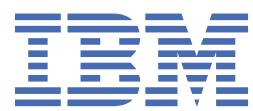


*Cognos Analytics samples*



---

# Contents

<b>Samples.....</b>	<b>1</b>
Cognos Analytics samples.....	1
IBM Cognos Analytics base samples.....	1
Importing the base samples.....	1
Base samples.....	2
Cognos Analytics for Jupyter Notebook samples.....	33
Importing and configuring the Jupyter samples.....	33
Jupyter notebook samples.....	33
Cognos Analytics for Mobile samples.....	35
Installing Cognos Analytics for Mobile samples on an iOS device.....	36
Visualization samples.....	36
Candlestick visualization.....	36
Stock heat map visualization.....	38
Gantt visualization.....	39
Funnel visualization.....	41
Gas gauge visualization.....	42
Sankey visualization.....	45
Population visualization.....	47
Organization visualization.....	49
Parallel coordinates visualization.....	50
Extended samples.....	52
Installing and configuring the Extended samples.....	52
About the Extended samples.....	63
Custom visualizations code samples.....	96
Waterfall code sample.....	97
Google bar chart code sample.....	99
Apache ECharts line code sample.....	101
Highchart area code sample.....	103
FusionCharts Pareto chart code sample.....	105
Schematic samples.....	107
Floor plan schematic.....	107
Stadium schematic.....	108
Periodic table schematic.....	109
Cartogram schematic.....	110
Legacy samples.....	111
Installing and configuring the Legacy samples.....	112
10.2.2 Cognos Mashup Service samples.....	116

# Samples

---

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

## Cognos Analytics samples

---

IBM® Cognos® Analytics has an extensive collection of dashboards, stories, explorations, reports, data modules, and sample databases. These samples illustrate the use of many Cognos Analytics features.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

## IBM Cognos Analytics base samples

---

Base samples include sample reports, explorations, dashboards, and stories that use data modules that are based on uploaded files as their underlying data source so they can be easily imported.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

For more information, see [Importing the base samples](#).

## Importing the base samples

Easy Install of IBM Cognos Analytics installs and imports the base samples for you. If you didn't use Easy Install to install Cognos Analytics, then you must import the base samples from the installation location.

### Procedure

1. Go to **Manage > Administration console** and open **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Content Administration**.
3. On the toolbar, click the **New Import** icon .
4. Select **Samples\_for\_Install\_12\_x\_x** in the first step of the **New Import** wizard and complete the remaining steps of the wizard using the defaults.

### Results

After you import the base samples, you'll see the following folders in **Team content** in your Cognos environment:

Version 11.1.0 - 11.1.4	Version 11.1.5 +
Team Content > Calendars	Team Content > Calendars
Team Content > Get Started	Team Content > Samples
Team Content > Samples	Team Content > Templates

The base samples supporting files are installed to the `cognos_analytics_server_install_location\samples` folder. This folder contains several sub-folders that contain the samples and associated data from where you import them in to Cognos Analytics.

#### **Audit\_samples**

#### **AuditExtension**

#### **custom\_visualizations**

#### **data**

This folder contains the source files for the data included in the `Samples_for_Install.zip` deployment.

#### **deployment**

This folder contains the `Samples_for_Install.zip` deployment. This file is also installed in the deployment folder for the Cognos Analytics server installation.

#### **embedded\_content**

This folder contains the authentication sample with embedded content. For instructions on how to use this sample, see the topic on sharing and embedding Cognos Analytics content in the *IBM Cognos Analytics Getting Started User Guide*.

#### **extensions**

This folder contains the customization extension samples. For instructions on how to use these samples, see the customization samples topic in the *IBM Cognos Analytics Managing User Guide*.

#### **JavaScript**

This folder contains the JavaScript samples. For instructions on how to use the samples, see the PDF file included in the folder.

#### **mobile**

#### **notebooks**

#### **OLAP**

#### **schematics**

#### **sdk**

#### **themes**

This folder contains the customization theme samples. For instructions on how to use these samples, see the customization samples topic in the *IBM Cognos Analytics Managing User Guide*.

## **Base samples**

The base samples are installed with the product and demonstrate its core functionality.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

To open the base samples, click **Team content > Samples** and explore the categories. All the base samples use uploaded files/data modules as their underlying data sources. There is no need to create data source connections or restore databases in order to use the base samples.

## Get Started samples

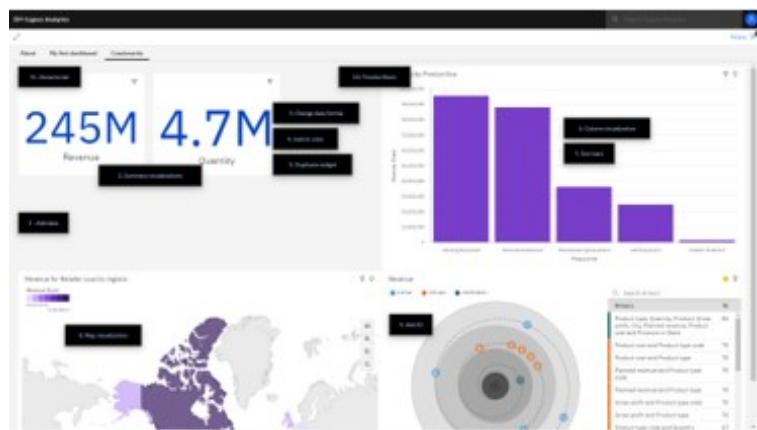
Get Started samples are designed to help new users get started with Cognos Analytics.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

### **My first dashboard**

The purpose of this sample dashboard is to show you how to create your first dashboard. It links to an associated video that demonstrates how to build this dashboard from start to finish.

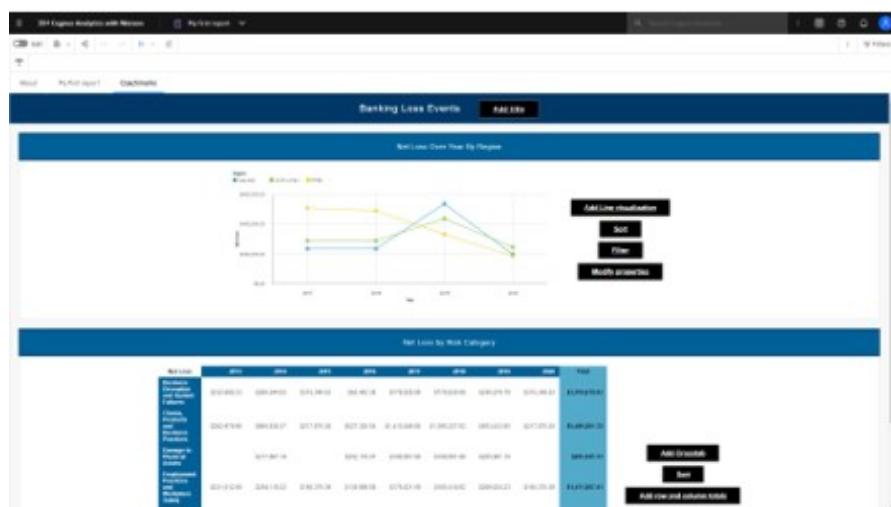
**My first dashboard** is located here: **Team content > Samples > \* Get started**



### **My first report**

This sample report is intended for beginners to help them get started with authoring reports.

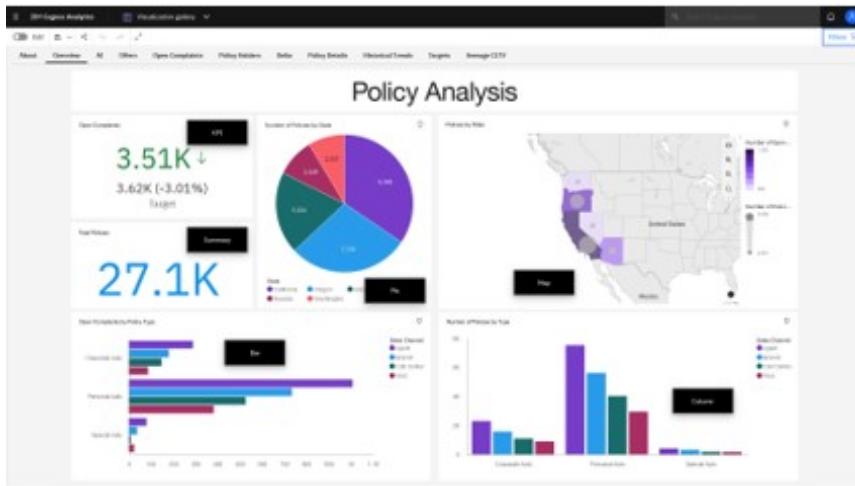
**My first report** is located here: **Team content > Samples > \* Get started**



### **Visualization gallery**

This sample dashboard demonstrates the breadth of visualizations that are available in IBM Cognos Analytics and provides more information about each type.

**Visualization gallery** is located here: **Team content > Samples > \* Get started**



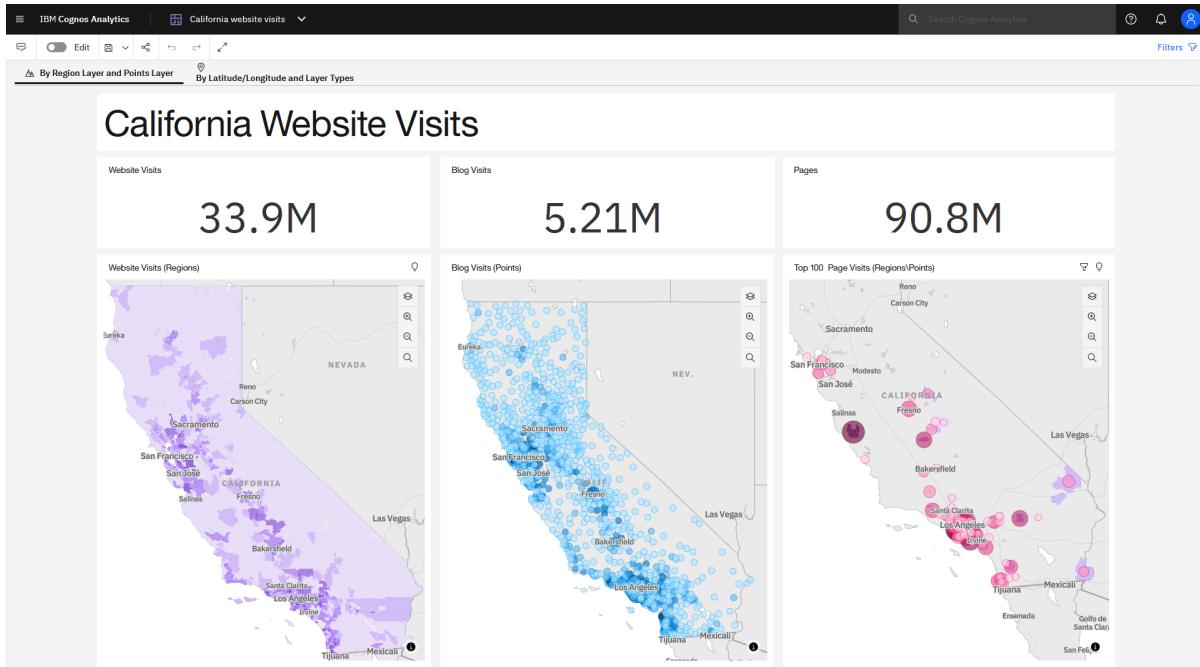
## Dashboard samples

The dashboard samples in this section are designed to provide ideas for setting up dashboards for your organization.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

### California website visits dashboard sample

This sample dashboard demonstrates client-side mapping to display 2016 website visit data in California for the fictional Sample Outdoors Company website. The dashboard demonstrates maps with regions and points based on Zip Code, maps using latitude/longitude, and maps with clustering.

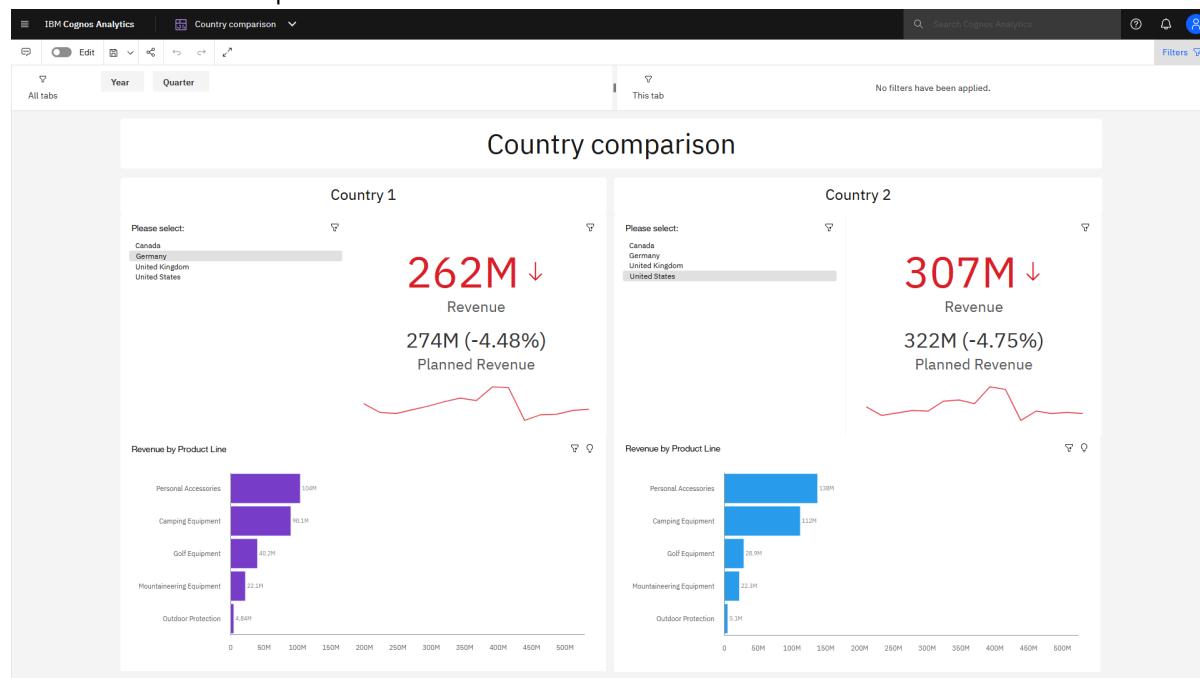


Key features of this sample include: maps with regions, points (normal, heat, cluster), and latitude/longitude .

This sample is located here: Team content > Samples > By feature > Core > Dashboards > California website visits.

## Country comparison dashboard sample

This sample dashboard demonstrates how to use connected and disconnected widgets to compare revenue between two product lines at the same time.

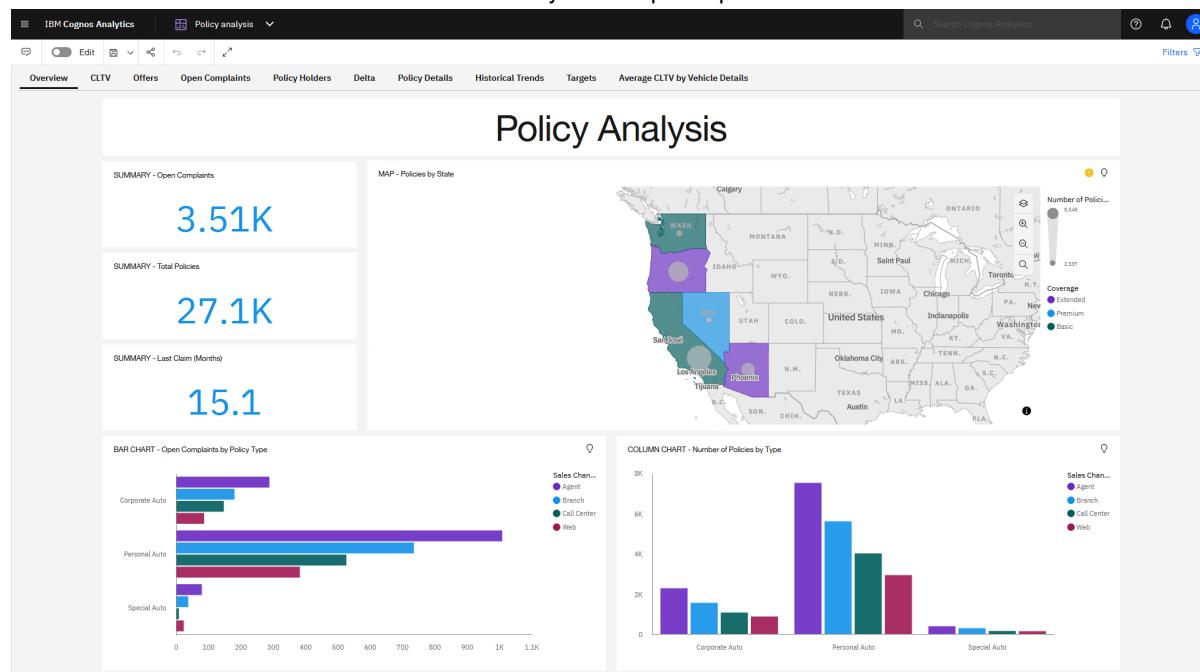


Key features of this sample include: connected and disconnect widgets, and multilingual dashboards.

This sample is located here: Team content > Samples > By feature > Core > Dashboards > Country comparison.

## Policy analysis dashboard sample

This sample dashboard showcases the updated 11.1 visualizations that are available in IBM Cognos Analytics in the context of an automobile insurance policy data set. It also includes a drill-through definition to the Customer lifetime value analysis sample report.

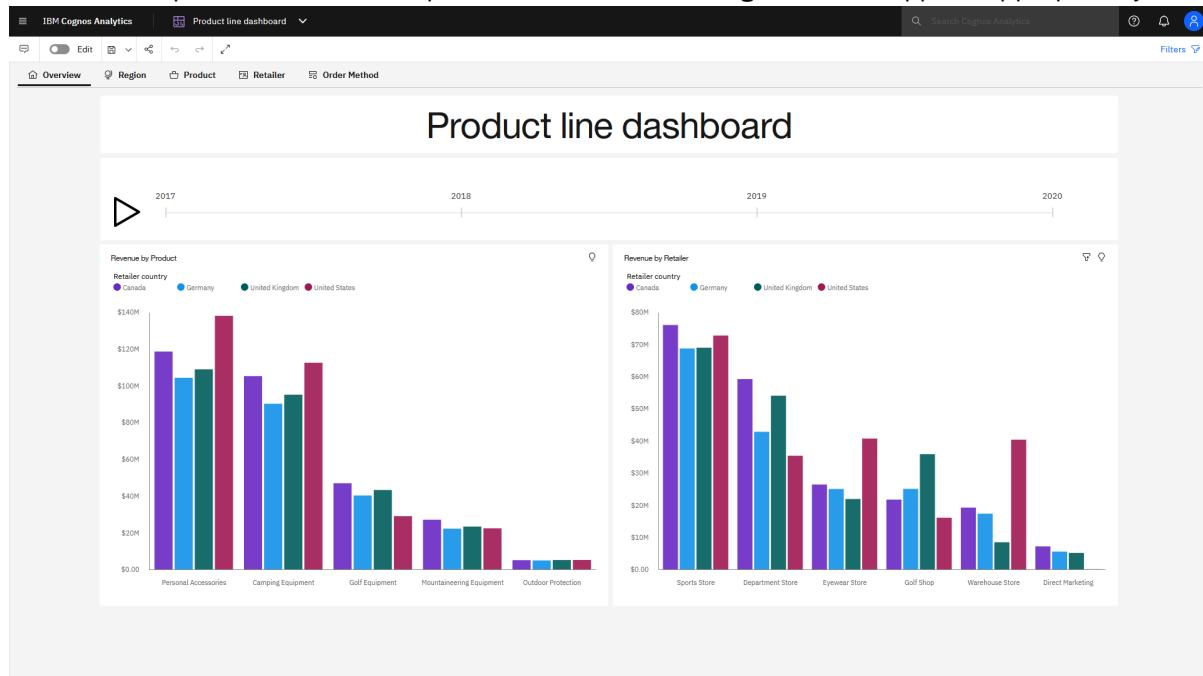


Key features of this sample are the use of multiple 11.1 visualizations and drill-through.

This sample is located here: Team content > Samples > By industry > Insurance > Dashboards > Policy analysis.

### **Product line dashboard sample**

This sample dashboard illustrates navigation paths. It includes data in a data player, a bar visualization, and a tree map visualization. Color palettes, filters, and sorting have been applied appropriately.



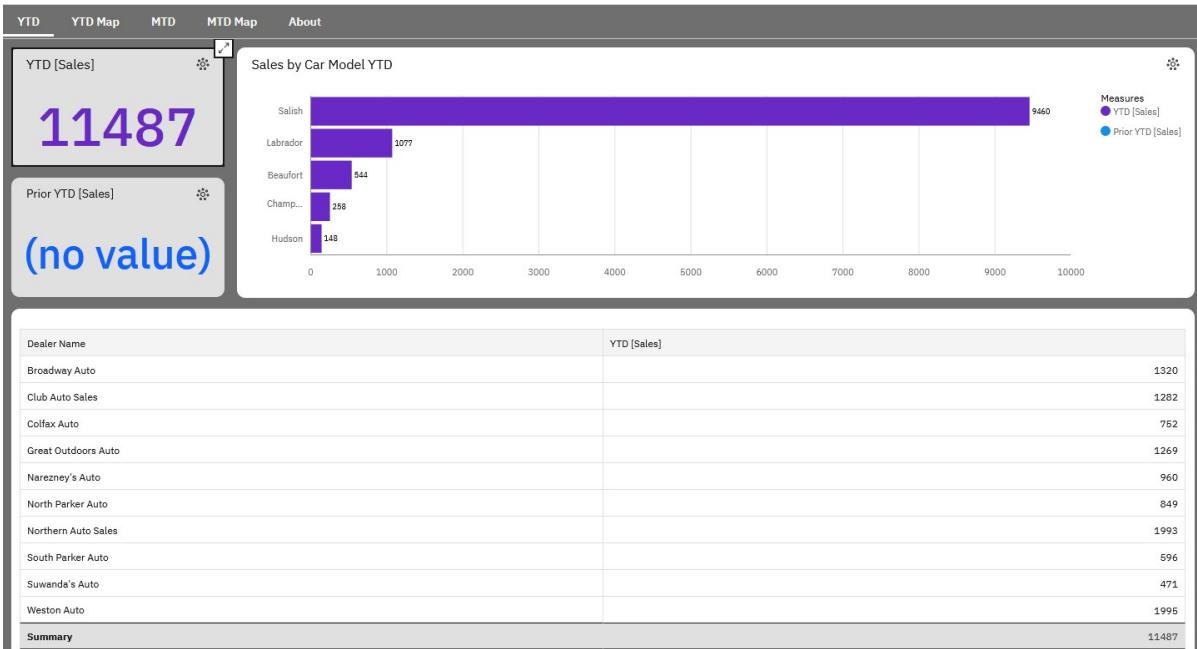
The key feature of this sample is navigation paths.

This sample is located here: Team content > Samples > By feature > Core > Dashboards > Product line dashboard.

### **Relative dates on a dashboard sample**

This sample dashboard demonstrates relative dates in the context of a dashboard.

The sample includes examples of YTD (year-to-date) and MTD (month-to-date) measures in summaries, tables, maps, and visualizations.

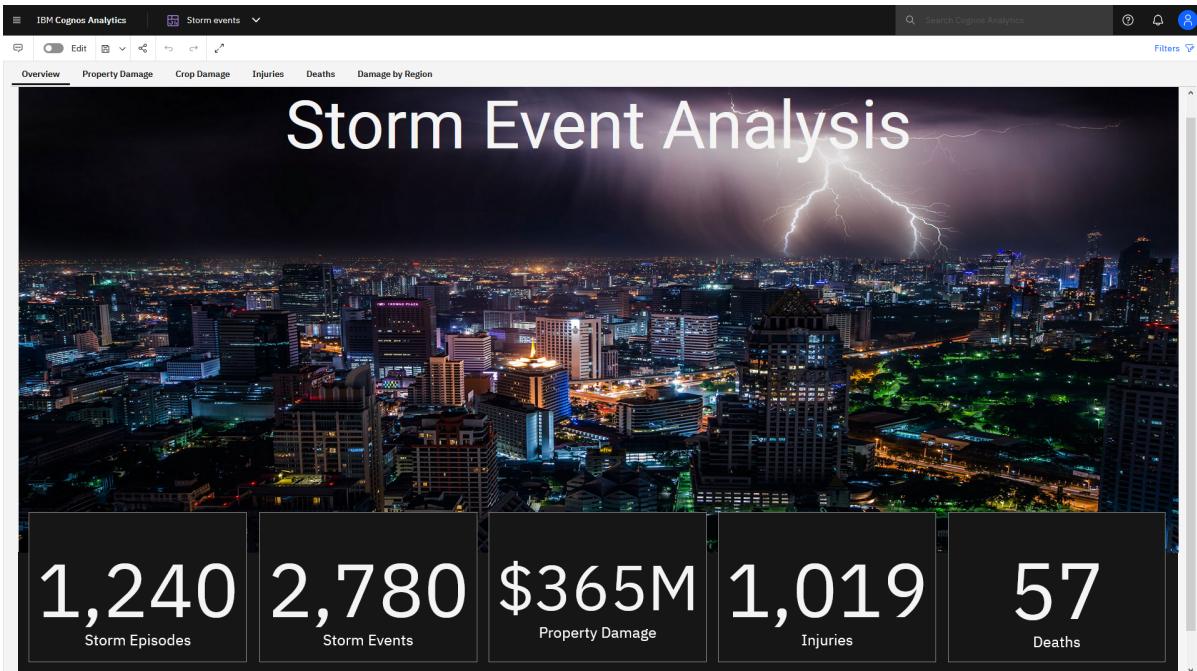


The underlying sample data module uses the Gregorian Calendar and supports the global parameter named `_as_of_date` that is used to customize the reference date. The Gregorian Calendar supports dynamic `_as_of_date` parameters by using the global parameter named **Time Perspective**.

The sample is located in Team content > Samples > By feature > Relative dates.

### Storm events dashboard sample

This sample dashboard showcases the new mapping functionality in the context of storm event data.

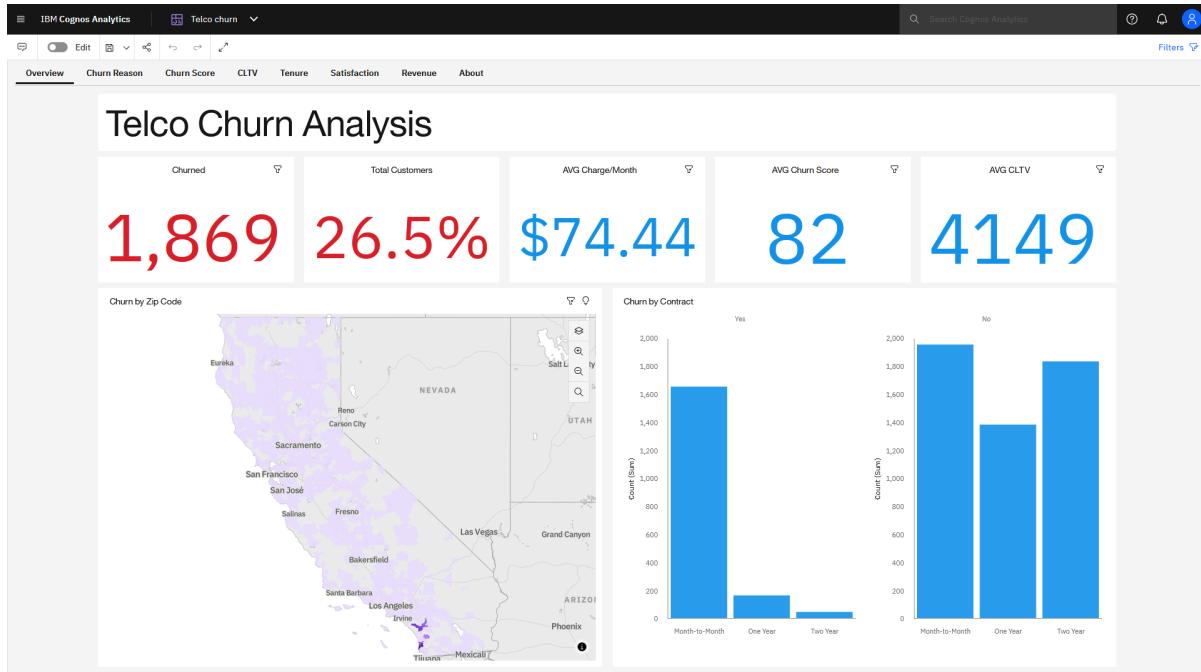


Key features of this sample include: custom polygons, custom regions, images, summary widgets , list visualizations, data player, maps with regions, points, text widgets, shape, word cloud visualizations, pie visualizations, donut radius, map ID, layer names, property names, show titles, and tabs.

This sample is located here: Team content > Samples > By feature > Core > Dashboards > Storm events.

## Telco churn dashboard sample

This sample dashboard tracks a fictional telco company's customer churn based on a variety of factors. The Churn Label column indicates whether or not the customer left within the last month. Other columns include location, monthly charges, services, and customer lifetime value. The dashboard serves as a launching point for further exploration.



Key features of this dashboard include: explorations, dashboard background color, summary widgets , maps, heat map visualizations, word cloud visualizations, bar visualizations, line visualizations, legends, sunburst visualizations, tree diagram visualizations, rules, global filters , all tabs , filters , and filter areas.

This sample is located here: Team content > Samples > By industry > Telecommunications > Dashboards > Telco churn.

## Coffee shop marketing dashboard sample

This sample dashboard demonstrates marketing data from a fictional coffee chain.



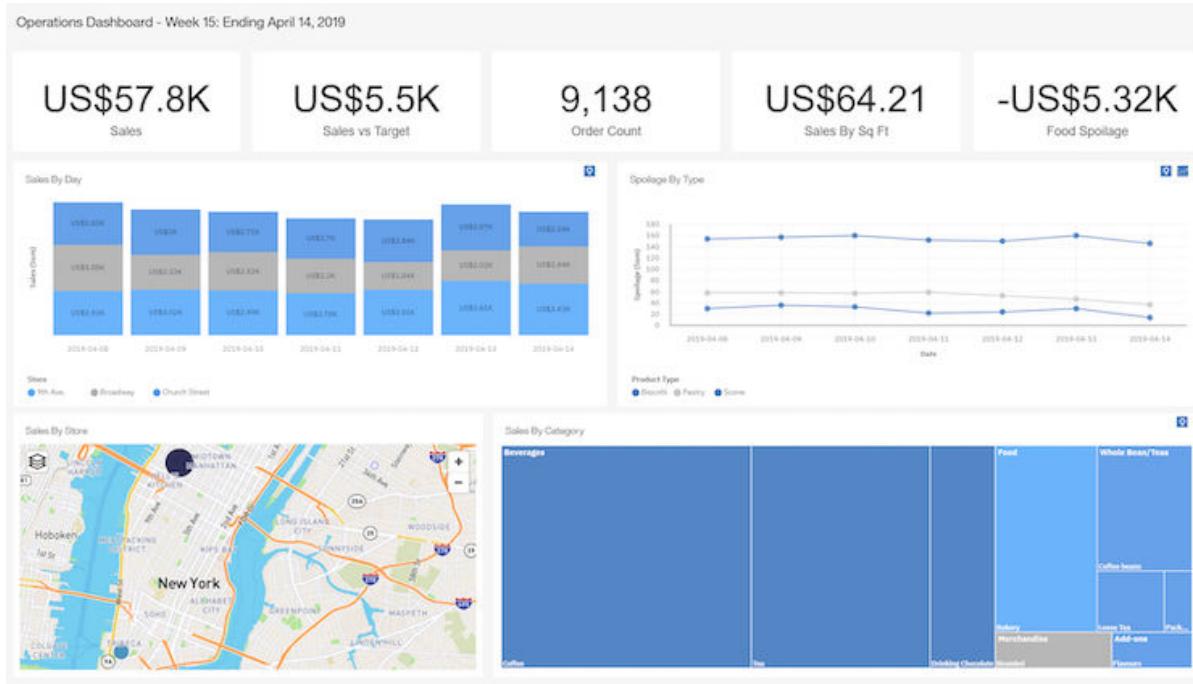
This dashboard tracks progress of a new marketing campaign.

This sample is located here: Team content > Samples > By industry > Retail > Dashboards > Coffee marketing.

For more information, see: [Coffee shop samples](#).

### **Coffee shop operations dashboard sample**

This sample dashboard demonstrates operational data from a fictional coffee chain.



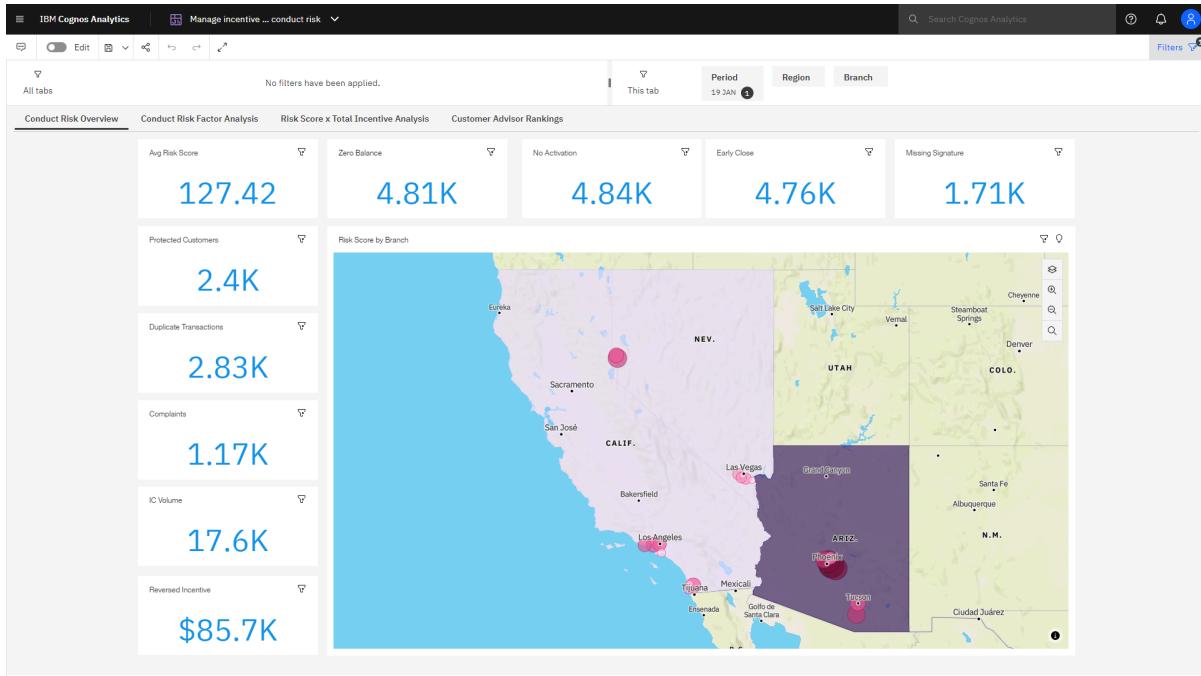
This dashboard explores high-level metrics for three fictional coffee stores.

This sample is located here: Team content > Samples > By industry > Retail > Dashboards > Coffee operations.

For more information, see: [Coffee shop samples](#).

### **Manage incentive compensation and conduct risk dashboard sample**

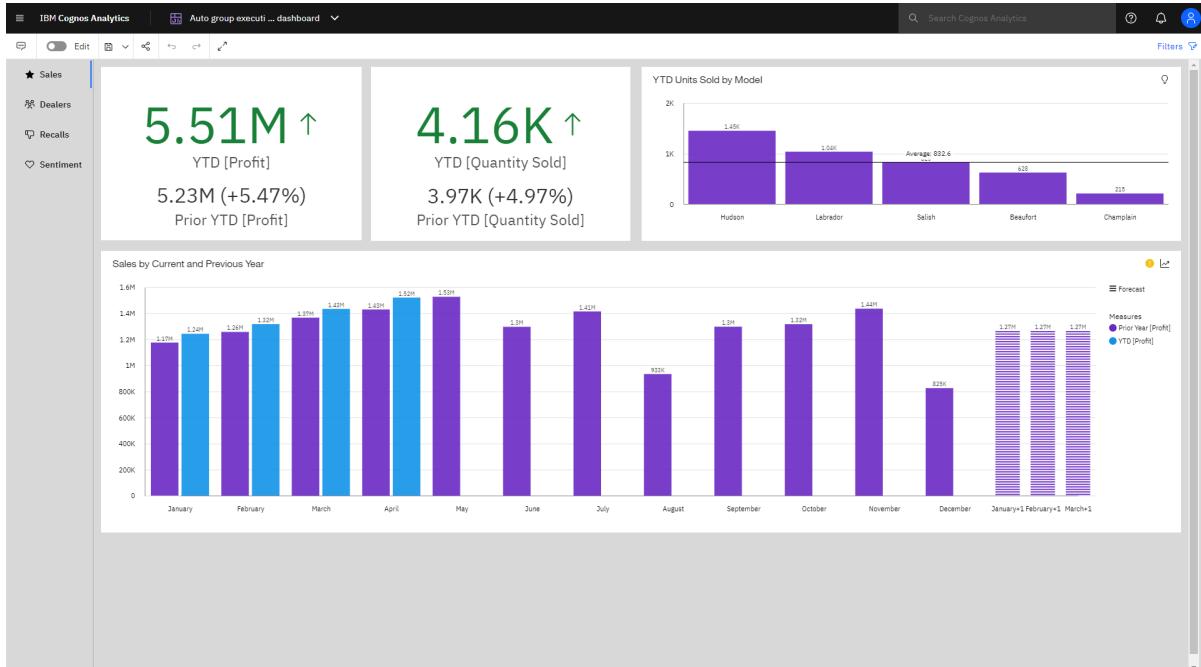
This sample dashboard tracks the performance of bank branches and customer advisors for a fictional bank. It examines conduct risk, incentive compensation, and other additional related metrics.



