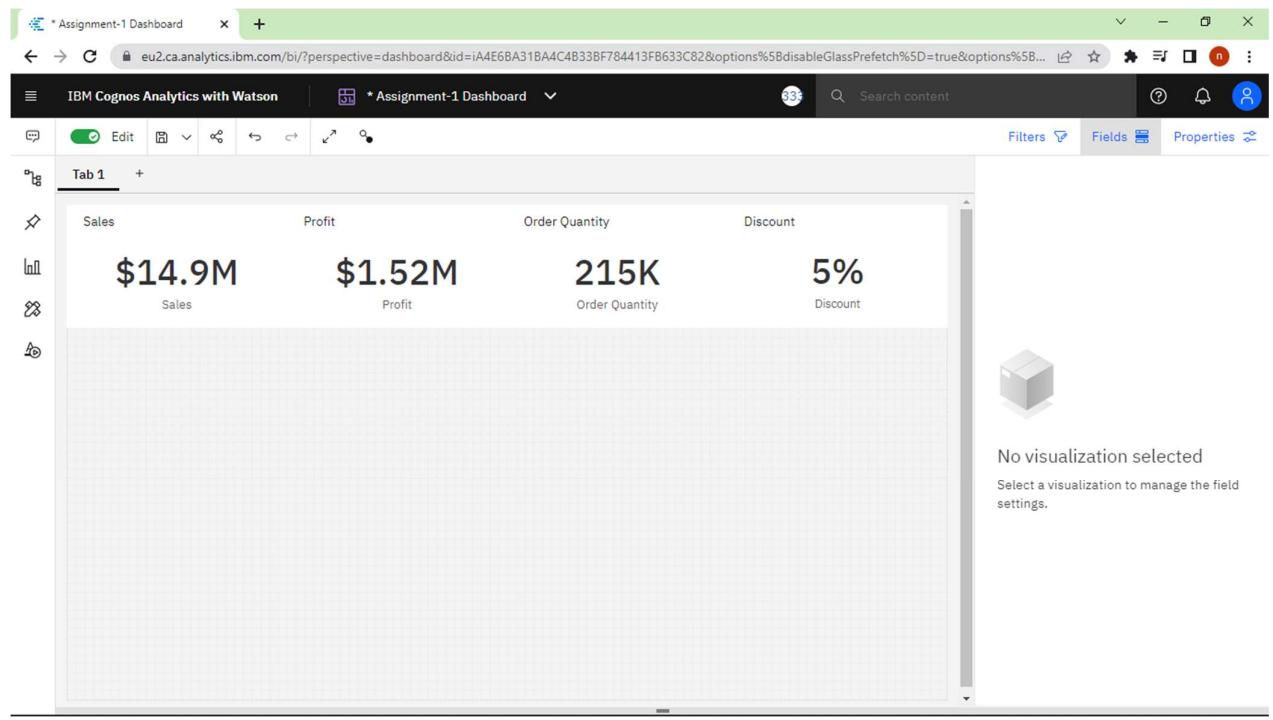
Profit Summary:

The screenshot shows a dashboard titled "Assignment-1 Dashboard" in the IBM Cognos Analytics with Watson interface. On the left, there is a sidebar titled "Selected sources / Assignment-1" containing a search bar and a list of fields under "Orders". The main area is titled "Tab 1" and displays three summary metrics: Sales (\$14.9M), Profit (\$1.52M), and Order Quantity (215K). A message on the right says "No visualization selected" and "Select a visualization to manage the field settings.".