The sample is located here: Team content > Samples > By industry > Banking > Manage incentive compensation and conduct risk

### **Auto group executive dashboard sample**

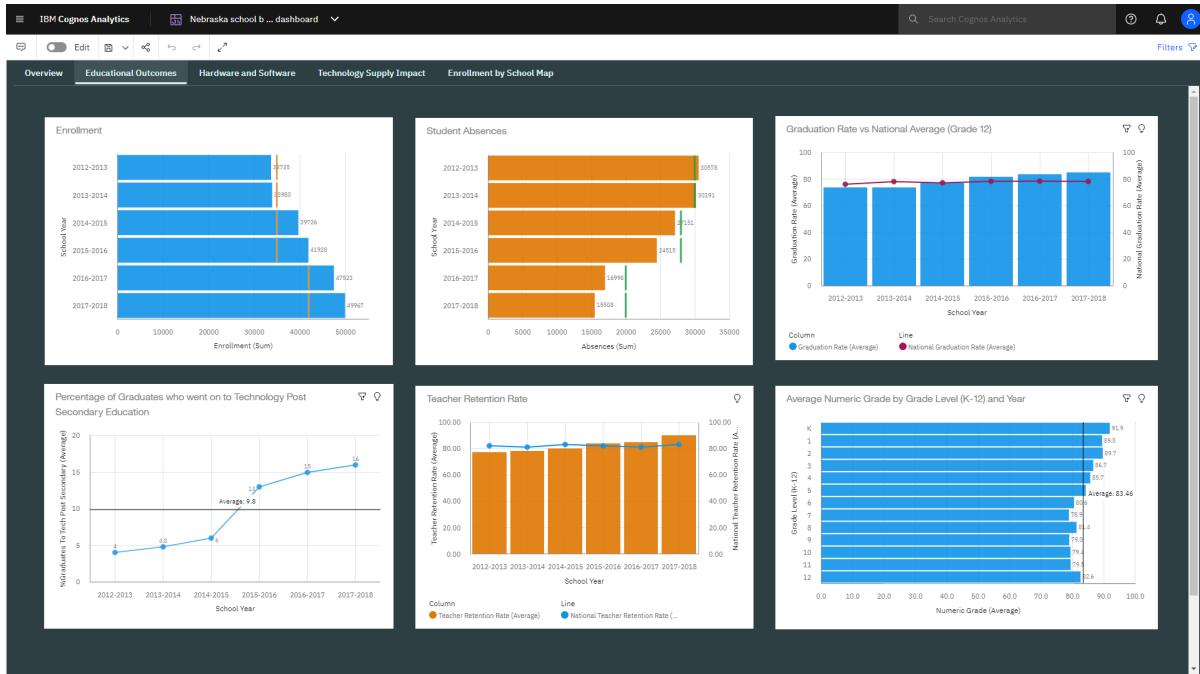
This sample dashboard provides an executive view into sales, dealers, recalls, and sentiment for a fictional automobile dealership group.



The sample is located here: Team content > Samples > By industry > Automotive > Auto group executive dashboard

### **Nebraska school board dashboard sample**

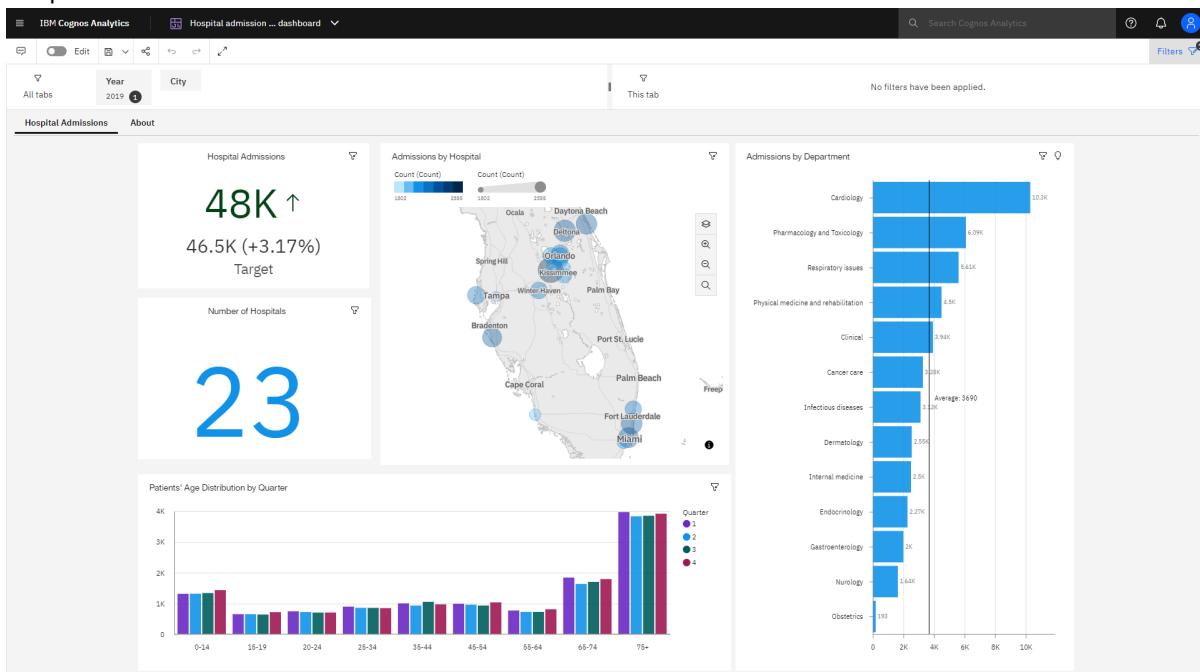
This sample dashboard displays information about educational outcomes, technology supplies, and enrollment within a fictional school board.



The sample is located here: Team content > Samples > By industry > Education > Nebraska school board dashboard

### Hospital admissions executive dashboard sample

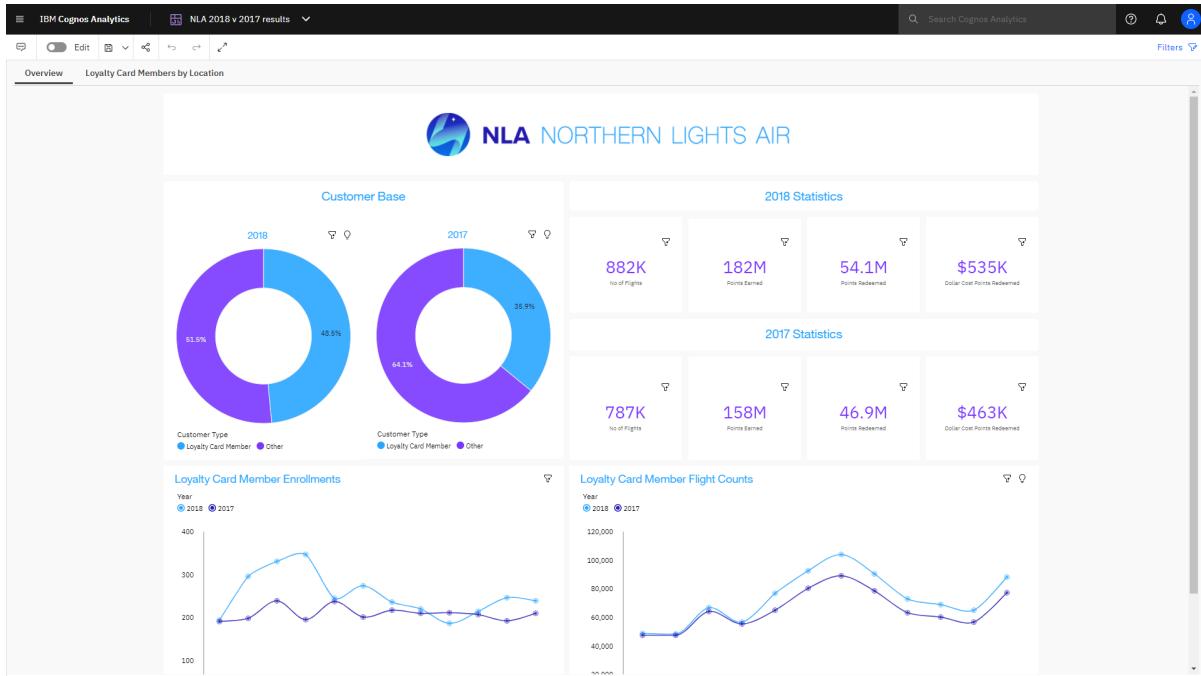
This sample dashboard displays executive-level information about hospital admissions for a fictional hospital network.



The sample is located here: Team content > Samples > By industry > Healthcare > Hospital admissions executive dashboard

### NLA 2018 v 2017 results dashboard sample

This sample dashboard displays executive-level information about loyalty card members from a small fictional airline.



The sample is located here: Team content > Samples > By industry > Travel and transportation > NLA 2018 v 2017 results

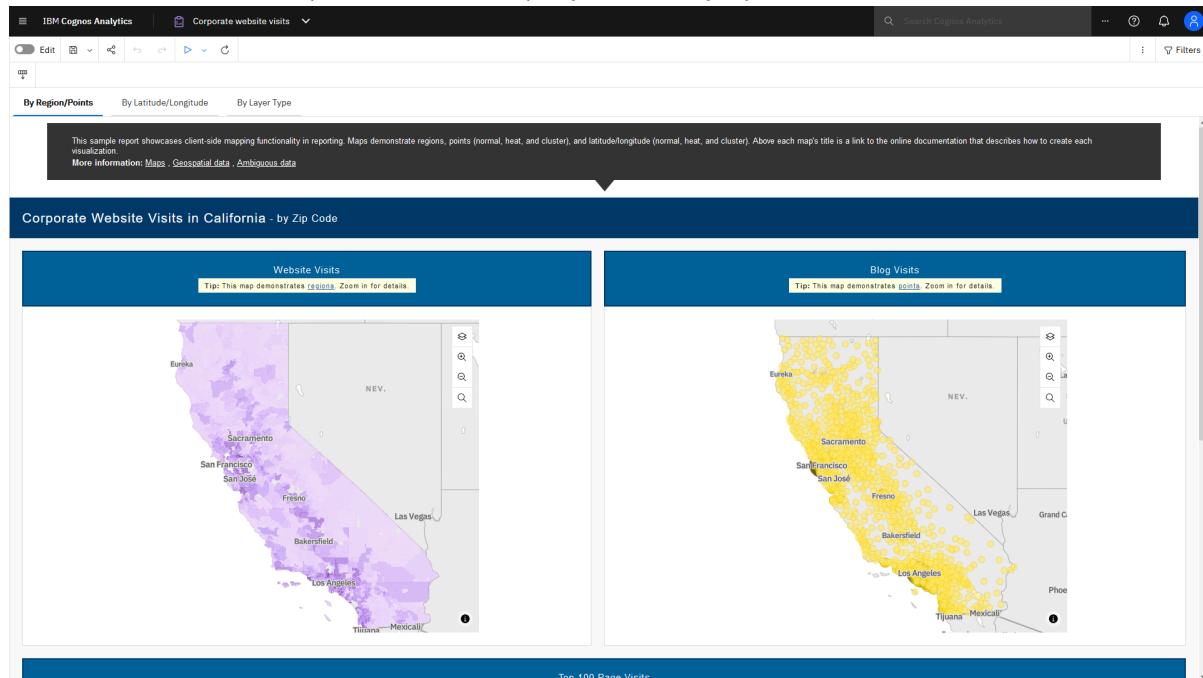
## Report samples

The reporting samples in this section are designed to provide ideas for setting up reports for your organization and show multiple report concepts.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

## Corporate website visits report sample

This sample report shows client side mapping functionality. Maps demonstrate regions, points (normal, heat, and cluster), and latitude/longitude (normal, heat, and cluster). The maps display 2016 website visit data for the fictional Sample Outdoors Company website by zip code in California.

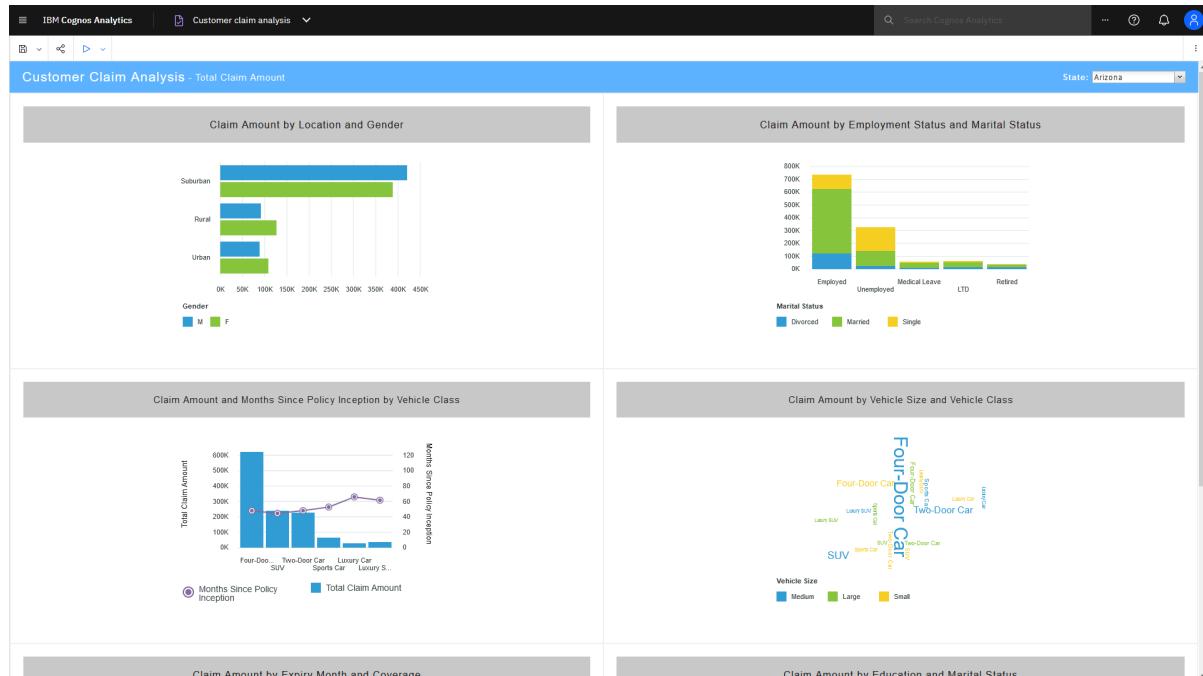


Key features of this report include: maps with regions, maps with points (normal, heat, cluster), maps with latitude/longitude (normal, heat, cluster), tabs.

This sample is located here: Team content > Samples > By feature > Core > Reports > Corporate website visits.

## Customer claim analysis report sample

This sample active report shows the updated visualizations that are now available in IBM Cognos Analytics. The report shows a breakdown of total claim amount by state and other categories.

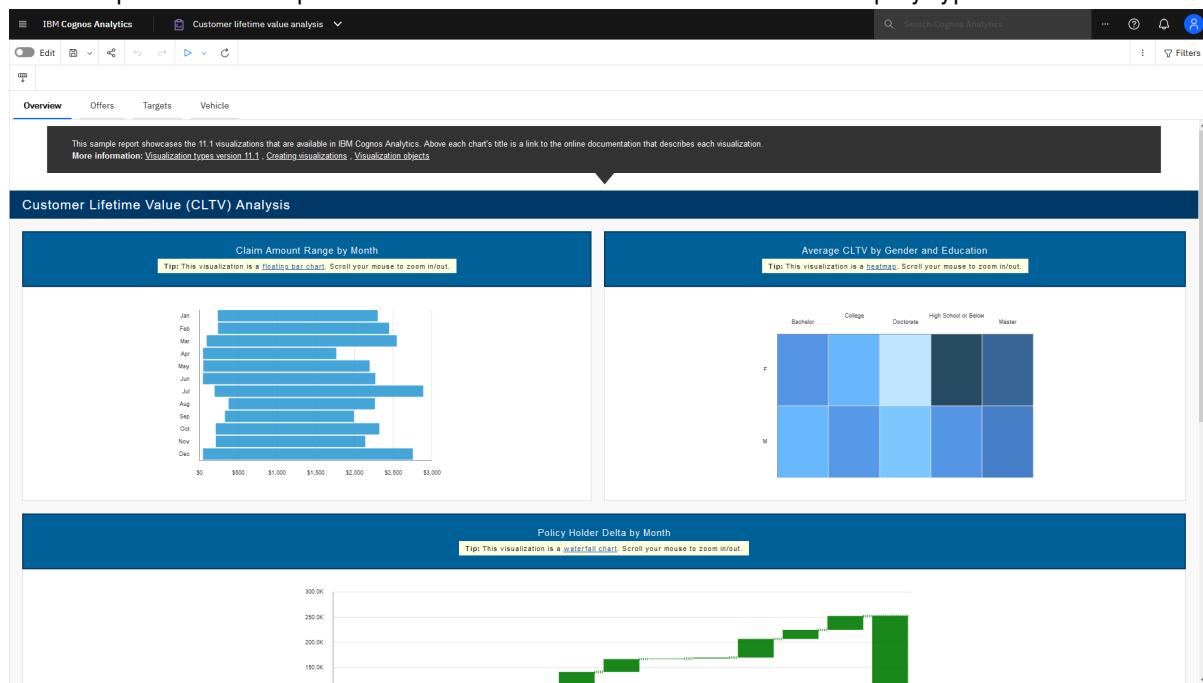


Key features of this report include: active reports, data drop down lists, filters, word cloud visualizations, clustered bar visualizations, stacked column visualizations, line and column visualizations, smooth line visualizations, point visualizations, interactive behavior, and variables.

This sample is located here: Team content > Samples > By industry > Insurance > Reports > Customer claim analysis.

## **Customer lifetime value analysis report sample**

This sample standard report features 11.1 visualizations with various display types.

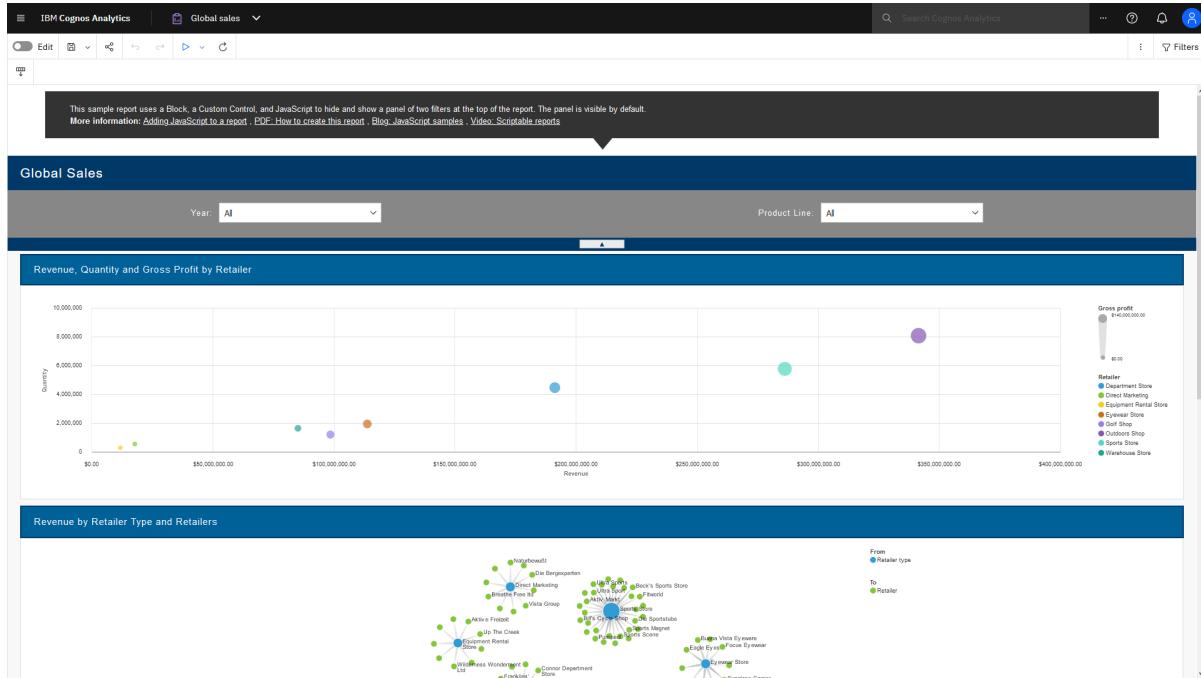


Key features of this report include maps, floating bar visualizations, heatmap visualizations, waterfall visualizations, bubble visualizations, network visualizations, radial visualizations, river visualizations, bullet visualizations, area visualizations, hierarchy packed bubble visualizations, word cloud visualizations, radar visualizations, Marimekko visualizations, 11.1 visualizations, legends, page footers, and tabs.

This sample is located here: Team content > Samples > By industry > Insurance > Reports > Customer lifetime value analysis.

## Global sales report sample

This sample report uses a block, a custom control, and JavaScript to hide and show a panel of filters.



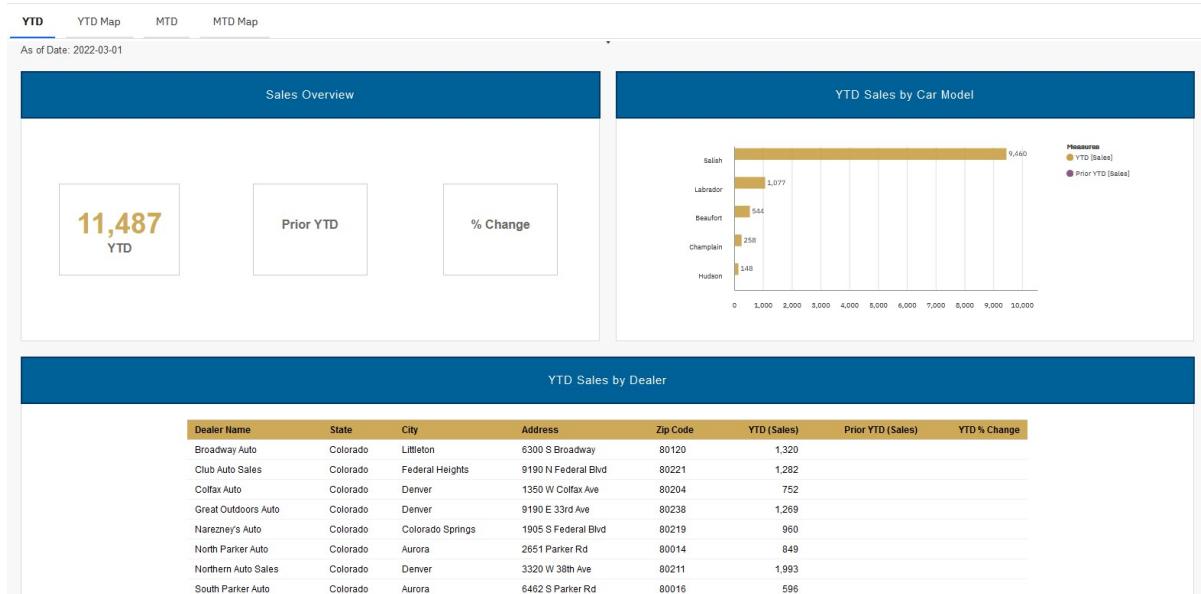
Key features of this report include: JavaScript, blocks, custom controls, filters, hide or show, value prompts, bubble visualizations, network visualizations, lists, conditional styles, legends, and page footers.

This sample is located here: Team content > Samples > By feature > Core > Reports > Global sales.

## Relative dates on a report sample

This sample dashboard demonstrates relative dates in the context of a report.

The sample includes examples of YTD (year-to-date) and MTD (month-to-date) measures in summaries, tables, maps, and visualizations.

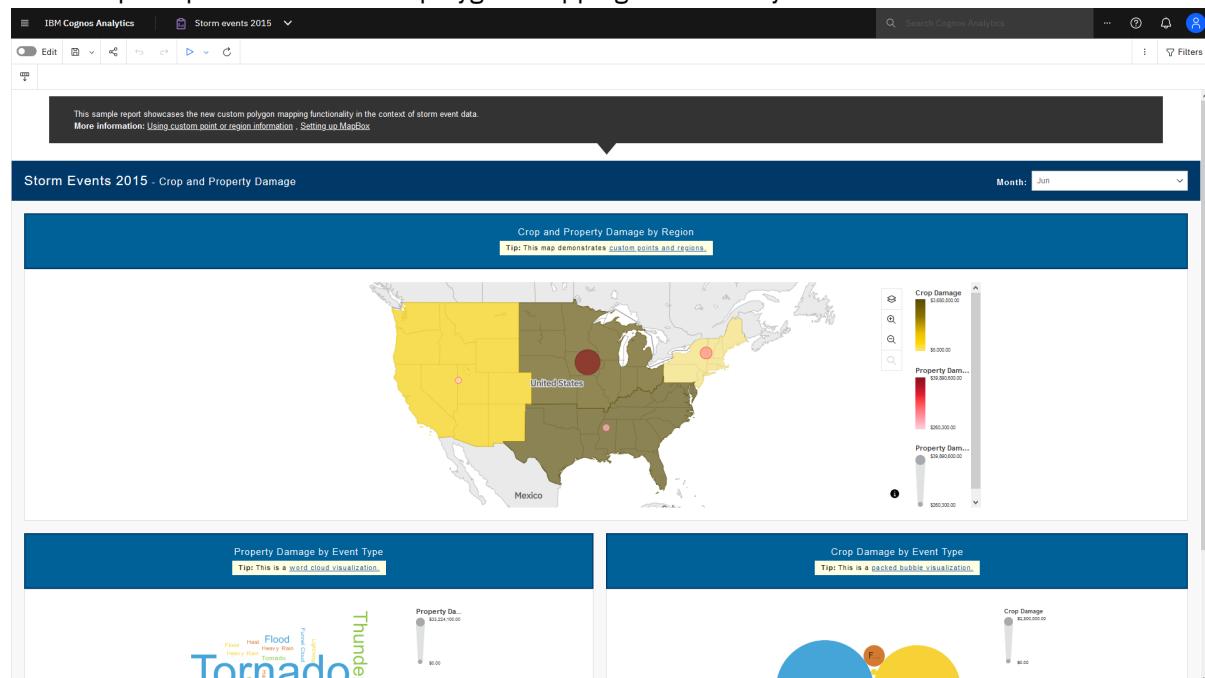


The underlying sample data module uses the Gregorian Calendar and supports the global parameter named `_as_of_date` that is used to customize the reference date. The Gregorian Calendar supports dynamic `_as_of_date` parameters by using the global parameter named **Time Perspective**.

The sample is located in Team content > Samples > By feature > Relative dates.

## Storm events 2015 report sample

This sample report shows custom polygon-mapping functionality in the context of storm event data.

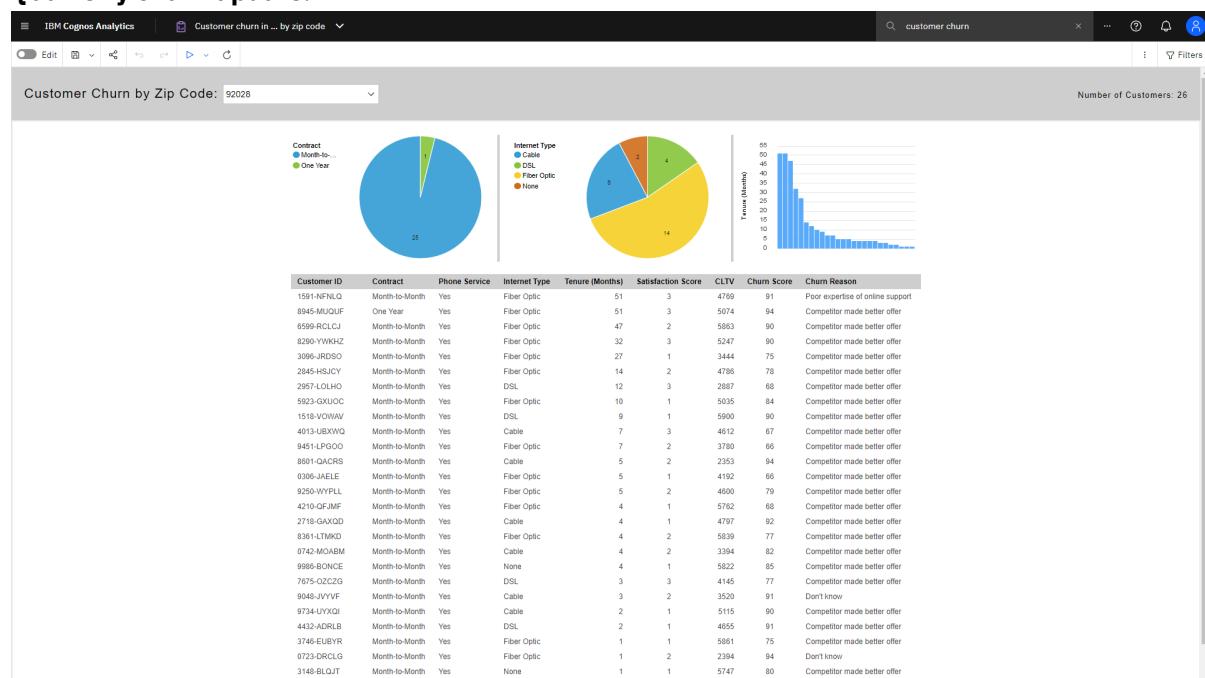


Key features of this report include custom points, custom regions, maps, Tileset Id, layer names, property names, value prompts, filters, legends, word cloud visualizations, packed bubble visualizations, and page footers.

The Storm events 2015 report can be found here: Team content > Samples > By feature > Core > Reports > Storm events 2015.

## Customer churn information by zip code report sample

This sample report is the drill-through target report for sample dashboard **Telco churn** and sample story **Quarterly churn update**.



The Customer churn information by zip code report sample can be found here: Team content > Samples > By industry > Telecommunications > Reports > Customer churn information by zip code.

## **Auto group MTD dealer sales report sample**

This sample report displays information about month-to-date dealer sales by city and model for a fictional automobile dealership group.

MTD Dealer Sales - Apr 7, 2021						
Sales by City						
City	Dealer Name	Postal Code	Contact Name	Contact Phone Number	MTD [Quantity Sold]	MTD [Profit]
Arvada	Weston Auto	80002	Rebecca Kaplan	1 (303) 449-1354	128	172,200
Arvada					128	172,200
Aurora	South Parker Auto	80016	Terry Swift	1 (303) 449-5441	112	149,300
Aurora	North Parker Auto	80014	Wayne Anderson	1 (303) 808-3432	113	148,800
Aurora					225	298,100
Colorado Springs	Narenczy's Auto	80219	Abdul Syed	1 (719) 874-4559	106	137,900
Colorado Springs					106	137,900
Denver	Cofax Auto	80204	Louis Feldcamp	1 (303) 808-9383	113	148,800
Denver	Northern Auto Sales	80211	Janet Duggan	1 (303) 449-6548	138	184,500
Denver	Great Outdoors Auto	80238	Robert Young	1 (303) 808-3333	133	175,300
Denver					384	508,600
Federal Heights	Club Auto Sales	80221	David Latella	1 (303) 808-2993	119	159,200
Federal Heights					119	159,200
Littletton	Broadway Auto	80120	Gary Syrett	1 (303) 326-6889	94	125,650
Littletton					94	125,650
Westminster	Suwanda's Auto	80234	Vinay Acharya	1 (303) 449-1188	89	118,700
Westminster					89	118,700
Overall					1,145	1,520,350

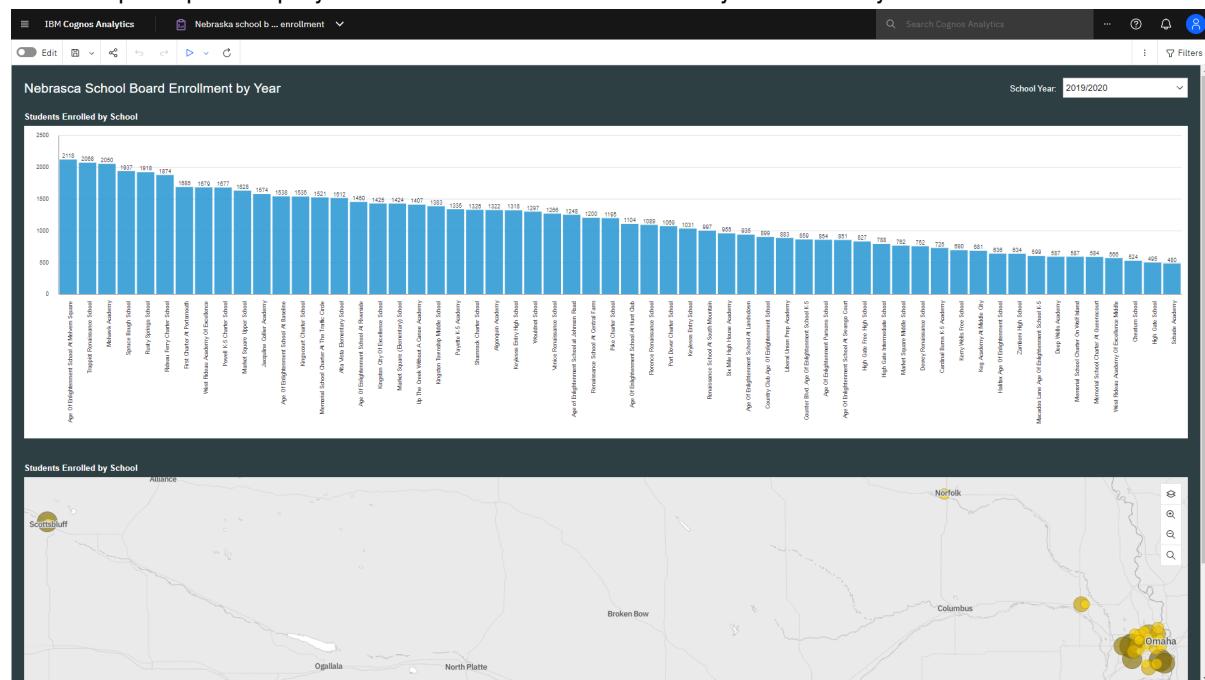
  

Sales by Dealer and Model			
Dealer Name	Model	MTD [Quantity Sold]	MTD [Profit]
Broadway Auto	Beaufort	14	21,000
	Salish	19	57,950
	Labrador	24	19,200
	Champlain	5	11,500
	Hudson	32	16,000
Broadway Auto		94	125,650
Club Auto Sales	Salish	24	73,200
	Champlain	6	13,800
	Hudson	41	20,500
	Beaufort	19	28,500

The sample is located here: Team content > Samples > By industry > Automotive > Auto group MTD dealer sales

## **Nebraska school board enrollment report sample**

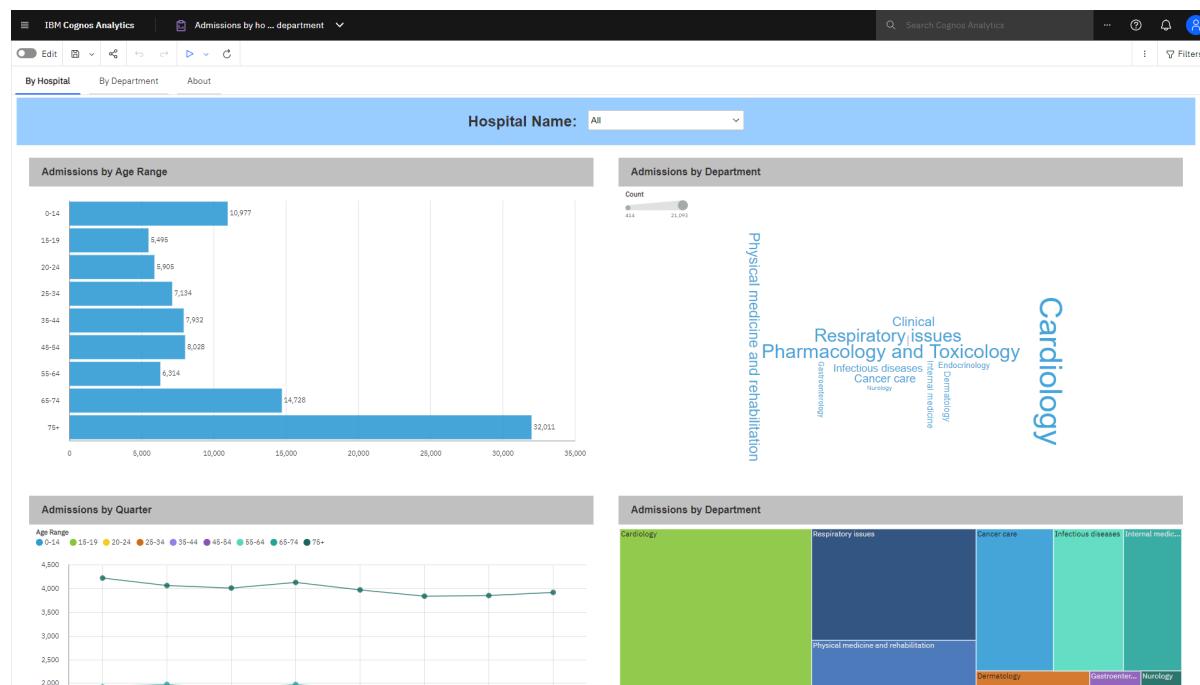
This sample report displays information about enrollment by school and year for a fictional school board.



The sample is located here: Team content > Samples > By industry > Education > Nebraska school board enrollment

## Admissions by hospital and department report sample

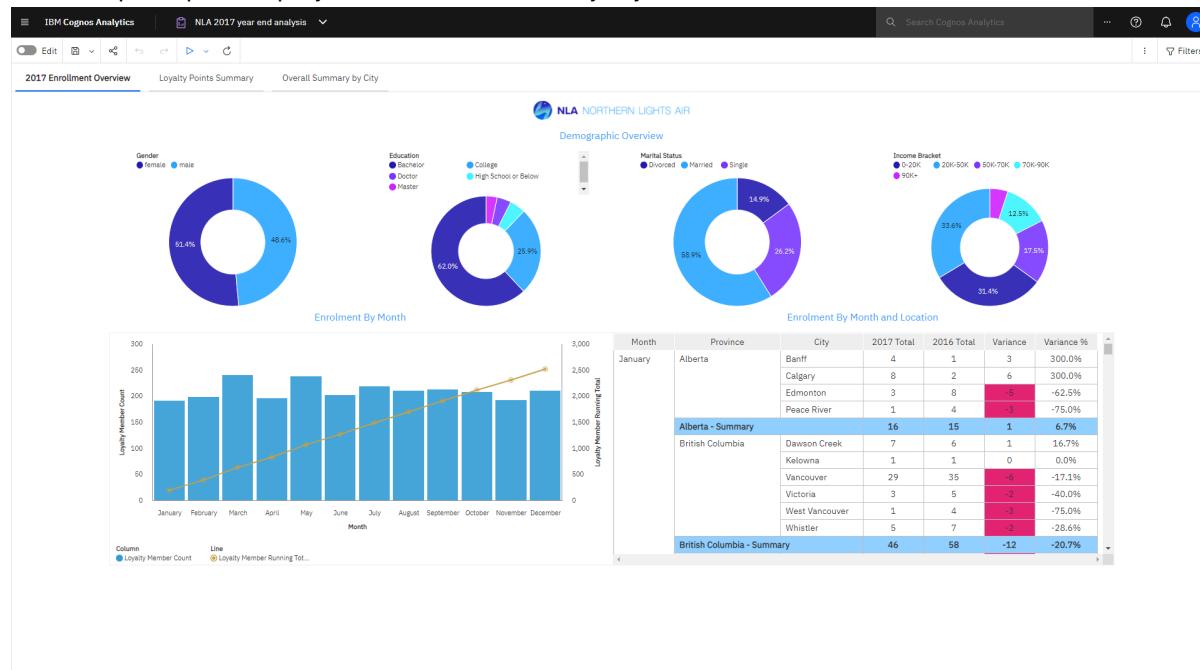
This sample report displays information about hospital and department admissions for a fictional hospital network.



The sample is located here: Team content > Samples > By industry > Healthcare > Admissions by hospital and department

## NLA 2017 year end analysis report sample

This sample report displays information about loyalty card members from a small fictional airline.



The sample is located here: Team content > Samples > By industry > Travel and transportation > NLA 2017 year end analysis

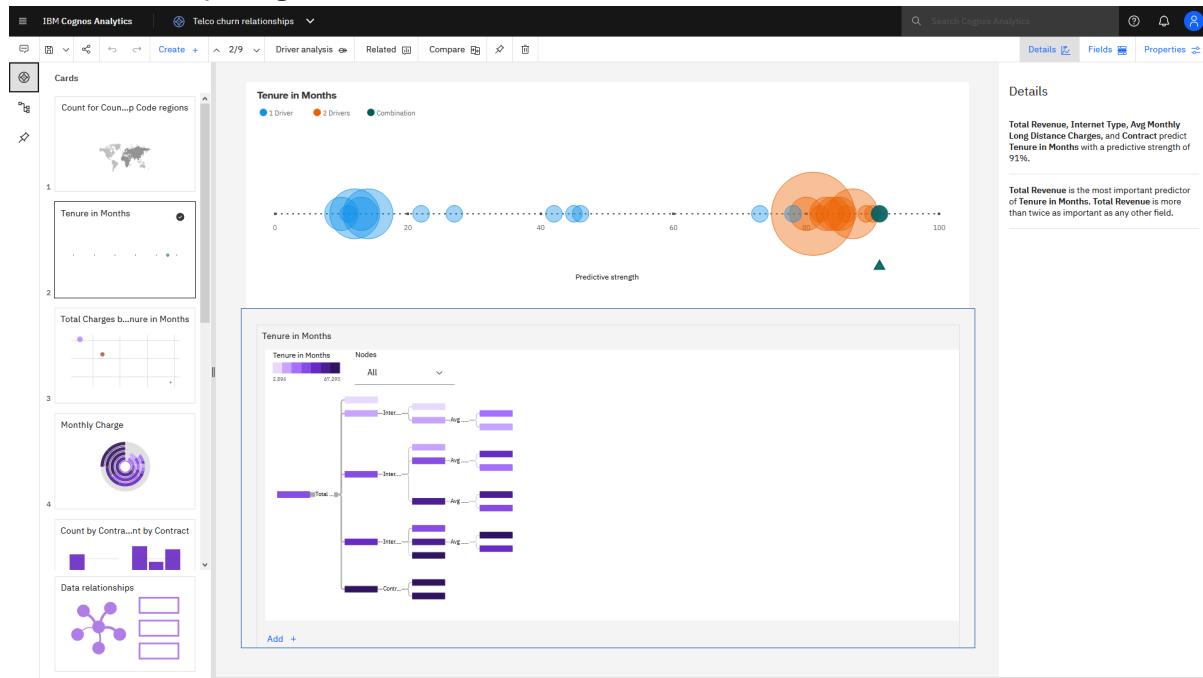
## Exploration samples

The exploration sample in this section is designed to provide ideas for setting up explorations for your organization and to familiarize yourself with concepts when using explorations.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

### Telco churn relationships exploration sample

This sample exploration tracks a fictional telco company's customer churn based on various factors. The Churn Label column indicates whether the customer left within the last month. Other columns include location, monthly charges, services, and customer lifetime value.

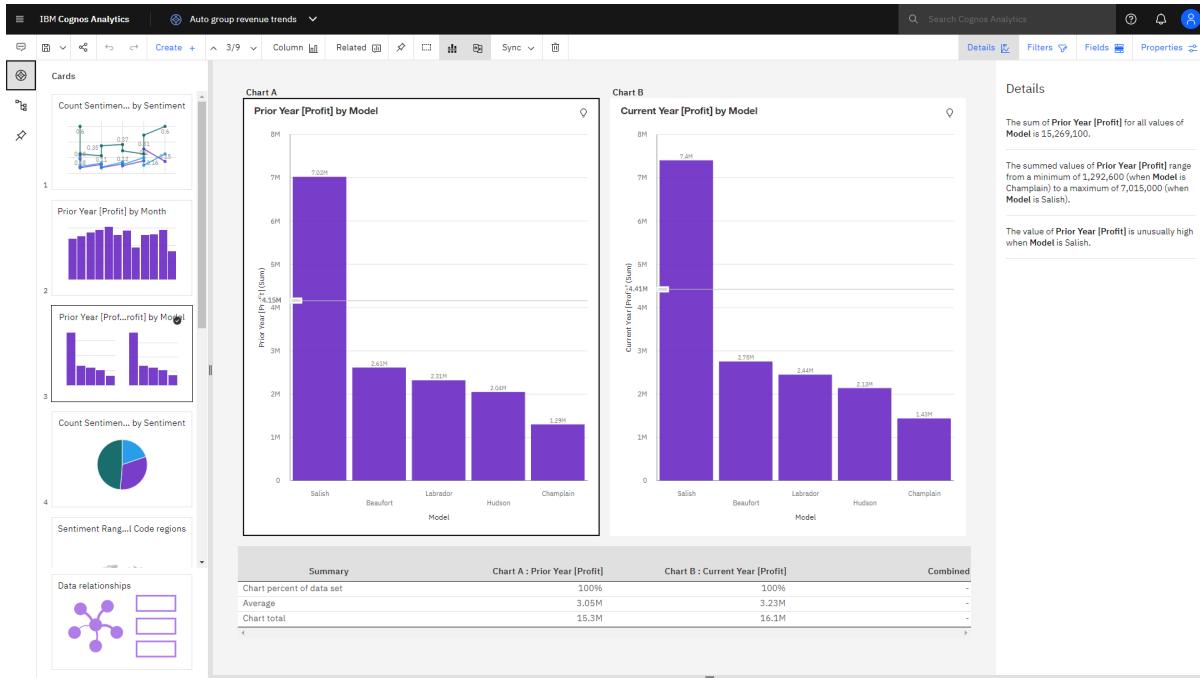


Key features of this sample include starting points card, driver analysis card, compare card, heat map visualization, driver analysis visualization, bubble visualization, decision tree visualization, column visualization, stacked column visualization, word cloud visualization, spiral visualization, and filters.

The Telco churn relationships sample can be found here: Team content > Samples > By industry > Telecommunications > Explorations > Telco churn relationships.

### Auto group revenue trends exploration sample

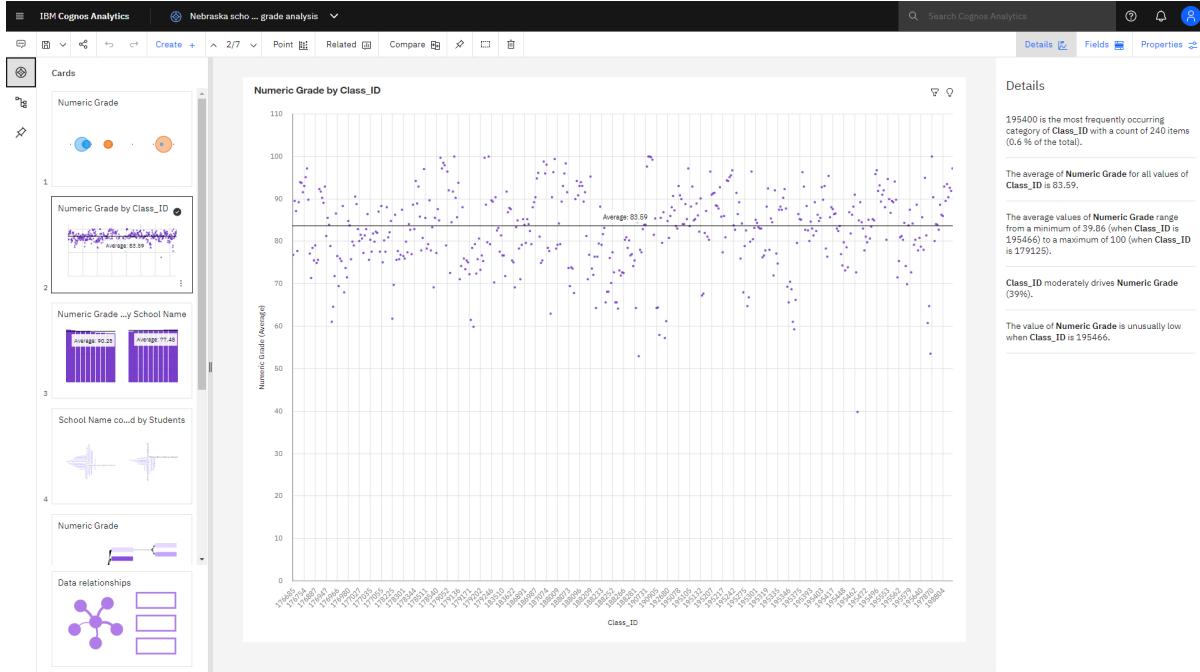
This sample exploration provides insights into profit, recalls, and sentiment for a fictional automobile dealership group.



The sample is located here: Team content > Samples > By industry > Automotive > Auto group revenue trends

## **Nebraska school board final grade analysis exploration sample**

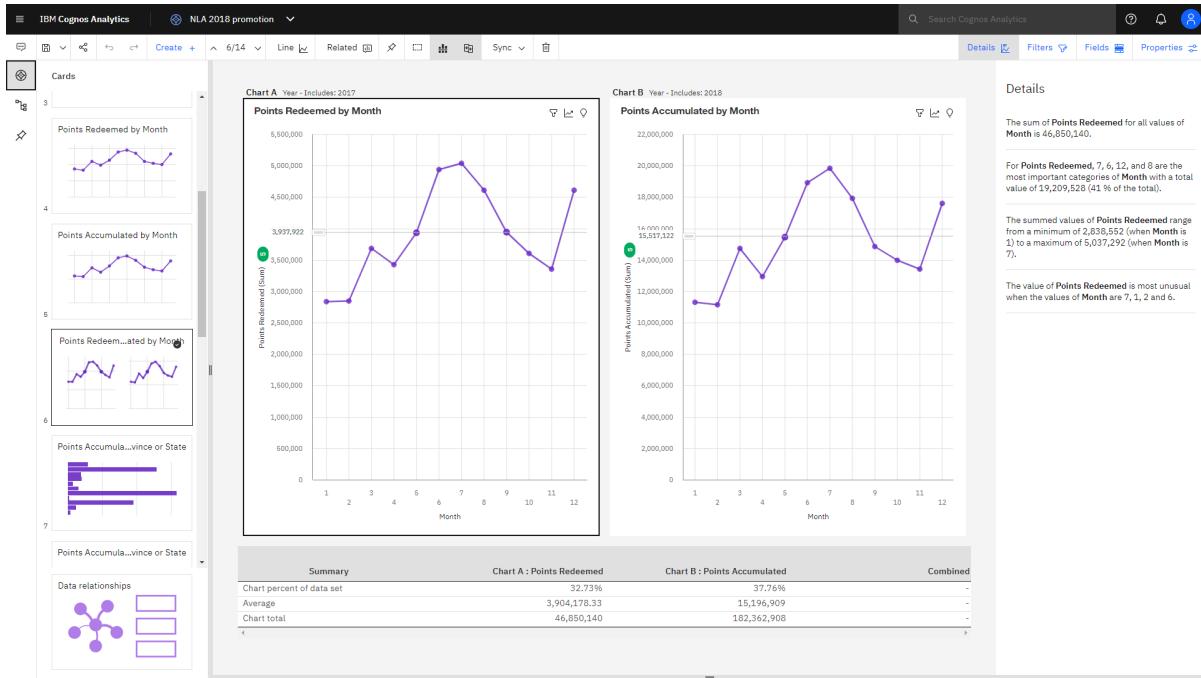
This sample exploration provides insights into final grades for a fictional school board.



The sample is located here: Team content > Samples > By industry > Education > Nebraska school board final grade analysis

## **NLA 2018 promotion exploration sample**

This sample exploration provides insights into loyalty card activities for a small fictional airline.



The sample is located here: Team content > Samples > By industry > Travel and transportation > NLA 2018 promotion

## Story samples

The story samples in this section are designed to provide ideas for setting up stories within your organization. A story is a type of view that contains a set of scenes that are displayed in sequence over time.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

## Guided journey template story sample

This sample story uses the guided journey template for laying out its contents.

The screenshot shows a guided journey template in IBM Cognos Analytics. The top navigation bar includes 'IBM Cognos Analytics', 'Guided journey template', 'Search Cognos Analytics', and 'Filters'. The main content area displays a sequence of scenes:

- Scene 1:** A photograph of a highway at night with blurred lights, overlaid with the question "As a leading automobile insurance company, WHO should we focus our next advertising campaign on?". Below it, a text box says "We begin by analyzing traditional customer demographics."
- Scene 2:** Text stating "Focusing on LUXURY VEHICLES, does STATE have an impact on the number of policies we hold?"
- Scene 3:** A 3D bar chart titled "How do we use this information?" showing a sharp increase in policy counts for luxury vehicles across different states. The chart is annotated with arrows pointing to specific bars and labels like "MARKETING", "MONEY", and "PROGRESS".

At the bottom, a timeline navigation bar shows "Prev scene", "Edit", "Next scene", "6 scenes", and "0:00.0".

Key features of this sample include: Scene, Animation Effects, Highlighting data, Text, Shape, Summary Widget, Summary Widget with Shape, Image, Stacked Column visualization, Highlight, Timeline, Animation type, Animation duration, List visualization, Filter, Entrance animation, Exit animation

This sample can be found here: Team content > Samples > By industry > Insurance > Stories > Guided journey template.

## Quarterly churn update story sample

This sample story shows quarterly changes of customer churn in a fictional telco company, and which contract and location have the highest churn in order to decide the goals for the next quarter. The churn label column indicates whether or not the customer left within the last quarter.

The screenshot shows a quarterly churn update story in IBM Cognos Analytics. The top navigation bar includes 'IBM Cognos Analytics', 'Quarterly churn update', 'Search Cognos Analytics', and 'Filters'. The main content area displays a scene with the following elements:

- Section Header:** "Quarterly Churn Update"
- Text:** "It costs **much less** to retain an existing customer than it does to find a new one!"
- Visuals:** Four cards showing churn statistics:
  - % Churned in Q2: 20.1%
  - % Churned in Q3: 26.5% (highlighted with a large red arrow pointing up from below)
  - Total Customers: 7,043
  - Lost Customers: 1,869

At the bottom, a timeline navigation bar shows "Prev scene", "Edit", "Next scene", "Scene 1 of 4", and "0:04.2".

This sample can be found here: Team content > Samples > By industry > Telecommunications > Stories > Quarterly churn update.

## 2019 Q3 sales action plan story sample

This sample story presents the reason behind a sales decline and a potential solution to this problem for a fictional automobile dealership group.

We are seeing issues with mostly 2 models:

- Beaufort - Suspension Recall
- Champlain - Suspension and Seats and Restraints Recalls

Category	Value
Suspension	9.7K
Airbag	3.1K

Category	Value
Suspension	14.9K
Seats And Restraints	14.1K
Visual System	449

The sample is located here: Team content > Samples > By industry > Automotive > 2019 Q3 sales action plan

## Journey to improved educational outcomes story sample

This sample story presents the improved educational outcomes after technology is introduced into a fictional school board.

Things got better after we deployed our technology program in 2014! Enrollment increased to 39,726 (**1.2% above target**) in school year 2014/15 and to 41,928 (**19.8% above target**) in 2015/16. These promising enrollment gains encouraged us in the summer of 2016 to raise our target enrollment to 42,000 students. Despite the raised target, student numbers increased by an average of **16% above target over each of the next two years** to an enrollment of 49,967 in school year 2017/18!

School Year	Enrollment (\$um)
2012-2013	37,726
2013-2014	39,726
2014-2015	41,928
2015-2016	43,128
2016-2017	47,523
2017-2018	49,967

The sample is located here: Team content > Samples > By industry > Education > Journey to improved educational outcomes

## ***Increases in respiratory illnesses story sample***

This sample story explores why respiratory illnesses increased in 2018 within a fictional hospital network.

The screenshot shows a line chart with 'Quarter' on the x-axis (1 to 4) and 'Count (Count)' on the y-axis (0 to 1200). Two series are plotted: Miami (purple line with circles) and Orlando (blue line with circles). Both cities show an upward trend over the four quarters.

Quarter	Miami (Count)	Orlando (Count)
1	~550	~400
2	~650	~550
3	~650	~850
4	~900	~1200

The sample is located here: Team content > Samples > By industry > Healthcare > Increases in respiratory illnesses

## ***NLA 2018 executive presentation story sample***

This sample story explores why executive members avoid enrolling in the NLA Galaxy Club.

The slide has a main title 'Our Value' and three numbered points:

- Simply, customers that aren't enrolled cannot have their behaviour monitored.
- Customers who join are inherently more likely to spend with the company.
- Larger membership share increases the value of the loyalty program and estimated customer future value.

Below the points are two line charts side-by-side, both spanning from Year 1 to Year 12 (months).

**Points Accumulated in 2016 and 2017:**

Year	2016	2017
1	~9M	~9M
2	~9M	~9.5M
3	~11M	~12M
4	~10M	~11M
5	~11.5M	~13M
6	~14M	~16M
7	~15M	~17M
8	~14M	~15M
9	~12M	~13M
10	~11M	~12M
11	~10.5M	~11M
12	~14M	~16M

**Points Redeemed in 2016 and 2017:**

Year	2016	2017
1	~2.5M	~2.5M
2	~2.5M	~2.8M
3	~3M	~3.5M
4	~3.2M	~3.5M
5	~3.5M	~4M
6	~4.5M	~5M
7	~4.8M	~5.2M
8	~4.5M	~4.8M
9	~3.8M	~4M
10	~3.5M	~3.8M
11	~3.2M	~3.5M
12	~4M	~4.5M

The sample is located here: Team content > Samples > By industry > Travel and transportation > NLA 2018 executive presentation

## **Data module samples**

The data module samples in this section is designed to provide ideas for setting up explorations for your organization and to familiarize yourself with concepts when using data modules. Data modules contain

data from data servers, uploaded files, data sets, other data modules, and from relational, dynamic query mode packages.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

### Sample data module

This sample data module is intended to help beginners start authoring reports and dashboards. The Sample Outdoors Company is a fictitious business operation with data for products, retailers, order methods, and year.

Retailer country	Province or State	City	Postal code	Short postal code	Retailer type	Retailer	Order method type	Product line
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Camping Equipment
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Camping Equipment
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Camping Equipment
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Camping Equipment
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Camping Equipment
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Camping Equipment
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Camping Equipment
United States	Alabama	Birmingham	35215	35215	Department Store	Connor Department Store	Web	Camping Equipment
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Camping Equipment
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Camping Equipment
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Camping Equipment
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Camping Equipment
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Personal Accessories
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Personal Accessories
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Personal Accessories
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Personal Accessories
United States	Alabama	Birmingham	35215	35215	Department Store	Connor Department Store	Web	Personal Accessories
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Personal Accessories
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Outdoor Protection
United States	Alabama	Mobile	36695	36695	Sports Store	Sports Magnet	Web	Outdoor Protection

This data module is a combination of two source files that are not joined:

- Sample File Go Sales xls: SampleFile\_GOSales.xls
- Sales Staff Xlsx: Sales\_Staff.xlsx

The table named Sample File Go Sales xls contains two calculated columns. The first column is named **Product line code**. It uses a case statement to assign a specific code to each product line:

```
case
when ( Product_line ) = 'Camping Equipment' then (991)
when ( Product_line ) = 'Mountaineering Equipment' then (992)
when ( Product_line ) = 'Personal Accessories' then (993)
when ( Product_line ) = 'Outdoor Protection' then (994)
else (995)
end
```

The second calculated column is named Product type code:

```
case
when (Product_type) = 'Cooking Gear' then (951)
when (Product_type) = 'Tents' then (952)
when (Product_type) = 'Packs' then (954)
when (Product_type) = 'Rope' then (956)
when (Product_type) = 'Climbing Accessories' then (958)
when (Product_type) = 'Watches' then (960)
when (Product_type) = 'Knives' then (962)
when (Product_type) = 'Navigation' then (964)
```

```

when (Product_type) = 'Sunscreen' then (966)
when (Product_type) = 'Irons' then (968)
when (Product_type) = 'Putters' then (970)
when (Product_type) = 'Golf Accessories' then (971)
when (Product_type) = 'Sleeping Bags' then (953)
when (Product_type) = 'Lanterns' then (955)
when (Product_type) = 'Safety' then (957)
when (Product_type) = 'Tools' then (959)
when (Product_type) = 'Eyewear' then (961)
when (Product_type) = 'Binoculars' then (963)
when (Product_type) = 'Insect Repellents' then (965)
when (Product_type) = 'First Aid' then (967)
when (Product_type) = 'Woods' then (969)
end

```

This sample is located here: Team content > Samples > By feature > Core > Data > Sampledata module

The source files for this sample can be found here: Team content > Samples > Data > Source files > Retail

## California website visits

This sample data module contains 2016 website visit data for the fictional Sample Outdoors Company website by Zip Code and latitude/longitude in California.

Country	State	City	Zip Code	Latitude	Longitude	Website Visits	Blog Visits	Unique Visitors
United States	California	Los Angeles	90037	34.002642	-118.287596	56691	20247	15712
United States	California	Artesia	90701	33.847593	-116.080637	16380	10022	15404
United States	California	Los Angeles	90017	34.052842	-118.264495	20689	27934	15106
United States	California	Greenfield	93927	36.248708	-121.386617	14189	55	14660
United States	California	Cerritos	90703	33.8681	-118.067402	61542	5942	14522
United States	California	Hawthorne	90250	33.914775	-118.348083	93314	13634	14367
United States	California	El Segundo	90245	33.917145	-118.401554	16033	2978	13927
United States	California	Playa Del Rey	90293	33.947305	-118.439841	11252	4017	13681
United States	California	Inglewood	90305	33.958134	-118.330905	13763	5219	13608
United States	California	Huntington Beach	92648	33.679659	-118.016195	42645	5422	13564
United States	California	Pasadena	91106	34.139402	-118.128658	23725	8148	13167
United States	California	Los Angeles	90042	34.11572	-118.192754	64660	13884	13039
United States	California	Long Beach	90803	33.760458	-118.129725	31349	7786	12679
United States	California	Pierpont	92268	34.201108	-116.593456	341	12	12330
United States	California	Tipton	93272	36.047414	-119.344304	2931	36	12234
United States	California	Santa Monica	90402	34.035849	-118.503508	11492	5745	12136
United States	California	Fresno	93703	36.768774	-119.762633	31168	6605	12109
United States	California	San Juan Capistrano	92675	33.521447	-117.602555	34311	866	11898
United States	California	Santa Paula	93060	34.402243	-119.094824	32509	323	11763
United States	California	Los Angeles	90025	34.046174	-118.446333	41170	15068	11657
United States	California	Garden Grove	92845	33.782955	-118.026456	15864	7601	11609
United States	California	Orange	92867	33.81859	-117.821288	40914	5396	11591

The data module contains two calculated columns :

- Visitor Ranking: rank( Unique\_Visitors for Report)
- Page Ranking: rank (Pages for report)

This sample is located here: Team content > Samples > By feature > Core > Data > California website visits

The source file for this sample can be found here: Team content > Samples > Data > Source files > California Zip Website Visits.xlsx

## Customer analysis data module

This sample insurance data module contains information from a fictional company about customer demographics, policies, and claims. Columns include state, education, income, marital status, policy type, total claim amount, and more.

The screenshot shows the IBM Cognos Analytics interface. In the top left, it says "IBM Cognos Analytics" and "Customer analysis". On the right, there's a search bar "Search Cognos Analytics" and some icons. Below the header, there's a toolbar with various icons. The main area has a sidebar on the left with a tree view under "Data module". The tree includes "Customer analysis", "Navigation paths", and several collapsed sections like "Offers", "Policy Holders", "Renewals", and "Targets". The main pane is titled "Grid" and shows a table with columns: Customer ID, Country, State, Customer Lifetime Value, Coverage, Education, Expiry Date, Employment Status, and Gender. The table contains 20 rows of data, each with a unique Customer ID and corresponding values for the other columns.

T#	Customer ID	Country	State	Customer Lifetime Value	Coverage	Education	Expiry Date	Employment Status	Gender
1	BU79786	United States	Washington	2764	Basic	Bachelor	2018-05-27	Employed	F
2	QZ44356	United States	Arizona	6980	Extended	Bachelor	2018-10-30	Unemployed	F
3	AI49188	United States	Nevada	12887	Premium	Bachelor	2018-09-13	Employed	F
4	WW63253	United States	California	7646	Basic	Bachelor	2018-01-03	Unemployed	M
5	HB64268	United States	Washington	2814	Basic	Bachelor	2018-07-25	Employed	M
6	OC83172	United States	Oregon	8256	Basic	Bachelor	2018-08-08	Employed	F
7	XZ87318	United States	Oregon	5381	Basic	College	2018-10-08	Employed	F
8	CF85061	United States	Arizona	7216	Premium	Master	2018-06-27	Unemployed	M
9	DY87989	United States	Oregon	24128	Basic	Bachelor	2018-12-27	Medical Leave	M
10	BQ94931	United States	Oregon	7388	Extended	College	2018-08-19	Employed	F
11	SX51350	United States	California	4739	Basic	College	2018-04-21	Unemployed	M
12	VQ65197	United States	California	8197	Basic	College	2018-09-15	Unemployed	F
13	DP39365	United States	California	8799	Premium	Master	2018-03-02	Employed	M
14	SJ95423	United States	Arizona	8819	Basic	High School or Below	2018-12-05	Employed	M
15	IL66569	United States	California	5384	Basic	College	2018-08-30	Employed	M
16	BW63560	United States	Oregon	7463	Basic	Bachelor	2017-12-21	Employed	F
17	FV94802	United States	Nevada	2567	Basic	High School or Below	2018-01-07	Medical Leave	M
18	OE15005	United States	California	3945	Basic	College	2018-12-24	Medical Leave	M
19	WC83389	United States	Oregon	5710	Basic	College	2018-11-04	Employed	M
20	FL50705	United States	California	8163	Premium	High School or Below	2018-08-14	Employed	F
21	ZK25313	United States	Oregon	2872	Basic	High School or Below	2018-08-01	Employed	M
22	SV62436	United States	Washington	3042	Extended	Bachelor	2018-07-24	LTD	F

This data module is a combination of the following source files:

- Offers: Customer\_analysis\_offers.xlsx
- Policy Holders: Customer\_analysis\_policyholders.xlsx
- Renewals: Customer\_analysis\_renewals.xlsx
- Customer Analysis: Customer\_analysis.csv
- Targets: Customer\_analysis\_targets.xlsx

The tables named **Customer Analysis** and **Targets** are joined on a combination of **State** and **Vehicle Class**.

The **Customer Analysis** table contains a calculated column named **Expiry Month** that uses a case statement to assign a text string to each value of Month Key:

```
CASE( Month_Key )
WHEN 1 THEN ('Jan')
WHEN 2 THEN ('Feb')
WHEN 3 THEN ('Mar')
WHEN 4 THEN ('Apr')
WHEN 5 THEN ('May')
WHEN 6 THEN ('Jun')
WHEN 7 THEN ('Jul')
WHEN 8 THEN ('Aug')
WHEN 9 THEN ('Sep')
WHEN 10 THEN ('Oct')
WHEN 11 THEN ('Nov')
ELSE ('Dec')
END
```

The column Month Key is a calculation: \_month( Expiry\_Date ). In the tables named **Policy Holders** and **Renewals**, the column **Month** is sorted by **Month Order**.

This sample is located here: Team content > Samples > By industry > Insurance > Data > Customer analysis

All source files can be found here: Team content > Samples > Data > Source files > Insurance

- Customer\_analysis\_offers.xlsx
- Customer\_analysis\_policyholders.xlsx
- Customer\_analysis\_renewals.xlsx
- Customer\_analysis\_targets.xlsx
- Customer\_analysis.csv

### NYPD motor vehicle collisions

This sample data module provides a breakdown of every collision in NYC from 2015 to 2017 by location and injury. Each record represents a collision in NYC by city, borough, precinct, and cross street.

ID	Count	Date	Year	Month	Day	Time	Hour	ZIP Code
3820806	1	2017-12-30	2017	12	30	03:00:00	3	10471
3819348	1	2017-12-30	2017	12	30	03:00:00	3	10032
3820065	1	2017-12-30	2017	12	30	03:00:00	3	11432
3819046	1	2017-12-30	2017	12	30	03:00:00	3	Null
3820710	1	2017-12-30	2017	12	30	03:00:00	3	Null
3819341	1	2017-12-30	2017	12	30	03:00:00	3	Null
3820426	1	2017-12-30	2017	12	30	03:01:00	3	10456
3820549	1	2017-12-30	2017	12	30	03:04:00	3	11231
3819347	1	2017-12-30	2017	12	30	03:05:00	3	10032
3818922	1	2017-12-30	2017	12	30	03:14:00	3	Null
3820308	1	2017-12-30	2017	12	30	03:15:00	3	10018
3819931	1	2017-12-30	2017	12	30	03:19:00	3	Null
3820699	1	2017-12-30	2017	12	30	03:20:00	3	11206
3818931	1	2017-12-30	2017	12	30	03:20:00	3	Null
3821621	1	2017-12-30	2017	12	30	03:23:00	3	Null
3820422	1	2017-12-30	2017	12	30	03:25:00	3	11434
3820949	1	2017-12-30	2017	12	30	03:25:00	3	Null
3820437	1	2017-12-30	2017	12	30	03:28:00	3	Null
3820201	1	2017-12-30	2017	12	30	03:30:00	3	10002
3819013	1	2017-12-30	2017	12	30	03:35:00	3	Null
3819364	1	2017-12-30	2017	12	30	03:40:00	3	10032
3819347	1	2017-12-30	2017	12	30	03:40:00	3	10032

The data module contains 5 calculated columns:

Table 1. Calculated Columns

Column	Calculation
Count	1
Year	_year( DATE_ )
Month	_month( DATE_ )
Day	_day( DATE_ )
Hour	hour ( TIME_ )

This sample is located here: Team content > Samples > By feature > Core > Data > NYPD motor vehicle collisions

The source file for this sample is located here: Team content > Samples > Data > Source files > NYPD\_Motor\_Vehicle\_Collisions\_2015-2017.xlsx

## Storm events sample

Storm events data module sample contains statistics on personal injuries and damage estimates.

The screenshot shows the IBM Cognos Analytics interface with the 'Data module' tab selected. The left sidebar lists various tables and their columns, including 'Storm events 2015' and 'Storm Eve\_Data.xlsx'. The main area displays a grid of data with columns: Episode ID, Property Damage, Crop Damage, Source, Begin Location, End Location, Episode Narrative, Event Narrative, Injuries, and Deaths. The 'Episode Narrative' column contains detailed descriptive text about specific storm events, such as the January 2015 blizzard in the Delmarva peninsula.

The data module contains a calculated column named **Region** that uses a Case statement to assign one of four regions to each state:

```

case
when State_ = 'CONNECTICUT' then 'Northeast'
when State_ = 'MAINE' then 'Northeast'
when State_ = 'MASSACHUSETTS' then 'Northeast'
when State_ = 'NEW HAMPSHIRE' then 'Northeast'
when State_ = 'RHODE ISLAND' then 'Northeast'
when State_ = 'VERMONT' then 'Northeast'
when State_ = 'NEW JERSEY' then 'Northeast'
when State_ = 'NEW YORK' then 'Northeast'
when State_ = 'PENNSYLVANIA' then 'Northeast'
when State_ = 'ILLINOIS' then 'Midwest'
when State_ = 'INDIANA' then 'Midwest'
when State_ = 'MICHIGAN' then 'Midwest'
when State_ = 'OHIO' then 'Midwest'
when State_ = 'WISCONSIN' then 'Midwest'
when State_ = 'IOWA' then 'Midwest'
when State_ = 'KANSAS' then 'Midwest'
when State_ = 'MINNESOTA' then 'Midwest'
when State_ = 'MISSOURI' then 'Midwest'
when State_ = 'NEBRASKA' then 'Midwest'
when State_ = 'SOUTH DAKOTA' then 'Midwest'
when State_ = 'NORTH DAKOTA' then 'Midwest'
when State_ = 'DELAWARE' then 'South'
when State_ = 'FLORIDA' then 'South'
when State_ = 'GEORGIA' then 'South'
when State_ = 'MARYLAND' then 'South'
when State_ = 'NORTH CAROLINA' then 'South'
when State_ = 'SOUTH CAROLINA' then 'South'
when State_ = 'VIRGINIA' then 'South'
when State_ = 'DC' then 'South'
when State_ = 'WEST VIRGINIA' then 'South'
when State_ = 'ALABAMA' then 'South'
when State_ = 'KENTUCKY' then 'South'
when State_ = 'MISSISSIPPI' then 'South'
when State_ = 'TENNESSEE' then 'South'
when State_ = 'ARKANSAS' then 'South'
when State_ = 'LOUISIANA' then 'South'
when State_ = 'OKLAHOMA' then 'South'
when State_ = 'TEXAS' then 'South'
when State_ = 'ARIZONA' then 'West'
when State_ = 'COLORADO' then 'West'
when State_ = 'IDAHO' then 'West'
when State_ = 'MONTANA' then 'West'

```

```

when State_ = 'NEVADA' then 'West'
when State_ = 'NEW MEXICO' then 'West'
when State_ = 'UTAH' then 'West'
when State_ = 'WYOMING' then 'West'
when State_ = 'ALASKA' then 'West'
when State_ = 'CALIFORNIA' then 'West'
when State_ = 'HAWAII' then 'West'
when State_ = 'OREGON' then 'West'
when State_ = 'WASHINGTON' then 'West'
end

```

The column **Country** is a calculation with the expression '**United States**'.

There is a calculated column named **Injuries** that adds the two different types of injuries, accounting for null values:

```
coalesce(Direct_Injuries, Indirect_Injuries)
```

There is a calculated column **Deaths** that adds the two different types of deaths, accounting for null values:

```
coalesce(Direct_Deaths, Indirect_Deaths)
```

The column **Month** is sorted by **Month Order** in ascending order.

This sample is located here: Team content > Samples > By feature > Core > Data > Stormevents 2015

The source file for this sample is located here: Team content > Samples > Data > Source files > Storm\_events\_2015\_data.xlsx

### **Telco customer churn**

This sample data module tracks a fictional telco company's customer churn based on various factors. The churn column indicates whether the customer departed within the last month. Other columns include gender, dependents, monthly charges, and many with information about the types of services each customer has.

Row Id	Service ID	Customer ID	Count	Quarter	Referred a Friend	Number of Referrals	Tenure in Months	Offer
1	IJDQWSVWH522	8779-QRDIV	1	Q3	No	0	1	None
2	BFKMZIAIE2285	7495-OKFY	1	Q3	Yes	1	8	Offer E
3	EIMVQBMT7187	1658-BYGOY	1	Q3	No	0	18	Offer D
4	ER0ZQDXDUU979	4598-XLKNJ	1	Q3	Yes	1	25	Offer C
5	GEEYSJUHY6991	4846-WHAZF	1	Q3	Yes	1	37	Offer C
6	UEHAP2RZX9455	4412-YLTKF	1	Q3	No	0	27	Offer C
7	HKSJPZQQ03668	0390-DCFDQ	1	Q3	Yes	1	1	Offer E
8	YURP2GXZ2E352	3445-HXKXF	1	Q3	Yes	6	58	Offer B
9	SGNKYLZHV6432	2656-FMOKZ	1	Q3	No	0	15	Offer D
10	CQJFHUNEW9871	2070-FNEXE	1	Q3	No	0	7	Offer E
11	XIOWKBRNN4393	0094-OIFMO	1	Q3	No	0	11	Offer D
12	XOEPPTWNTQ9182	9947-OTFQU	1	Q3	No	0	15	Offer D
13	UGUDMLXCU8431	9514-JDSKI	1	Q3	Yes	1	1	Offer E
14	NBOGLPTZV7277	7273-TEFQD	1	Q3	No	0	3	Offer E
15	YOBKZFGVQ5899	3606-TWKGI	1	Q3	No	0	13	Offer D
16	VHJDH3CGG5893	4385-GZQKV	1	Q3	No	0	16	Offer D
17	HXMLQEOHFF921	3488-PGMQJ	1	Q3	No	0	8	None
18	WWVYEWXVSH6917	7534-BFESC	1	Q3	No	0	24	Offer C
19	OSQCMHHHH1332	8098-LLAZX	1	Q3	No	0	4	Offer E
20	FZQAVWHSY9565	0265-EDXBD	1	Q3	Yes	2	32	Offer C
21	PLOCHMGQ06697	2840-XANRC	1	Q3	Yes	1	24	Offer C
22	XNJUYZUTW9598	5020-ZSTTY	1	Q3	No	0	54	Offer B

There is a calculated column that is named **CLTV Category** that creates a set of categories based on the range of values for CLTV:

```

case when ( CLTV ) <= 2500 then ('2000 - 2500')
when ( CLTV ) <= 3000 then ('2501-3000')
when ( CLTV ) <= 3500 then ('3001-3500')

```

```

when ( CLTV ) <= 4000 then ('3501-4000')
when ( CLTV ) <= 4500 then ('4001-4500')
when ( CLTV ) <= 5000 then ('4501-5000')
when ( CLTV ) <= 5500 then ('5001-5500')
when ( CLTV ) <= 6000 then ('5501-6000')
when ( CLTV ) <= 6500 then ('6001-6500')
else ('6501-7000')
end

```

There is a calculated column that is named **Churn Score Category** that creates a set of categories based on the range of values for **Churn Score**:

```

case when ( Churn_Score ) <= 10 then ('0-10')
when ( Churn_Score ) <= 20 then ('11-20')
when ( Churn_Score ) <= 30 then ('21-30')
when ( Churn_Score ) <= 40 then ('31-40')
when ( Churn_Score ) <= 50 then ('41-50')
when ( Churn_Score ) <= 60 then ('51-60')
when ( Churn_Score ) <= 70 then ('61-70')
when ( Churn_Score ) <= 80 then ('71-80')
when ( Churn_Score ) <= 90 then ('81-90')
else ('91-100')
end

```

There is a calculated column that is named **%Churned** that calculates the percentage of customers who left the company (for example, they have a Churn Value = 1):

```
_round ((aggregate ( Churn_Value)) / (aggregate(Count_))*100,1)
```

This sample is located here: Team content > Samples > By industry > Telecommunications > Data > Telco customer churn

The source data for this sample can be found here: Team content > Samples > Data > Source files > Telco

- Telco\_customer\_churn\_demographics.xlsx
- Telco\_customer\_churn\_location.xlsx
- Telco\_customer\_churn\_population.xlsx
- Telco\_customer\_churn\_services.xlsx
- Telco\_customer\_churn\_status.xlsx

## Theme and extension samples

Use theme and extension samples to customize the IBM Cognos Analytics interface to suit the needs of your organization.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

Customization samples in the form of .zip files are available that demonstrate how to create themes, extensions, and views (perspectives). You can modify these samples to create your own customizations. For more information, see [Theme and Extension Samples for IBM Cognos Analytics](#)

## JavaScript samples

JavaScript samples demonstrate how to add JavaScript to your reports.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/

extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

For more information, see [JavaScript Samples \(Custom Controls\) for Cognos Analytics](#).

## Audit reporting samples

Audit reporting samples demonstrate how to add JavaScript to your reports.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

You use the sample audit reports to view the information in a logging database about user and report activity. For more information, see [Audit Reporting Samples for Cognos Analytics](#).

## OLAP samples

OLAP samples demonstrate typical OLAP features.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

The OLAP samples include a sample dashboard, report, and the underlying OLAP cube. For more information, see [OLAP Samples for Cognos Analytics](#).

## Package-based drill-through samples

The package-based drill-through samples demonstrate how to you can use drill-through with data extracted from packages.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

These samples include source data and target reports that use the sample GO data warehouse (query) package and a drill-through definition. For more information, see [Package Based Drill-Through Samples for Cognos Analytics](#).

# Cognos Analytics for Jupyter Notebook samples

---

As IBM Cognos Analytics for Jupyter Notebook is part of the Cognos Analytics product, samples are provided that demonstrate how you can use notebooks in Cognos Analytics.

## Importing and configuring the Jupyter samples

To set up the samples, you must perform several tasks, such as importing the Jupyter samples.

### Before you begin

Before importing these samples, please ensure that you have installed and configured the Jupyter Notebook server. For more information, see *Installing IBM Cognos Analytics for Jupyter Notebook Server* in the *Installing and configuring guide*.

### Steps for Cognos Analytics versions 11.1.0 to 11.1.4

1. Locate the deployment archive, *IBM\_Cognos\_Notebook\_Samples.zip*, for the notebook samples in the installation location: `cognos_analytics_server_install_location\samples\notebooks`.
2. Copy the deployment file into your deployment folder:  
`cognos_analytics_server_install_location\deployment`.
3. Go to **Manage > Administration console** and open **IBM Cognos Administration**.
4. On the **Configuration** tab, click **Content Administration**.
5. On the toolbar, click the **New Import** icon .
6. Select **IBM\_Cognos\_Notebook\_Samples** in the first step of the **New Import** wizard.
7. At the **Run with options** screen, ensure that **Do not Assign new IDs during import** is selected. Click **Run** and complete process using default settings.
8. After the import is complete, you can navigate to the notebook samples by clicking *Team content > Samples > Notebooks*.

### Steps for Cognos Analytics versions 11.1.5 and higher

1. Locate the deployment archive, *IBM\_Cognos\_Notebook\_Samples.zip*, for the notebook samples in the deployment folder: `cognos_analytics_server_install_location\deployment`.
2. Go to **Manage > Administration console** and open **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Content Administration**.
4. On the toolbar, click the **New Import** icon .
5. Select **IBM\_Cognos\_Notebook\_Samples** in the first step of the **New Import** wizard.
6. At the **Run with options** screen, ensure that **Do not Assign new IDs during import** is selected. Click **Run** and complete process using default settings.
7. After the import is complete, you can navigate to the notebook samples by clicking *Team content > Samples > By feature > Notebooks*.

## Jupyter notebook samples

The notebook samples in this section are designed to provide ideas for using Jupyter notebooks with IBM Cognos Analytics.

**Note:** The samples covered in this topic are included with the Base Samples during a Cognos Analytics installation. After product installation, you can find them in the *installation\_location/samples/notebooks* folder.

IBM will provide support if the asset does not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests. These assets are functional examples. They are code samples with narrow requirements and a specific use case, providing a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported).

## **Flexible lightweight ETL notebook sample**

This sample demonstrates ETL tasks within Cognos Analytics for Jupyter Notebook.

This sample notebook demonstrates how to conduct lightweight ETL (extract, transform, and load) tasks by connecting to an external data asset, performing some data cleansing, and writing the data into a Cognos Analytics asset.

This sample can be found here: Team content > Samples > Notebooks > Flexible lightweight ETL

## **Time series analysis notebook sample**

Use an external CSV file in Cognos Analytics for Jupyter Notebook.

This sample notebook demonstrates how to connect to an external CSV file, display the data, write the data as a Cognos Analytics asset, modify the presentation of the data, and create a visualization.

Team content > Samples > Notebooks > IoT time series analysis

## **Visualization creation notebook sample**

This sample notebook demonstrates how to connect to a local data file and create several visualizations (bar, column, line, pie, and bubble).

Sample can be found in Team content > Samples > Notebooks > Visualization notebook.

## **Retailer dashboard notebook sample**

This sample demonstrates the integration of notebooks and dashboards.

Sample report can be found here: Team content > Samples > Notebooks > Retailer dashboard

## **Telecom data analysis notebook sample**

This sample notebook demonstrates how to perform customer churn analysis on a sample dataset. Predictive analytics models are used to predict customer churn by evaluating their probability of risk to churn.

This sample can be found here: Team content > Samples > By feature > Notebooks > Notebooks.

## **Telecom data visualizations notebook sample**

This sample notebook demonstrates how to explore data and create visualizations in the context of a fictional telecommunications company.

This sample can be found here: Team content > Samples > By feature > Notebooks > Notebooks

## **Unit infection data notebook sample**

This sample notebook demonstrates how to create a dataset and use visualization with a slider to display the rates of infection in a group of fictional hospital units over a given time period.

This sample can be found here: Team content > Samples > By feature > Notebooks > Notebooks.

## **Data quality template notebook sample**

This notebook template can be applied to any dataset. It demonstrates how to read, review, quality check, and clean data.

This sample can be found here: Team content > Samples > By feature > Notebooks > Notebooks.

## **Schedule data creation notebook sample**

This sample notebook demonstrates patient visit and nurse shift data at a fictional hospital.

This sample can be found here: Team content > Samples > By feature > Notebooks > Notebooks.

## **Schedule data creation notebook widget sample**

This sample report demonstrates how to add notebook widgets to a report. These widgets display fictional health insurance coverage data from a notebook.

This sample can be found here: Team content > Samples > By feature > Notebooks > Reports.

## **Health insurance coverage analysis notebook sample**

This sample notebook demonstrates how to create and merge geographic data with other data, modify the presentation of the data, and create map and trend line visualizations.

This sample can be found here: Team content > Samples > By feature > Notebooks > Notebooks.

## **Retailer report notebook widget sample**

This sample report demonstrates how to add notebook widgets to a report. These widgets display fictional health insurance coverage data from a notebook.

This sample can be found here: Team content > Samples > By feature > Notebooks > Reports.

## **Cognos Analytics for Mobile samples**

There are three sample dashboards that demonstrate the features of the Cognos Analytics for Mobile app.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

Cognos Analytics for Mobile allows you to view dashboards, stories and explorations on your iOS device.

**Note:** Cognos Analytics for Mobile is currently available only for iOS devices. For more information, see [Cognos Analytics for Mobile](#)

## Installing Cognos Analytics for Mobile samples on an iOS device

Install the Cognos Analytics for Mobile samples to view and interact with mobile sample dashboards on your iOS device.

**Note:** IBM Cognos Analytics for Mobile is currently available only for iOS devices.

### Procedure

1. Import the deployment.
  - a) Locate the deployment `IBM_Cognos_Mobile_Samples.zip` in the folder `installation_location/deployment`.
  - b) Perform the steps in the following video, leaving all default selections for each setting:

**Note:** The mobile sample dashboards are no different than other dashboard objects. However, they have been designed to showcase the features of the mobile app.
2. Download the IBM Cognos Analytics Mobile app from the App Store.
  - a) Open the App Store app on your iOS device and download the IBM Cognos Analytics Mobile app.
  - b) Open the app and connect to the Cognos Analytics server that IBM Cognos Analytics for Mobile is enabled on.
  - c) View the mobile sample dashboards by navigating to Team content > Samples > By feature > Mobile on your iOS device.

## Visualization samples

---

The visualization samples help you vividly illustrate key data points on your dashboard.

**Note:** IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests. These examples were created for advanced custom visualization developers. They are code samples with specific requirements and do not include all the features/interactivity/properties of an out-of-the-box Cognos visualization. They are intended to provide a baseline for developers to extend their visualizations. Any modifications you make are not supported by IBM. If you are not an advanced visualization developer, Cognos Analytics already delivers a full set of fully-featured and powerful visualizations that are ready to use.

**Note:** If you receive a script error for <https://d3js.org...>, it is most likely caused by a missing external dependency on D3. It can be downloaded from the first URL specified in the error.

**Note:** If there is no internet connection in your environment, (e.g. Intranet, restricted environment) then the visualization will fail.

### Candlestick visualization

Candlestick visualizations are used in analysis to display the high, low, open, and closing prices of, for example, stock prices for a specific period. The wide part of the candlestick shows if the closing price was higher or lower than the opening price.

#### About this task

**Note:** The candlestick custom visualization is not supported in Microsoft Internet Explorer 11.

For more information about the candlestick custom visualization sample on IBM Accelerator Catalog, see [Candlestick](#).

Candlestick visualizations are supported as of IBM Cognos Analytics 11.1.7.

**Note:** This sample custom visualization provides a way to show how to use a candlestick visualization in IBM Cognos Analytics.

**Note:** This sample visualization was created to address specific requirements and does not include all the features, interactivity, and properties of an out-of-the-box Cognos visualization. However, Cognos Analytics delivers a full set of fully-featured and powerful visualizations that are ready to use.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

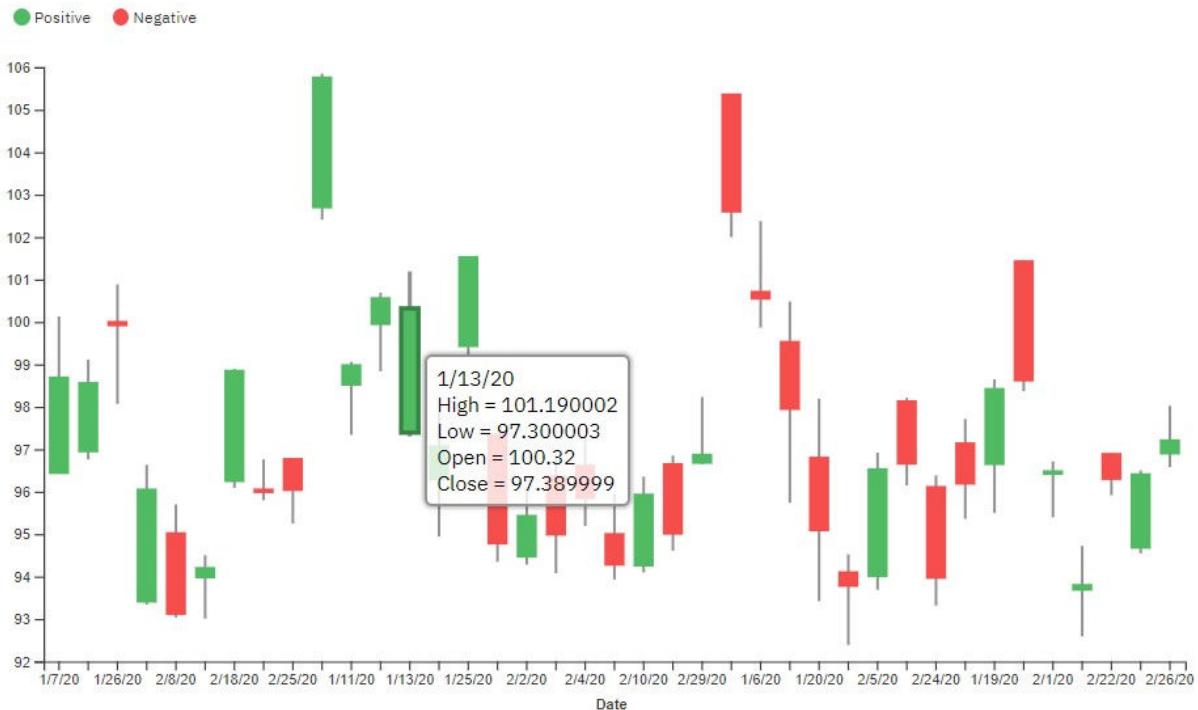
You can download the packed bundle (.zip file) and upload it directly into IBM Cognos Analytics.

The following steps demonstrate how to use the candlestick visualization and populate it with data.

## Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.
2. Click the **Custom** tab.  
If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.
3. From the **Custom visuals** pane, select the candlestick visualization.
4. Use the Stock\_Market\_Performance.xlsx data source. You can get the sample data here: [https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom\\_visualizations/data/Stock\\_Market\\_Performance.xlsx](https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom_visualizations/data/Stock_Market_Performance.xlsx).
5. Create the candlestick visualization by dragging the following data items from the Stock\_Market\_Performance.xlsx data source in the **Sources** pane 
  - Drag **Date** onto the **Categories** field.
  - Drag **High** onto the **High** field.
  - Drag **Low** onto the **Low** field.
  - Drag **Open** onto the **Open** field.
  - Drag **Close** onto the **Close** field.

Use the body properties to set the color, shape, and padding of the candle bodies.



## Stock heat map visualization

The sample stock heat map is a custom visualization that provides a visual representation of stock market data.

### About this task

For more information about the stock heat map custom visualization sample on IBM Accelerator Catalog, see [Stock heat map](#).

To view the source code and packed bundle (.zip file) for the stock heat map sample custom visualization, go to this public [GitHub repository](#). To download the files, navigate to the [root of this directory](#) and click [Clone or download](#).

- Provides at a glance visual representation of market data.
- View the performance of different market slices, sectors, asset classes, or individual stocks.
- Compares the stock market of a specific country to that of another nation.
- Represents data values in different colors to help you quickly focus on the information you need.

Stock heat map visualizations are supported as of IBM Cognos Analytics 11.1.6

**Note:** This example was created for advanced custom visualization developers. It is a code sample with specific requirements and does not include all the features, interactivity, and properties of an out-of-the-box Cognos visualization. It is intended to provide a baseline for developers to extend their visualizations. If you are not an advanced visualization developer, Cognos Analytics already delivers a full set of fully-featured and powerful visualizations that are ready to use.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

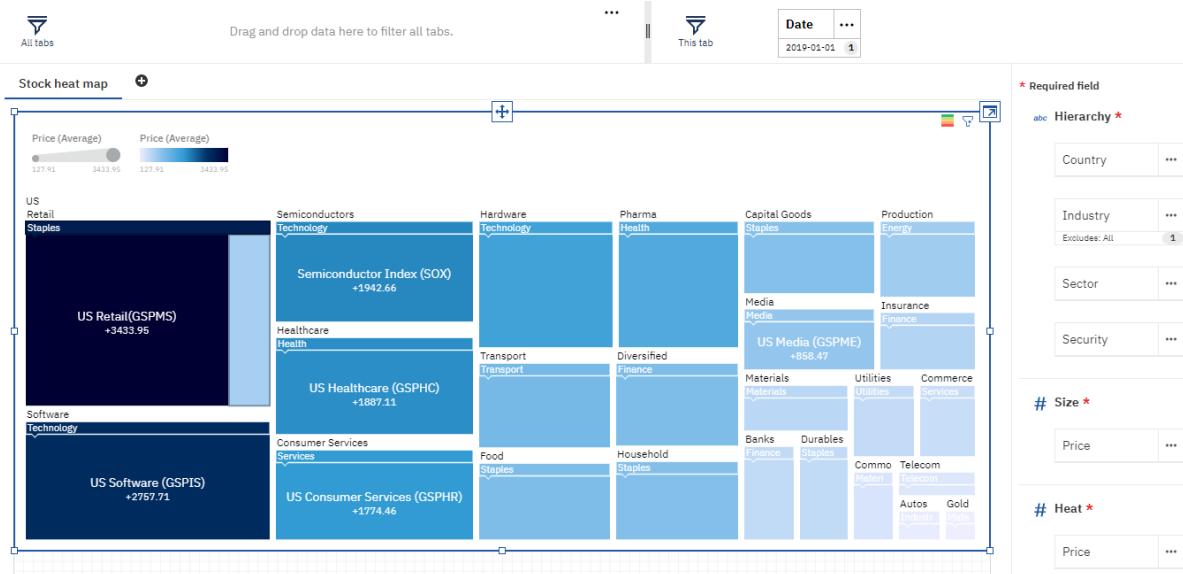
There are two ways to use the custom visualization:

- You can download the packed bundle (.zip file) and upload it directly into IBM Cognos Analytics.
- You can download the source code to create your own version of it to pack and upload into Cognos Analytics.

The following steps demonstrate how to use the stock heat map visualization and populate it with data.

## Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.
2. Click the **Custom** tab.  
If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.
3. From the **Custom visuals** pane, select the stock heat map custom visualization.
4. Use the following data source: Team content > Samples > By industry > Financial markets > Data > Stock market indices
5. Create the stock heat map visualization by dragging the following data items from  **StockMarket\_1990\_2019\_Measures\_as\_1column.xlsx** in the **Sources** pane:
  - Drag **Country** onto the **Hierarchy** field.
  - Drag **Industry** below **Country** onto the **Hierarchy** field. Groups for country are created.
  - Create a filter for **Industry** and exclude **All**.
  - Drag **Sector** below **Industry** onto the **Hierarchy** field.
  - Drag **Security** below **Sector** onto the **Hierarchy** field.
  - Drag **Price** onto the **Size** field.
  - Drag **Price** onto the **Heat** field.
  - Drag **Date** onto to the **This tab** filter area. Select 2019-01-01 and click **OK**. 



## Gantt visualization

The sample Gantt custom visualization is a type of bar chart that illustrates a project schedule.

## About this task

For more information about the Gantt custom visualization sample on IBM Accelerator Catalog, see [Gantt](#).

To view the source code and packed bundle (.zip file) for the Gantt sample custom visualization, go to this public [GitHub repository](#). To download the files, navigate to the [root of this directory](#) and click *Clone or download*.

Gantt visualizations show the dependency relationships between activities and current schedule status. They list the tasks to be done on the vertical axis, and time intervals on the horizontal axis. The width of the horizontal bars in the graph shows the duration of each activity. Gantt visualizations illustrate the start and finish dates of the elements and summary elements of a project.

Gantt visualizations are supported as of IBM Cognos Analytics 11.1.6

**Note:** This example was created for advanced custom visualization developers. It is a code sample with specific requirements and does not include all the features, interactivity, and properties of an out-of-the-box Cognos visualization. It is intended to provide a baseline for developers to extend their visualizations. If you are not an advanced visualization developer, Cognos Analytics already delivers a full set of fully-featured and powerful visualizations that are ready to use.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

There are two ways to use the custom visualization:

- You can download the packed bundle (.zip file) and upload it directly into IBM Cognos Analytics.
- You can download the source code to create your own version of it to pack and upload into Cognos Analytics.

The following steps demonstrate how to use the stock heat map visualization and populate it with data.

## Procedure

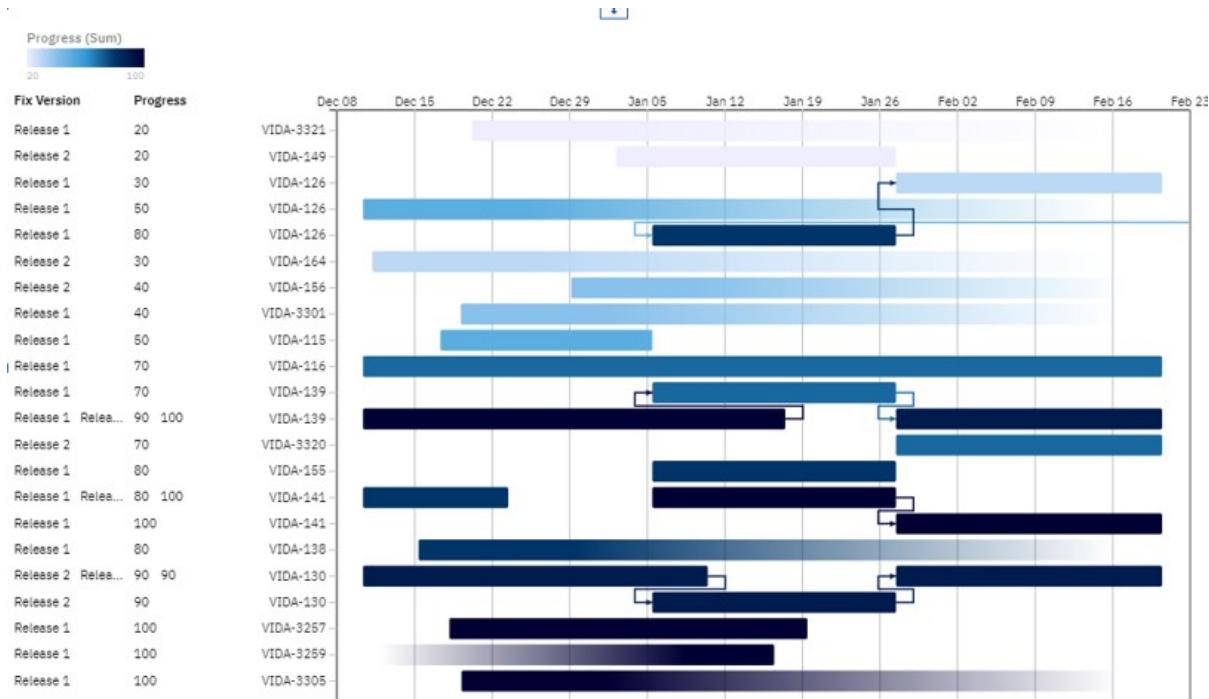
1. Create a dashboard and click the **Visualization**  icon in the toolbar.
2. Click the tab **Custom**.  
If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.
3. From the **Custom visuals**, select the waterfall visualization.
4. Upload `Gantt_sample_data.xlsx` ([https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom\\_visualizations/data/Gantt\\_sample\\_data.xlsx](https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom_visualizations/data/Gantt_sample_data.xlsx)) use it as the tab data source.
5. Create the pane Gantt visualization by dragging the following data items from

`Gantt_sample_data.xlsx` in the **Sources** pane :

- Drag **Issue key** onto the field **Tasks**.
- Drag **Created** onto the field **Start date**.
- Drag **Target End** onto the field **End date**.
- Drag **Progress** onto the field **Color**.
- Drag **Summary** onto the field **Label**.
- Drag **Fix Version** and **Progress** onto the **Additional columns** field.

If you have multiple items on the same row, the items are displayed next to each other.

This sample Gantt visualization displays data from a fictional software development project. It shows a series of tasks that are scheduled over time with start/end dates, progress, and overlap.



## What to do next

An explanation of the specific properties within this visualization that can be adjusted:

Property	Purpose
x-axis placement	Position of the x-axis top or bottom.

## Funnel visualization

Funnel visualizations provide a way to visualize different stages in processes. At a glance you see which stages of the process perform.

### About this task

For more information about the funnel custom visualization sample on IBM Accelerator Catalog, see [Funnel](#).

Use a funnel chart to show streamlined data. Each part of the funnel represents a process that has filtered out data. The last funnel displays the resulting value of the entire procedure. To visualize the sequential stage, use a custom sort.

Funnel visualizations are supported as of IBM Cognos Analytics 11.1.7

**Note:** This sample custom visualization provides a way to show how to use a funnel visualization in IBM Cognos Analytics.

**Note:** This sample visualization was created to address specific requirements and does not include all the features, interactivity, and properties of an out-of-the-box Cognos visualization. However, Cognos Analytics delivers a full set of fully-featured and powerful visualizations that are ready to use.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

You can download the packed bundle (.zip file) and upload it directly into IBM Cognos Analytics.

The following steps demonstrate how to use the funnel visualization and populate it with data.

## Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.
2. Click the **Custom** tab.

If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.
3. From the **Custom visuals** pane, select the funnel visualization.
4. Use the Funnel\_sample\_data.xlsx data source. You can get the sample data here: [https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom\\_visualizations/data/Funnel\\_sample\\_data.xlsx](https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom_visualizations/data/Funnel_sample_data.xlsx).
5. Create the funnel visualization by dragging the following data items from the :  
Funnel\_sample\_data.xlsx data source in the **Sources** pane:
  - Drag **Sales Process** onto the **Categories** field.
  - Drag **Number of Customers** onto the **Value** field.
6. To get the correct order in the funnel visualization, create a custom sort on Sales Process:
  - a. Leads
  - b. Prospects
  - c. Opportunities
  - d. Wins

This sample funnel visualization displays data from a fictional sales process.

Sales Process, Number of Customers



## Gas gauge visualization

The sample gas gauge custom visualization has a circular arc and shows a single value that measures progress toward a target.

### About this task

For more information about the gas gauge custom visualization sample on IBM Accelerator Catalog, see [Gas gauge](#).

Gas gauges are a great choice if you want to:

- Show progress toward a target.
- Represent a percentile measure, like a key performance indicator (KPI).
- Show the health of a single measure.
- Display information that you can quickly scan and understand.

To view the source code and packed bundle (.zip file) for the gas gauge sample custom visualization, go to this public GitHub repository. To download the files, navigate to the [root of this directory](#) and click *Clone or download*.

Gas gauge visualizations are supported as of IBM Cognos Analytics 11.1.6

**Note:** This example was created for advanced custom visualization developers. It is a code sample with specific requirements and does not include all the features, interactivity, and properties of an out-of-the-box Cognos visualization. It is intended to provide a baseline for developers to extend their visualizations. If you are not an advanced visualization developer, Cognos Analytics already delivers a full set of fully-featured and powerful visualizations that are ready to use.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

There are two ways to use the custom visualization:

- You can download the packed bundle (.zip file) and upload it directly into IBM Cognos Analytics.
- You can download the source code to create your own version of it to pack and upload into Cognos Analytics.

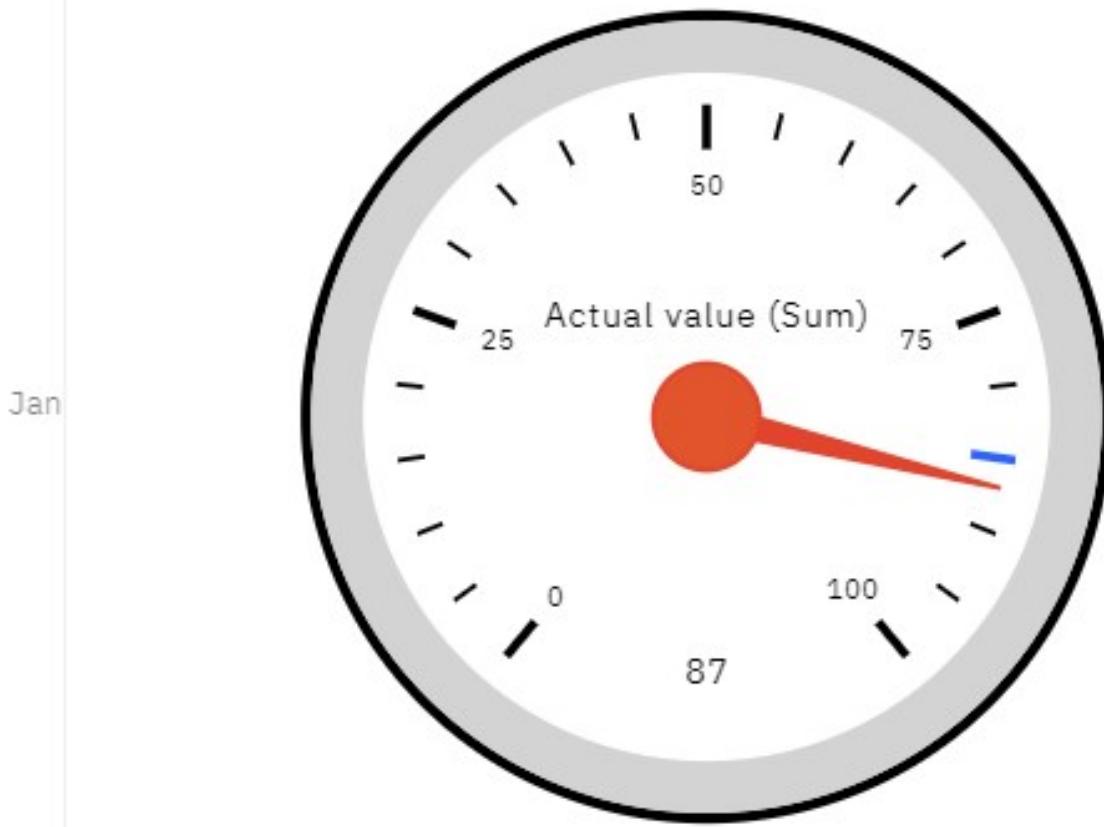
The following steps demonstrate how to use the gas gauge visualization and populate it with data.

## Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.
2. Click the **Custom** tab.  
If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.
3. From the **Custom visuals** pane, select the gas gauge visualization.
4. Upload `Gas_gauge_sample_data.xlsx` ([https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom\\_visualizations/data/Gas\\_gauge\\_sample\\_data.xlsx](https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom_visualizations/data/Gas_gauge_sample_data.xlsx)) and use it as the data source.
5. Create the gas gauge visualization by dragging the following data items from

`Gas_gauge_sample_data.xlsx` in the **Sources** pane :

- Drag **Actual value** onto the **Actual value** field.
- Drag **Maximum value** onto the **Maximum axis value** field.
- Drag **Target** onto the **Target** field.
- Drag **Year** onto the **Repeat (column)** field.
- Drag **Month** onto the **Repeat (row)** field.



## What to do next

An explanation of the specific properties within this visualization that can be adjusted:

Property	Purpose
<b>Axis minimum value</b>	Set the minimum value of the axis.
<b>Sweep angle</b>	Set the sweep angle of the axis.
<b>Major ticks</b>	Sets the number of major ticks on the axis.
<b>Minor ticks per interval</b>	Sets the number of minor ticks on the axis per interval.
<b>Border size</b>	Sets the size of the border of the gas gauge.
<b>Show border</b>	Shows or hides the boarder.
<b>First arc interval start percentage</b>	Sets the percentage value of where the scale of the first arc starts.
<b>First arc interval end percentage</b>	Sets the percentage value of where the scale of the first arc ends.
<b>Second arc interval start percentage</b>	Sets the percentage value of where the scale of the second arc starts.

<b>Property</b>	<b>Purpose</b>
<b>Second arc interval start percentage</b>	Sets the percentage value of where the scale of the second arc ends.
<b>Third arc interval start percentage</b>	Sets the percentage value of where the scale of the second arc starts.
<b>Third arc interval end percentage</b>	Sets the percentage value of where the scale of the third arc ends.
<b>KPI label offset</b>	Sets the vertical position for the KPI label.
<b>Value label offset</b>	Sets the vertical position for the value label.
<b>Show major axis ticks labels</b>	Shows the major axis ticks labels.
<b>Show pointer circle</b>	Shows the pointer circle.
<b>Show target</b>	Shows the target.
<b>Show KPI label</b>	Shows the KPI label.
<b>Vertical offset</b>	Set the vertical offset of the KPI label.
<b>Show value label</b>	Shows value label.
<b>Vertical offset</b>	Set the vertical offset of the value label.

## Sankey visualization

Sankey visualizations are a type of flow chart in which the width of the arrows is proportional to the flow rate.

### About this task

For more information about the Sankey custom visualization sample on IBM Accelerator Catalog, see [Sankey](#).

Sankey visualizations can show the energy accounts, material flow accounts on a regional or national level, and cost breakdowns. Sankey visualizations emphasize the major transfers or flows within a system. They help locate the most important contributions to a flow. They often show conserved quantities within defined system boundaries.

To view the source code and packed bundle (.zip file) for the sankey sample custom visualization, go to this public [GitHub repository](#). To download the files, navigate to the [root of this directory](#) and click *Clone or download*.

Sankey visualizations are supported as of IBM Cognos Analytics 11.1.6

**Note:** This example was created for advanced custom visualization developers. It is a code sample with specific requirements and does not include all the features, interactivity, and properties of an out-of-the-box Cognos visualization. It is intended to provide a baseline for developers to extend their visualizations. If you are not an advanced visualization developer, Cognos Analytics already delivers a full set of fully-featured and powerful visualizations that are ready to use.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

There are two ways to use the custom visualization:

- You can download the packed bundle (.zip file) and upload it directly into IBM Cognos Analytics.
- You can download the source code to create your own version of it to pack and upload into Cognos Analytics.

The following steps demonstrate how to use the Sankey visualization and populate it with data.

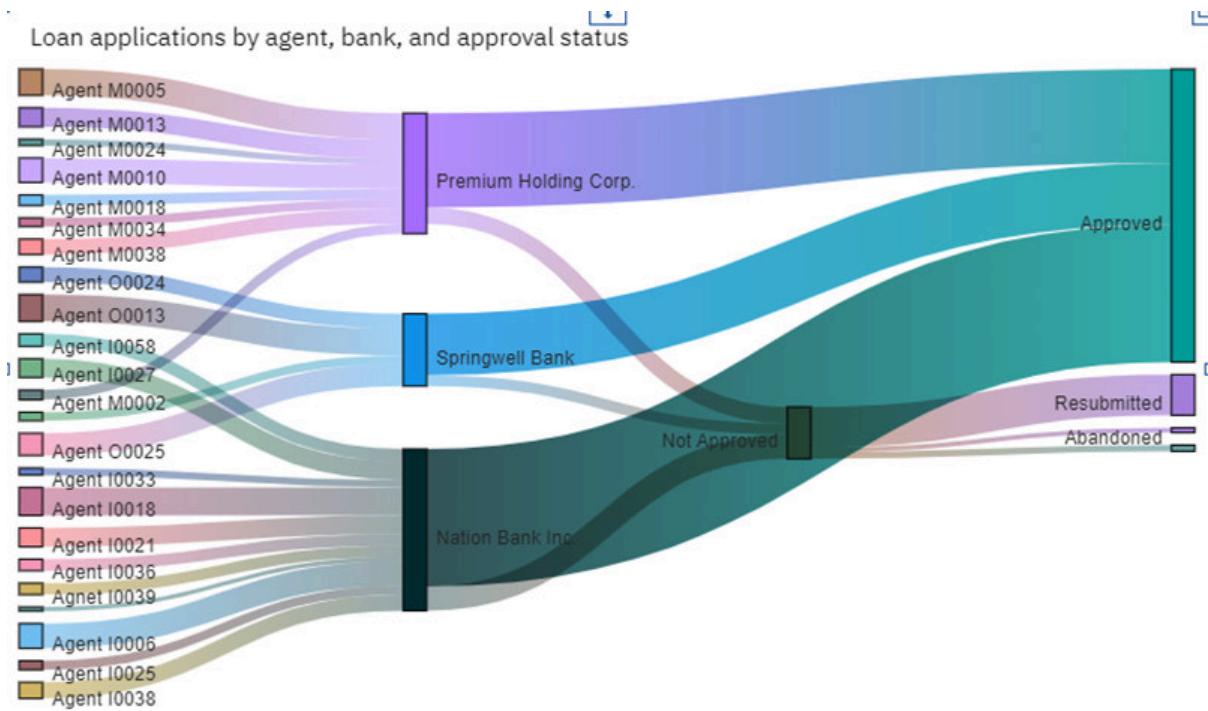
## Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.
2. Click the **Custom** tab.  
If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.
3. From the **Custom visuals**, select the Sankey visualization.
4. Upload `Sankey_sample_data.xlsx` ([https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom\\_visualizations/data/Sankey\\_sample\\_data.xlsx](https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom_visualizations/data/Sankey_sample_data.xlsx)) and use it as the data source.
5. Create the pane Sankey visualization by dragging the following data items from

`Sankey_sample_data.xlsx` in the **Sources** pane :

- Drag **From** onto the **From** field.
- Drag **To** onto the **To** field.
- Drag **Weight** onto the **Weight** field.

This sample Sankey visualization displays the flow of loan applications through a fictional bank's mortgage approval system. It displays the distribution of applications in the various stages and outcomes of the interview. The width of the connection indicates the volume of applicants.



## What to do next

An explanation of the specific properties within this visualization that can be adjusted:

Property	Purpose
<b>Node alignment</b>	Set the alignment of the node: <ul style="list-style-type: none"> <li>• <b>Justify</b></li> <li>• <b>Left</b></li> <li>• <b>Rigth</b></li> <li>• <b>Center</b></li> </ul>
<b>Node width</b>	Set the width of the node.
<b>Node padding</b>	Set the padding of the node.
<b>Node border thickness</b>	Set the thickness of the borders of the node.
<b>Suppress unused</b>	Suppress unused data
<b>Labels:</b>	Properties for the labels
<b>Vertical alignment</b>	Set the vertical alignment of the labels: <ul style="list-style-type: none"> <li>• <b>Default</b></li> <li>• <b>Top</b></li> <li>• <b>Bottom</b></li> </ul>
<b>Show labels</b>	Show or hide the labels.
<b>Label wrapping</b>	If the labels are long, you can set to wrap the labels on a next line.
<b>Hide colliding labels</b>	If labels collide, you can set to hide the colliding labels.
<b>Include nodes</b>	Show / hide labels that collide with nodes.
<b>Fill type</b>	Set the fill type of the nodes: <ul style="list-style-type: none"> <li>• <b>Gradient</b></li> <li>• <b>From</b></li> <li>• <b>To</b></li> <li>• <b>Fill solid</b></li> </ul>
<b>Consider negative weight</b>	Set the angle of the axis.

## Population visualization

A population visualization, also called an age-gender-pyramid, is a visualization that shows the distribution of various age groups in a population.

### About this task

For more information about the population custom visualization sample on IBM Accelerator Catalog, see [Population](#).

Males are conventionally shown on the left and females on the right, and they can be measured by raw number or as a percentage of the total population. Use this visualization to display age of a particular population. It is also used in ecology to determine the overall age distribution of a population.

Population visualizations are supported as of IBM Cognos Analytics 11.1.6

**Note:** This example was created for advanced custom visualization developers. It is a code sample with specific requirements and does not include all the features, interactivity, and properties of an

out-of-the-box Cognos visualization. It is intended to provide a baseline for developers to extend their visualizations. If you are not an advanced visualization developer, Cognos Analytics already delivers a full set of fully-featured and powerful visualizations that are ready to use.

To view the source code and packed bundle (.zip file) for the population sample custom visualization, go to this public [GitHub repository](#). To download the files, navigate to the [root of this directory](#) and click [Clone or download](#).

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

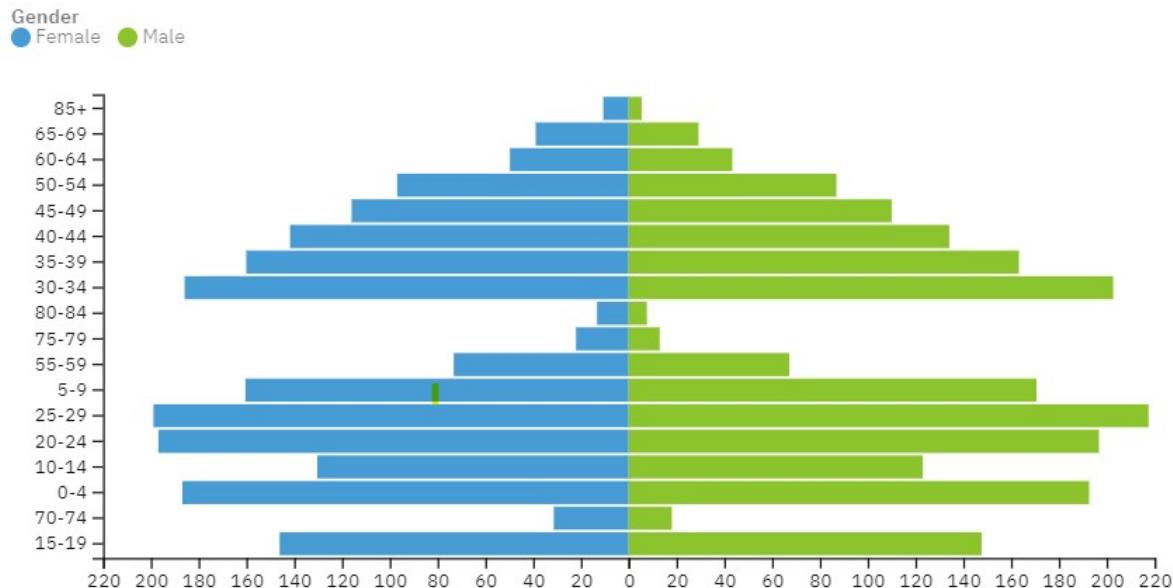
There are two ways to use the custom visualization:

- You can download the packed bundle (.zip file) and upload it directly into IBM Cognos Analytics.
- You can download the source code to create your own version of it to pack and upload into Cognos Analytics.

The following steps demonstrate how to use the population visualization and populate it with data.

## Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.
2. Click the **Custom** tab.  
If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.
3. From the **Custom visuals**, select the population visualization.
4. Upload `Population_sample_data.xlsx` ([https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom\\_visualizations/data/Population\\_sample.xlsx](https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom_visualizations/data/Population_sample.xlsx)) and use it as the data source.
5. Create the pane population visualization by dragging the following data items from `Population_sample_data.xlsx` in the **Sources** pane :
  - Drag **Gender** onto the **Split categories** field.
  - Drag **Age** onto the **Y categories** field.
  - Drag **Value** onto the **Value** field.



## What to do next

An explanation of the specific properties within this visualization that can be adjusted:

Property	Purpose
<b>Current color palette</b>	Set the current color palette.
<b>Element color</b>	Set the color of the element.
<b>Font family</b>	Set the font.
<b>Font size</b>	Set the size of the font.
<b>Animation duration</b>	Set the duration of the duration in milliseconds.
<b>Maximum swatch item width</b>	Set the maximum of the swatch item.

## Organization visualization

An organizational visualization provides a quick glance into how the business is structured, whether it's an established office, a startup, a manufacturing plant or something else.

### About this task

For more information about the organization custom visualization sample on IBM Accelerator Catalog, see [Organization](#).

To view the source code and packed bundle (.zip file) for the population sample custom visualization, go to this public [GitHub repository](#). To download the files, navigate to the [root of this directory](#) and click [Clone or download](#).

Organization visualizations are supported as of IBM Cognos Analytics 11.1.7

**Note:** This example was created for advanced custom visualization developers. It is a code sample with specific requirements and does not include all the features, interactivity, and properties of an out-of-the-box Cognos visualization. It is intended to provide a baseline for developers to extend their visualizations. If you are not an advanced visualization developer, Cognos Analytics already delivers a full set of fully-featured and powerful visualizations that are ready to use.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

There are two ways to use the custom visualization:

- You can download the packed bundle (.zip file) and upload it directly into IBM Cognos Analytics.
- You can download the source code to create your own version of it to pack and upload into Cognos Analytics.

The following steps demonstrate how to use the organization visualization and populate it with data.

### Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.
2. Click the **Custom** tab.  
If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.
3. From the **Custom visuals**, select the population visualization.
4. Upload Sample\_Organization.xlsx ([https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom\\_visualizations/data/Sample\\_Organization.xlsx](https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom_visualizations/data/Sample_Organization.xlsx)) and use it as the data source.

5. Create the organization visualization by dragging the following data items from



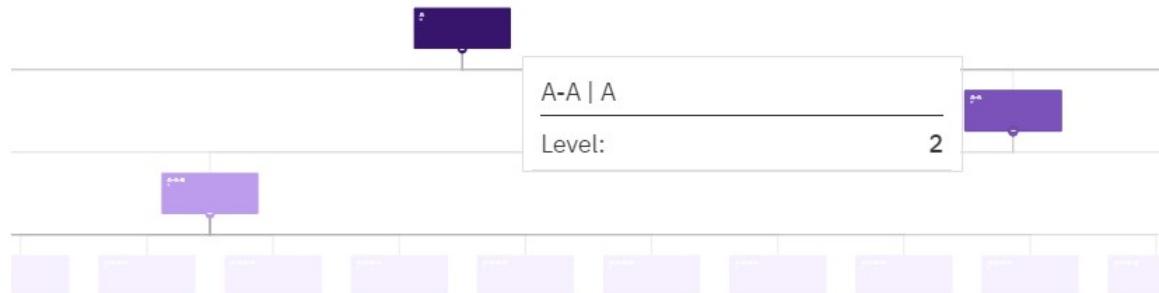
Sample\_Organization.csv in the **Sources** pane:

- Drag **Name** onto the **Nodes** field.
- Drag **Parent** onto the **Parent** field.
- Drag **Level** onto the **Color** field.

Name, Parent, Level

Level (Sum)

0                    3



## What to do next

An explanation of the specific properties within this visualization that can be adjusted:

Property	Purpose
<b>Nodes</b>	Title and label text properties.
<b>Line type</b>	Curved, diagonal, or straight.
<b>Tree direction</b>	Set the direction of the tree.

## Parallel coordinates visualization

Parallel coordinates visualizations visualize and analyze high-dimensional data sets.

### About this task

For more information about the parallel coordinates custom visualization sample on IBM Accelerator Catalog, see [Parallel coordinates](#).

Use this type of visualization to plot multivariate, numerical data. Parallel coordinates visualizations are ideal for comparing many variables together and seeing the relationships between them. For example, comparing gross sales across different years.

To view the source code and packed bundle (.zip file) for the population sample custom visualization, go to this public [GitHub repository](#). To download the files, navigate to the [root of this directory](#) and click [Clone or download](#).

Parallel coordinates visualizations are supported as of IBM Cognos Analytics 11.1.7

**Note:** This example was created for advanced custom visualization developers. It is a code sample with specific requirements and does not include all the features, interactivity, and properties of an out-of-the-box Cognos visualization. It is intended to provide a baseline for developers to extend their

visualizations. If you are not an advanced visualization developer, Cognos Analytics already delivers a full set of fully-featured and powerful visualizations that are ready to use.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

There are two ways to use the custom visualization:

- You can download the packed bundle (.zip file) and upload it directly into IBM Cognos Analytics.
- You can download the source code to create your own version of it to pack and upload into Cognos Analytics.

The following steps demonstrate how to use the parallel coordinates visualization and populate it with data.

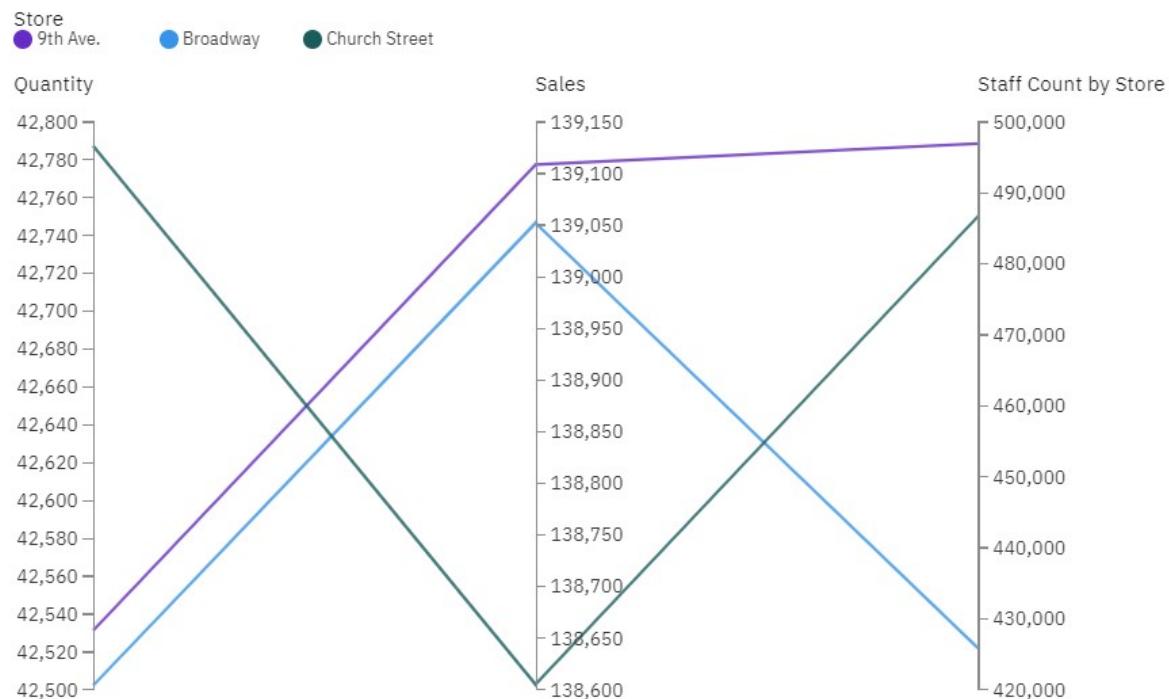
## Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.
2. Click the **Custom** tab.

If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.

3. From the **Custom visuals**, select the parallel coordinates visualization.
4. Create the parallel coordinates visualization by dragging the following data items from Samples > By industry > Retail > Data > Coffee sales and marketing in the **Sources** pane :
  - From the **Sales Receipts** table, drag **Quantity**, **Sales**, and **Staff Count by Store** onto the **Value** field.
  - Drag the measure group from the **Color** field onto the **Coordinates** field.
  - From the **Sales Outlet** table, drag **Store** onto the **Color** field.

Quantity, Sales, Staff Count by Store, Store



## Extended samples

---

This content describes the sample data used in the IBM Cognos Analytics extended samples. The samples are based on the Sample Outdoors Company database. Here you will learn about its structure, databases, model and packages.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

For more information, see [Extended Samples for Cognos Analytics](https://community.ibm.com/community/user/businessanalytics/blogs/steven-macko/2018/11/26/extended-samples-for-ibm-cognos-analytics) (<https://community.ibm.com/community/user/businessanalytics/blogs/steven-macko/2018/11/26/extended-samples-for-ibm-cognos-analytics>).

## Installing and configuring the Extended samples

To set up the samples, you must perform several tasks, such as restoring the samples databases and creating data source connections.

Prior to version 11.1.x, the Cognos Analytics Samples was a separate installation from Cognos Analytics Server. Now the required files are downloaded from the IBM Business Analytics Community

After setting up the samples, you can use them to learn how to use IBM Cognos Analytics software.

IBM Cognos Analytics provides sample databases that contain sales, marketing, and financial information for a fictional company named the Sample Outdoors Company that sells sporting equipment.

Before you can use the sample databases, IBM Cognos Analytics must be installed, configured, and running and then the IBM Cognos Analytics Samples must be installed.

## Downloading the Extended Samples

Download and extract the Cognos Analytics extended samples.

Download the latest extended samples compressed file [here](#).

**Windows:** Copy it to your IBM Cognos Analytics server in a location that is distinct from where you installed the product.

**UNIX/Linux:** FTP it to your IBM Cognos Analytics server in a location that is distinct from where you installed the product.

The file *Extended\_Samples.zip* has the following sub-folders:

### **content**

This folder contains the sample deployment archives.

### **datasources**

This folder contains the sample databases.

### **models**

This folder contains the sample IBM Cognos Framework Manager models.

### **images**

This folder contains the images used in the samples.

## Restore backup files for the sample databases

To use the IBM Cognos Analytics samples, you must restore backup files for the samples databases. This action creates multilingual versions of the Samples Outdoors databases.

### **Db2 sample databases**

You can setup the sample databases in an IBM DB2® database.

The Db2 sample database and associated files are located in  
`<cognos_samples_installation_location>/ webcontent/samples/datasources/Db2.`  
Extract `GS_DB.tar.gz`. This creates the `GS_DB` folder with the following sub-folders.

#### **data**

This folder contains the database files.

#### **logs**

This folder contains the logs that are created when the scripts are run.

#### **unix**

This folder contains the Unix and Linux® scripts.

#### **win**

This folder contains the Microsoft Windows scripts.

## IBM Db2 samples

The data files for Db2move (a database movement tool command) and the scripts to add constraints are in the data directory.

If you use WinZip to extract the Db2 move file on in a Microsoft Windows environment, ensure that the TAR file smart CR/LF conversion option is not selected.

After you extract the Db2 move file, restore the schemas to a database named `GS_DB`.

To add views, constraints, user privileges, and stored procedures to `GS_DB`, prepare and run the `gs_db_modify` files that are included with the samples in the following order:

1. Update the user name and password in `gs_db_modify.sql` and save it.
2. Run `gs_db_modify.bat`

**Note:** If the script file attempts to create a stored procedure where the procedure does not exist an error is generated. This error does not affect the samples.

Set the `Db2CODEPAGE` environment variable to a value of 1208.

When you create the `GS_DB` database, create a system default buffer pool with a page size of 32 KB and an associated regular tablespace. Ensure that the system temporary tablespace is also 32 KB.

Memory requirements are affected by the size and type of your database system. The GO sample database whose tables are organized by column might require more memory than the typical row-based setup.

### *Restore the samples on IBM Db2 using a script*

You can use scripts to restore backup files for sample databases for Db2.

To set up the sample database, you must extract the `GS_DB.tar.gz` file, customize a configuration file, and run the setup script.

There are prerequisites for installing the Great Outdoors sample database for Db2 on Linux, UNIX and Windows. Before you can install the sample databases, you must verify or configure privileges.

1. Extract the `GS_DB.tar.gz` file and retain the original directory structure. If you use WinZip to extract the Db2 move file on Microsoft Windows operating system, ensure that the TAR file smart CR/LF conversion option is not selected.
2. On Linux and UNIX operating systems, modify the file permissions on the `setupGSDB.sh` file so that it is executable: `chmod u+x setupGSDB.sh`.

3. Ensure that the user ID used to set up the database has DBADM authority or the following authorities in Db2:

- CREATETAB
- CREATE\_NOT\_FENCED\_ROUTINE
- LOAD

### Optional: Editing the configuration file

The configuration file contains the default configuration options that are used when creating the GOSALES data. The default configuration settings are listed in the following table.

Table 2. Optional values for restoring the samples on IBM Db2		
Configuration Setting	Default	Description
GOSALES_INST	GS_DB	Used to set the name or alias of the database.
GOSALES_BLU	N	Change to 'Y' if creating tables organized by column.
GOSALES_CREATEDB		Optional: Causes an existing database with the same name to be dropped.
GOSALES_DB_TERRITORY	US	When creating a database this is the territory of the UTF-8 database that is created.
GOSALES_BP GOSALES_TS	GOSALES_BP GOSALES_TS	Optional: Enter the buffer pool and tablespace name, if these are to be created by the script.
GOSALES_GRANTEES	GOSALES, Db2ADMIN	Enter the list of users, groups or PUBLIC that will have CONTROL permissions for the GOSALES, GOSALESHR, GOSALESMR and GOSALESRT schemas. This string needs to follow the syntax of the GRANT command.
GOSALESDW_GRANTEES	GOSALESDW Db2ADMIN	Enter the list of users, groups or PUBLIC that will have CONTROL permissions for the GOSALESDW schema.
GOSALES_DPF	N	Change to 'Y' if installing a database partitioned environment (DPF)

*Table 2. Optional values for restoring the samples on IBM Db2 (continued)*

Configuration Setting	Default	Description
GOSALES_SCHEMA	GOSALES	Enter the names to be used for each schema.
GOSALESHR_SCHEMA	GOSALESHR	
GOSALESMR_SCHEMA	GOSALESMR	
GOSALESRT_SCHEMA	GOSALESRT	
GOSALESDW_SCHEMA	GOSALESDW	

You can customize the sample configuration file to use settings other than the default values.

The setup script creates the GS\_DB database, table spaces, tables, views, grants privileges, and modifies the schema names for the sample database. In most situations, you can accept the default options. If you want to change the database name or modify the users or groups that have permissions on the data, you must update the GOSalesConfig configuration file.

Edit the configuration file by using a text editor.

**Note:** If you edit UNIX shell scripts in a Windows environment, ensure that you preserve the UNIX line endings.

The configuration file on Windows is GOSalesConfig.bat. The configuration file on UNIX is GOSalesConfig.sh.

By default, the GS\_DB database name is used and permissions are granted to the Db2ADMIN (Linux, UNIX, Windows) and GOSALES users.

## Running the setup script in interactive mode

In interactive mode, the setupGSDB script prompts you to confirm or provide configuration information for the GS\_DB database installation. You can accept the default settings or provide different settings to replace the defaults.

- Run the setup script for your operating system.

*Table 3. Running the samples restore script*

Operating System	Command
Microsoft Windows	In a Db2 command window, change to the GS_DB/win directory and run the setupGSDB.bat script.
UNIX	From a shell prompt, source the Db2profile, change to the GS_DB/unix directory, and run the setupGSDB.sh script.

- Press Enter to proceed. The script displays a summary of your choices before you commit to changes to your environment. If you approve the choices, press Enter and the script makes the changes. For example, you might see the following message:

```
Please confirm the following settings:
Database Name: GS_DB
Column-organized tables: N (Db2 on UNIX only)
Drop and Recreate Database: Y
DPF environment: N
Create a 32 K Bufferpool named: GOSALES_BP
Create a 32 K Tablespace named: GOSALES_TS
GOSALES Grant users/groups: GOSALES, Db2ADMIN
```

```

GOSALES DW Grant users/groups: GOSALES DW, Db2ADMIN
Administration User Name: Db2admin
Import the sample data to the following schemas:
GOSALES
GOSALESHR
GOSALES MR
GOSALES RT
GOSALES DW
WARNING: If the database GS_DB already exists it will be dropped
Continue creating the sample data with these settings? (Y/N) Default=Y:

```

The GS\_DB database is set up.

## Running the setup script with command line options

The setupGSDB script lets you provide information on the command line to reduce the number of prompts from the script.

From a command line, run the script for your operating system. On Windows use setupGSDB.bat. On UNIX or Linux operating systems use setupGSDB.sh.

You can run the **setupGSDB** script with the following options:

Table 4. setupGSDB options for IBM Db2	
Option	Description
-createdb	Creates the database. This option drops any existing database with the same name. It creates the required buffer pool and table space.
-database database name	Specifies the name of the database. This value overrides the default value of GS_DB.
-userid administration_user_ID	Specifies the name of the Db2 administrator user ID that is used to create the database.
-password administration_user_ID	Specifies the password for the Db2 administrator user ID.
-noprompt	Indicates that no prompt will display. This option runs the script in silent mode. Any missing information causes the script to fail. You will not be prompted for any confirmations.

Example 1: You are a Db2 administrator and want to create the default GS\_DB database on the local node. You run the following command:

```
setupGSDB -createDB -noprompt
```

Example 2: You want to create the tables in an existing database named GSDBY, and you want to use the administrator user ID Db2admin. Run the following command:

```
setupGSDB -database GSDBY -userid Db2admin
```

The script prompts you for the password when it connects to GSDBY. The script will replace any tables that already exist in the GSDBY database, unless you choose to drop the database.

## Optional: Installing the sample data on a remote server

If the GS\_DB sample database is installed on a remote server in your environment, you can link to it by cataloguing the remote database on your local computer and then running the setup script locally.

- If the sample database does not yet exist on the remote server, create it with the CREATE DATABASE command. The database requires a UTF-8 codeset and a bufferpool pagesize of 32 KB for the default and temporary table spaces. For example, on the remote server, create the database by running the following command:

```
CREATE
DATABASE GS_DB USING CODESET UTF-8 TERRITORY US PAGESIZE 32K
```

- On your local computer, catalog the remote database:

```
Db2
catalog tcpip node nodename remote ipaddr server port_number
Db2 catalog database GS_DB as GS_DB at node nodename
```

- On your local computer, run the script:

```
setupGSDB
-database GS_DB -userid administration_user_ID
```

You are prompted for a password to connect to the database.

### **Oracle sample databases**

You can setup the sample databases in an Oracle database.

The Oracle sample database and associated files are located in <cognos\_samples\_installation\_location>/ webcontent/samples/datasources/oracle. Extract GS\_DB\_ORA.tar.gz. This creates the GS\_DB\_ORA folder with the following sub-folders.

#### **data**

This folder contains the database files.

#### **logs**

This folder contains the logs that are created when the scripts are run.

#### **unix**

This folder contains the Unix and Linux scripts.

#### **win**

This folder contains the Microsoft Windows scripts.

### **Oracle samples**

To create foreign key constraints in tables that reference different schemas, you must run gs\_or\_modify.sql, found in the data folder.

#### *Restore the samples on Oracle using a script*

You can use scripts to restore backup files for sample databases for Oracle.

To set up the sample database, you must extract the file GS\_DB\_ORA.tar.gz, customize a configuration file, and run the setup script.

There are prerequisites for installing the Great Outdoors sample database for Oracle. Before you can install the sample databases, you must verify or configure privileges.

- Extract the GS\_DB\_ORA.tar.gz file and retain the original directory structure.
- On Linux and UNIX operating systems, modify the file permissions on the setupGSDB.sh file so that it is executable: chmod u+x setupGSDB.sh.
- Ensure that the user ID used to set up the Oracle database has authority to create users and run the import utility.

### **Optional: Editing the configuration file**

The configuration file contains the default configuration options that are used when creating the GOSALES data.

*Table 5. Optional values for restoring the samples on Oracle*

<b>Configuration Setting</b>	<b>Default</b>	<b>Description</b>
GOSALES_IMP_CMD	imp	If necessary can be modified to specify the complete path to the correct version of the import utility.
GOSALES_INST		Oracle host string.
GOSALES_TS	GOSALES_TS	If users are created by scripts, used to enter the tablespace name to assign to users.
GOSALES_CREATE_TS		Optional: Used to create the default tablespace for users.
GOSALES_TEMP_TS		If users are created by scripts, used to name a temporary tablespace to assign to users. Leave blank to use the default temporary tablespace.
GOSALES_SCHEMA GOSALES_SCHEMA_PW	GOSALES GOSALESPW	Used to enter the username and password for the GOSALES user. You will be prompted for a password if not entered.
GOSALESHR_SCHEMA GOSALESHR_SCHEMA_PW	GOSALESHR GOSALESHRPW	Used to enter the username and password for the GOSALESHR user. You will be prompted for a password if not entered.
GOSALESMR_SCHEMA GOSALESMR_SCHEMA_PW	GOSALESMR GOSALESMRPW	Used to enter the username and password for the GOSALESMR user. You will be prompted for a password if not entered.
GOSALESSRT_SCHEMA GOSALESRT_SCHEMA_PW	GOSALESRT GOSALESRTPW	Used to enter the username and password for the GOSALESRT user. You will be prompted for a password if not entered.
GOSALES DW_SCHEMA GOSALES DW_SCHEMA_PW	GOSALES DW GOSALES DW PW	Used to enter the username and password for the GOSALES DW user. You will be prompted for a password if not entered.

*Table 5. Optional values for restoring the samples on Oracle (continued)*

Configuration Setting	Default	Description
GOSALES_GRANTEES	GOSALES	<p>Used to enter the users that will have SELECT, INSERT, DELETE, UPDATE, and ALTER permissions for GOSALES, GOSALESHR, GOSALESMR and GOSALESRT schemas.</p> <p><b>Note:</b> The owner of the GOSALES_SCHEMA will always be granted SELECT, INSERT, DELETE, UPDATE and ALTER privilege on all schemas.</p>
GOSALESDW_GRANTEES	GOSALESDW	Used to enter the users that will have SELECT, INSERT, DELETE, UPDATE and ALTER permissions for GOSALESDW schema.

You can customize the sample configuration file to use settings other than the default values.

The setup script creates the users and schemas specified in the configuration file. In most situations, you can accept the default options. If you want to change the schema names or modify the users or groups that have permissions on the data, you must update the GOSalesConfig configuration file.

Edit the GOSalesConfig.bat or GOSalesConfig.sh configuration file by using a text editor.

### Running the setup script in interactive mode

In interactive mode, the setupGSDB script prompts you to confirm or provide configuration information for the sample database installation. You can accept the default settings or provide different settings to replace the defaults.

- Run the setup script for your operating system.

*Table 6. Running the samples restore script*

Operating System	Command
Microsoft Windows	In a DOS command window, change to the GS_DB_ORA\win directory and run the setupGSDB.bat script.
UNIX	From a shell prompt, change to the GS_DB_ORA/unix directory, and run the setupGSDB.sh script.

- Press Enter to proceed. The script will run the sample database setup and display a summary of your choices before you commit to changes to your environment. If you approve the choices, press Enter and the script makes the changes. For example, you might see the following message:

```
Please confirm the following settings:
```

```
Instance Name is ORAINST123
Create the following user accounts and import the data:
  GOSALES
  GOSALESHR
  GOSALESMR
  GOSLAESRT
  GOSALESDW
```

```
Default tablespace is GOSALES_TS
```

```

Temporary tablespace is DEFAULT
Administration User name is sys

WARNING: If the users already exist they will be dropped

Create a Tablespace named GOSALES_TS

Grant select on the GOSALES schemas to GOSALES
Grant select on the GOSALESDW schema to GOSALESDW

Continue creating the sample data with these settings?
(Y/N) Default=Y:

```

**Tip:** If you edit UNIX shell scripts in a Windows environment, ensure that you preserve the UNIX line endings.

## Running the setup script with command line options

The setupGSDB script lets you provide information on the command line to reduce the number of prompts from the script.

From a command line, run the script for your operating system. On Windows use setupGSDB.bat. On UNIX or Linux operating systems use setupGSDB.sh.

You can run the **setupGSDB** script with the following options:

<i>Table 7. setupGSDB options for Oracle</i>	
<b>Option</b>	<b>Description</b>
-createdb	Creates the users. This option drops any existing users with the same name.
-database database name	Specifies the name of the Oracle instance. This value overrides the default value specified in the configuration file.
-userid administration_user_ID	Specifies the name of the Oracle administrator user ID that is used to create the users.
-password administration_user_ID	Specifies the password for the Oracle administrator user ID.
-noprompt	Indicates that no prompt will display. This option runs the script in silent mode. Any missing information causes the script to fail. You will not be prompted for any confirmations.

Example 1: You are an Oracle administrator and want to create the default sample database schemas. You run the following command:

```
setupGSDB -createDB -noprompt
```

Example 2: You want to create the tables in the existing schemas specified in the configuration file, and you want to use the administrator user ID sys. Run the following command:

```
setupGSDB -YourOracleInstance -userid sys -sysdba
```

The script prompts you for the password when it connects to the Oracle instance. The script deletes any existing tables or views in the specified schemas and replaces them.

## **SQL Server sample databases**

You can setup the sample databases in a Microsoft SQL Server database.

The SQL Server sample databases are located in <cognos\_samples\_installation\_location>/webcontent/samples/datasources/sqlserver. Create databases named GOSALES and GOSALESDW in SQL Server and restore the databases from a device, using GOSALES.zip and GOSALESDW.zip, respectively.

## **Create data server connections to the samples databases**

IBM Cognos Analytics uses data server connections to the samples databases to connect to the samples databases and run the sample reports or use the sample packages.

You must create two data server connections, named **great\_outdoors\_sales** and **great\_outdoors\_warehouse**. Note the following considerations that depend on which database vendor you are using.

### **Microsoft SQL Server**

The database name is GOSALES for the **great\_outdoors\_sales** connection and GOSALESDW for the **great\_outdoors\_warehouse** connection.

### **IBM Db2**

The database name is GS\_DB for both connections.

### **Oracle**

Use the instance name of the Oracle database as it is found in tnsnames.ora for both connections.

Create the data server connections in one of two ways.

- If you will be using the **IBM\_Cognos\_Samples\_CQ\_Legacy** deployment, follow the steps in the topic on creating a data source connection in the *IBM Cognos Analytics Administration and Security Guide*.
- If you will not be using the **IBM\_Cognos\_Samples\_CQ\_Legacy** deployment, follow the steps in the topic on creating a data server connection in the *IBM Cognos Analytics Managing User Guide*.

## **Import the extended samples**

To use the sample packages and other content, you must import the sample deployment archives.

### **About this task**

The Extended\_Samples.zip archive contains the following deployments in the \content folder.

- **IBM\_Extended\_Samples.zip**
- **IBM\_Cognos\_Prompt\_API.zip**
- **IBMCognos10\IBM\_Cognos\_Samples\_CQ\_Legacy.zip**
- **IBMCognos10\IBM\_Cognos\_Samples\_DQ\_Legacy.zip**

### **Procedure**

1. Copy the deployment archive (.zip) file from the source location to the **Deployment files location** specified in Cognos Configuration. The default **Deployment files location** location is <cognos\_analytics\_server\_installation\_location>/deployment.
2. Use **Manage > Administration console** to open **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Content Administration**.
4. On the toolbar, click the **New Import** button.
5. Select the deployment to install in the first step of the **New Import** wizard and complete the remaining steps of the wizard.
6. Repeat the previous step for each deployment that you wish to install.
7. Create data server connections to the samples databases.

## Results

You can now use the sample packages to create reports and analyses. You can also run the sample reports that are available in **Team content**.

### Copy the sample images

To use the sample content, you must place the required images in the correct location.

The file `Extended_Samples.zip` contains the `images` folder, which contains the images that are used in the samples.

To use the images, copy the files from the `images` folder and paste them to `<cognos_analytics_server_installation_location>/webcontent/bi/samples/images`.

**Note:** Copy the contents of folder to images location. Don't replace the entire folder because any custom images might be removed.

### Optional : Cognos Framework Manager sample database models

The Sample Outdoors Framework Manager models illustrate modeling techniques and support the samples.

The samples, located in `<cognos_samples_installation_location>/ webcontent/samples/models`, include

- `great_outdoors_sales`, which refers to the samples database GOSALES
- `great_outdoors_warehouse`, which refers to the database GOSALESDW

You can use sample database models on different platforms. For information about moving models from one platform to another, see the *IBM Cognos Framework Manager User Guide*.

**Note:** Transformer uses some of the reports in the GO Data warehouse (query) package as source data for various cubes. These reports are meant to be simple list reports with no formatting. The description information for the reports indicates if the report was developed to be source data for Transformer.

### GO Sales Model

This model contains sales analysis information for the fictional company, The Sample Outdoors. It also has the query items required by the Event Studio samples. The model accesses three schemas and has two packages. One package is based on the dimensional view and the other is based on the query (relational) view.

### GO Data Warehouse Model

This model contains financial, human resources, and sales and marketing information for the fictional company, The Sample Outdoors. The model accesses a dimensional relational data source. The model has two packages. One package is based on the dimensional view, the other is based on the query (relational) view.

## About the Extended samples

The Extended samples are based on the Sample Outdoors Company database. The following topics describe the company, its structure, databases, model and packages.

### The Sample Outdoors Group of Companies

To make designing examples faster, especially financial examples, some general information about The Sample Outdoors Company is useful. To look for samples that use particular product features, see the individual sample descriptions in this section.

Revenue for The Sample Outdoors Company comes from corporate stores and from franchise operations. The revenues are consolidated from the wholly-owned subsidiaries. There are six distinct organizations, each with its own departments and sales branches. Five of these are regionally-based companies.

The sixth company, GO Accessories:

- Has its own collection of products, differentiated from the other GO companies by brand, name, price, color and size.
- Sells from a single branch to all regions and retailers.
- Functions both as an operating company based in Geneva, and as a part owner of the three GO subsidiaries in Europe.

The following diagram illustrates the consolidated corporate structure of the Sample Outdoors Company. The diagram also includes the percentage changes in ownership for GO Central Europe, and the reporting currency and GL (general ledger) prefix for each subsidiary. In year 1, GO Asia Pacific owns 60% of GO Central Europe, and in year 3, its ownership decreases to 50%. In year 1, GO Accessories owns 40% of GO Central Europe, and in year 3 its ownership increases to 50%.

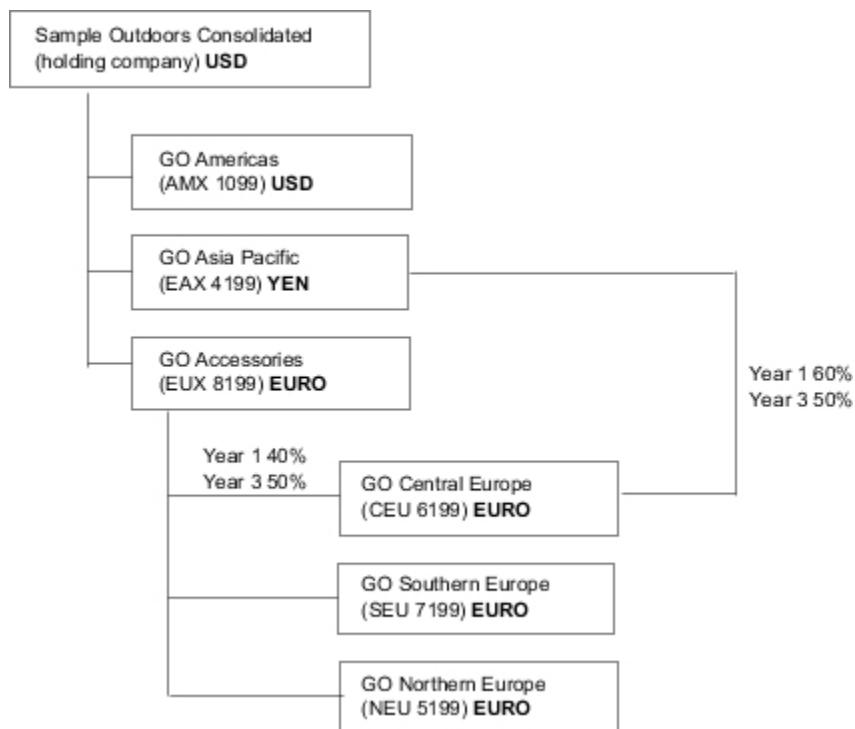


Figure 1. Consolidated corporate structure of the Sample Outdoors Company

Each corporation in the Sample Outdoors Company has the same departmental structure and the same general ledger (GL) structure, as shown in the following table. Divisions may not report in the same currencies. For example, the Americas subsidiary reports in US dollars, but the Corporate division local currency reports in Canadian dollars, and the Operations division local currency is pesos.

*Table 8. Departmental structure*

<b>Division (GL)</b>	<b>Department (GL)</b>
Corporate (1700)	Sales (1720) Marketing (1750) IS&T (1760) Human Resources (1730) Finance (1740) Procurement (1710)
Operations (1800)	Production and Distribution (1820) Customer Service (1820)

Each corporation has a complete chart of accounts. Most of the accounts, such as those under non-personnel expenses, are at the department level, and contain only summary amounts. For example, although each marketing department has expenses, the cost is unspecified at the transaction level where marketing promotions occur.

## **Employees**

The Sample Outdoors data contains a full list of employees in all divisions, departments, and locations.

Data is available for reports about bonuses (Global Bonus report) and sales commissions (Sales Commissions for Central Europe report), training (Employee Training by Year report), and performance reviews and employee satisfaction surveys (Employee Satisfaction 2012). If you use Metric Studio, sample metrics for human resources are also available.

In the GO Data Warehouse (analysis) package, groups of measures and the related dimensions are organized into folders. The employees are organized in hierarchies for region and manager, to make different kinds of aggregation easy to report on. Aggregation has been defined for the Employee Position Summary measures, so that Position count and Planned position count aggregate correctly at each level of time: monthly, quarterly, or yearly. For example, see the Planned Headcount report.

The employees are also listed in a sample LDIF file which could be used for any LDAP IBM product authentication including Tivoli®. This authentication directory is necessary for IBM Cognos Planning samples. No other samples depend on security profiles.

## **Sales and marketing**

Data about sales and marketing is available for all of the companies in the Sample Outdoors group.

GO Accessories has richer details to support analysis examples. For example, see the Revenue vs % Profit Margin by Product Brand analysis, based on the Sales and Marketing cube. Marketing and sales campaigns are tied to the Sample Outdoors regional companies.

Overall, the GO companies have experienced solid growth across most product lines (Sales Growth Year Over Year), in all regions (Revenue by GO Subsidiary 2011), because of factors like an increase in repeat business and new or improved products, such as the high margin sunglasses product line. In the product lines sold by the five regional companies (all but GO Accessories) promotions have had mixed success (Promotion Success by Campaign, Bundle and Quarter). If you use Metric Studio, this can also be seen in the sample metrics.

## **Customer surveys**

The data also contains information from customer surveys. For example, the product line that includes bug spray, sun screen, and so on has not been successful (Product Satisfaction - Outdoor Protection

2011) and a source of retailer dissatisfaction may be the level of customer service rather than the returns (Customer Returns and Satisfaction). If you use Metric Studio, this information can also be monitored in metrics.

## Sales outlets

Revenue from the corporate outlets is available at the transaction level. Revenue from the franchise outlets is available at the consolidated level only (Sales and Marketing cube). Metrics about retailers show that the number of new retail outlets has dropped over the time period covered by this data.

GO Accessories sells worldwide, and sells only accessories. Transaction data for GO Accessories is the primary source for analysis of product by brand, color and size. The other five subsidiaries in the group of companies are regional and sell all product lines for retailers in their region. For example, the report Top 10 Retailers in 2011 uses sparklines and list data to review revenues at the retailer level.

## Sample Outdoors Company models, PowerCubes, and packages

The sample Outdoors Company Framework Manager models that are included with the extended samples illustrate modeling techniques and support the samples. The models are based on the GO data warehouse and the GO sales transactional databases and are the basis for the sample reports and queries. Each model contains two packages for publishing analysis (dimensional) and query views of the data.

To look at the sample models, you must have access to Framework Manager, the modeling tool in IBM Cognos Business Intelligence. You also need to set up the sample databases and connections.

## GO Data Warehouse

The GO Data Warehouse model, `great_outdoors_data_warehouse.cpf`, is based on the database GOSALESDW. It contains data about human resources, sales and marketing, and finance, which is grouped into business areas. In the Database view, the three business areas are grouped into separate namespaces. The Database view contains a fourth namespace (GO Data) for the common information.

The Database view is similar to the structure of the underlying database. All tables (database query subjects) are unchanged. This enables IBM Cognos Analytics to retrieve metadata directly from the package in most cases, instead of using a metadata call to the database. The following changes and additions were made in the Database view:

- Joins were added as necessary.
- To allow for aggregation at different levels of granularity, some model query subjects were created. For example, see the relationships between Time and Sales or Sales fact.
- To allow single joins to be made between the lookup tables and each level in a dimension, lookup tables were copied. For example, see the Products look up tables.

The Business view contains only model query subjects, with no joins. The following changes and additions were made in the Business view:

- Calculations were added to the model query subjects. For example, the time dimension contains language calculations.
- Where the database has multiple hierarchies, new dimensions were created to organize each hierarchy. For example, the employee hierarchies are organized into several categories, such as manager and region.

## The GO Sales transactional database

The GO Sales model, `great_outdoors_sales.cpf`, is based on the GOSALES database, which is structured as a transactional database. It contains principally sales data.

The Database view is similar to the underlying database structure. The following changes and additions were made in the Database view:

- To make it possible to join the fact tables to the time dimension, model query subjects and multipart joins are used.
- Other joins were added as necessary.

The Business view contains only model query subjects, with no joins. The following changes and additions were made in the Business view:

- Calculations were added to the model query subjects.
- Model query subjects that were created in the Database view to enable joins on the time dimension were linked as reference shortcuts.
- Where the database has multiple hierarchies, new dimensions were created to organize each hierarchy.
- Sales Staff is a subset of the slowly changing Employee dimension. There is no unique Employee key in GO Sales, so a filter retrieves the current record only. This model does not use historical data.

## **The samples PowerCubes**

The following cubes are delivered with the Sample Outdoors samples in English, French, German, Japanese, and Chinese:

- sales\_and\_marketing.mdc
- employee\_expenses.mdc
- go\_accessories.mdc
- go\_americas.mdc
- go\_asia\_pacific.mdc
- great\_outdoors\_sales\_en.mdc
- great\_outdoors\_7.mdc

## **The samples packages**

The Sample Outdoors samples include six packages. A brief description of each available package is provided.

Go Data Warehouse (analysis) is a dimensionally modeled view of the GOSALESDW database. This package can be used in all studios, including IBM Cognos Analysis Studio. Using this package, you can drill up and down.

Go Sales (analysis) is a dimensionally modeled view of the GOSALES database. This package can be used in all studios, including Analysis Studio. Using this package, you can drill up and down.

Go Data Warehouse (query) is a non-dimensional view of the GOSALESDW database. This package can be used in all studios except Analysis Studio, and is useful for reporting when there is no need for drilling up and down.

Go Sales (query) is a non-dimension view of the GOSALES database. This package can be used in all studios except Analysis Studio, and is useful for reporting when there is no need for drilling up and down.

Sales and Marketing (cube) is an OLAP package, based on the sales\_and\_marketing.mdc cube.

Great Outdoor Sales (cube) is an OLAP package, based on the great\_outdoors\_sales\_en.mdc cube.

**Note:** The OLAP packages, Great Outdoor Sales (cube), and Sales and Marketing (cube), are not multilingual. The `IBM_Cognos_PowerCube.zip` archive contains five versions of each package; one in English, French, German, Japanese, and Chinese. For more information, see the IBM Cognos Analytics Samples guide.

## **Sample audit model and audit reports**

IBM Cognos Analytics audit samples include a sample model and sample audit reports.

### **Sample audit model**

The default location of the Framework Manager sample audit model Audit.cpf is *installation\_location/samples/Audit\_samples/Audit*.

### **Sample audit reports**

The default location of the audit samples deployment IBM\_Cognos\_Audit.zip is *installation\_location/samples/Audit\_samples*.

You must set up the sample audit reports before you can use them. After the setup, the audit reports can be accessed in the Team content > Samples > By feature > Audit folder and its subfolders.

The following sample audit reports are located in Team content > Samples > By feature > Audit:

#### **Agent execution history by user**

Lists the agents that were run by user, date, and time. It includes a bar chart.

#### **Daily metric exceptions**

Lists daily metric exceptions for all services.

#### **Deleted user account report**

Lists deleted user accounts for all services.

#### **Execute reports by package and report**

Lists the reports that were run, by package. It also includes the user, timestamp, and execution time in milliseconds for each report.

#### **Execute reports, dashboards and stories by package for past 30 days**

This active report displays report, dashboard, and story execution details by package for the past 30 days. The report prompts users to select packages, reports, dashboards, or stories, and shows the execution history for the past 30 days by selected prompt values.

#### **Execute reports, dashboards and stories by user**

This report contains user and timestamp prompts, and local filters for report type and package.

#### **Execution history by user**

Lists the reports that were run alphabetically, along with the package and timestamp, by user, since the logging database was created.

It includes the total number of reports each user ran and the total number of times each user ran each report. It also includes the total number of reports run by all users.

You can select one or more users for the report. After you run the audit report, you can choose to view the statistics for a particular report or for all reports.

#### **Failed report executions - by package**

Lists report failure executions by package and includes a pie chart, which also shows the failed percentage of each package.

#### **Logon operations by time stamp**

Shows logon and logoff timestamps and operations, by user. It also includes the total number of logons and the total number of logons for each user. You can select the time period and one or more users for the report.

#### **Logon operations by user name**

Shows logon and logoff timestamp by user, along with the type of logoff operation that occurred. It includes the total number of logons and the total number of logons for each user. You can select one or more users for the report.

## **Operations by selected object and users**

Shows the operations that are performed on target objects, by user. It includes the target object path, timestamp, and the status of the operation. You can select one or more objects, operations, or users for the report.

## **Report execution and user logon history**

This active report displays the report execution history and user logon information for a specified period of time.

## **Report execution history (detailed report)**

Lists reports alphabetically along with the associated package and the timestamp for each time the report was executed. It also shows the total number of times each report was executed and the total number of reports that were executed. It also includes a color-coded pie chart that gives an overview of how often the reports are used.

## **Report execution history (summary report)**

Lists reports alphabetically along with the timestamp for each time the report was run since the logging database was created.

## **Report usage**

Lists reports by frequency of use. For each report, it lists the user and the number of times it was run by the user since the logging database was created. This report can help you determine if there are any reports that are not being used. If so, you may want to remove them.

## **Service requests metrics - day report**

Shows percentage of successful and failed requests for Cognos Analytics services for the current day. Includes a bar chart.

## **User session - abnormal termination**

Shows logon date and time of abnormally terminated user sessions. It also includes a total of session termination for all dates. You can select a date and time range.

## **User session - details**

Shows user session details, including the logon time, logoff time, logoff operation, and session duration. It also includes the total amount of session time for each user and the total amount of session time for all users. You can select a date and time range and one or more users.

## **User session - logon errors for past 30 days chart**

Shows a bar graph of logon failures for the past 30 days.

## **User session - summary**

This audit report shows the average session duration by user. It also shows the total average session duration by user. You can select a date and time range and one or more users.

## **Weekly action details by user**

This active report uses a prompt to show weekly details of user actions that have been logged for the selected value. The default value is DATASET, that is logged by using My Data Sets functionality.

The following sample audit reports are located in Team content > Samples > By feature > Audit > Mobile report

## **Logon operations by mobile user**

This active report shows logon and logoff operations for each mobile user and the total number of logon operations for all users for the past seven days. You can drill down on the dates to see the number of logon and logoff operations at a specific hour of day.

## **Report execution history by tenant**

Lists the executed reports, timestamps, and the associated package names for a tenant. This report provides a summary of total activity and the report can be filtered for a specific tenant.

## **Report execution by mobile user**

This report lists reports that were run by a specific mobile user. For each user, the report specifies the mobile user agent, the types of reports that were run, and the time when the report was run. You can select the user, date, and time range when running the report.

## **Scheduled mobile report delivery**

This report shows the name of the scheduled report, the report mobile recipients, and the number of times when the report was run during the scheduled time. You can select the date and time range when running the report.

The following sample audit reports are located in Team content > Samples > By feature > Audit > Multi-tenancy reports

## **Execute reports by tenant**

Lists the tenant IDs and tenant users. This report provides package, report, and timestamp information.

## **Logon operations by tenant**

Lists the logon actions for each tenant ID and provides the total number of logons for each user and tenant ID.

## **Report execution history by tenant**

Lists the executed reports, timestamps, and the associated package names for a tenant. This report provides a summary of total activity and the report can be filtered for a specific tenant.

## **View reports by package and report**

This report lists users, reports, timestamps, and packages for the tenant that you select.

The following new sample audit reports are located in Team content > Samples > By feature > Audit > System health:

## **Prompt reference report**

A reference component that is used by a report to display the selected parameters.

## **Top N most frequently run reports per hour**

Shows the most frequently run reports in an hour.

## **Top N longest-running reports in a month**

Shows the longest-running reports in a month.

## **Usage - daily execution**

Shows the hourly execution count or average count in a day. Use this report to analyze daily peak and off-peak loads.

## **Usage - weekly execution**

Shows the daily execution count or average count in a week. Use this report to analyze weekly load pattern.

## **Usage - BIBusTKServerMain usage per 10 minutes**

Shows the number of BIBusTKServerMain processes running in a 10 minutes period. Use this report to estimate the usage of the system's report server processes.

## **Usage - occurrences of well known errors per hour**

Shows occurrences of known errors per hour. These errors impact the system stability and performance. The report can be expanded to include other types of errors, as needed.

The following sample audit reports are located in Team content > Samples > By feature > Audit > System health > Detail reports:

## **Detail report by day and hour**

Shows detailed information about report executions by day and hour. Use this report to analyze specified time windows.

## **Detail report by year and month**

Shows detailed information about report executions within a specified month.

## **Run report details**

Shows execution details about specific reports within a time window.

## **Detail error report by day and hour**

Shows execution details about reports that encountered specific errors within a time window.

The following sample audit reports are located in Team content > Samples > By feature > Audit > System health > Large memory report suspects:

### **Report execution failures due to out-of-memory error**

Shows report execution failures that were caused by an out-of-memory error. The report itself could cause the error or could be affected by it.

### **Reports running during crashes**

Lists reports that were running during crashes. When a BIBusTKServerMain process does not shut down properly, reports that are running at the time might contribute to the failure. The more often a report encounters this situation, the more likely the report itself is the cause.

The following sample audit reports are located in Team content > Samples > By feature > Audit > System health > Load balance:

### **Traffic count by host and components**

Use this report to analyze whether traffic is evenly distributed among different nodes. A gap or window of inactivity might indicate that the server is stuck or improperly routed.

### **Setting up sample audit reports**

To set up sample audit reports you need to create a data server connection to the **Audit** database, and import the samples deployment.

## **Procedure**

1. Create a logging database named **Audit** in a supported database system, such as Db2®, Oracle, or Microsoft SQL Server.

For more information, see the guidelines for creating a logging database in the *IBM Cognos Analytics Installation and Configuration Guide*.

2. In IBM Cognos Configuration, configure the **Audit** database.
  - a) Under **Environment**, right-click **Logging**.
  - b) Select **New resource** > **Destination**. Type the name **Audit**, and choose the type **Database**. Click **OK**.
  - c) Right-click **Audit**, and select **New resource** > **Database**. Type the name **Audit** again, and choose the database type that was used to create your logging database in step 1.
  - d) Specify the required properties for the **Audit** database, including the user ID and password, and test the database.
  - e) Save the configuration, and re-start **IBM Cognos** service.
3. Create a data source connection to the **Audit** database.
  - a) Go to **Manage** > **Administration console**.
  - b) On the **Configuration** tab, select **Data Source Connections**.
  - c) Follow the wizard to create a new data source connection. The database and data source must be named **Audit**.
4. Copy the samples deployment file **IBM\_Cognos\_Audit.zip** from the location where it was installed to the *ca\_install\_location/deployment* directory.

**Tip:** By default, the **IBM\_Cognos\_Audit.zip** file is installed to the *installation\_location/samples/Audit\_samples* directory.
5. Import the audit deployment **IBM\_Cognos\_Audit.zip** file.
  - a) Go to **Manage** > **Administration console**.
  - b) On the **Configuration** tab, select **Content Administration**.
  - c) Follow the import wizard to import **IBM\_Cognos\_Audit.zip**. Ensure that the **Samples\_Audit** folder is selected in one of the steps.
- After the import, the sample audit reports are available in the **Team content > Samples\_Audit > Audit** folder.
6. Test the audit reports.

- a) Check if audit reporting is enabled. To enable audit reporting, the logging level for selected IBM Cognos services must be set to **Basic** (auditing enabled) or **Request**. If the logging level is set to **Minimal**, auditing is disabled. For more information, see the topic about setting up audit reporting in the *IBM Cognos Analytics and Security Guide*.
- b) Run some of your organization reports or dashboards from **Team content**. This step is needed to collect some data that the sample audit reports can use when you run them for the first time.
- c) Run the sample audit reports from **Team content > Samples\_Audit > Audit**, and view their contents.

## Sample reports for the dynamic query mode

Sample models and reports that are optimized for the dynamic query mode are included with IBM Cognos Analytics.

When installed and deployed, you can find the samples in a folder named **Samples\_DQ**. The updated reports were also renamed with the suffix **\_DQ**.

The samples were modified slightly to benefit from the key improvements of the dynamic query mode. For example, reports were updated to apply a specific sorting order and to specify an aggregation mode.

To access the dynamic query mode samples, you must modify the data source connections to two sample data sources to enable JDBC connections and then import the updated samples deployment archive.

### **Modify the data source connections to the sample data sources**

To import and then use the dynamic query sample reports, you must modify the existing data source connections to two sample relational databases to enable a JDBC connection.

#### **Procedure**

1. In IBM Cognos Administration, click the **Configuration** tab and click **Data Source Connections**.

**Note:** To access this area in IBM Cognos Administration, you must have the required permissions for the **Administration tasks** secured feature.

2. Click the **great\_outdoors\_sales** sample data source.
3. In the **Actions** columns, click the **Set properties** icon for the **great\_outdoors\_sales** data source connection.
4. On the **Connection** tab, under **Connection string**, click the **Edit the connection string** icon.
5. On the **JDBC** tab, select the **Enable JDBC connection** check box.
6. Specify the JDBC connection parameters for the data source.
7. Click **Test the connection** and click **Test**.

On the results page of the connection test, notice the JDBC results under the **Type / Query Mode** column.

8. Repeat the previous steps with the **great\_outdoors\_warehouse** sample data source connection.

### **Import the dynamic query samples content (packages) into the content store**

After you have modified the data source connections to the sample data sources, you must import the dynamic query samples content, or packages from the sample deployment archive.

#### **About this task**

The dynamic query samples are in the deployment archive named **IBM\_Cognos\_Samples\_DQ\_Legacy.zip**.

For information about importing the deployment archive, see “[Import the extended samples](#)” on page 61.

## **IBM Cognos Analytics - Reporting samples**

The sample reports for IBM Cognos Analytics - Reporting are based on the fictional retail company that is named the Sample Outdoors Company, or on uploaded files.

### **Samples in the Sample Outdoors Sales (cube) package**

The following report is found in the Sample Outdoors Sales (cube) package.

#### *Consecutive Periods Comparison*

This report shows the revenue and gross profit for Camping Equipment and Personal Accessories, as well as quantity for Camping Equipment, in two consecutive periods selected by the user.

### **Samples in the Sales and Marketing (Cube) Package**

The following reports are some of the reports found in the Sales and Marketing (Cube) package.

#### *Actual vs. Planned Revenue*

This report shows the actual revenue versus planned revenue by order method and year. This report is also a target for the measure based scope drill-through from other reports in the same package.

This report uses the following features:

- lists
- filters
- multiple prompts
- grouping
- sorting
- summarizing

#### *Historical Revenue*

This prompted report shows a 13-month rolling forecast of monthly and year-to-date revenue.

This report uses the following features:

- filters
- cascading prompts
- combination charts
- axis titles

#### *Revenue by Date Range*

This report shows revenue for a date range that is specified on a prompt page.

This report uses the following features:

- lists
- crosstabs
- context filters
- custom headers and footers
- multiple prompts
- calculations

#### *Revenue by Product Brand (2011)*

This report shows the revenue and gross profit by product filtered by the product brand. There is always product turnover, so the report conditionally highlights products that are discontinued.

This report uses the following features:

- lists
- filters

- prompts
- combination charts
- bar charts
- HTML items
- grouping
- sorting
- axis titles

*Same Month Prior Year*

This report shows sales volume by product line in one or more months. The report is filtered by a prompt for month. The report generates totals for the selected months and for the same months in the prior year.

This report uses the following features:

- crosstabs
- prompts
- custom headers and footers

*Selected Retailer Country or Region*

This report uses the revenue from a selected country or region as a baseline value for a set of countries or regions. A chart shows the difference in revenue for each country and region as it compares to the base country and region. The report is filtered by a prompt for country and region.

This report uses the following features:

- crosstabs
- bar charts
- tables to control where objects appear

*Top Retailers by Country or Region*

This report shows the top 10 retailers by country or region. It is used as source for drill-through to the Total Revenue by Country or Region report.

This report uses the following features:

- crosstabs
- prompts
- filters
- line charts
- prompt pages
- query calculations
- calculations
- singletons
- bar charts
- custom headers and footers

***Samples in the GO Data Warehouse (analysis) Package***

The following reports are some of the reports found in the GO Data Warehouse (analysis) package.

Sample reports that were created in Reporting are located in the Active Report folder and the Reporting Report Samples folder.

### *Budget vs. Actual*

This report shows three years of data by retailer and retailer site for the camping equipment product line. Each year includes budget and actual data.

This report uses the following features:

- summarizing
- crosstabs
- context filters

### *Core products results*

This active report shows revenue data for the core products Camping Equipment and Golf Equipment.

This list report uses two drop-down list controls to filter data by the following criteria:

- core product
- country or region

### *Customer Returns and Satisfaction*

This report shows the customer satisfaction survey results for Asia Pacific in 2013. It highlights the customers who are the least satisfied. It also provides information about customers with the highest number of product returns.

This report uses the following features:

- combination charts
- customizing the color and size of a chart
- lists
- formatting a list
- conditional highlighting
- filters
- custom headers and footers
- colors
- lineage
- text items
- grouping
- baselines
- summarizing
- calculations
- drilling through

### *Employee Satisfaction 2012*

This report shows employee satisfaction survey results by department, compared to targets and industry standards. It also shows employee rankings and terminations.

This report uses the following features:

- crosstabs
- conditional highlighting
- combination charts
- lineage
- text items
- calculations

### *Employee Training by Year*

This report shows employee training data for the selected year and quarter(s). A bar chart shows training costs by region and a crosstab shows data for the selected quarter(s).

This report uses the following features:

- context filters
- cascading prompts
- bar charts
- customizing the color of a chart
- crosstabs
- calculations

### *Eyewear Revenue by Brand and Size*

This report shows a summary of eyewear revenue by brand and compares two prompted retailer sites. The report is filtered by prompts for region, retailer type, and year.

This report uses the following features:

- prompts
- bar charts
- lists
- conditional styles
- calculations
- text items
- custom headers and footers
- combination charts
- axis titles
- crosstabs
- grouping

### *Global Bonus Report*

This list report shows employees who received more than \$2,500 bonus in a year by region. It is grouped by country or region. It also shows how much the sales target was exceeded for each region.

This report uses the following features:

- lists
- page sets (page breaks by country or region with different sorting and grouping)
- multiple prompts and parameters
- calculations
- filters
- conditional highlighting
- hidden objects
- lineage

### *GO Balance Sheet as at Dec 31 2012*

This is the Balance sheet report for Americas where current year data is compared to the previous year data. Analysts can see negative trends under Variance where negative percentages are highlighted.

This report uses the following features:

- conditional highlighting
- padding

- crosstabs
- text items
- context filters

#### *Sample Outdoors Company Balance Sheet as at Dec 31 2012*

This report shows a simple balance sheet with assets, liabilities, and equity for 2012 with a 2011 comparative. The IBM Cognos Analytics Getting Started guide provides a step-by-step example of how to create this report.

This report uses the following feature:

- crosstabs

#### *Manager Profile*

This report shows information about managers, including salary, bonuses, and all compensations grouped by year.

This report uses the following features:

- column charts
- lists
- grouping
- summarizing
- custom chart palette
- prompts

#### *Planned Headcount*

This chart report shows headcount variance compared to the plan for each organization for 2013.

This report uses the following features:

- progressive column charts
- templates
- hidden objects
- custom headers and footers
- lists
- baselines

#### *Positions to Fill*

This report shows a list of department names, positions, longest days to fill the positions, and ranking. The report uses a prompt for the year and is a drill-through target for the Recruitment report.

This report uses the following features:

- combination charts
- lists
- prompts
- baselines

#### *Promotion Plan Revenue*

This report shows the planned revenue for all the promotions of a selected campaign. It is a drill-through target for the Top 10 Promotions by Retailer report that is based on the Sales and Marketing (cube) package.

This report uses the following features:

- prompts
- bar charts

- crosstabs
- axis titles

#### *Promotion Success*

This report shows the financial results of the company's promotions. It shows how much of the company's total revenue is attributable to each promotional campaign.

This report uses the following features:

- prompt pages
- HTML items
- summarizing
- axis titles
- bar charts
- lists
- grouping

#### *Quantity Sold vs. Shipped and Inventory*

This report compares the quantity of goods sold and shipped with the opening and closing inventory levels.

This report uses the following features:

- filters
- combination charts
- defined y-axes
- custom headers and footers

#### *Recruitment Report*

This report shows a variety of recruitment techniques for certain positions or organizations.

This report uses the following features:

- drilling through
- crosstabs
- prompt pages
- colors
- floating object adjustment
- custom headers and footers

#### *Return Quantity by Order Method*

This report shows quantity sold, number of returns, and percentage of returns (with those greater than 5% highlighted) by return reason for each product in the Outdoor Protection product line.

This report uses the following features:

- filters
- lists
- conditional highlighting
- grouping

#### *Returned Items*

This report shows the number of returned items by return reason and retailer type. A column chart shows returned items by product line and region for the selected date range.

This report uses the following features:

- date and time prompts
- crosstabs
- bar charts
- drilling down
- text items
- sorting

#### *Returns by Damage, Failed Orders and Complaints in 2012*

This report shows quality measures based on product returns.

This report uses the following features:

- pie charts
- crosstabs
- indented text
- singletons
- calculations
- drilling through
- text items
- custom headers and footers

#### *Returns by Failed Orders in 2012*

This report shows quality measures based on product returns and focuses on failed orders.

This report uses the following features:

- pie charts
- crosstabs
- indented text
- singletons
- drilling through
- calculations, including the tuple function

#### *Returns by Order Method*

This report shows product returns and reasons filtered on the order method. The Getting Started guide provides a step-by-step example of how to create this report.

This report uses the following features:

- bar charts
- prompts
- crosstabs
- filters
- custom headers and footers

#### *Returns by Order Method - Prompted Chart*

This prompted chart report shows product returns and reasons filtered on a prompted order method.

This report uses the following features:

- bar charts
- prompts
- crosstabs
- filters

- custom headers and footers

#### *Revenue by GO Subsidiary 2011*

This prompted chart report shows 2011 quarterly revenues for each GO subsidiary.

This report uses the following features:

- templates
- colors
- prompts
- hyperlinks
- customizing charts
- singletons
- bar charts
- drilling through
- layout calculations
- pie charts
- calculations
- combination charts
- text items
- blocks
- sorting

#### *Sales Commissions for Central Europe*

This report shows an annual summary of sales commissions, revenues, and gross profit for each branch in Central Europe. It also compares actual commission expenses with planned commission expenses.

This report uses the following features:

- prompts
- calculations
- bar charts
- lists
- conditional highlighting
- drilling through
- custom headers and footers
- axis titles

#### *Sales Growth Year Over Year*

This report shows annual sales growth in both percentage and dollar amounts.

This report uses the following features:

- bar charts
- lists
- filters
- sorting
- baselines
- axis titles

### *Sales target by region*

This active report shows sales target by region, including the percentage differences between planned and actual revenue.

### *Succession Report*

This report shows the succession data by department and status for percent ready in a column chart. It also contains a detailed crosstab for the managers associated with the possible successors.

This report uses the following features:

- drilling through to the Manager Profile report
- filters
- lists
- grouping

### *Top 10 Retailers for 2011*

This report shows the top 10 retailers for 2011 by revenue and sales target.

This report uses the following features:

- bar charts
- lists
- filters
- multiple queries
- combination charts
- line charts
- notes
- axis titles
- text items
- custom headers and footers

### ***Samples in the GO Data Warehouse (query) Package***

The following reports are some of the reports found in the GO Data Warehouse (query) package.

Sample reports that were created in Reporting are located in the Active Report folder and the Reporting Report Samples folder.

### *Advertising-cost vs revenue*

This active report shows the advertising cost vs revenue by year. Tab controls are used for grouping similar report items.

### *Bursted Sales Performance Report*

This list report shows how to burst a product sales report to a sales manager for Northern Europe sales staff. To successfully burst this report, IBM Cognos Analytics must be configured to use an email server.

This report uses the following features:

- lists
- bursting
- conditional highlighting
- filters
- calculations
- summarizing
- blocks
- custom headers and footers

- sorting
- grouping

*Revenue (by product)*

This active report shows the revenue by selected product. The sample report is developed for use on a mobile phone device.

*Employee Expenses (report)*

This report is used as a data source for the Employee Expenses Power Cube.

This report uses the following feature:

- lists

*Health Insurance*

This report is used as a data source for the Employee Expenses Power Cube.

This report uses the following features:

- lists
- filters

*Pension Plan*

This report is used as a data source for the Employee Expenses Power Cube.

This report uses the following features:

- lists
- filters

*Regular Salary*

This report is used as a data source for the Employee Expenses Power Cube.

This report uses the following features:

- lists
- filters

*TOC Report*

This report takes advantage of the bookmark object to allow a user to navigate through this report easily. This report should be run in PDF or saved HTML format. The report contents show a product order table and an expected volume fact table.

This report uses the following features:

- lists
- bookmarks
- background color
- multiple pages
- grouping

*Total Revenue by Country or Region*

This report summarizes revenue for Retailer Country or Region and Product Line. It is also a drill-through target for the Top Retailers by Country or Region and Revenue by Order Method reports.

This report uses the following features:

- crosstabs
- combination charts
- summarizing
- tables to control where objects appear

## **Samples in the GO Sales (analysis) Package**

The following reports are some of the reports found in the GO Sales (analysis) package.

### *2011 Quarterly Sales Forecast*

This report shows the sales forecast by product line and region for each quarter in 2011.

This report uses the following features:

- lists
- summarizing
- grouping
- sorting

### *2011 Sales Summary*

This report summarizes revenue and gross profit for 2011 and shows the best sales representatives by revenue and quantity sold.

This report uses the following features:

- lists
- filters
- combination charts
- axis titles
- custom headers and footers
- conditions

## **Samples in the GO Sales (query) Package**

The following reports are some of the reports found in the GO Sales (query) package.

Sample reports that were created in Reporting are located in the Active Report folder and the Reporting Report Samples folder.

### *Active Report Techniques*

This report demonstrates common active report and dashboard features and functionality.

### *Briefing Book*

This report shows a Briefing Book style of report.

This report uses the following features:

- multiple pages
- crosstabs
- multiple queries
- filters
- pie charts
- singletons
- tables of contents
- bookmarks
- PDF options
- horizontal pagination
- sorting
- custom headers and footers
- text items

### *Film strip*

This active report shows detailed sales facts in different charts. Deck controls are used for navigation.

### *Horizontal Pagination*

This report shows crosstabs rendered across several horizontal pages. The first crosstab shows the fit-to-page behavior while the second crosstab shows the horizontal pagination.

This report uses the following features:

- multiple pages
- horizontal pagination
- crosstabs
- custom headers and footers

### *Matrix-chart and graph*

This active report shows a summary of sales facts for each province or state in the Americas. Clicking a category in the map displays the data in a list.

### *Order Invoices - Donald Chow, Sales Person*

This report generates invoices for all the sales by Donald Chow.

This report uses the following features:

- lists
- adding list row cells
- calculations
- formatting tables
- calculations
- filters
- grouping
- tables to control where objects appear

### *No Data*

Each page of this report presents a different option for dealing with a No Data condition. It also generates invoices of sales for the Order Invoices - Donald Chow, Sales Person report in the GO Sales (query) package.

This report uses the following features:

- crosstabs
- custom headers and footers
- no data
- lists

### *PDF Page Properties*

The two pages of this report appear with different Page Orientation (portrait and landscape) when the report is run in PDF format.

This report uses the following features:

- crosstabs
- lists
- page orientation
- PDF options
- custom headers and footers

*Product details*

This active report shows attributes as color, size, and description for products.

*Sales analysis*

This active report shows interactions with charts. Clicking a pie series in a chart filters the product line selected.

*Sales Dashboard*

This active report focuses on sales details by region and product brand. Describes the best performers and the best performance by region.

*Singletons on Page Body*

This report uses singleton results to display information with no data relationship in the same layout context.

This report uses the following features:

- singletons
- tables
- custom headers and footers

*Table of Contents*

This report shows two Tables of Contents: one for the main pages and another for the appendices.

This report uses the following features:

- crosstabs
- pie charts
- bookmarks
- tables
- tables of contents
- custom headers and footers
- hyperlinks

## **Prompt API samples**

The following reports are some of the reports found in the Samples\_Prompt\_API folder.

### *Clear prompt selections*

This report demonstrates using the prompt API to clear selections from all prompts.

### *Date prompt presets*

This report uses the prompt API to provide the user with a set of prompt selection presets based on today's date.

### *Display all prompt values ignoring user selections*

This report uses the prompt API to display all the values in the prompt, whether they are selected or not.

### *Display user selected prompt values*

This report uses the prompt API to display the prompt values selected by the user.

### *Filter country by letter*

This report uses a custom prompt control to provide parameters to filter the report.

### *Limit date prompt selection by database value*

This report demonstrates limiting the selection of a date to a value less than or equal to a latest date value in a query item.

### *Limit numeric prompt selection by database value*

This report demonstrates limiting the selection of a value less than or equal to a largest value in a query item.

### *Limit time between two dates*

This report demonstrates preventing the user from selecting a date range greater than 10 days.

### *Limit user selection to two items*

This report shows how to validate prompt values to stop the user from selecting more than two items.

### *Pass parameter via hidden prompt*

This report demonstrates setting the value of a hidden prompt.

### *Personal default prompt selections - set selections*

This report allows the user to save a set of default prompt selections for use in subsequent reports. The prompt selections are saved to browser cookies for reuse in other reports.

### *Personal default prompt selections - use selections*

This report shows how to use the personal default prompt selections.

### *Validate prompt values when button pushed*

This sample shows how to validate prompt values when a prompt button is clicked.

### *Validate type-in postal code values*

The report uses the prompt API to validate user input character by character as the user types to ensure that a valid postal code is entered.

### *Validate type-in product line code*

The report uses the prompt API to validate user input as the user types.

## **Using the Java samples**

The IBM Cognos Software Development Kit includes Java™ program samples that show you some of the types of applications you can design. These samples include source files so that you can test changes to the sample code, and batch files or shell scripts for compiling and running the samples.

Comments in the source files describe the main purpose of each sample, including a summary of which BI Bus API Software Development Kit methods are used. The batch files and shell scripts contain instructions that you must follow before you run them.

Each subdirectory in `installation_location/sdk/java` contains the following files.

Table 9. Files in the <code>installation_location/sdk/java</code> subdirectory	
File	Description
build.bat	Builds the individual sample on Windows operating systems
build.sh	Builds the individual sample on UNIX or Linux operating systems
run.bat	Runs the individual sample on Windows operating systems
run.sh	Runs the individual sample on UNIX or Linux operating systems

In addition, the `installation_location/sdk/java` directory contains the following files.

Table 10. Files in the <code>installation_location/sdk/java</code> directory	
File	Description
build-samples.bat	Builds all the Java samples on Windows operating systems
build-samples.sh	Builds all the Java samples on UNIX or Linux operating systems

Before you modify any of the Java samples, familiarize yourself with basic Java programming techniques.

Before you use these Java samples, check to see if you have anonymous access enabled. Although the samples will work with anonymous access, security features will not be demonstrated. To use the security features of the samples, ensure that you have a secured NTLM, LDAP, or other namespace, and that you disable anonymous access.

Because some of the Java samples issue output to the command console, ensure that the console is visible when you run the samples.

### **Java samples setup for Windows operating systems**

Use this procedure to setup the Java samples on Windows operating systems.

#### **Procedure**

1. Install a Java Development Kit (JDK). To determine the supported Java versions, see [IBM Cognos Analytics 11.0.0 Supported Software Environments](http://www-01.ibm.com/support/docview.wss?uid=swg27047186) (<http://www-01.ibm.com/support/docview.wss?uid=swg27047186>). Select your product and product version and create a report for related software. Choose Development Tools under Supported software.

The report that is generated lists the supported Java versions.

2. Ensure that your PATH environment variable includes the location where the JDK is installed.

3. Edit `installation_location/sdk/java/Common/CRNConnect.java` by locating the line

```
public static String CM_URL = "http://localhost:9300/p2pd/servlet/dispatch";
```

and replacing localhost:9300 with the name and, if necessary, port number of your IBM Cognos dispatcher.

4. If you want to compile all the samples, edit *installation\_location/sdk/java/build-samples.bat* and change the lines

```
set JAVA_HOME=c:/jdk1.5  
set CRN_HOME=.../...
```

so that they point to the locations where the JDK and the IBM Cognos Analytics server are installed, respectively.

5. If you want to compile individual samples, edit *installation\_location/sdk/java/sample\_name/build.bat* and change the lines

```
set JAVA_HOME=c:/jdk1.5  
set CRN_HOME=.../...
```

so that they point to the locations where the JDK and the IBM Cognos Analytics server are installed, respectively.

6. Compile the Java samples by running build-samples.bat (to compile all samples) or build.bat (to compile an individual sample).

## **Java setup for Linux and UNIX operating systems**

Use this procedure to setup the Java samples on Linux and UNIX operating systems.

### **Procedure**

1. Install a Java Development Kit (JDK). To determine the supported Java versions, see [IBM Cognos Analytics 11.0.0 Supported Software Environments](http://www-01.ibm.com/support/docview.wss?uid=swg27047186) (<http://www-01.ibm.com/support/docview.wss?uid=swg27047186>). Select your product and product version and create a report for related software. Choose Development Tools under Supported software.

The report that is generated lists the supported Java versions.

2. Set the JAVA\_HOME environment variable to point to the location where the JDK is installed.

3. Edit *installation\_location/sdk/java/Common/CRNConnect.java* by locating the line

```
public static String CM_URL = "http://localhost:9300/p2pd/servlet/dispatch";  
and replacing localhost:9300 with the name and, if necessary, port number of your IBM Cognos dispatcher.
```

4. If you want to compile all the samples, edit *installation\_location/sdk/java/build-samples.sh* and change the lines

```
CRN_HOME=/usr/cognos/xxx  
JAVA_HOME=/c/j2sdk1.5
```

so that they point to the locations where JDK and the IBM Cognos Analytics server and the JDK are installed, respectively.

5. If you want to compile individual samples, edit *installation\_location/sdk/java/sample\_name/build.sh* and change the lines

```
CRN_HOME=/usr/cognos/xxx  
JAVA_HOME=/c/j2sdk1.5
```

so that they point to the locations where JDK and the IBM Cognos Analytics server and the JDK are installed, respectively.

6. Compile the Java samples by running build-samples.sh (to compile all samples) or build.sh (to compile an individual sample).

## Sample Outdoors organization and schemas

Under the holding company GO Consolidated, there are six distinct sales organizations, each with their own departments and sales branches.

GO Consolidated consists of sales organizations for GO Americas, GO Asia Pacific, and GO Accessories. The GO Accessories sales organization consists of GO Northern Europe, GO Central Europe, and GO Southern Europe.

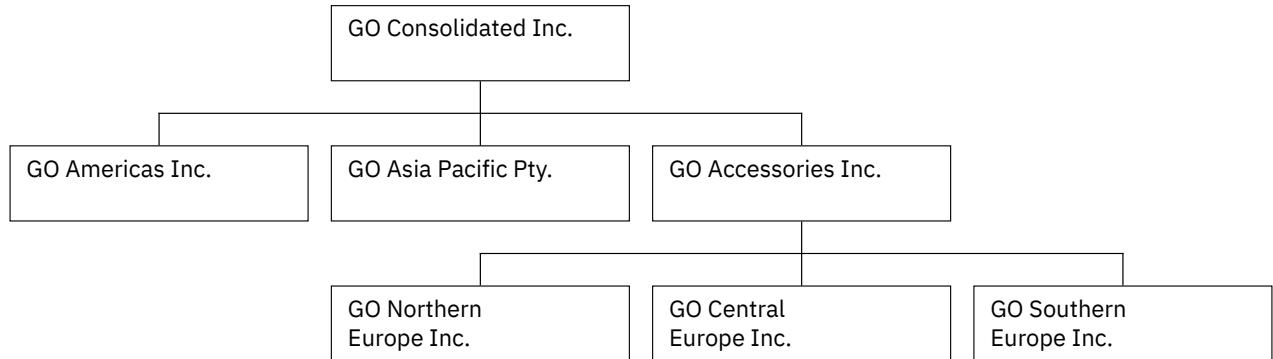


Figure 2. GO Organization

## The Outdoors Companies

Five of the six companies are regionally-based companies, whose sales region is identified in the company name. These five companies sell the complete line of outdoor products including:

- Camping Equipment
- Golf Equipment
- Mountaineering Equipment
- Personal Accessories
- Outdoor Protection

## The Accessory Company

GO Accessories Inc. operates differently than the five outdoor companies and stands apart in several other areas:

- GO Accessories has its own collection of accessories, differentiated from the outdoor companies by brand, name, price, color and size.
- GO Accessories sells from a single branch to all regions and retailers.
- GO Accessories functions both as an operating company based in Geneva, and as owner or part owner of three GO subsidiaries in Europe. This offers a complex structure that is useful in samples that show office-of-finance type reporting.

## Unbalanced hierarchy

The ownership by GO Accessories of the European companies supports applications designed for office-of-finance reporting. Samples applications can include inter-company eliminations and consolidation up to the highest level node - GO Consolidated. In this structure, aggregations of the European organizations occur through GO Accessories.

The resulting unbalanced hierarchy has one additional level, as shown in the following table. At level 3 of the organization structure, GO Central Europe (GOCEU) is at the same level as the operations department for GO Americas (GOAMXOP).

Table 11. Sample GO Accessories Hierarchy

Level	Example (ID)	Example (data)
Org level 1	GOCON	GO CONSOLIDATED
Org level 2	GOAMX GOEUX	GO Americas GO Accessories
Org level 3	GOAMXOP GOCEU	GO Americas operations GO Central Europe
Org level 4	30 GOCEUOP	Sales branch 30 - Sao Paulo - BRA GO Central Europe operations
Org level 5	30 6	Sales branch 30 - Sao Paulo - BRA Sales branch 6 - Paris - FRA

## Balanced hierarchy - view

You can use views to balance the organization hierarchy by side-stepping the relationship between GO Accessories and the European companies. Use a view when you want to create samples that show metrics and aggregations that are distinct for each corporate entity.

Gosales VIEW\_BALANCED\_ORG

```
SELECT TOP 100 PERCENT ORGANIZATION_1.ORGANIZATION_PARENT AS ORG_LEVEL1_CODE,
gosaleshr.ORGANIZATION.ORGANIZATION_PARENT AS ORG_LEVEL2_CODE,
gosaleshr.ORGANIZATION.ORGANIZATION_CODE
FROM gosaleshr.ORGANIZATION ORGANIZATION_1 RIGHT OUTER JOIN
gosaleshr.ORGANIZATION ON ORGANIZATION_1.ORGANIZATION_CODE =
gosaleshr.ORGANIZATION.ORGANIZATION_PARENT
WHERE (gosaleshr.ORGANIZATION.ORGANIZATION_CODE BETWEEN N'006' AND
N'8820')
ORDER BY ORGANIZATION_1.ORGANIZATION_PARENT,
gosaleshr.ORGANIZATION.ORGANIZATION_PARENT DESC,
gosaleshr.ORGANIZATION.ORGANIZATION_CODE
```

gosalesdw.VIEW\_BALANCED\_ORG

```
SELECT gosalesdw.GO_ORG_DIM.ORGANIZATION_KEY, GO_ORG_DIM_1.ORGANIZATION_PARENT AS
ORG_LEVEL1_CODE, GO_ORG_NAME_LOOKUP_1.ORGANIZATION_NAME_EN AS ORG_LEVEL1_NAME,
gosalesdw.GO_ORG_DIM.ORGANIZATION_PARENT AS ORG_LEVEL2_CODE,
GO_ORG_NAME_LOOKUP_2.ORGANIZATION_NAME_EN AS ORG_LEVEL2_NAME,
gosalesdw.GO_ORG_DIM.ORGANIZATION_CODE AS ORG_CODE,
gosalesdw.GO_ORG_NAME_LOOKUP.ORGANIZATION_NAME_EN AS ORG_NAME
FROM gosalesdw.GO_ORG_NAME_LOOKUP GO_ORG_NAME_LOOKUP_2 INNER JOIN
gosalesdw.GO_ORG_DIM INNER JOIN
gosalesdw.GO_ORG_NAME_LOOKUP ON
gosalesdw.GO_ORG_DIM.ORGANIZATION_CODE =
gosalesdw.GO_ORG_NAME_LOOKUP.ORGANIZATION_CODE ON
GO_ORG_NAME_LOOKUP_2.ORGANIZATION_CODE =
gosalesdw.GO_ORG_DIM.ORGANIZATION_PARENT INNER JOIN
gosalesdw.GO_ORG_NAME_LOOKUP GO_ORG_NAME_LOOKUP_1 INNER JOIN
gosalesdw.GO_ORG_DIM GO_ORG_DIM_1 ON GO_ORG_NAME_LOOKUP_1.ORGANIZATION_CODE =
GO_ORG_DIM_1.ORGANIZATION_PARENT ON
gosalesdw.GO_ORG_DIM.ORGANIZATION_PARENT =
GO_ORG_DIM_1.ORGANIZATION_CODE
WHERE (gosalesdw.GO_ORG_DIM.ORGANIZATION_CODE BETWEEN N'006' AND N'8820')
```

## GO Departments

The Sample Outdoors companies are divided into operating and corporate departments. Each organization has the same structure.

Applications for financial and planning data use the department structure in the sample budgets and forecasts.

Sales branches under operations, and HR departments under corporate, are the richest sources of data for querying and analysis.

Table 12. Sample Outdoors Departments	
Division (GL)	Department (GL)
Corporate	Sales (Corporate)
Corporate	Marketing (1750)
Corporate	IS&T
Corporate	Human Resources
Corporate	Finance
Corporate	Procurement
Operations	Sales branches
Operations	Production and Distribution
Operations	Customer Service

## GO Operations

Metrics such as revenue, quantities, and cost of goods, aggregate through levels from sales rep to branch to operations under each corporate banner.

Data from other departments ties into the sales data. For example, the marketing department implements sales campaigns.

## Human Resources

Human resources data exists for metrics such as compensation, benefits, training and surveys. Employees are paid hourly, or receive salaries. Compensation may include commission and bonuses. Vacation and sick days are part of the benefits package.

Each Sample Outdoors organization is staffed by a variety of employees including personnel for marketing, finance, sales, as well as those in other departments. Employee history exists for employees that change positions or have new managers.

In the warehouse data (GOSALESDW), the employee history is contained in a slowly changing dimension, in which an employee code may be a repeating value and the employee key is unique.

In the transactional data (GOSALES), employee history requires filtering on a date range in order to assign transaction records to employees in the appropriate time period. Filtering also prohibits double-counting that can occur with repeating employee codes. For example, to capture an accurate history of an employee at the time of training, the date range is qualified.

```
WHERE (TRAINING_DETAILS.TRAINING_DATE BETWEEN  
EMPLOYEE_HISTORY.RECORD_START_DATE AND EMPLOYEE_HISTORY.RECORD_END_DATE)
```

Alternatively, you can select active records by filtering out employee history, which returns only the current manager or job position of the employee.

```
WHERE (EMPLOYEE_HISTORY.RECORD_END_DATE IS NULL)
```

## ***Warehouse Schema***

### **Gosalesdw Schema**

*Table 13. Great Outdoors sales data warehouse schema*

<b>Table</b>	<b>Record count</b>	<b>Functional area</b>
DIST_INVENTORY_FACT	53,837	Distribution
DIST_PRODUCT_FORECAST_FACT	129,096	Distribution
DIST_RETURN_REASON_DIM	5	Distribution
DIST_RETURNED_ITEMS_FACT	10,249	Distribution
EMP_EXPENSE_FACT	127,984	Distribution
EMP_EXPENSE_PLAN_FACT	30,150	Distribution
EMP_EXPENSE_TYPE_DIM	39	Distribution
FIN_ACCOUNT_DIM	242	Finance
FIN_FINANCE_FACT	164,132	Finance
FIN_SUBM_DIM	52	Finance
GO_BRANCH_DIM	29	Geography
GO_REGION_DIM	21	Geography
MRK_PROD_SURVEY_TARG_FACT	5,824	Marketing
MRK_PRODUCT_SURVEY_DIM	7	Marketing
MRK_PRODUCT_SURVEY_FACT	165,074	Marketing
MRK_PROMOTION_DIM	112	Marketing
MRK_PROMOTION_FACT	11,034	Marketing
MRK_PROMOTION_PLAN_FACT	8,652	Marketing
MRK_RTL_SURVEY_DIM	9	Marketing
MRK_RTL_SURVEY_FACT	22,508	Marketing
MRK_RTL_SURVEY_TARG_FACT	64	Marketing
EMP_POSITION_DIM	57	Organization
GO_ORG_DIM	123	Organization
EMP_EMPLOYEE_DIM	972	Personnel
EMP_POSITION_SUMMARY_FACT	15,050	Personnel
EMP_RANKING_DIM	5	Personnel
EMP_RANKING_FACT	1,897	Personnel
EMP_RECRUITMENT_DIM	14	Personnel

*Table 13. Great Outdoors sales data warehouse schema (continued)*

<b>Table</b>	<b>Record count</b>	<b>Functional area</b>
EMP_RECRUITMENT_FACT	416	Personnel
EMP_SUCCESSION_FACT	181	Personnel
EMP_SUCCESSION_STATUS_DIM	5	Personnel
EMP_SUMMARY_FACT	24,233	Personnel
EMP_SURVEY_FACT	5,725	Personnel
EMP_SURVEY_TARG_FACT	20	Personnel
EMP_SURVEY_TOPIC_DIM	5	Personnel
EMP_TRAINING_DIM	42	Personnel
EMP_TRAINING_FACT	4,465	Personnel
GO_SATISFACTION_DIM	5	Personnel
SLS_PRODUCT_DIM	274	Product
MRK_ACTIVITY_STATUS_DIM	2	Retailer
SLS_RTL_DIM	847	Retailer
SLS_ORDER_METHOD_DIM	7	Sales
SLS_SALES_FACT	446,023	Sales
SLS_SALES_ORDER_DIM	446,023	Sales
SLS_SALES_TARG_FACT	233,625	Sales
GO_TIME_DIM	1,465	Time
Xgorev	15	Database Admin

## Gosalesdw Lookup tables

*Table 14. Great Outdoors sales data warehouse Lookup*

<b>Table</b>	<b>Record count</b>	<b>Functional area</b>
EMP_EXPENSE_UNIT_LOOKUP	3	Expenses
FIN_ACCOUNT_CLASS_LOOKUP	5	Finance
FIN_ACCOUNT_NAME_LOOKUP	242	Finance
FIN_ACCOUNT_TYPE_LOOKUP	4	Finance
FIN_SUBM_CURRENCY_LOOKUP	7	Finance
FIN_SUBM_TYPE_LOOKUP	3	Marketing
MRK_BUNDLE_GROUP_LOOKUP	15	Marketing
MRK_CAMPAIGN_LOOKUP	12	Organization
EMP_POSITION_LOOKUP	57	Organization
GO_ORG_NAME_LOOKUP	123	Personnel
EMP_TERMINATION_LOOKUP	6	Personnel

*Table 14. Great Outdoors sales data warehouse Lookup (continued)*

Table	Record count	Functional area
GO_GENDER_LOOKUP	2	Product
SLS_PRODUCT_BRAND_LOOKUP	28	Product
SLS_PRODUCT_COLOR_LOOKUP	27	Product
SLS_PRODUCT_LINE_LOOKUP	5	Product
SLS_PRODUCT_LOOKUP	274 per language	Product
SLS_PRODUCT_SIZE_LOOKUP	55	Product
SLS_PRODUCT_TYPE_LOOKUP	21	Product
GO_TIME_QUARTER_LOOKUP	20	Time

### ***Transaction Schemas***

#### **Gosales Schema**

*Table 15. Great Outdoors sales schema*

Table	Record count	Functional area
INVENTORY_LEVELS	53,837	Distribution
PRODUCT_FORECAST	129,096	Distribution
RETURN_REASON	5	Distribution
RETURNED_ITEM	10,249	Distribution
BRANCH	29	Geography
COUNTRY	21	Geography
SALES_REGION	5	Geography
PRODUCT	274	Product
PRODUCT_BRAND	28	Product
PRODUCT_LINE	5	Product
PRODUCT_TYPE	21	Product
CONVERSION_RATE	624	Sales
EURO_CONVERSION	8	Sales
ORDER_DETAILS	446,023	Sales
ORDER_HEADER	53,256	Sales
ORDER_METHOD	7	Sales
SALES_TARGET	233,625	Sales
TIME_DIMENSION	1,465	Time
xgorev	16	Database admin

## Gosales Lookup tables

*Table 16. Great Outdoors sales Lookup tables*

Table	Record Count	Functional Area
PRODUCT_COLOR_LOOKUP	27	Product
PRODUCT_NAME_LOOKUP	274 per language	Product
PRODUCT_SIZE_LOOKUP	55	Product
CURRENCY_LOOKUP	21	Sales
TIME_QUARTER_LOOKUP	20	Time

## Gosaleshr Schema

*Table 17. Great Outdoor sales human resources schema*

Table	Record count	Functional area
EMPLOYEE_EXPENSE_DETAIL	127,997	Expenses
EMPLOYEE_EXPENSE_PLAN	37,317	Expenses
EMPLOYEE_SUMMARY	24,233	Expenses
EMPLOYEE_SURVEY_TOPIC	5	Expenses
EXPENSE_GROUP	10	Expenses
EXPENSE_TYPE	39	Expenses
EXPENSE_UNIT	3	Expenses
ORGANIZATION	123	Organization
POSITION_DEPARTMENT	445	Organization
POSITION_SUMMARY	15,050	Organization
EMPLOYEE	766	Personnel
EMPLOYEE_HISTORY	972	Personnel
EMPLOYEE_SURVEY_RESULTS	5,725	Personnel
EMPLOYEE_SURVEY_TARGETS	20	Personnel
RANKING	5	Personnel
RANKING_RESULTS	1,898	Personnel
RECRUITMENT	416	Personnel
RECRUITMENT_MEDIUM	14	Personnel
RECRUITMENT_TYPE	7	Personnel
SATISFACTION_INDEX	5	Personnel
SUCCESSION_DETAILS	182	Personnel
SUCCESSOR_STATUS	5	Personnel
TRAINING	42	Personnel

## Gosaleshr Lookup tables

*Table 18. Great Outdoors sales human resources Lookup tables*

Table	Record count	Functional area
DEPARTMENT_LOOKUP	12	Organization
POSITION_LOOKUP	45	Organization
GENDER_LOOKUP	2	Personnel
TERMINATION_LOOKUP	6	Personnel
TRAINING_DETAILS	4,471	Personnel

## Gosalesmr Schema

*Table 19. Great Outdoors sales marketing schema*

Table	Record count	Functional area
PRODUCT_SURVEY_RESULTS	165,074	Marketing
PRODUCT_SURVEY_TARGETS	5,824	Marketing
PRODUCT_SURVEY_TOPIC	7	Marketing
PROMOTION_BUNDLE_GROUP	15	Marketing
PROMOTION_CAMPAIGN	12	Marketing
PROMOTION_PLAN	8,652	Marketing
PROMOTIONS	112	Marketing
RETAILER_SURVEY_RESULTS	22,508	Marketing
RETAILER_SURVEY_TARGETS	64	Marketing
RETAILER_SURVEY_TOPIC	9	Marketing

## Gosalesrt Schema

*Table 20. Great Outdoors sales retailer*

Table	Record count	Functional area
ACTIVITY_STATUS_LOOKUP	2	Retailer
RETAILER	562	Retailer
RETAILER_ACTIVITY	17,754	Retailer
RETAILER_CONTACT	847	Retailer
RETAILER_SITE	847	Retailer
RETAILER_SITE_MB	847	Retailer
RETAILER_TYPE	8	Retailer

# Custom visualizations code samples

---

There are code samples available for developers of custom visualizations.

The code samples found provided have the purpose of illustrating certain aspects of the customvis library and tools. This means that the main focus of each sample is not completeness of the visualization, showing how certain things work. Each sample is fully documented and tested and can be made publicly available.

**Note:** If there is no internet connection in your environment, (e.g. Intranet, restricted environment) then the visualization will fail.

Before you deploy the custom visualization, you must package it.

For more information, see the *Packaging the custom visualization* documentation in the *IBM Cognos Analytics Custom Visualizations Developer Guide*.

**Note:** If you receive a script error for <https://d3js.org...>, it is most likely caused by a missing external dependency on D3. It can be downloaded from the first URL specified in the error.

## Location of the samples

You can find the custom visualization samples here: [https://github.com/IBM/ca\\_customvis/tree/master/code-samples/11.1.x](https://github.com/IBM/ca_customvis/tree/master/code-samples/11.1.x).

## Weather

- Render a single, non-optional, formatted data value.
- Show how to include static images.
- Make a sizeable visualization using svg viewBox.
- Use of color, number and boolean properties.

## Ternary

- Render elements on a position in an equilateral triangle.
- Enable or disable properties based on the value of another property.
- Change render behaviour for small size visualizations.
- Apply highlight and selection styling.
- Store text in a resource file for possible translation.
- Use an external javascript library ('RBush' for label overlapping).
- Separate render logic from data handling as a coding pattern.
- Memory efficient rendering with accessor functions for calculations.
- Use UpdateInfo.reason for render optimization.

## Scatter

- Render a simple scatter plot chart.
- Provide UI-language aware text.
- Use various types of properties in the visualization.
- Update property status based on the value of another property.
- Customize the legend.
- Use an optional slot.

## **Overlay bar**

- Render a simple bar chart with overlaid bars.
- Embed a static image in a visualization.
- Highlight and selection decorations.
- Make modifications to palette colors.

## **Quadrant**

- Render a more advanced scatter visualization.
- Use animation in charts.
- Render axis titles.
- Highlight and selection decorations (raise elements).
- Use custom data domains for the x-axis and y-axis.

## **Sankey**

- Use a third party library for calculations.
- Highlight and selection decorations by color and font.
- Implement custom hit testing for tooltips, highlights and selections.

**Note:** IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests. These examples were created for advanced custom visualization developers. They are code samples with specific requirements and do not include all the features/interactivity/properties of an out-of-the-box Cognos visualization. They are intended to provide a baseline for developers to extend their visualizations. Any modifications you make are not supported by IBM. If you are not an advanced visualization developer, Cognos Analytics already delivers a full set of fully-featured and powerful visualizations that are ready to use.

## **Waterfall code sample**

A waterfall visualization shows how an initial value is increased and decreased by a series of intermediate values, leading to a final cumulative value shown in the far right column.

### **About this task**

For more information about the waterfall custom visualization code sample on IBM Accelerator Catalog, see [Waterfall](#).

**Note:** This code sample is intended for an advanced custom visualization developer. It provides an opportunity for developers to extend their visualizations. If you are not a visualization developer, IBM Cognos Analytics comes with a full set of powerful visualizations that are ready to use.

Waterfall visualizations are supported as of IBM Cognos Analytics 11.1.6

This custom visualization code sample provides a way to show very specific data (see `waterfall_sample_data.xlsx`) within a waterfall visualization.

Some examples of waterfall visualizations are as follows:

- Viewing the net income after you add the increases and decreases of revenue and costs for an enterprise over a quarter.
- Cumulative sales for products across a year with an annual total.

The **Value Type** field must use a column that contains these specific values:

- TOTAL (gray): the total value at a point

- ADJUSTMENT (yellow): an optional manual adjustment that might not be suitable to be categorized as DELTA
- DELTA (green or red): a positive or negative change in the value

There are code samples available for developers of custom visualizations. The code samples illustrate certain aspects of the *customvis* library and tools. The main focus of each sample is not the completeness of the visualization, but rather to demonstrate how specific features work.

To view the source code and packed bundle (.zip file) for the waterfall visualization sample, go to this public [GitHub repository](#). To download the files, browse to the [root of this directory](#) and click *Clone or download*.

For more information, see the *Custom visualizations code samples* documentation in the *IBM Cognos Analytics Samples Guide*.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

There are three ways to use this sample custom visualization.

- You can upload the packed bundle (.zip file).

For more information, see the section *Packaging the custom visualization* in the *Custom Visualizations Developer Guide*.

- You can package a sample with *customvis pack* and upload the bundle (zip file) to IBM Cognos Analytics

For more information, see the section *Packaging the custom visualization* in the *Custom Visualizations Developer Guide*.

- You can run any sample locally by running *customvis start* inside the folder that contains the sample. After that, you can use the *Preview Vis* in IBM Cognos Analytics Dashboard or Reporting to insert the custom visualization in your dashboard or report.

For more information, see the section *Using a D3 sample in your custom visualization* in the *Custom Visualizations Developer Guide*.

The following steps demonstrate how to use the waterfall visualization and populate it with data.

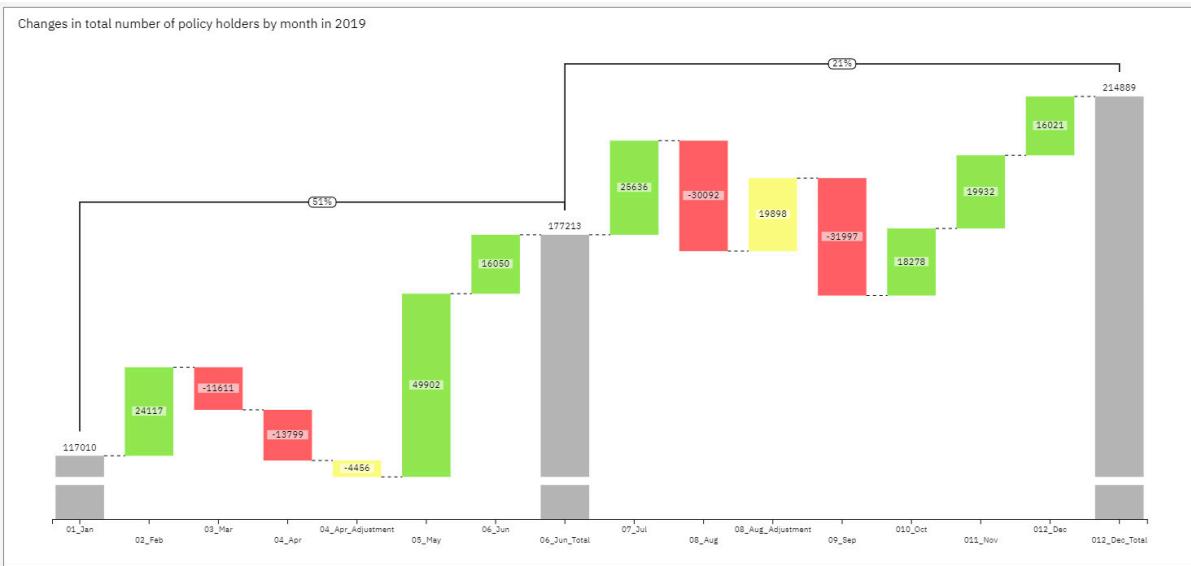
## Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.
  2. Click the **Custom** tab.
- If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.
3. From the **Custom visuals** pane, select the waterfall visualization.
  4. Upload *Waterfall\_sample\_data.xlsx* ([https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom\\_visualizations/data/Waterfall\\_sample\\_data.xlsx](https://public.dhe.ibm.com/software/data/sw-library/cognos/mobile/C11/custom_visualizations/data/Waterfall_sample_data.xlsx)) and use it as the data source.
  5. Create the waterfall visualization by dragging the following data items from

*Waterfall\_sample\_data.xlsx* in the **Sources** pane 

- Drag **Month** onto the **Categories** field.
- Drag **Type** onto the **Value type** field.
- Drag **Police Holders** onto the **Value** field.

This sample Waterfall visualization displays data from a fictional insurance company. It shows the change in the total number of policy holders by month in 2019.



## What to do next

An explanation of the specific properties within this visualization that can be adjusted:

Property	Purpose
<b>Ratio of base</b>	Ratio of base over chart height. Base is placed under Total columns. If you want to adjust the height of total bars, then use this property.
<b>Show changes</b>	Toggles to see the changes by the bridges.
<b>Total rows</b>	To classify a row as the <b>Total rows</b> category, the value of the row in your data must match the <b>Type classes</b> string that is specified in this property.
<b>Adjustment rows</b>	To classify a row as the <b>Adjustment rows</b> category, the value of the row in your data must match the <b>Type classes</b> string that is specified in this property.
<b>Delta rows</b>	To classify a row as the <b>Delta rows</b> category, the value of the row in your data must match the <b>Type classes</b> string that is specified in this property.

## Google bar chart code sample

A bar chart that is rendered as an image that uses the Google Charts API.

### About this task

For more information about the Google bar chart custom visualization code sample on IBM Accelerator Catalog, see [Google Bar Chart](#).

**Note:** Google bar chart is not supported in a report when you use Microsoft Internet Explorer 11.

**Note:** This code sample is intended for an advanced custom visualization developer. It provides an opportunity for developers to extend their visualizations. If you are not a visualization developer, IBM Cognos Analytics comes with a full set of powerful visualizations that are ready to use.

**Note:** We have enabled a number of properties. You can enable more properties if the chart engine supports that.

Google bar charts are supported as of IBM Cognos Analytics 11.1.7

This custom visualization code sample provides a way to show how to use Google charts as custom visualization in IBM Cognos Analytics. This code sample explains how to integrate a Google bar chart but similar code can be used to integrate other Google Charts.

Bar visualizations use horizontal data markers that are arranged in groups to compare individual values. You can use bar visualizations to compare discrete data or to show trends over time.

There are code samples available for developers of custom visualizations. The code samples illustrate certain aspects of the *customvis* library and tools. The main focus of each sample is not the completeness of the visualization, but rather to demonstrate how specific features work.

#### 11.1.7 to 11.2.2

To view the source code and packed bundle (.zip file) for the Google bar chart sample, go to this public [GitHub repository](#). To download the files, browse to the [root of this directory](#) and click *Clone or download*.

#### 11.2.3 and above

The method of using the Google Charts API has changed. Full details of these changes can be found here: [https://github.com/IBM/ca\\_customvis/wiki/Known-Issues](https://github.com/IBM/ca_customvis/wiki/Known-Issues)

To view the source code and packed bundle (.zip file) for the Google bar chart sample, go to this public [GitHub repository](#). To download the files, browse to the [root of this directory](#) and click *Clone or download*.

For more information, see the *Custom visualizations code samples* documentation in the *IBM Cognos Analytics Samples Guide*.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

There are three ways to use this sample custom visualization.

- You can upload the packed bundle (.zip file).

For more information, see the section *Packaging the custom visualization* in the *Custom Visualizations Developer Guide*.

- You can package a sample with *customvis pack* and upload the bundle (zip file) to IBM Cognos Analytics

For more information, see the section *Packaging the custom visualization* in the *Custom Visualizations Developer Guide*.

- You can run any sample locally by running *customvis start* inside the folder that contains the sample. After that, you can use the *Preview Vis* in IBM Cognos Analytics Dashboard or Reporting to insert the custom visualization in your dashboard or report.

For more information, see the section *Using a D3 sample in your custom visualization* in the *Custom Visualizations Developer Guide*.

The following steps demonstrate how to use the Google bar chart visualization and populate it with data.

## Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.

2. Click the **Custom** tab.

If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.

3. From the **Custom visuals** pane, select the Google Bar visualization.

4. Use the Customer Analysis sample data source from Team content > Samples > By industry > Insurance > Data.

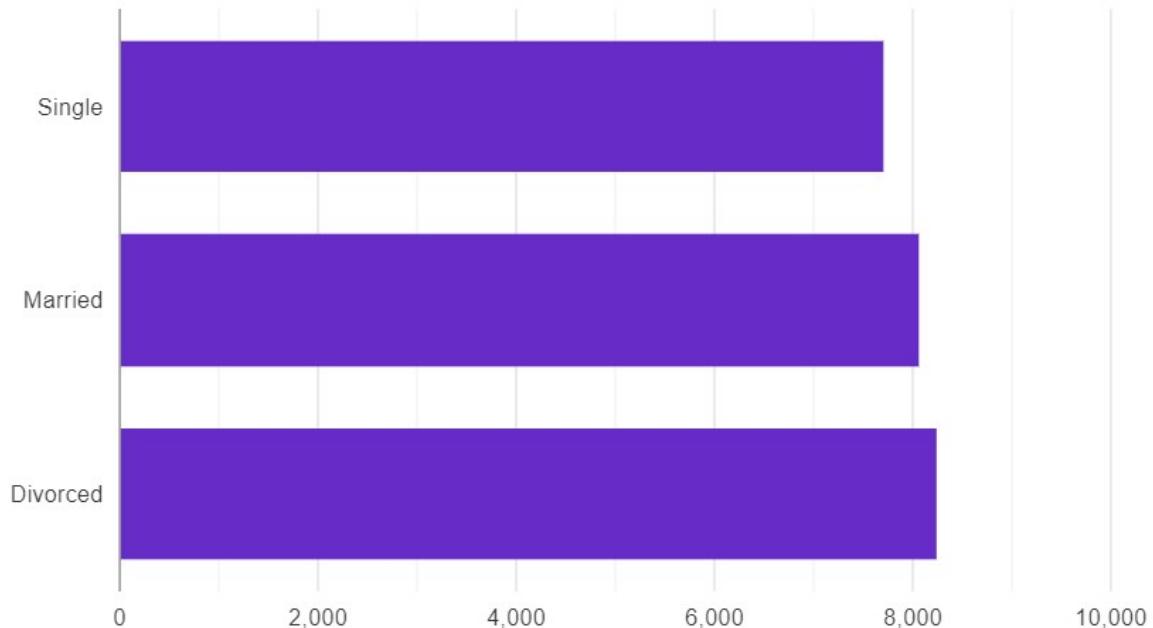
5. Create the Google Bar visualization by dragging the following data items from the Customer Analysis

sample data source in the **Sources** pane :

- From the **Customer Analysis** table, drag **Marital Status** onto the **Categories** field.
- From the **Customer Analysis** table, drag **Customer Lifetime Value** onto the **Value** field.

This sample Google bar chart displays data from a fictional insurance company. It shows the customer lifetime value by marital status.

Marital Status, Customer Lifetime Value



## Apache ECharts line code sample

Use a line visualization to show trends over time by using the Apache ECharts API.

### About this task

For more information about the Apache ECharts custom visualization code sample on IBM Accelerator Catalog, see [Apache ECharts line](#).

**Note:** This code sample is intended for an advanced custom visualization developer. It provides an opportunity for developers to extend their visualizations. If you are not a visualization developer, IBM Cognos Analytics comes with a full set of powerful visualizations that are ready to use.

**Note:** We have enabled a number of properties. You can enable more properties if the chart engine supports that.

Apache ECharts are supported as of IBM Cognos Analytics 11.1.7

This custom visualization code sample provides a way to show how to use Apache ECharts as custom visualization in IBM Cognos Analytics. This code sample explains how to integrate a Apache ECharts line chart but similar code can be used to integrate other Apache ECharts.

There are code samples available for developers of custom visualizations. The code samples illustrate certain aspects of the *customvis* library and tools. The main focus of each sample is not the completeness of the visualization, but rather to demonstrate how specific features work.

To view the source code and packed bundle (.zip file) for the Apache ECharts line chart sample, go to this public [GitHub repository](#). To download the files, browse to the [root of this directory](#) and click *Clone or download*.

For more information, see the *Custom visualizations code samples* documentation in the *IBM Cognos Analytics Samples Guide*.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

There are three ways to use this sample custom visualization.

- You can upload the packed bundle (.zip file).

For more information, see the section *Packaging the custom visualization* in the *Custom Visualizations Developer Guide*.

- You can package a sample with `customvis pack` and upload the bundle (zip file) to IBM Cognos Analytics

For more information, see the section *Packaging the custom visualization* in the *Custom Visualizations Developer Guide*.

- You can run any sample locally by running `customvis start` inside the folder that contains the sample. After that, you can use the *Preview Vis* in IBM Cognos Analytics Dashboard or Reporting to insert the custom visualization in your dashboard or report.

For more information, see the section *Using a D3 sample in your custom visualization* in the *Custom Visualizations Developer Guide*.

The following steps demonstrate how to use the Apache ECharts line chart and populate it with data.

## Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.

2. Click the **Custom** tab.

If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.

3. From the **Custom visuals** pane, select the ECharts line visualization.

4. Use the Customer Analysis sample data source *Team content > Samples > By industry > Insurance > Data*.

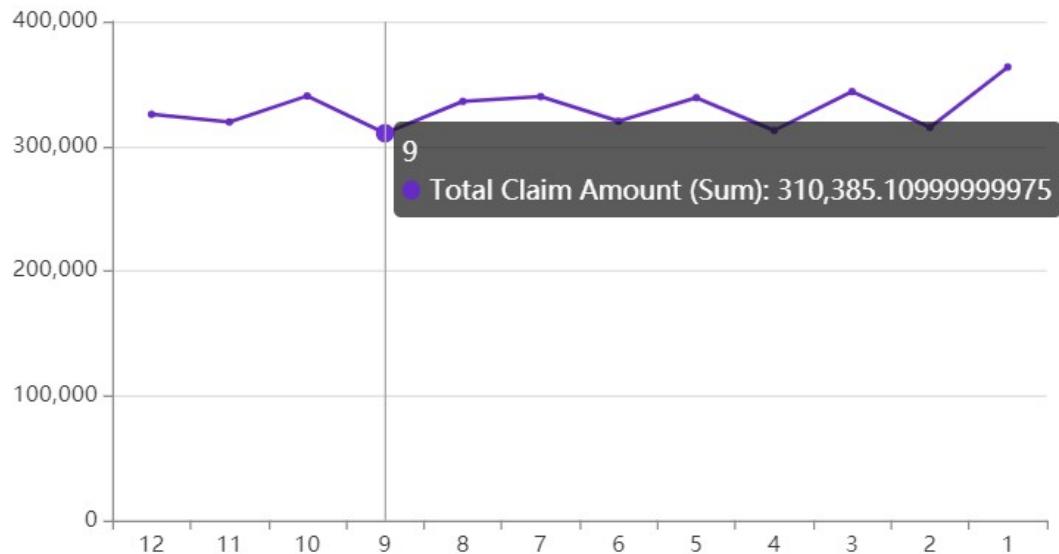
5. Create the Apache ECharts line chart by dragging the following data items from the Customer Analysis

sample data source in the **Sources** pane :

- From the **Customer Analysis** table, drag **Month Key** onto the **Categories** field.
- From the **Customer Analysis** table, drag **Total Claim Amount** onto the **Values** field.

This sample Apache ECharts line chart displays data from a fictional insurance company.

## Month Key, Total Claim Amount



## Highchart area code sample

Use an area visualization to emphasize the magnitude of change over time by using the Highchart API.

### About this task

For more information about the Highchart area custom visualization code sample on IBM Accelerator Catalog, see [Highchart area](#).

**Note:** This sample custom visualization provides a way to show how to use an Highchart area chart as a custom visualization in IBM Cognos Analytics. This sample can be used at no cost, but moving it into production would require a license from Highchart.

**Note:** This code sample is intended for an advanced custom visualization developer. It provides an opportunity for developers to extend their visualizations. If you are not a visualization developer, IBM Cognos Analytics comes with a full set of powerful visualizations that are ready to use.

**Note:** We have enabled a number of properties. You can enable more properties if the chart engine supports that.

Highcharts area charts are supported as of IBM Cognos Analytics 11.1.7

This custom visualization code sample provides a way to show how to use Highcharts as custom visualization in IBM Cognos Analytics. This code sample explains how to integrate a HighChart area chart but similar code can be used to integrate other HighCharts.

There are code samples available for developers of custom visualizations. The code samples illustrate certain aspects of the *customvis* library and tools. The main focus of each sample is not the completeness of the visualization, but rather to demonstrate how specific features work.

To view the source code and packed bundle (.zip file) for the Highchart area chart sample, go to this public [GitHub repository](#). To download the files, browse to the [root of this directory](#) and click *Clone or download*.

For more information, see the *Custom visualizations code samples* documentation in the *IBM Cognos Analytics Samples Guide*.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

There are three ways to use this sample custom visualization.

- You can upload the packed bundle (.zip file).

For more information, see the section *Packaging the custom visualization* in the *Custom Visualizations Developer Guide*.

- You can package a sample with `customvis pack` and upload the bundle (zip file) to IBM Cognos Analytics

For more information, see the section *Packaging the custom visualization* in the *Custom Visualizations Developer Guide*.

- You can run any sample locally by running `customvis start` inside the folder that contains the sample. After that, you can use the *Preview Vis* in IBM Cognos Analytics Dashboard or Reporting to insert the custom visualization in your dashboard or report.

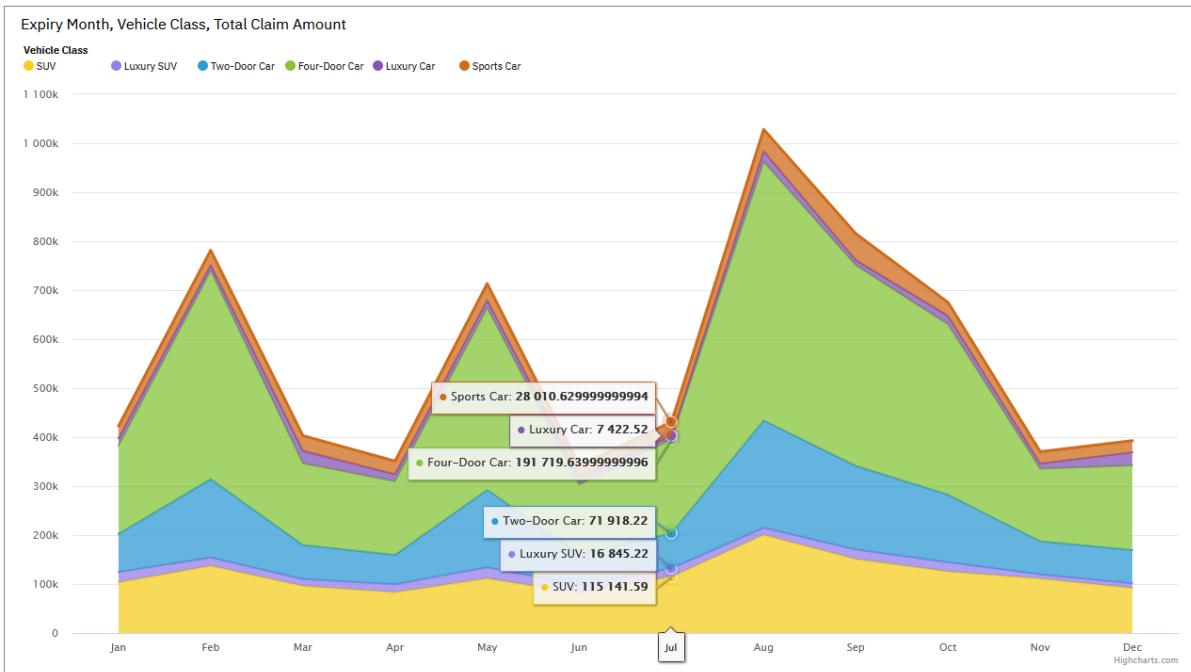
For more information, see the section *Using a D3 sample in your custom visualization* in the *Custom Visualizations Developer Guide*.

The following steps demonstrate how to use the Highchart area chart and populate it with data.

## Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.
2. Click the **Custom** tab.  
If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.
3. From the **Custom visuals** pane, select the Highchart area visualization.
4. Use the Customer Analysis sample data source from *Team content > Samples > By industry > Insurance > Data*.
5. Create the Highchart area visualization by dragging the following data items from the Customer Analysis sample data source in the **Sources** pane :
  - From the **Customer Analysis** table, drag **Expiry Month** onto the **Categories** field.
  - From the **Customer Analysis** table, drag **Vehicle Class** onto the **Series** field.
  - From the **Customer Analysis** table, drag **Total Claim Amount** onto the **Values** field.

This sample Highchart area visualization displays data from a fictional insurance company.



## FusionCharts Pareto chart code sample

A Pareto chart is a type of chart that combines the column visualization with the line visualization.

### About this task

For more information about the FusionCharts Pareto custom visualization code sample on IBM Accelerator Catalog, see [FusionCharts pareto](#).

The data values in a Pareto chart are represented by columns, which are arranged in descending order of magnitude. The cumulative total of these values is displayed by an upward curving line. Pareto charts are used for isolating the key causes of a problem. They can also be used for determining the key factors of success. The left vertical axis or the primary axis shows the frequency of occurrence, the cost, or other important units of measurement. The right vertical axis or the secondary axis shows the cumulative percentage of the total number of occurrences, the total cost, or the total of a specific unit of measurement.

**Note:** This sample custom visualization provides a way to show how to use a FusionCharts Pareto chart as a custom visualization in IBM Cognos Analytics. This sample can be used at no cost, but moving it into production would require a license from FusionCharts.

**Note:** This code sample is intended for an advanced custom visualization developer. It provides an opportunity for developers to extend their visualizations. If you are not a visualization developer, IBM Cognos Analytics comes with a full set of powerful visualizations that are ready to use.

**Note:** We have enabled a number of properties. You can enable more properties if the chart engine supports that.

FusionCharts Pareto charts are supported as of IBM Cognos Analytics 11.1.7

This custom visualization code sample provides a way to show how to use FusionCharts as custom visualization in IBM Cognos Analytics. This code sample explains how to integrate a FusionCharts Pareto chart but similar code can be used to integrate other FusionCharts.

There are code samples available for developers of custom visualizations. The code samples illustrate certain aspects of the *customvis* library and tools. The main focus of each sample is not the completeness of the visualization, but rather to demonstrate how specific features work.

To view the source code and packed bundle (.zip file) for the FusionCharts Pareto chart sample, go to this public [GitHub repository](#). To download the files, browse to the [root of this directory](#) and click *Clone or download*.

For more information, see the *Custom visualizations code samples* documentation in the *IBM Cognos Analytics Samples Guide*.

For more information about custom visualizations, see the section *Developing custom visualizations* in the *Custom Visualizations Developer Guide*. For an excellent tutorial to get you started, see the section *Custom visualizations - tutorial* in the *Custom Visualizations Developer Guide*.

There are three ways to use this sample custom visualization.

- You can upload the packed bundle (.zip file).

For more information, see the section *Packaging the custom visualization* in the *Custom Visualizations Developer Guide*.

- You can package a sample with `customvis pack` and upload the bundle (zip file) to IBM Cognos Analytics

For more information, see the section *Packaging the custom visualization* in the *Custom Visualizations Developer Guide*.

- You can run any sample locally by running `customvis start` inside the folder that contains the sample. After that, you can use the *Preview Vis* in IBM Cognos Analytics Dashboard or Reporting to insert the custom visualization in your dashboard or report.

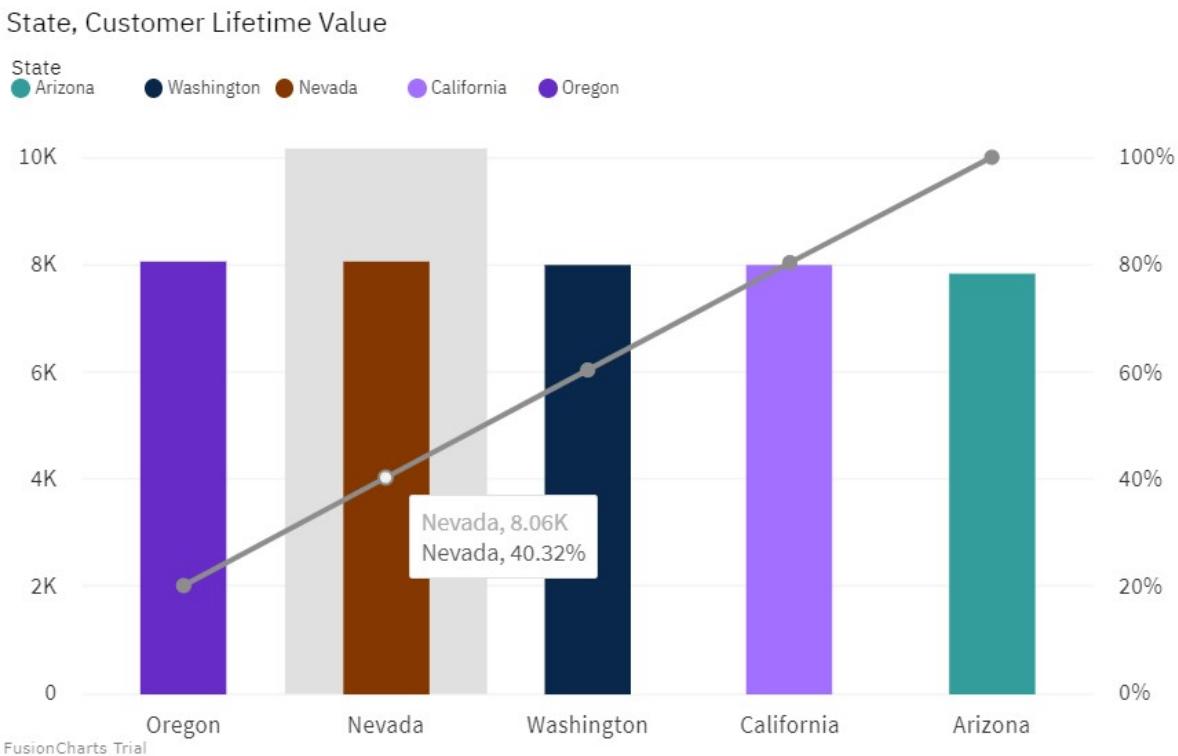
For more information, see the section *Using a D3 sample in your custom visualization* in the *Custom Visualizations Developer Guide*.

The following steps demonstrate how to use the FusionCharts Pareto chart and populate it with data.

## Procedure

1. Create a dashboard and click the **Visualization**  icon in the toolbar.
2. Click the **Custom** tab.  
If there are no custom visuals available, then you can add a custom visual by clicking the **Add a custom visual**  icon on the **Custom** tab.
3. From the **Custom visuals** pane, select the FusionCharts Pareto visualization.
4. Use the Customer Analysis sample data source from *Team content > Samples > By industry > Insurance > Data*.
5. Create the FusionCharts Pareto visualization by dragging the following data items from the Customer Analysis sample data source in the **Sources** pane :
  - From the **Customer Analysis** table, drag **State** onto the **Categories** field.
  - From the **Customer Analysis** table, drag **Customer Lifetime Value** onto the **Values** field.

This sample FusionCharts Pareto visualization displays data from a fictional insurance company.



## Schematic samples

There are samples available for authors of schematics.

**Note:** IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests. These examples were created for advanced custom visualization developers. They are code samples with specific requirements and do not include all the features/interactivity/properties of an out-of-the-box Cognos visualization. They are intended to provide a baseline for developers to extend their visualizations. Any modifications you make are not supported by IBM. If you are not an advanced visualization developer, Cognos Analytics already delivers a full set of fully-featured and powerful visualizations that are ready to use.

The provided samples have the purpose of illustrating certain aspects of schematics. This means that the main focus of each sample is not completeness of the schematic, but showing how certain things work. Each sample is fully documented and tested and can be made publicly available.

For more information, see the *Authoring schematics - tutorial* documentation in the *IBM Cognos Analytics Custom Visualizations Developer Guide*.

### Floor plan schematic sample

A schematic sample of a floor plan.

For more information about the Floor plan schematic sample on IBM Accelerator Catalog, see [Office floor plan visualized by occupancy](#).

The sample illustrates certain aspects of schematics. The main focus of each sample is not completeness of the schematic, but showing how certain things work. This sample is fully documented and tested and can be made publicly available.

For more information, see the *Authoring schematics - tutorial* documentation in the *IBM Cognos Analytics Custom Visualizations Developer Guide*.

Floor plan schematic sample is supported as of IBM Cognos Analytics 11.1.7

## Location of the samples

You can find the custom visualization samples here: [https://github.com/IBM/ca\\_customvis/tree/master/schematic-samples/11.1.x/schematics\\_floor\\_plan](https://github.com/IBM/ca_customvis/tree/master/schematic-samples/11.1.x/schematics_floor_plan). The zip file contains the dataset.

### Floor plan

A schematic package that contains a floor plan of an office. Occupancy percentage is mapped to assets (desks).

Create the floor plan schematic by dragging the following data items from `floor_plan` in the **Sources** pane:

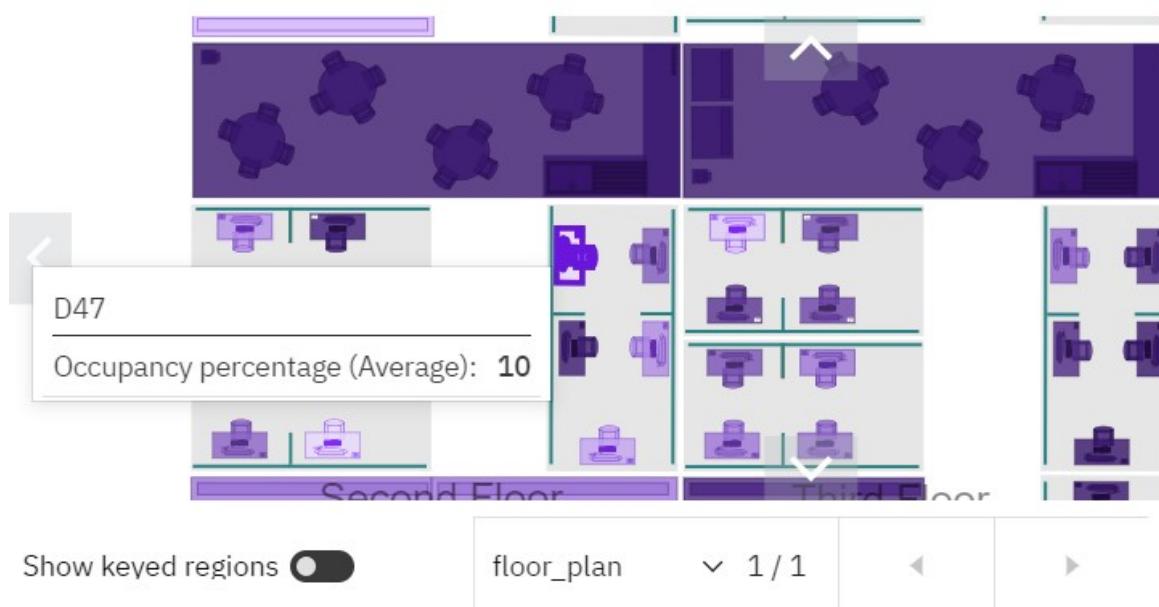
- Drag **Assets** onto the **Locations** field .
- Drag **Occupancy percentage** onto the **Location color** field .

Assets, Occupancy percentage

Occupancy perc...



ⓘ This is a preview. The visualization has not been added to the product yet.



## Stadium schematic sample

A schematic sample of a stadium.

For more information about the stadium schematic sample on IBM Accelerator Catalog, see [Stadium visualized by seat selection sales](#).

The sample illustrates certain aspects of schematics. The main focus of each sample is not completeness of the schematic, but showing how certain things work. This sample is fully documented and tested and can be made publicly available.

For more information, see the *Authoring schematics - tutorial* documentation in the *IBM Cognos Analytics Custom Visualizations Developer Guide*.

Stadium schematic sample is supported as of IBM Cognos Analytics 11.1.5

## Location of the samples

You can find the custom visualization samples here: [https://github.com/IBM/ca\\_customvis/tree/master/schematic-samples/11.1.x/schematics\\_stadium](https://github.com/IBM/ca_customvis/tree/master/schematic-samples/11.1.x/schematics_stadium). The zip file contains the dataset.

## Stadium

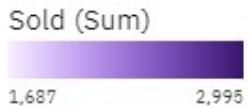
A schematic package that contains a plan of a stadium. Tickets that are sold are mapped to seating.

Create the stadium schematic by dragging the following data items from StadiumSeating.csv in the

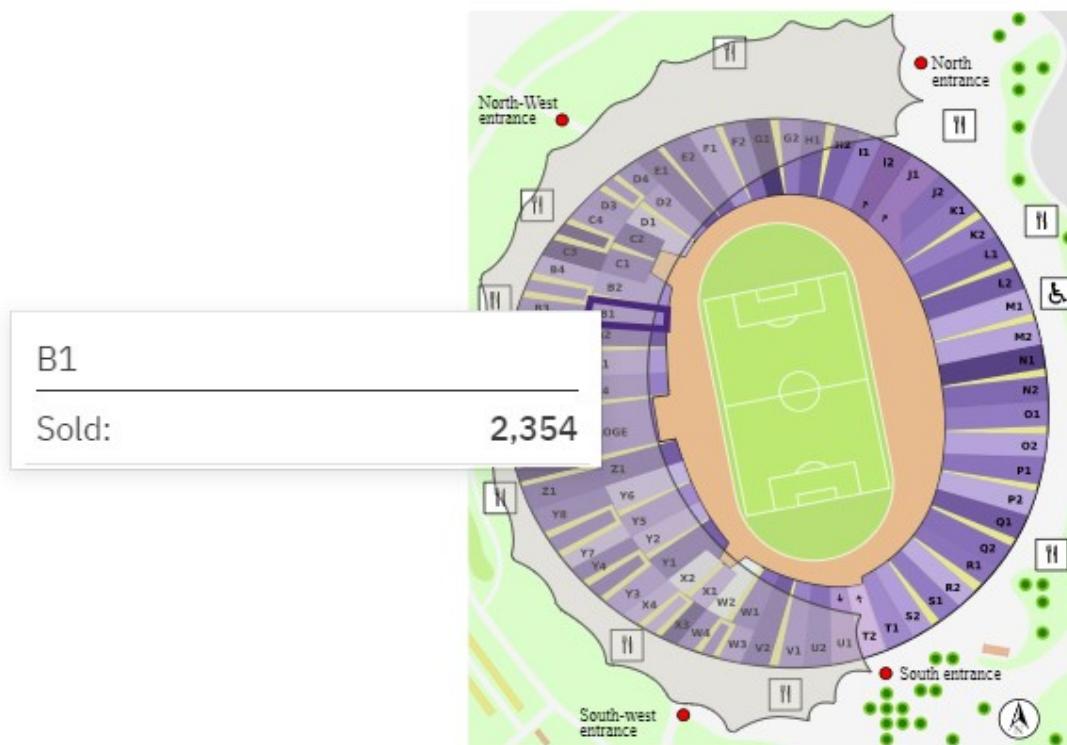
Sources pane :

- Drag **Seating** onto the **Locations** field .
- Drag **Sold** onto the **Location color** field .

### Seating, Sold



 This is a preview. The visualization has not been added to the product yet.



## Periodic table schematic sample

A schematic sample of the periodic table.

For more information about the periodic table schematic sample on IBM Accelerator Catalog, see [Periodic Table visualized by annual sales](#).

The sample illustrates certain aspects of schematics. The main focus of each sample is not completeness of the schematic, but showing how certain things work. This sample is fully documented and tested and can be made publicly available.

For more information, see the *Authoring schematics - tutorial* documentation in the *IBM Cognos Analytics Custom Visualizations Developer Guide*.

Periodic schematic sample is supported as of IBM Cognos Analytics 11.1.5

## Location of the samples

You can find the custom visualization samples here: [https://github.com/IBM/ca\\_customvis/tree/master/schematic-samples/11.1.x/schematics\\_periodic\\_table](https://github.com/IBM/ca_customvis/tree/master/schematic-samples/11.1.x/schematics_periodic_table). The zip file contains the dataset.

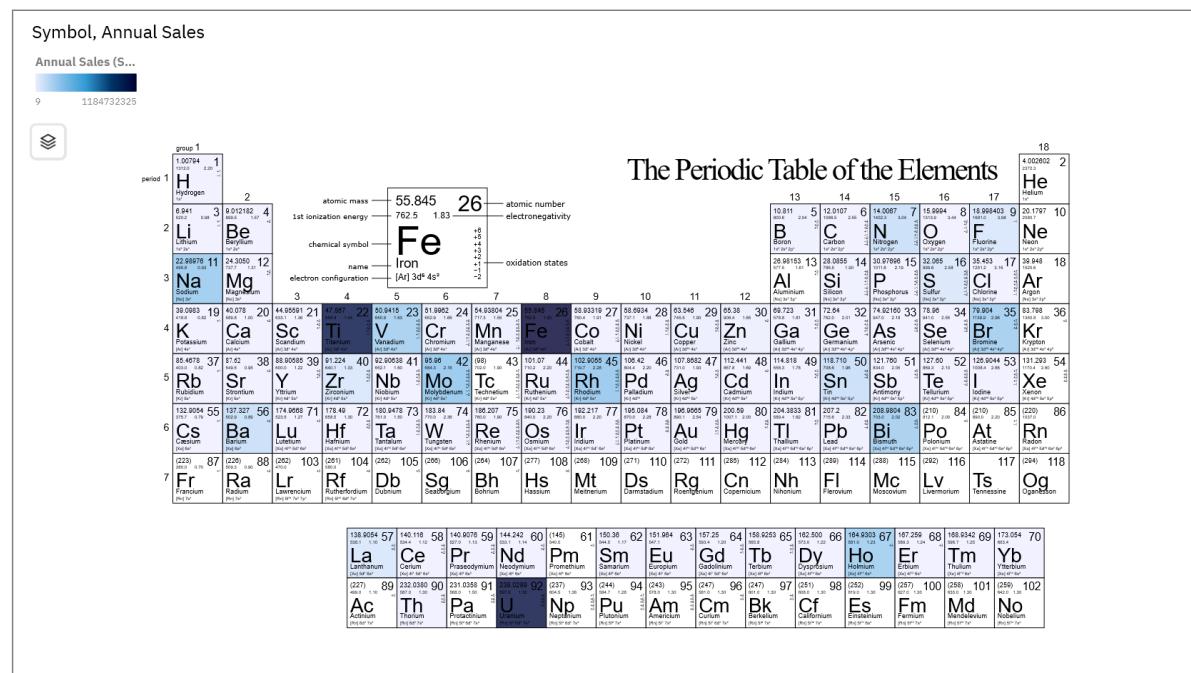
## Periodic table

A schematic package that contains the periodic table. Annual sales attributed to each element is mapped to the element symbol.

Create the periodic table schematic by dragging the following data items from

ElementsInEarthsCrust.csv in the **Sources** pane :

- Drag **Symbol** onto the **Locations** field .
- Drag **Annual Sales** onto the **Location color** field .



## Cartogram schematic sample

A schematic sample of US cartograms. A cartogram is a map visualization in which some thematic mapping variable is substituted for land area or distance. The geometry or space of the map is distorted to convey the information.

For more information about the cartogram schematic sample on IBM Accelerator Catalog, see [USA cartograms visualized by number of sellers in each state](#).

The sample illustrates certain aspects of schematics. The main focus of each sample is not completeness of the schematic, but showing how certain things work. This sample is fully documented and tested and can be made publicly available.

For more information, see the *Authoring schematics - tutorial* documentation in the *IBM Cognos Analytics Custom Visualizations Developer Guide*.

Cartogram schematic sample is supported as of IBM Cognos Analytics 11.1.7

## Location of the samples

You can find the custom visualization samples here: [https://github.com/IBM/ca\\_customvis/tree/master/schematic-samples/11.1.x/schematics\\_USA\\_cartograms](https://github.com/IBM/ca_customvis/tree/master/schematic-samples/11.1.x/schematics_USA_cartograms). The zip file contains the data set.

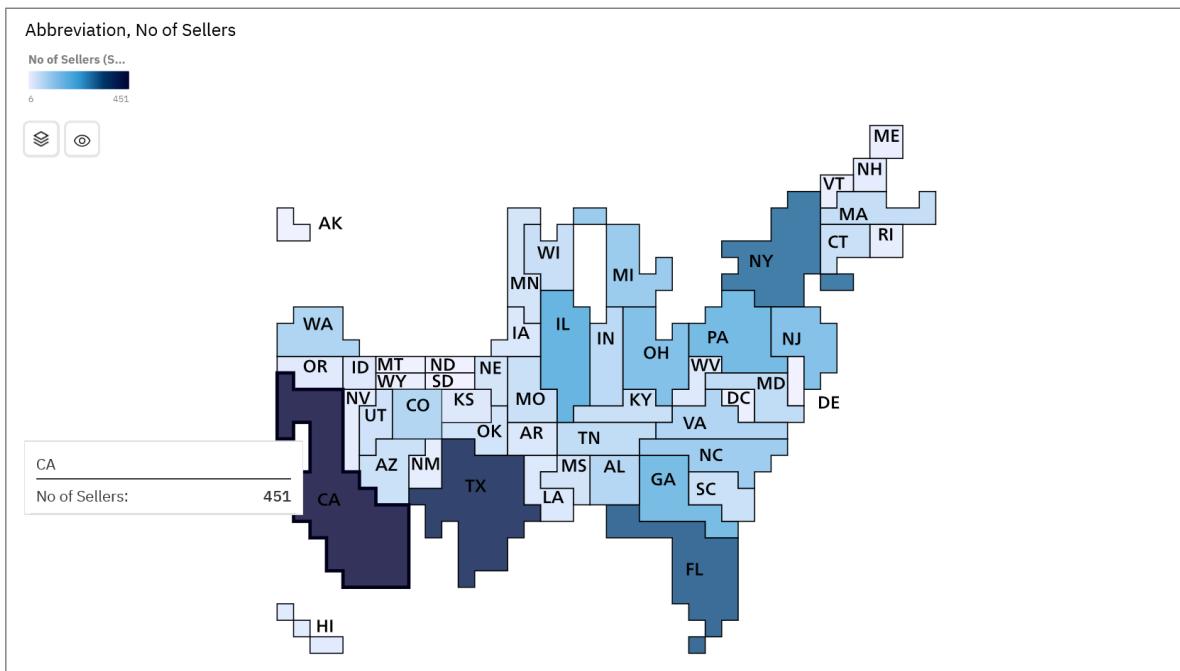
## Cartogram

A schematic package that contains multiple cartograms of the United States map. The number of sellers from a fictional sporting goods company are mapped to each state.

Create the cartogram schematic by dragging the following data items from us\_states.csv in the

Sources pane :

- Drag **Abbreviation** onto the **Locations** field .
- Drag **No of Sellers** onto the **Location color** field .



## Legacy samples

Legacy samples created for previous versions of Cognos Analytics are still available for you to use. These samples illustrate product features alongside technical and business best practices that still apply today.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

For more information, see [Legacy](#)

[Samples \(https://community.ibm.com/community/user/businessanalytics/blogs/steven-macko/2016/07/15/supplementary-legacy-ibm-cognos-analytics-11-samples\)](https://community.ibm.com/community/user/businessanalytics/blogs/steven-macko/2016/07/15/supplementary-legacy-ibm-cognos-analytics-11-samples)

## Installing and configuring the Legacy samples

The Legacy samples are samples that are no longer installed with the extended samples. You can download and install these samples from the IBM Cognos Analytics web site.

To download the Legacy samples, go to [Supplementary \(Legacy\) IBM Cognos Analytics 11 Samples](https://www.ibm.com/communities/analytics/cognos-analytics-blog/supplementary-ibm-cognos-analytics-11-samples/) (<https://www.ibm.com/communities/analytics/cognos-analytics-blog/supplementary-ibm-cognos-analytics-11-samples/>) and download LegacySamples.zip. Extract the .zip file. It contains a Samples folder with sub-folders that contain the Legacy samples. The following topics explain how to install and configure these samples.

## Set Up Microsoft Analysis Services Cube Samples

The supplementary samples include cubes for Microsoft Analysis Services (MSAS).

### About this task

The MSAS cubes can be found in Samples\datasources\cubes\MSAS and the MSAS deployments can be found in Samples\content\MSAS.

For finance data, use the GO Finance Fact cube derived from the GOSALESDW database. This cube contains year-to-date and monthly financial data for all accounts so that you can create financial statements in Analysis Studio, Query Studio, and Reporting. The data is in actual US dollars submissions for 2004, 2005, 2006, or 2007 (7 months actual data only).

The MSAS2005 version is in the GOFinanceFact\_XX.abf file. XX represents the language. For example, XX is replaced with EN which indicates English. The MSAS2008 version of cubes also exists, with report content only for the 2005 version.

For sales data, use the GOSalesFact cube derived from the GOSalesFact\_XX Analysis Services database, based on the GOSALESDW SQLSERVER Database. The cube contains measures such as unit cost, unit price, quantity, and gross profit. Dimensions include Time, Product, and Retailers.

The MSAS2005 version is in the GOSalesFact\_XX.abf restorable backup file.

The files must be restored to a Microsoft SQL Server database running the applicable Microsoft Analysis Services and hosting the GOSALESDW database.

**Note:** Both Microsoft XML 6.0 Parser and Microsoft SQL 2005 Analysis Services 9.00 OLEDB Provider must be installed on the local client to establish data source connections to MSAS cubes.

### Procedure

1. Copy the GOSALESDW.cab and GOSALESDW.abf files to a directory that you can access from the Analysis Manager console in the Analysis Servers of Microsoft SQL Server.
2. Use the Microsoft Analysis Services Analysis Manager to restore the database from the GOSALESDW.cab and GOSALESDW.abf files.

### Results

You can now create the data source connections to these MSAS datasources in Cognos Administration by referencing either the GOSalesFact\_XX or GOFinanceFact\_XX cubes you restored.

## Creating Data Source Connections to OLAP Data Sources

Before users can access the data, you must create data source connections to the OLAP data source samples. You must complete set up for Microsoft Analysis Services cube samples before creating data source connections.

Samples are accessible to everyone by default. To create customized data sources, you must have execute permissions for the **Data Source Connections** secured feature, and traverse permissions for the **Administration** secured function. You must have write permissions for the Cognos namespace.

The following OLAP data sources are available in Samples\datasources\cubes.

- GO Sales Fact and GO Finance Fact Microsoft Analysis Services cubes
- Sample Outdoors Company cubes which includes sales\_and\_marketing, employee\_expenses, go\_accessories, go\_americas, go\_asia\_pacific, and great\_outdoors\_sales\_en.
- Sample Outdoors Db2 cube

### **Create Data Source Connections to PowerCubes**

Use the following procedure to create a data source connection to a PowerCube.

#### **Procedure**

1. In IBM Cognos Administration, click the **Configuration** tab.
2. Click the new data source button .
3. To create a data source connection for the Sales and Marketing cube, type **sales\_and\_marketing** in the **Name** box, and then click **Next**.
4. In the connection page, under **Type** click **IBM Cognos PowerCube**, and then click **Next**.  
The connection string page for the selected database appears.
5. Optional: In the **Read cache size (MB)** box, type the cache size of the cube in megabytes.  
To use the default value in the ppds\_cfg.xml file, leave this field blank or type 0.
6. In the **Windows location** box, type the location and name of the sales\_and\_marketing.mdc file for the data source connection. For example, type  
`install_location/webcontent/samples/datasources/cubes/PowerCubes/En/Sales_and_Marketing.mdc`  
You can define a Microsoft Windows operating system path or a UNIX operating system path.  
If you define a UNIX path and you plan to use Framework Manager, you must also define the Windows path and ensure that the cube is also available in the Windows location. Framework Manager can access cubes only from Windows locations.
7. To test whether the parameters are correct, do the following:
  - Click **Test the connection**.
  - Click **Test**.
  - When the test finishes, click **Close** twice.
8. Click **Finish**.

#### **Results**

You can now import the IBM\_Cognos\_Powercube.zip sample package for the PowerCube to use this data source or you can create your own package using the cube.

### **Create Data Source Connections to Microsoft Analysis Service Cubes**

Use the following procedure to create a data source connection to a Microsoft Analysis Service cube.

#### **Procedure**

1. In IBM Cognos Administration, click the **Configuration** tab.
2. Click the new data source button .
3. In the **Name** box, type the name of the data source connection, and then click **Next**.
  - For the GOFinanceFact cube, type GOFinanceFact\_XX\_MSAS2005.
  - For the GOSalesFact cube, type GOSalesFact\_XX\_MSAS2005.

4. In the **Specify Connection** page of the New Datasource Wizard, click **Microsoft Analysis Services 2005**.
5. Click **Next**.
6. In the **Server Name** box, type the name of the server where the restored databases are located. Back slashes are not required.
7. Under **Signon**, select the **Password** check box and then select the **Create a signon that the Everyone group can use** check box. Type the user ID and password for the MSAS2005 database. For MSAS2005, this is a network login.
8. Click **Test the connection**, and then click the **Test** button. Click **Close**.
9. Click **Finish**. You are now prompted to create a package.

Alternatively, you can deploy an existing package from a sample deployment archive. The names of the deployment archives match the datasource connection names specified in step 4 and contain sample reports that work with the associated cubes.

In Content Administration on the Configuration tab in IBM Cognos Administration, click **New Import**. The New Import Wizard prompts you to select a deployment archive. When you select a deployment archive, it is important to click **Edit** and specify a target name for the package to prevent an existing package from being overwritten.

10. To create a package, check **Create a Package** and then click **OK**.
11. Specify a package name and then click **OK**.
  - For the GO Finance Fact cube, type GOFinanceFact\_XX\_MSAS2005.
  - For the GO Sales Fact cube, type GOSalesFact\_XX\_MSAS2005.
12. Specify the Analysis Services database you restored either GOFinanceFact\_XX or GoSalesFact\_XX:
  - For either the GOFinanceFact cube or the GOSalesFact cubes, type GOSALESDW.
  - For the GO Sales Fact cube, type GO Sales Fact.
13. Click the cube applicable to the database.
14. Click **Finish**.

## **Import the supplementary samples**

To use the supplementary sample packages and other content, you must import the supplementary sample deployment archives.

### **Before you begin**

Before you import the deployment archives other than `IBM_Cognos_PowerCube.zip`, you must restore the databases. You must also create data source connections to the samples databases. Every deployment requires a data source connection in order to run reports. For more information, see “[Create data server connections to the samples databases](#)” on page 61.

Before you import the `IBM_Cognos_PowerCube.zip` deployment archive, you must create a database connection to the appropriate PowerCube and select the language that you want to use. The language that you select must be supported by your locale.

### **About this task**

The following deployments can be found in `Samples\content`

- **IBM\_Cognos\_DrillThroughSamples**
- **IBM\_Cognos\_DynamicCube**
- **IBM\_Cognos\_Metrics**
- **IBM\_Cognos\_Office**
- **IBM\_Cognos\_PowerCube**

- IBM\_Cognos\_PowerPlay

## Procedure

1. Copy the deployment archive (.zip) file from the source location to the **Deployment files location** specified in Cognos Configuration. The default **Deployment files location** location is <cognos\_analytics\_server\_installation\_location>/deployment.
2. Use **Manage > Administration console** to open **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Content Administration**.
4. On the toolbar, click the **New Import** button.
5. Select the deployment to install in the first step of the **New Import** wizard and complete the remaining steps of the wizard.
6. Repeat the previous step for each deployment that you wish to install.

## Results

You can now use the sample packages to create reports and analyses. You can also run the sample reports that are available in the **Team content**.

## Setting up the samples for IBM Cognos Dynamic Cubes

You can use the sample data to learn how to design and model dynamic cubes and use the data in reporting environments.

The IBM Cognos Dynamic Cubes samples are based on the model1.fmd sample database model. This model refers to the GOSALES DW database that contains sample data that other IBM Cognos products use. In Microsoft SQL Server, the dynamic cube uses the GOSALES DW database. In IBM Db2 and Oracle, the dynamic cube uses a single schema from the database.

The sample model is available in Samples\models\great\_outdoors\_dynamiccube.

### Deploying sample dynamic cubes

To work with sample dynamic cubes in the IBM Cognos studios, use the IBM Cognos Cube Designer to deploy the sample dynamic cubes and make them available as data sources. The sample dynamic cubes are gosldw\_sales, gosldw\_target, and gosldw\_sales\_and\_target.

## Before you begin

The great\_outdoors\_warehouse data source connection must be set up before you deploy sample dynamic cubes.

If anonymous access is disabled, you must use the credentials that are associated with your account to publish cubes. Go to the **Personal** tab in the **Set preferences** dialog of the IBM Cognos Portal, and create your credentials before you proceed.

## About this task

You do not have to publish a package to use the sample reports; the package is part of the sample deployment.

## Procedure

1. From the **Start** menu, click **Programs > IBM Cognos Cube Designer > IBM Cognos Cube Designer**.

**Tip:** You can also start the IBM Cognos Cube Designer from IBM Cognos Framework Manager. From the **Tools** menu, select **Run IBM Cognos Cube Designer**.

2. Open the project that contains the dynamic cube that you want to deploy and publish.

a) From the toolbar, click **Open** .

b) Navigate to the location where you downloaded the sample model and open model1.fmd

3. In the **Project Explorer** tree, expand the project and model.  
**Note:** You may be prompted to log on to an IBM Cognos Analytics Server.
4. Right-click the **gosldw\_sales** dynamic cube, and select **Publish**.
5. To deploy the dynamic cube and configure the cube as a data source, in the **Publish** window, expand **Additional Options** and select the **Add the dynamic cube to the default dispatcher** check box.
6. To start the dynamic cube, select the **Start the dynamic cube** check box.
7. If anonymous access is disabled, make sure the **Associate my account and signon with the cube datasource** check box is selected. For anonymous access, clear the check box.
8. Repeat steps 4 - 7 for the cube **gosldw\_target**, and lastly for the virtual cube **gosldw\_sales\_and\_target**.
9. Click **OK**.

## Results

If the deployment and publish process is successful, no errors are reported. A message confirms that the cubes started successfully. You can now use the sample packages to create reports that rely on dynamic cube data sources. You can also run the sample reports that are available in **Team content**.

### 10.2.2 Cognos Mashup Service samples

The Cognos Mashup Service (CMS) includes code samples that illustrate how to use the SOAP and REST interfaces to develop mashup applications.

**Note:** Samples are functional examples. Many are code samples with narrow requirements and a specific use case, providing you with a baseline. They do not include every possible feature/interactivity or environment/configuration. You can use these samples as-is (supported by IBM), or you can modify/extend these samples to suit your business needs (not supported). IBM will provide support if these assets do not work as described for the product version(s) identified. However, we are unable to provide custom support for you such as adding features or troubleshooting environmental issues. These will be logged in our system as future Feature requests.

For more information, see [10.2.2 Cognos Mashup Service \(CMS\) Samples for IBM Cognos Analytics](#).



**IBM.**<sup>®</sup>