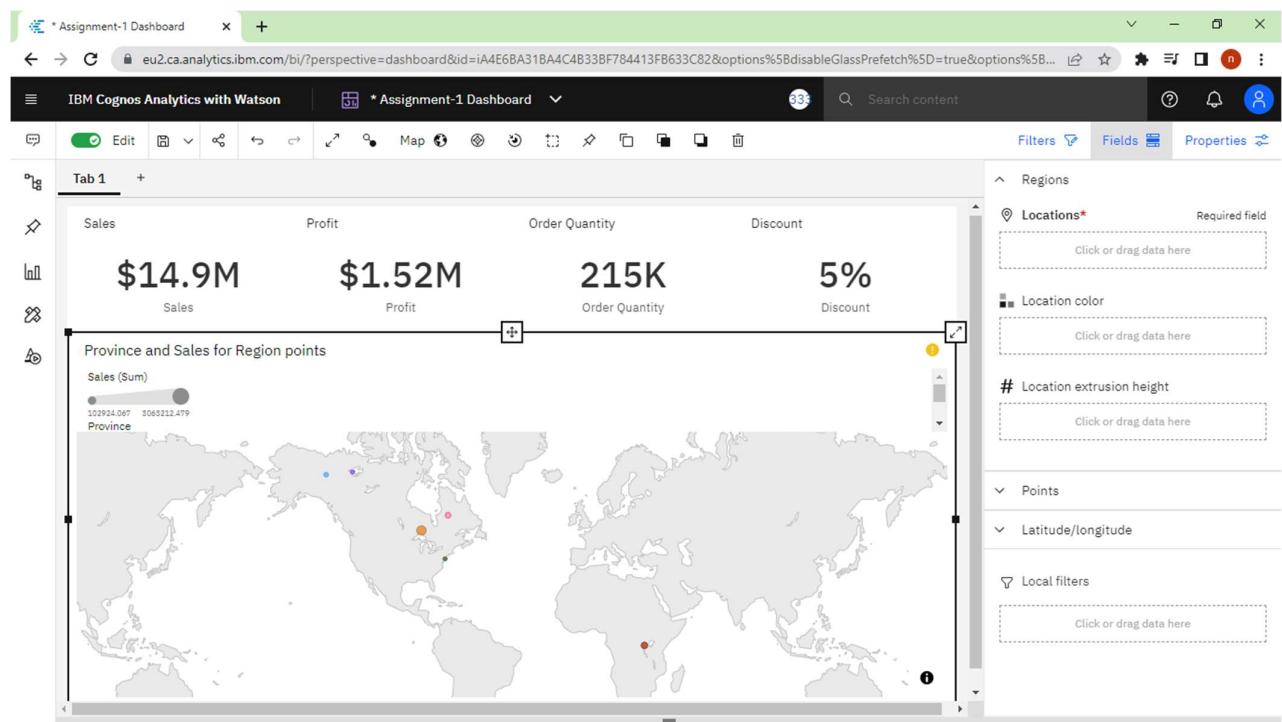
Order Quantity Summary:

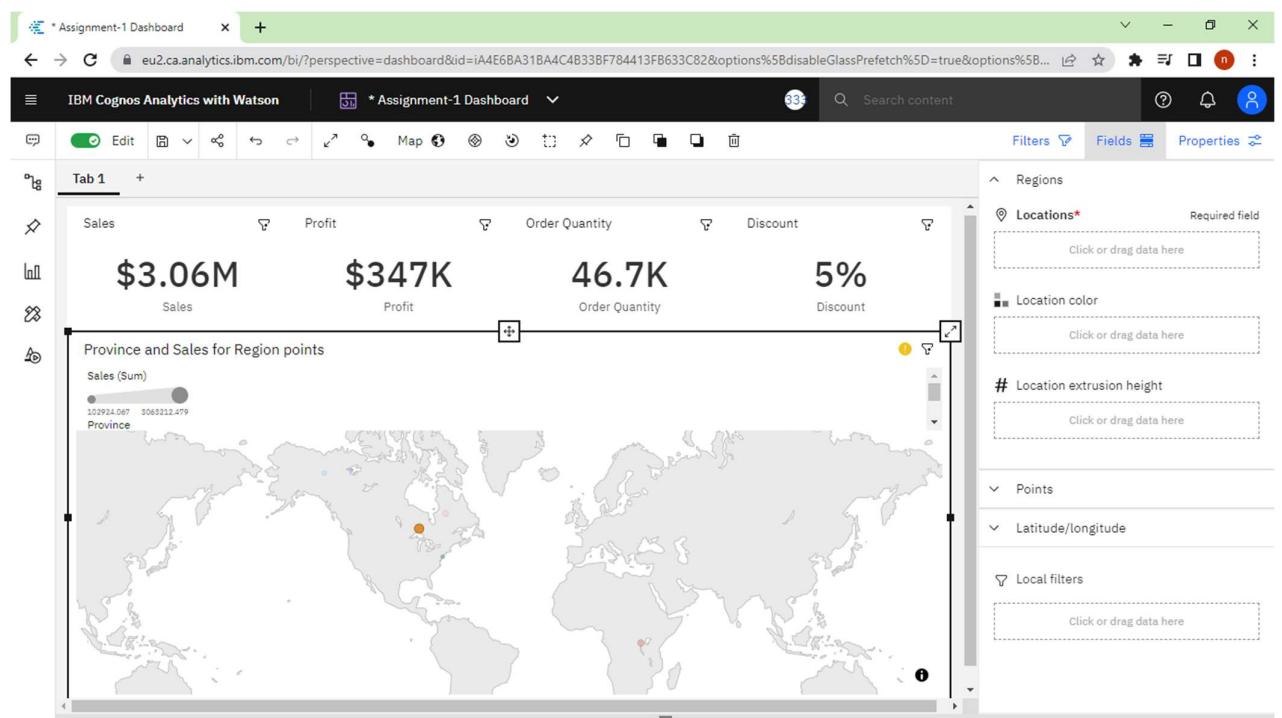
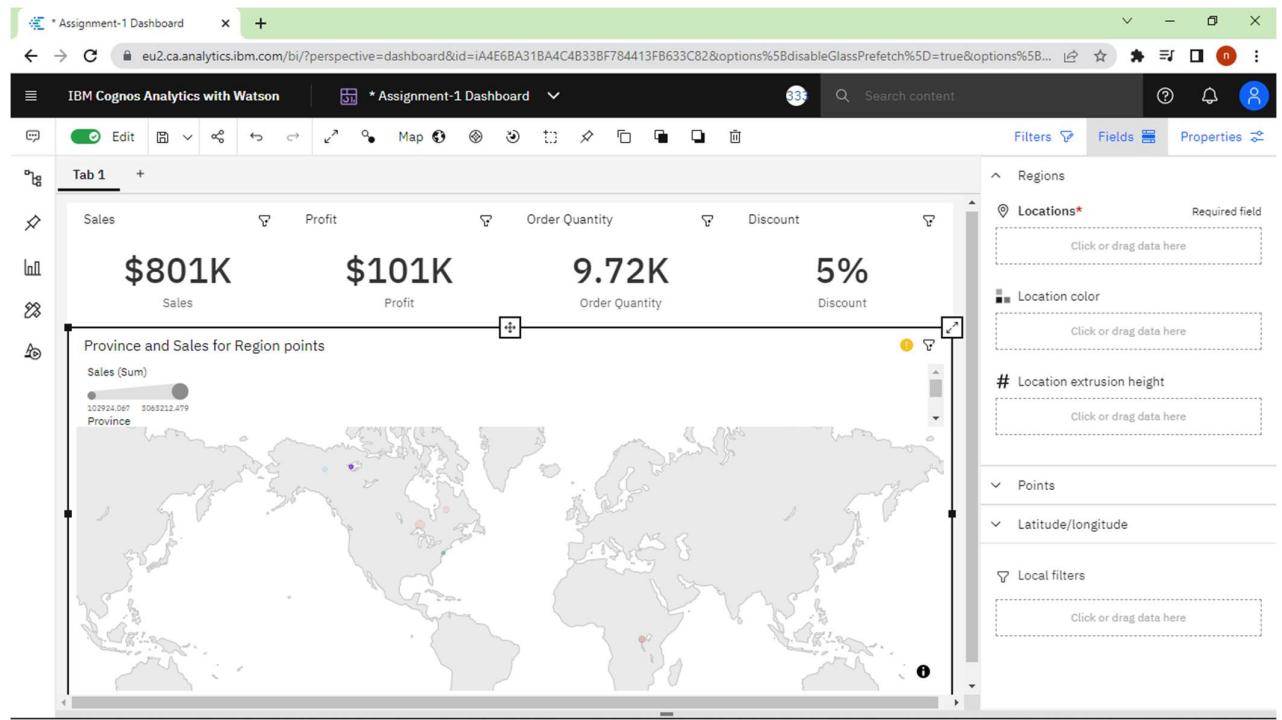
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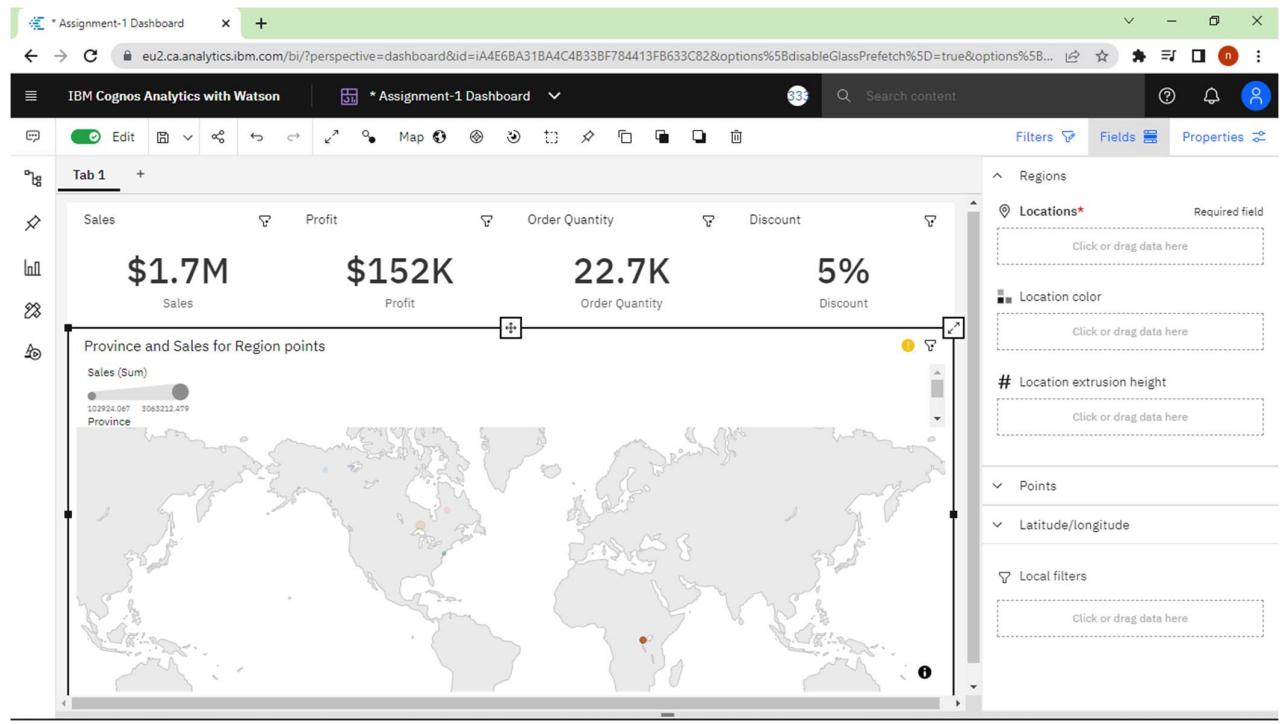
Discount Summary:



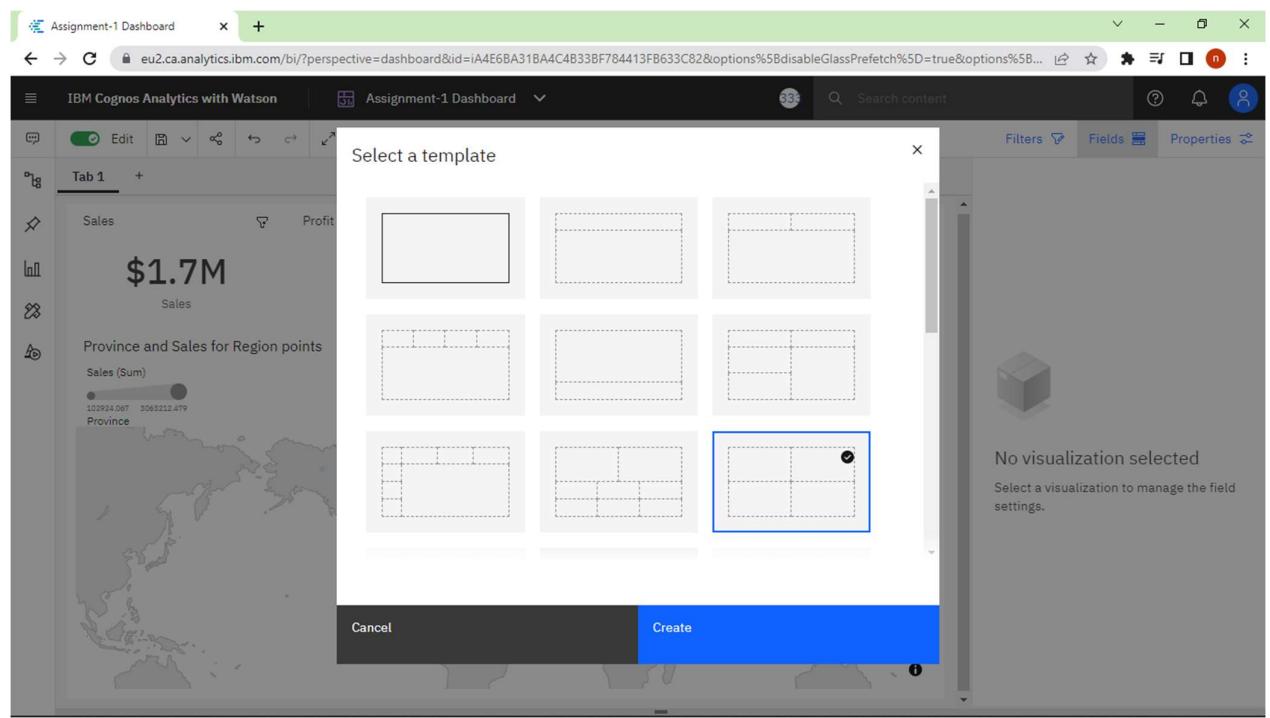
Creating Map:



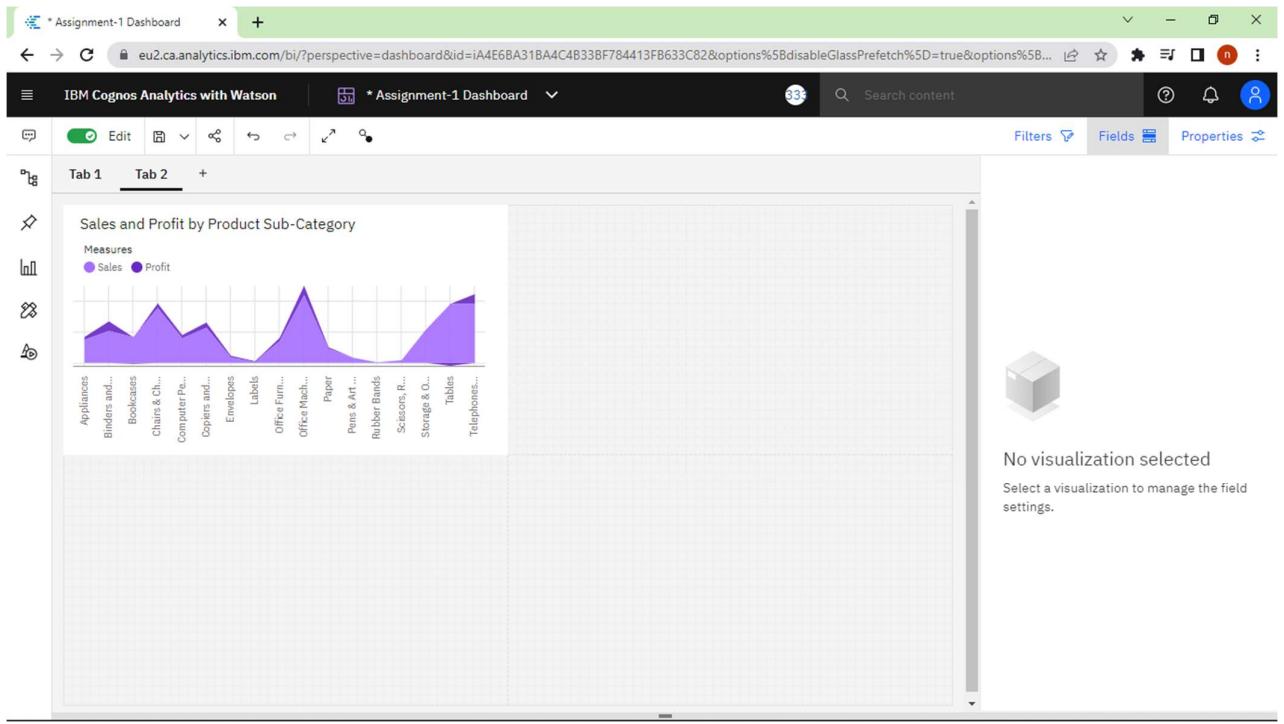




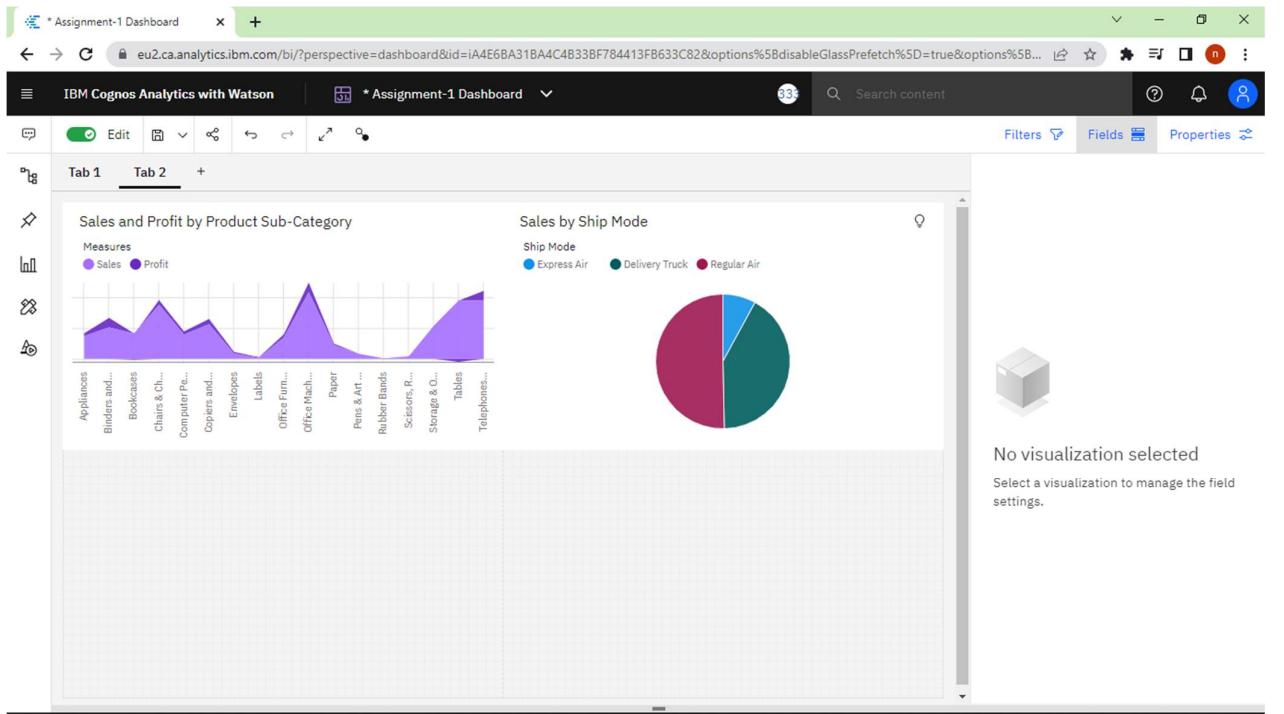
Creating a New Tab:



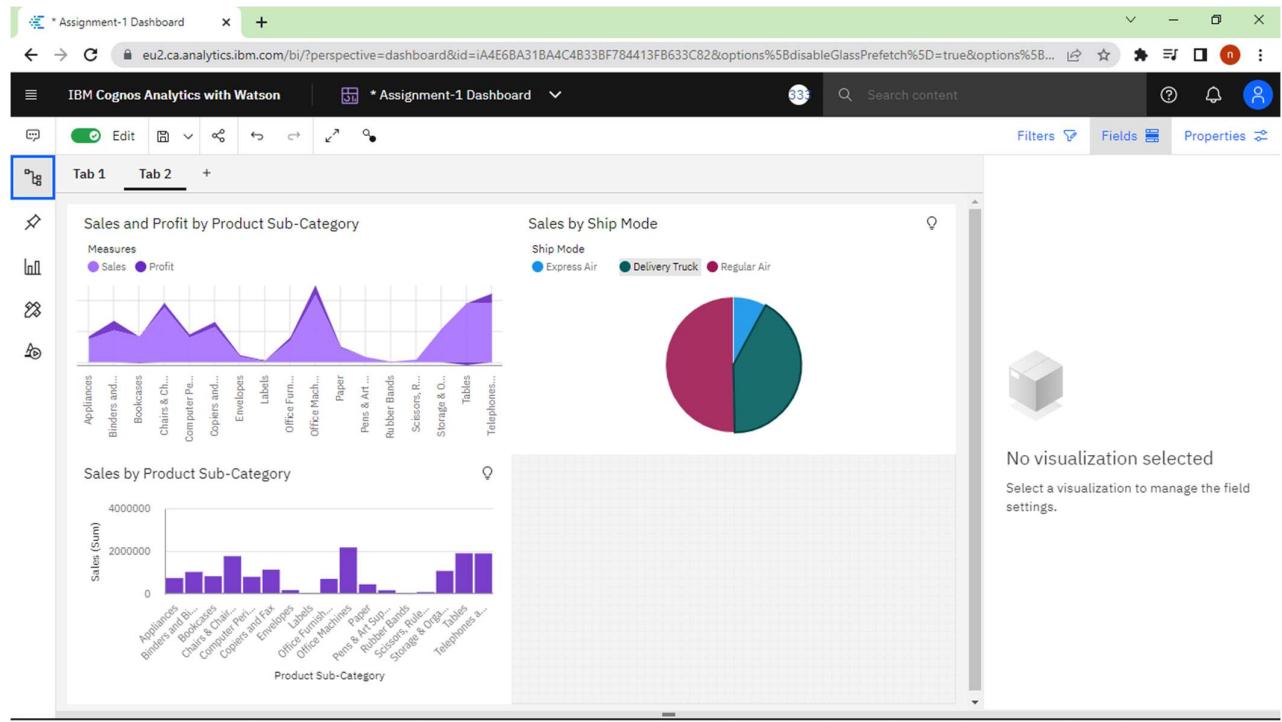
Sales and Profit by Product Sub-Category (Area Map):



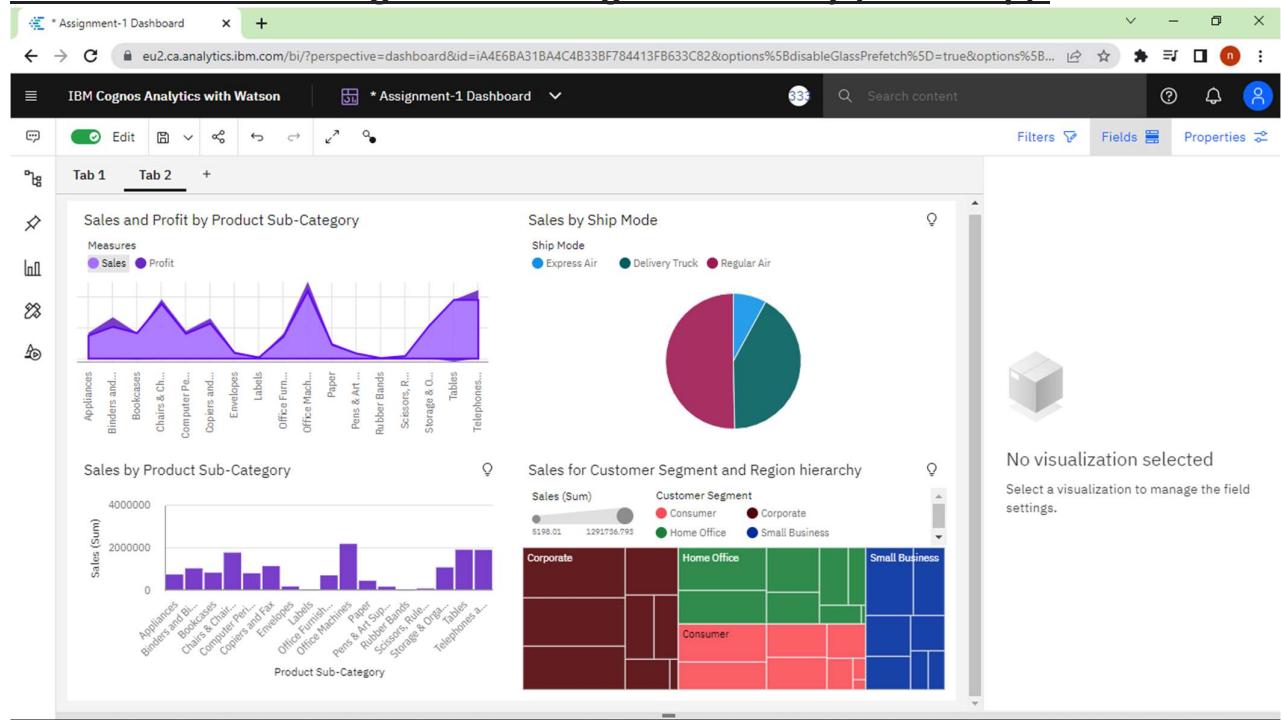
Sales by Ship Mode (Pie Chart):



Sales by Product Sub-Category (Column Chart):



Sales for Customer Segment and Region Hierarchy (Tree Map):



Creating a New Tab:

The screenshot shows the IBM Cognos Analytics with Watson interface. A modal dialog box titled "Select a template" is open over the dashboard. The dialog contains a grid of 12 dashed-line templates for arranging visualizations. One template in the bottom row is highlighted with a blue border. The main dashboard area shows two visualizations: a line chart titled "Sales and Profit by Product Sub-Category" and a bar chart titled "Sales by Product Sub-Category". The line chart has "Sales" and "Profit" measures. The bar chart shows sales sum for various product sub-categories like Appliances, Binders and Bl...".

Sales by Profit with points for Product Sub-Category (Bubble Chart):

The screenshot shows the IBM Cognos Analytics with Watson interface with three tabs: Tab 1, Tab 2, and Tab 3. Tab 3 is active and displays a bubble chart titled "Sales by Profit with points for Product Sub-Category". The chart plots Profit (Sum) against Sales (Sum). The x-axis ranges from 0 to 2,500,000 with major ticks every 500,000. The y-axis ranges from -1,000,000 to 3,000,000 with major ticks every 1,000,000. Data points are represented as purple bubbles of varying sizes, indicating the magnitude of sales or profit. The chart includes a legend for "Sales (Sum)".

Profit and Sales by Year_OrderDate:

