

IBM Cloud Pak for Business Automation

Demos and Labs

Operational Intelligence

IBM Business Automation Insights

Build Business Performance Center Dashboard

v1.0.0 (for CP4BA 25.0.1)

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1 Lab Introduction

In the lab, you will learn how to build and use the Business Performance Center to create dashboards and provide insights into a Client Onboarding solution for a line of business users.

1.1 Introduction to IBM Business Automation Insights

IBM Business Automation Insights (BAI) processes event data from the connected IBM Business Automation products so that you can derive insights into the performance of your business. You can use this data to drive automation and visualize the state of the KPIs in dashboards that matter most to the line of business in near real-time.

See a high-level BAI architecture in the figure below. Additional presentation materials: BAI: <https://ibm.box.com/v/IBM-BAI-Tech-Intro>, BPC: <https://ibm.box.com/v/BusinessPerformanceCenter>

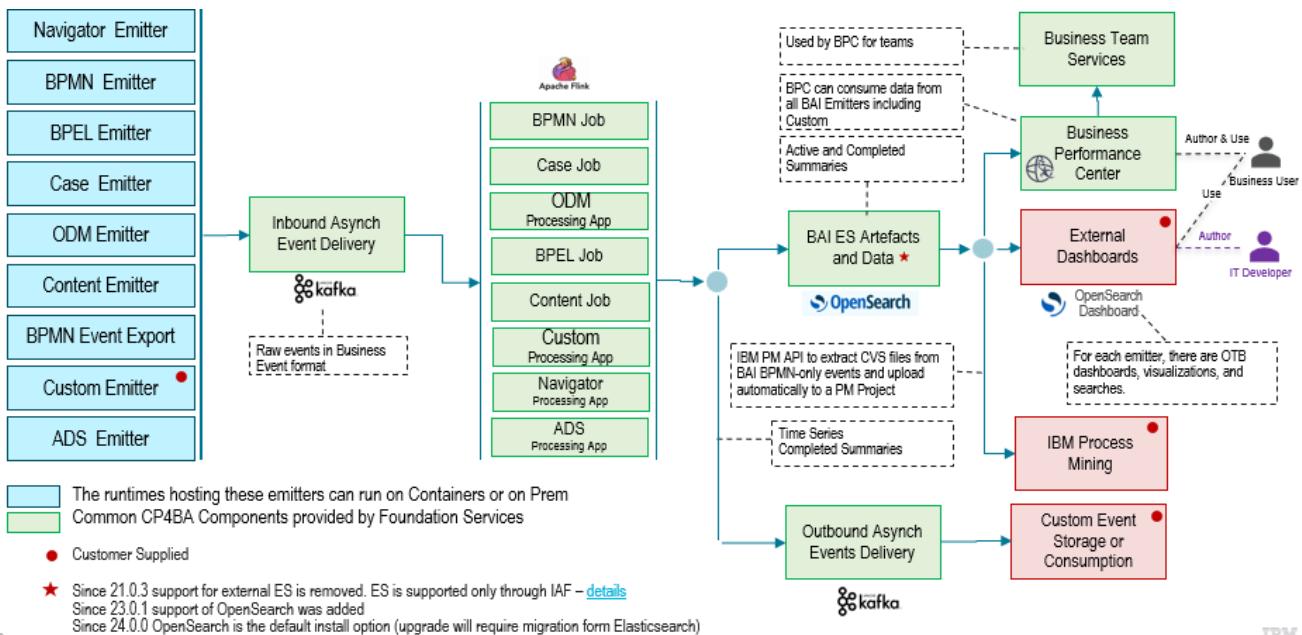


Figure 1. IBM Business Automation Insights Architecture

Business Performance Center (BPC), shown in Figure 1 above, is the no-code business monitoring application native to IBM Cloud Pak for Business Automation. Using BPC, business users (with no IT assistance) can:

- Design and share dashboards in minutes that capture business data in near real-time, providing awareness of essential business activities and processes.
- Prepare, track, and design visualizations of metrics, key performance indicators (KPIs), and other business performance measurements in customizable dashboards.

1.2 Lab Overview

The solution used during the labs is the *Client Onboarding* workflow automation, implemented as a Case with several BPMN processes that implement case activities. The automation contains a single Case Type, Client Onboarding Request, which includes activities, data, documents, and conditions that drive the processing.

Automations / Client Onboarding / Case Type

Client Onboarding Request

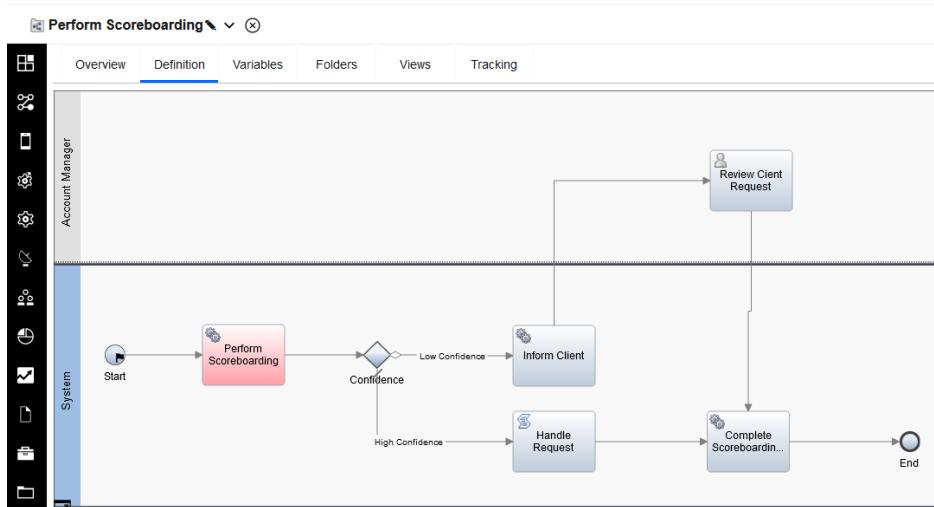
The screenshot shows the 'Activities' tab selected in the top navigation bar. Under 'All activities', there are two sections: 'Required activities' and 'Optional activities'. The 'Required activities' section contains four items: 'Initialize Request', 'Notification', 'Perform Scoreboarding', and 'Update Backend Systems'. Each item has a brief description and preconditions. The 'Optional activities' section contains one item: 'Review Client Documents'.

| Activity | Description | Precondition |
|-------------------------|--|--|
| Initialize Request | File selected documents to the Case folder and handle pending | Case Start Set: <None> |
| Notification | Notify the client and client rep that the review has been | Stage started: Notification Set: <None> |
| Perform Scoreboarding | Scoreboard the client (Classifies them into a segment and assess | Stage started: Scoreboarding Set: <None> |
| Update Backend Systems | Update backend systems with client information | Stage started: Backend Systems Up... Set: <None> |
| Review Client Documents | Renew any new documents coming in from the client | Documents: Any document Property ... Set: <None> |

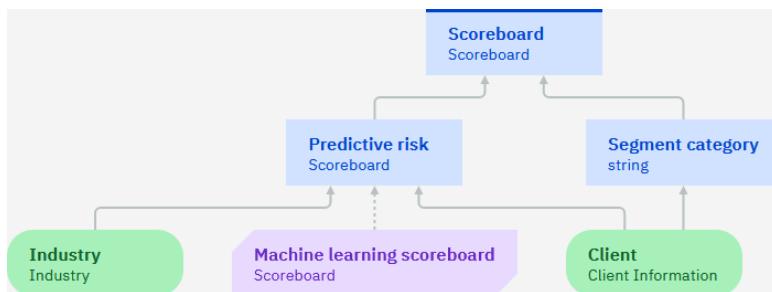
BPMN processes (shown below) implement all five Case Activities above in an automatically generated Process App (Client Onboarding).

The screenshot shows the 'Process App Settings (Read-only)' screen for the 'Client Onboarding' app. The left sidebar lists 'Process App Settings (Read-only)', 'Client Onboarding' (selected), 'Processes' (selected), 'User interface', and 'Exposed Automation Services'. The main area displays a list of processes under 'Type: Process' with a count of 6. The processes listed are: Initialize Request, New Client Onboarding Request, Notification, Perform Scoreboarding, Review Client Documents, and Update Backend Systems.

The *Perform Scoreboarding* Activity (highlighted red below) is particularly interesting. It uses Automation Services to invoke Scoreboard decisions implemented using Automation Decision Services (ADS).



The Scoreboard ADS decision determines if a client is risky using a Machine Learning-based predictive model and classifies the client into a segment.



When authoring one of the Charts on the Dashboard, you will use data generated by the above decision.

1.3 Lab Setup Instructions

If you are performing this lab as part of an IBM event, access the document that lists the available systems, URLs, and login instructions. You will need to access the IBM Business Performance Center for this lab.

- _1. Paste the **Business Performance Center** URL into your web browser
- _2. For *Log in with*, select **Enterprise LDAP**, enter the *Username* and *Password* supplied to you, and then click **Log in**

The screenshot shows a dark-themed login interface. At the top, it says "Log in". Below that, there's a "Log in with" dropdown menu with "Enterprise LDAP" selected. This dropdown is highlighted with a red box. Below the dropdown are two input fields: "Username" and "Password", both of which have blacked-out placeholder text. At the bottom of the form is a "Log in" button with a right-pointing arrow. To the left of the "Log in" button is a checkbox labeled "Remember my username". At the very bottom of the page, there's a link that says "Need help? Contact your team administrator."

2 Exercise: Create a Client Onboarding Workflow Dashboard

2.1 Introduction

In this lab exercise, you will use BPC to create a business dashboard to enable a business user to get near-real-time business insight into the *Client Onboarding* workflow.

In addition to the built-in dashboards delivered with BPC that provide you with many great generic charts for workflow, decisions, and content, a reference version of the Dashboard specific to the Client Onboarding business metrics and KPIs that you will build in the lab exercise (called **Client Onboarding Completed**) has already been created for you.

The screenshot shows the BAI interface with the title bar 'IBM Cloud Pak for Business Automation - Business Automation Insights'. Below it, there are three main navigation tabs: 'Dashboards' (selected), 'Goals', and 'Team permissions'. Under the 'Dashboards' tab, there is a section titled 'Dashboards (9)' with a sub-section for 'Client Onboarding Completed'. This card contains the text: 'Custom visualizations for completed client onboarding requests.'

If you like, you can refer to it when building your dashboard version.

Note that BAI events have already been generated for you. But, since you may be using a live shared environment with you and other users working on Client Onboarding cases, you may see new events arriving as you author your Dashboard. Consequently, some screenshots in the lab instructions may not look the same as in your environment.

2.2 Exercise Instructions

In this lab exercise, you will author and configure the following BPC artifacts:

- Client Onboarding **Dashboard**
- **Charts** used in the Client Onboarding dashboard
- A chart **Alert**
- A **Goal** to aggregate related charts

2.2.1 Create a Dashboard

_1. Click **Create +**.



_2. For **Name**, enter **Client Onboarding** and click **Save**.

A screenshot of a 'Create dashboard' dialog box. At the top left, it says 'Dashboards /'. In the center, it says 'Create dashboard'. To the right are two buttons: 'Cancel' and 'Save'. A hand cursor is hovering over the 'Save' button. Below these buttons is a text input field labeled 'Name' containing the text 'Client Onboarding'.

2.2.2 Create "Average Revenue from Service Fees for Approved Clients" Chart

This gauge chart will show the average revenue from service fees for approved clients.

_1. Click **chart +**.



_2. Enter the following and then click **Create**.

| Item | Value |
|--------------------|--|
| Name | Average Revenue from Service Fees for Approved Clients |
| Select measurement | KPI |

Client Onboarding x

Create chart

Name

Description (optional)

Select measurement

Metric Period metric KPI Period KPI Data

A performance indicator based on data items, constants, and other metrics that helps you monitor your business activities.
 A representation of metric values measured over time, the degree to which business objectives are on track.
 A type of metric that shows values measured over time so that you can spot historical trends.
 A set of data items presented in a table.
 A multi-layer chart that allows you to drill down data sets.

2.2.2.1 Define Monitoring Information

_1. For **Monitoring source**, select **Workflow (Case) – Client Onboarding**.

Monitoring source

Workflow (Case) - Client Onboarding x | v

This monitoring source will select events from the Client Onboarding workflow.

_2. In **Aggregation**, for **Function**, select **Average**, and **Data item**, choose **CO_ServicesFee (data) – (long)**.

Aggregation

| Function | Data item |
|--|--------------------------------|
| Average | CO_ServicesFee (data) - (long) |
| <input type="checkbox"/> Set duration display format | |

If you are wondering where this case property comes from, read the explanation below.

The CO prefix in CO_ServicesFee is the Client Onboarding Solution prefix.

Client Onboarding

Overview Properties Roles In-baskets

Solution prefix:
CO

ServicesFee in CO_ServciesFee is the name of the Client Onboarding case property.

Client Onboarding

Overview **Properties** Roles In-baskets Documents Business Objects Pages Case Types

Property Definitions ①

OK All

Manage Choice Lists

| | | | |
|---------------------|---------|--|--|
| Services Fee | Integer | | Fee being charged for the services requested |
| Services Requested | String | | The services requested by the client |

For the BAI Case Emitter to add this property to the emitted events, the Client Onboarding Audit Configuration includes this property.

IBM Business Automation Workflow Case administration

Solutions × Manage Audit Configuration ×

Back Next Save Apply Cancel

Add properties to audit

Add Remove

| Object Type | Object Name | Property Name | Property Symbolic Name |
|-------------|---------------------------|--------------------|------------------------|
| Case | Client Onboarding Request | Services Fee | CO_ServicesFee |
| Case | Client Onboarding Request | Services Requested | CO_ServicesRequested |

Let's continue with the lab instructions.

3. Click Targets +



4. For Label, enter Target, and for Value, enter 80000.

Targets

| Label | Value |
|--------|--------|
| Target | 80,000 |

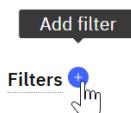
2.2.2.2 Define Filter Data

When selecting the Monitoring source, you specified **Workflow (Case) – Client Onboarding**. This setting allows you to work with the Client Onboarding workflow instances. Filters allow you to select specific data you want to display in your chart.

_1. Select the **Filters** tab.



_2. Click the **Filter +** button.



_3. Select the following values from the dropdown list:

| Item | Value |
|-----------|--------------------------------------|
| Data item | CO_ApprovalStatus (data) – (keyword) |
| Operator | = |
| Value | Approved |

Your Filter setting should look exactly like this:

| | | |
|--------------------------------------|----------|----------|
| Data item | Operator | Value |
| CO_ApprovalStatus (data) - (keyword) | x v | = |
| | | Approved |

2.2.2.3 Define Visualization

This setting allows you to customize your Chart display settings.

_1. Select the **Visualization** tab.



_2. Enter the following values:

| Item | Value |
|------|---------|
| Min | 0 |
| Max | 100,000 |
| Unit | \$ |

Your Gauge setting should look exactly like this:

| | |
|-------------------------------------|---------------------|
| Gauge settings | |
| <input checked="" type="checkbox"/> | Display chart title |
| Min | Max |
| 0 | 100,000 |
| Unit | |
| \$ | |

2.2.2.4 Define Thresholds

This setting allows you to customize the Gauge threshold setting.

_1. Select the **Thresholds** tab.



_2. Click the **Thresholds +** button **two times**.



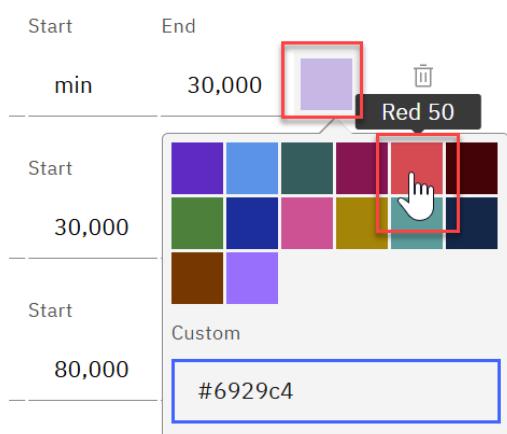
_3. For each Group, enter the following values:

| Data item | | Value |
|-----------|----------------|-----------|
| 1 | Threshold name | Below |
| | End | 30000 |
| | Range name 1 | Poor |
| | Range name 2 | Average |
| 2 | Threshold name | Above |
| | End | 80000 |
| | Range name 3 | Excellent |

Your Thresholds setting should look exactly like this:

| Threshold name | Value | Range name | Start | End | |
|----------------|--------|------------|--------|--------|--|
| BelowNew thre | 30,000 | Poor | min | 30,000 | |
| | | Range name | Start | End | |
| | | Average | 30,000 | 80,000 | |
| Threshold name | Value | Range name | Start | End | |
| Above | 80,000 | Excellent | 80,000 | max | |

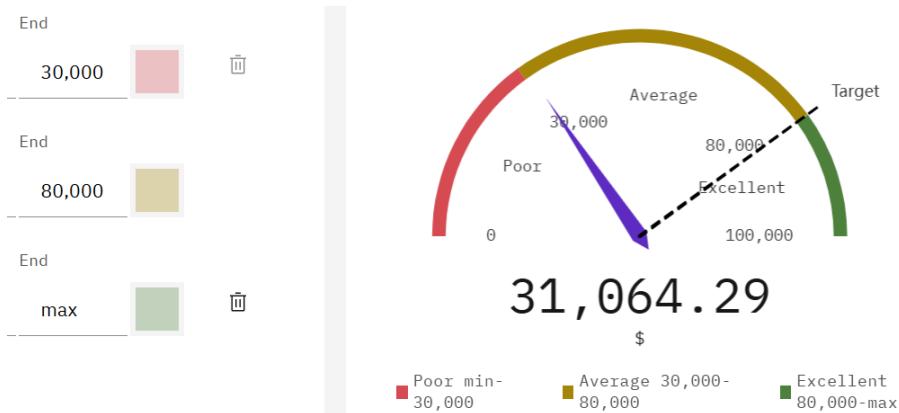
_4. Click the color patch next to 30,000 and then select the **Red color patch** from the palette.



_5. Using the above steps, customize the other two colors.

| Item | Value |
|--------|--------|
| 80,000 | Yellow |
| max | Green |

The color settings should look exactly like this:



_6. Click **Done**.



_7. Click the **Save icon** on the toolbar above the Dashboard to save your work!

A screenshot of the dashboard interface. At the top, there is a toolbar with various icons. One icon, a black square with a white 'S' and a red outline, is highlighted with a red box and a mouse cursor. Below the toolbar, the main dashboard area displays a gauge chart with the same configuration as the previous screenshot, showing a value of 31,064.29. The chart has segments for 'Poor', 'Average', and 'Excellent' ranges.

2.2.3 Create "Approvals by Industry" Chart

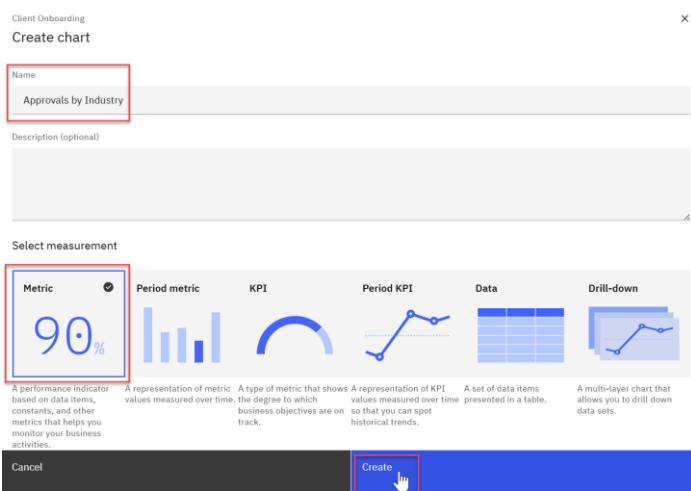
This hierarchical pie chart will show approvals (Approved, Rejected, Under Review) per industry.

_1. Click **Chart +**



_1. Enter the following and then click **Create**.

| Item | Value |
|--------------------|-----------------------|
| Name | Approvals by Industry |
| Select measurement | Metric |



2.2.3.1 Define Monitoring Information

_1. For **Monitoring source**, select **Workflow (Case) – Client Onboarding**

Monitoring source

Workflow (Case) - Client Onboarding x | v

_2. Click the **Group by +** button **twice**.

Group by +

_3. Enter the following values for the *Group by* entries:

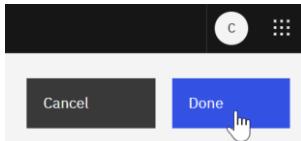
| Item | Value |
|------|--------------------------------------|
| 1 | CO_ApprovalStatus (data) – (keyword) |
| 2 | CO_Industry (data) – (keyword) |

Group by +

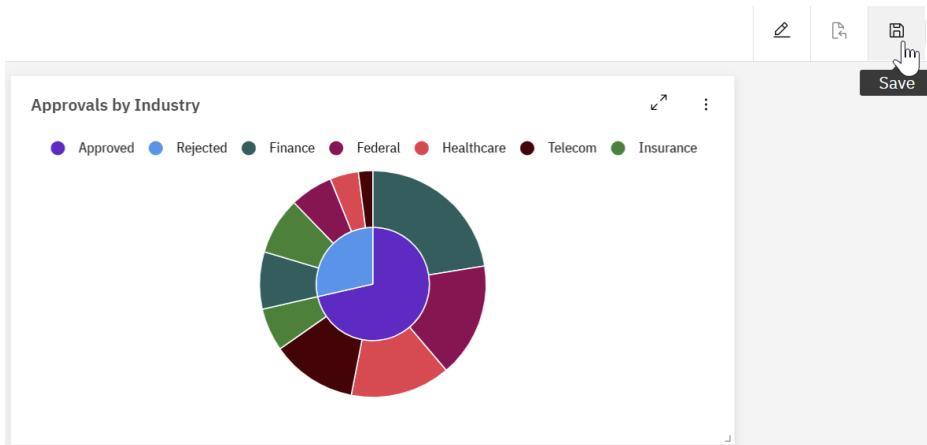
CO_ApprovalStatus (data) - (keyword) x | v

CO_Industry (data) - (keyword) x | v

_4. Click **Done**.



_5. Click the **Save** icon on the toolbar above the Dashboard to save your work!



2.2.4 Create "Services Subscription by Industry with Drilldowns" Chart

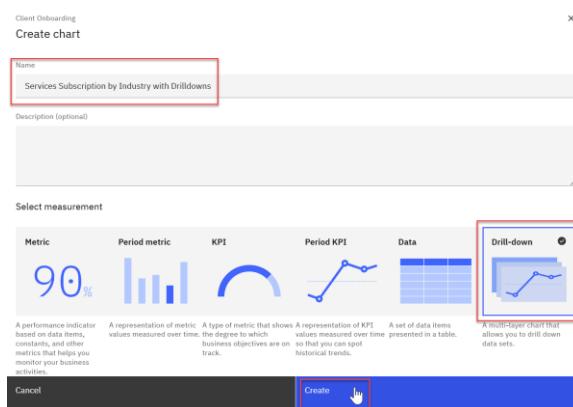
This pie chart will show the service subscriptions by industry. Another feature of this chart is drilling down by service > industry > country.

_1. Click **Chart +**



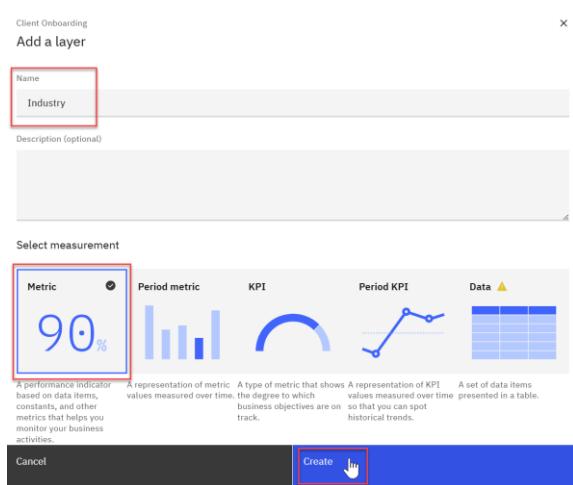
_2. Enter the following and then click **Create**.

| Item | Value |
|--------------------|---|
| Name | Services Subscription by Industry with Drilldowns |
| Select measurement | Drill-down |



_3. Enter the following and then click **Create**.

| Item | Value |
|--------------------|----------|
| Name | Industry |
| Select measurement | Metric |



_4. For the *Monitoring source*, select **Workflow (Case) – Client Onboarding**.

Monitoring source

Workflow (Case) - Client Onboarding

_5. Click the **dropdown** on the Industry layer.

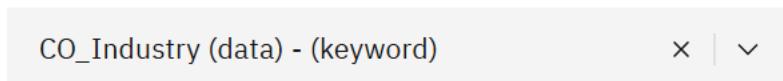


_6. Click **Group by +**.



_7. For Group by select **CO_Industry**.

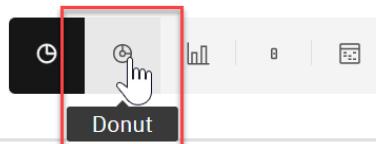
Group by +



_8. For the Drill-down chart type, select **Donut**.

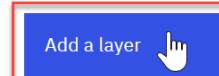
Drill-down

Layer 1 - Industry
Pie



_9. Click **Add a layer**.

Drill-down layers



_10. Enter the following and then click **Create**.

| Item | Value |
|--------------------|--------------------|
| Name | Services Requested |
| Select measurement | Metric |

Client Onboarding
Add a layer

Name
Services Requested

Description (optional)

Select measurement

Metric (radio button selected) **Period metric** **KPI** **Period KPI** **Data**

A performance indicator based on data items, constants, and other metrics that helps you monitor your business activities.

A representation of metric. A type of metric that shows values measured over time, the degree to which business objectives are met, so that you can spot historical trends.

A representation of KPI. A set of data items presented in a table.

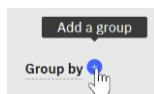
A set of data items presented in a table.

Create

_11. Click the **dropdown** on the Service Requested layer.



_12. **Group by +**

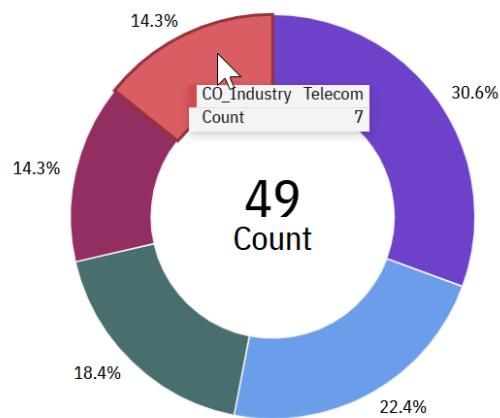


_13. For **Group by**, select **CO_ServicesRequested**.

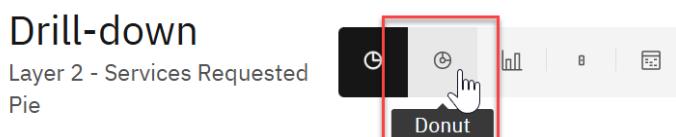
Group by



_14. On the Donut, click any wedge to unlock the second data layer.

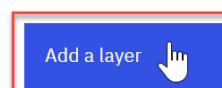


_15. For the Drill-down chart type, select **Donut**.



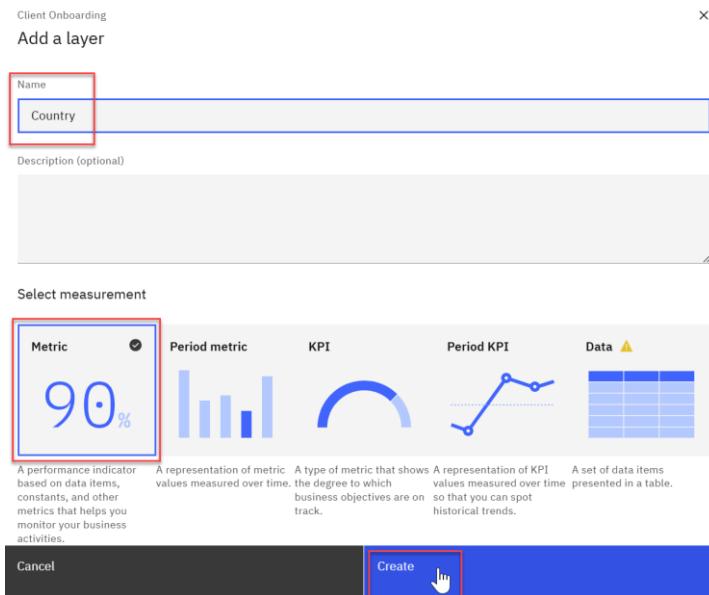
_16. Click **Add a layer**

Drill-down layers



_17. Enter the following and then click **Create**

| Item | Value |
|--------------------|---------|
| Name | Country |
| Select measurement | Metric |



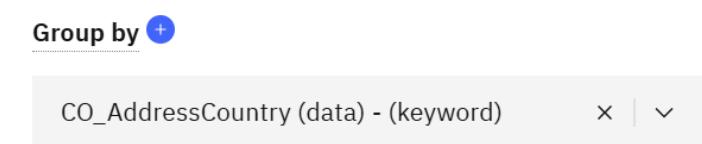
_18. Click the **dropdown** on the Country layer.



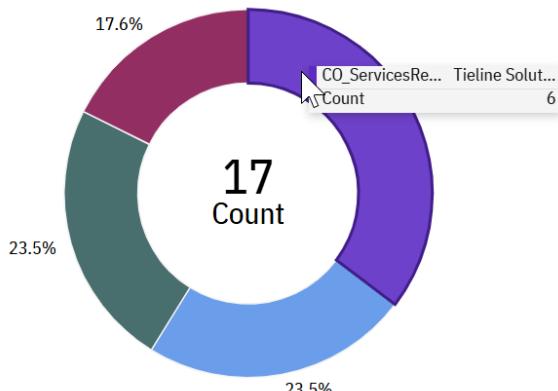
_19. **Group by +**



_20. For Group by select **CO_AddressCountry**.



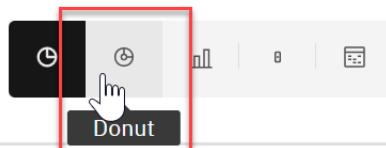
_21. On the Donut, click any wedge to unlock the second data layer.



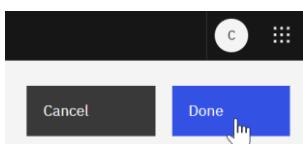
_22. For the Drill-down chart type, select **Donut**.

Drill-down

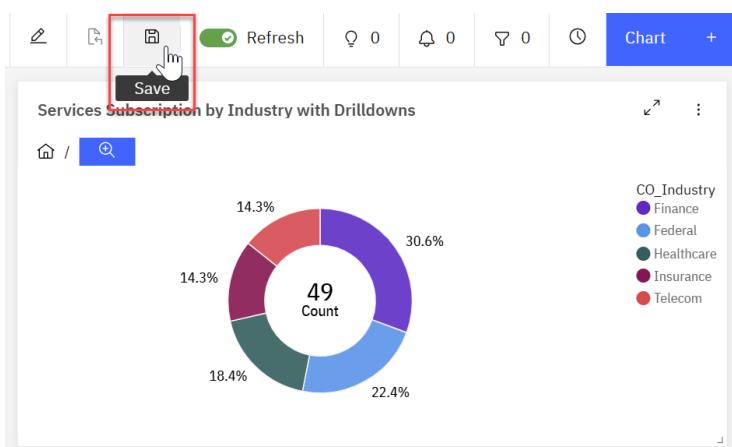
Layer 3 - Country
Pie



_23. Click **Done**.

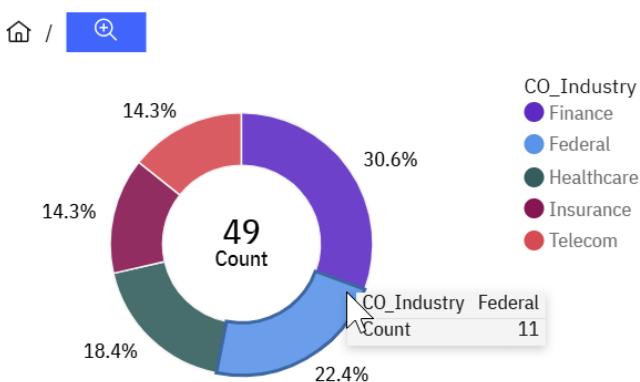


_24. Click the **Save icon** on the toolbar above the Dashboard to save your work!

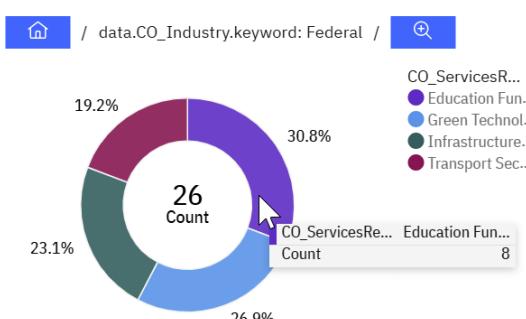


2.2.4.1 Explore the Drill-down Capability

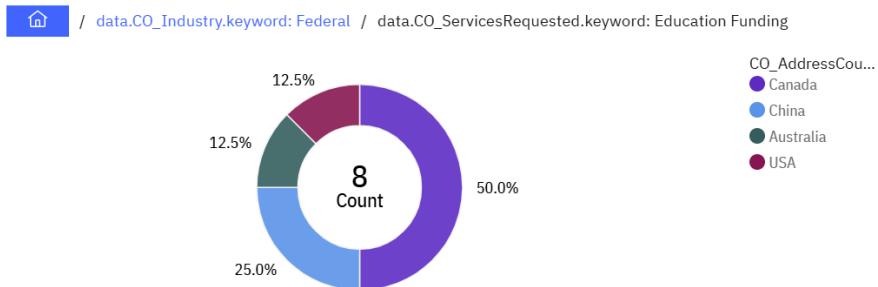
_1. Select the first drill-down level by clicking on **Federal** Industry (the color may differ for you).



_2. Select the second drill-down level by clicking on **Education Funding Service**.



_3. You should now see all the countries for *Federal > Education Funding*.



_4. Click **Home** to get back to the original view.



2.2.5 Create "Highest Service Fee by Industry Sector" Chart

This bar chart will show the highest service fees for the industry sector.

_1. Click **chart +**.



_2. Enter the following and then click **Create**

| Item | Value |
|--------------------|--|
| Name | Highest Service Fee by Industry Sector |
| Select measurement | Metric |

2.2.5.1 Define Monitoring Information

_1. For the *Monitoring source*, select **Workflow (Case) – Client Onboarding**.

Monitoring source

Workflow (Case) - Client Onboarding x | v

_2. In *Aggregation*, for *Function*, select **Max**, and for *Data item*, select **CO_ServicesFee(data) – (long)**.

Aggregation +

Function

Max

Data item

CO_ServicesFee (data) - (long)

_3. Click the **Group by +** button.



_4. Enter **CO_Industry (data) – (keyword)**.

Group by +

CO_Industry (data) - (keyword)

x | v

_5. For chart type, select **Bar**.

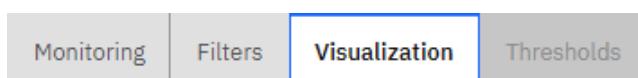
Metric

Pie



2.2.5.2 Define Visualization Information

_1. Click the **Visualization** tab.



_2. For *Bar settings*, enter:

| Item | Value |
|--------------|--------------------------|
| X axis label | Industry |
| Y axis label | Maximum Service Fee [\$] |

X axis label

Industry

Y axis label

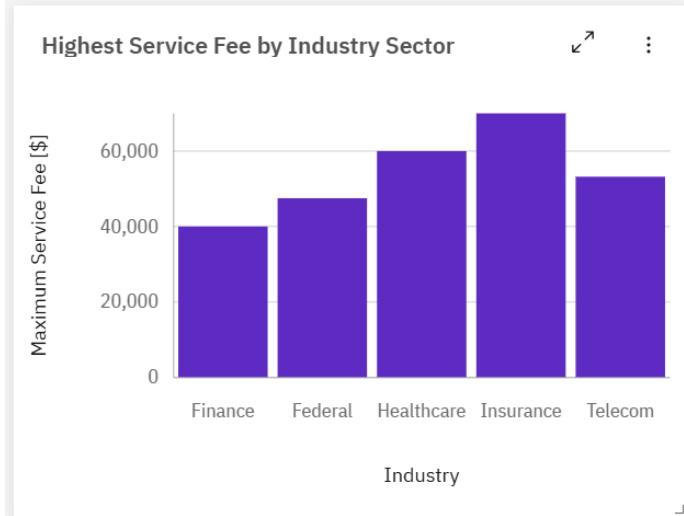
Maximum Service Fee [\$]

_3. Click **Done**



_4. Click the **Save** icon on the toolbar above the Dashboard to save your work!

Your chart should look similar to this (the order of the industries may be different for you):



2.2.6 Create "Approval Count of High-Risk Cases" Chart

This bar chart will show the approval counts for high-risk cases in a given period. High-risk cases are identified by the decision service (which uses a Machine Learning (ML) service to score risk level). This is an essential metric, indicating that the approver overrode the ML model decision. Therefore, the ML model may be inaccurate and need re-training.

_1. Click **Chart +**



_2. Enter the following and then click **Create**

| Item | Value |
|--------------------|-----------------------------------|
| Name | Approval Count of High-Risk Cases |
| Select measurement | Period metric |

2.2.6.1 Define Monitoring Information

_1. For the *Monitoring source*, select Workflow (Case) – Client Onboarding.

Monitoring source

Workflow (Case) - Client Onboarding x | v

_2. On *Interval*, change the setting to **Minutes(s)**

Interval

Time interval

Custom v Every 1 Minute(s) v

_3. For chart type, select **Bar**.

Period metric

Line

Bar

2.2.6.2 Define Filters and Predictions

_1. Select the **Filters and predictions** tab.

Monitoring **Filters and predictions** Visualization Thresholds

_2. Click the **Filter +** button **twice** to add two filters.

Add filter

Filters 1

_3. For each Group, select the following values from the dropdown list:

| Group | Data item | Operator | Value |
|-------|--------------------------------------|----------|----------|
| 1 | CO_HighRisk (data) – (boolean) | Is true | N/A |
| 2 | CO_ApprovalStatus (data) – (keyword) | = | Approved |

Your Filters setting should look exactly like this:

The screenshot shows the 'Filters' configuration interface. It displays two filter conditions stacked vertically, separated by an 'AND' operator. The first condition is 'CO_HighRisk (data) - (boolean)' with the operator 'is true'. The second condition is 'CO_ApprovalStatus (data) - (keyword)' with the operator '=' and the value 'Approved'.

2.2.6.3 Define Visualization Information

_1. Click the **Visualization** tab.



_2. For *Bar settings*, enter:

| Item | Value |
|--------------|-----------|
| X axis label | Date |
| Y axis label | Approvals |

Trend settings

Display chart title

X axis label

Date

Y axis label

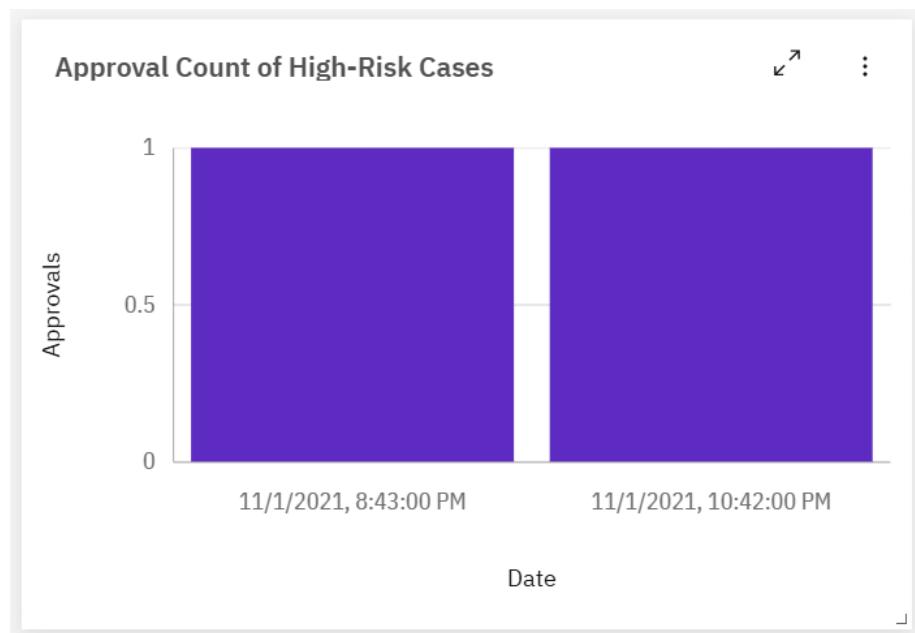
Approvals

_3. Click **Done**.



_4. Click the **Save** icon on the toolbar above the Dashboard to save your work!

Your chart should look similar to this.



2.2.7 Create "Average Approval Confidence by Industry Sector and Revenue" Chart

You will now create a bubble chart. The bubble color will indicate the industry. The bubble size will indicate how many cases were under a given industry. The bubbles will be positioned in a grid with an X-axis as the average revenue and a Y-axis as the average approval confidence level.

_1. Click **Chart +**.



_2. Enter the following and then click **Create**.

| Item | Value |
|--------------------|--|
| Name | Average Approval Confidence by Industry Sector and Revenue |
| Select measurement | Metric |

2.2.7.1 Define Monitoring Information

_1. For **Monitoring source**, select **Workflow (Case) – Client Onboarding**

Monitoring source

Workflow (Case) - Client Onboarding x | v

_2. Click the **Aggregation +** button **twice** to add two aggregations.

Add an aggregation

Aggregation

Note that two Aggregations were added below the Count.

Aggregation

| Function | Data item |
|--|---|
| Count | Select a data item v |
| <input type="checkbox"/> Set duration display format | |
| Sum | CO_AnnualRevenue (data) - (long) x v |
| <input type="checkbox"/> Set duration display format | |
| Sum | CO_CompanyAge (data) - (long) x v |
| <input type="checkbox"/> Set duration display format | |

_3. For the two new aggregations, select the following values from the dropdown list:

| Aggregation | Function | Data item |
|-------------|----------|------------------------------------|
| 2 | Average | CO_AnnualRevenue (data) – (long) |
| 3 | Average | CO_RiskConfidence (data) – (float) |

_4. Use the **Down Arrow** on the Count aggregation to move it to the bottom (make it the last Aggregation).

Function Data item

Count Select a data item

Set duration display format

Down

Your aggregations setting should look exactly like this:

Function Data item

Average CO_AnnualRevenue (data) - (long)

Set duration display format

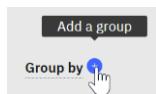
Average CO_RiskConfidence (data) - (float)

Set duration display format

Count Select a data item

Set duration display format

_5. Click the **Group by +** button.



_6. Select **CO_Industry (data) – (keyword)**.

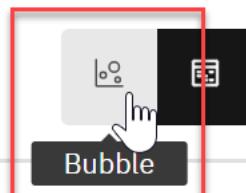
Group by +

CO_Industry (data) - (keyword)

_7. Click the **Bubble** icon to change the visualization.

Metric

Table



2.2.7.2 Define Visualization Information

_1. Click the **Visualization** tab.



_2. For Bubble settings, enter:

| Item | Value |
|--------------|-----------------------------------|
| X axis label | Average Company Revenue |
| Y axis label | Average Approval Confidence Level |

Bubble settings

Display chart title

X axis label
Average Company Revenue

Y axis label
Average Approval Confidence Level

_3. For Title, enter **Industry**.

Title

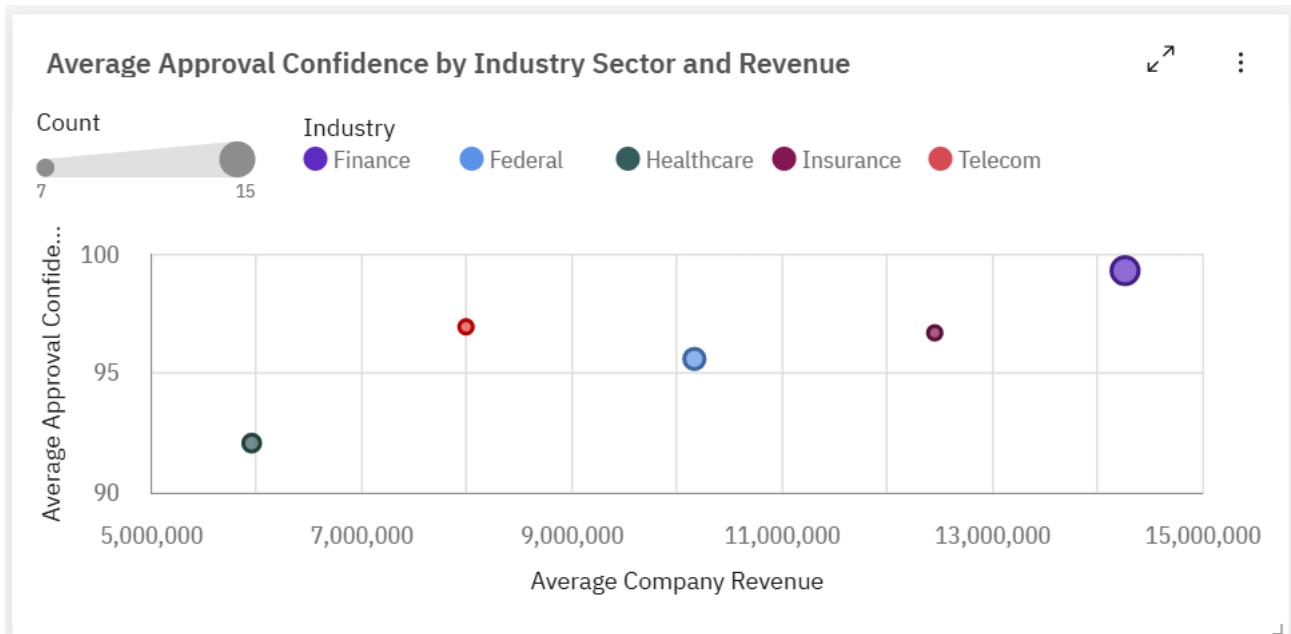
Industry

_4. Click **Done**.



_5. On the toolbar above the Dashboard, click the **Save** icon to save your work!

Your chart should look similar to this.



2.2.8 Create "Activity Duration Distribution in Case Completion" Chart

This doughnut chart will show the average time distribution among all activities required to complete a case.

_1. Click **Chart +**.



_2. Enter the following and then click **Create**

| Item | Value |
|--------------------|---|
| Name | Activity Duration Distribution in Case Completion |
| Select measurement | Metric |

2.2.8.1 Define Monitoring Information

_1. For **Monitoring source**, select **Workflow (Case) – Client Onboarding**.

Monitoring source



_2. Click the **Group by +** button.

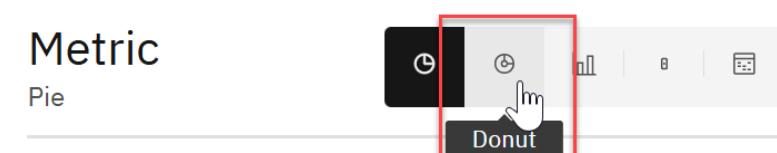


_3. Select **task-name – (keyword)**.

Group by +

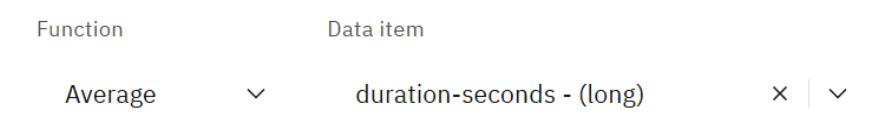


_4. Set visualization type to **Donut**.



_5. Change the Aggregation values by setting **Function** to **Average** and **Data item** to **duration-seconds – (long)**.

Aggregation +



_6. Select **Set duration display format**.

| Function | Data item |
|---|---------------------------|
| Average | duration-seconds - (long) |
| <input checked="" type="checkbox"/> Set duration display format | |

_7. For the *Output (display) unit*, select **Minute**.

| Input (source) unit | Output (display) unit |
|---------------------|-----------------------|
| Second | Minute |

2.2.8.2 Define Visualization Information

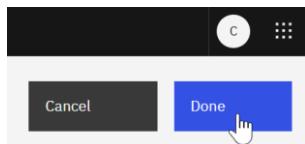
_1. Click the **Visualization** tab.



_2. For *Donut settings*, set *Unit* to **Activity** and *Inner label* to **Average Case Duration**.

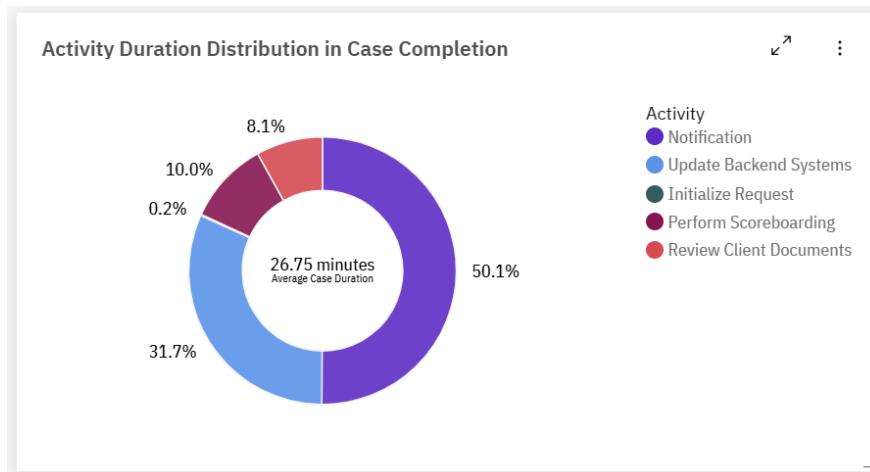
| Donut settings | |
|-------------------------------------|---------------------|
| <input checked="" type="checkbox"/> | Display chart title |
| Unit | |
| Activity | |
| <input checked="" type="checkbox"/> | Display inner label |
| Inner label | |
| Average Case Duration | |

_3. Click **Done**.



_4. Click the **Save** icon on the toolbar above the Dashboard to save your work!

Your chart should look similar to this.



2.2.9 Create "Completed Cases per Day" Chart

This bar chart will show the number of cases completed in a time period.

Note Note that the title states "per Day," but given the data set used for this lab, the scale is "per Minute".

This chart will also include two advanced features:

- **Predictions** – predict the number of cases completed in the future using one of the following algorithms. This is a valuable tool for enabling human resource capacity planning.
- **Alerts** – provide visual indications when the number of cases completed falls below 2 in a given time period.

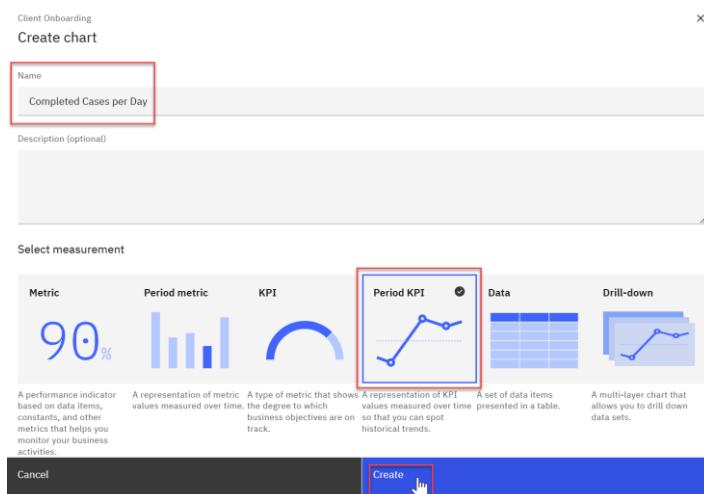
Note Note that depending on the data, KPI Predictions use one of the following algorithms: ARIMA, Seasonal ARIMA, or Exponential Smoothing.

_1. Click **Chart +**.



_2. Enter the following and then click **Create**.

| Item | Value |
|--------------------|-------------------------|
| Name | Completed Cases per Day |
| Select measurement | Period KPI |



2.2.9.1 Define Monitoring Information

_1. For **Monitoring source**, select **Workflow (Case) – Client Onboarding**.

Monitoring source



_2. On **Interval**, change the setting to **Minutes(s)**.

Interval

Time interval

Custom

▼

Every

1

Minute(s)

▼

_3. Click the **Targets +** button.



_4. For **Label**, enter **Target**, and for **Value**, enter **3**.

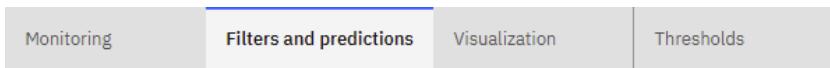
| Label | Value |
|--------|-------|
| Target | 3 |

_5. For visualization, select **Bar**.



2.2.9.2 Define Filters

_1. Select the **Filters and predictions** tab.



_2. Click the **Filter +** button **twice** to add two filters.



_3. Select the following values for each Filter:

| Filter | Data item | Operator | Value |
|--------|-------------------|----------|----------|
| 1 | type - (keyword) | = | case |
| 2 | state - (keyword) | = | Complete |

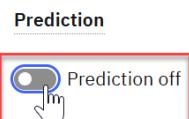
Your Filter setting should look exactly like this:

| | | |
|------------------|----------|-------|
| Data item | Operator | Value |
| type - (keyword) | = | case |

AND

| | | |
|-------------------|----------|----------|
| Data item | Operator | Value |
| state - (keyword) | = | Complete |

_4. Under **Prediction**, enable the slider to turn them on.



2.2.9.3 Define Visualization Information

_1. Click the **Visualization** tab.



_1. For Trend settings, enter:

| Item | Value |
|--------------|-----------------|
| X axis label | Date |
| Y axis label | Completed Cases |

Trend settings

Display chart title

X axis label
Date

Y axis label
Completed Cases

2.2.9.4 Define Thresholds

This setting allows you to customize the Gage threshold setting.

_1. Select the **Thresholds** tab.



_2. Click the **Thresholds +** button **twice** to add two thresholds.



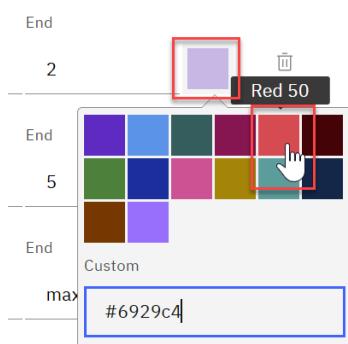
_3. For each Group, select the following values from the dropdown list:

| Threshold | Data item | Value |
|-----------|----------------|----------------------|
| 1 | Threshold name | Case Completion Rate |
| | Value | 2 |
| | Range name 1 | Low |
| | Range name 2 | Normal |
| 2 | Threshold name | T2 |
| | Value | 5 |
| | Range name | High |

Your Thresholds setting should look exactly like this:

| Thresholds | | | | | | |
|----------------------|---|------------|-------|-----|--|---|
| Threshold name | | Range name | Start | End | | |
| Case Completion Rate | 2 | Low | min | 2 | |  |
| | | Normal | 2 | 5 | |  |
| T2 | 5 | High | 5 | max | |  |
| | | | | | | |

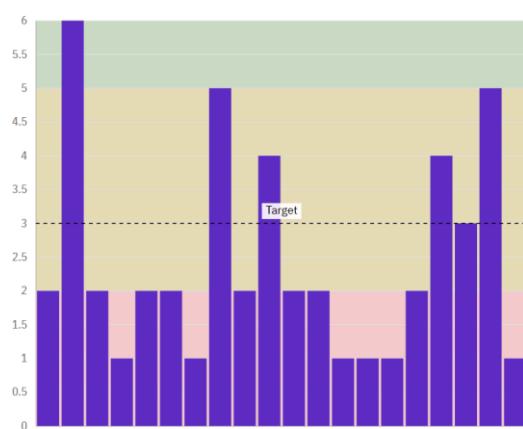
_4. Click the **Color patch** next to **Low**, then select the **Red color patch** from the palette.



_5. Using the above steps, customize the other two colors.

| Item | Value |
|--------|--------|
| Normal | Yellow |
| High | Green |

The color settings should look exactly like this:



2.2.9.5 Define Alert

This setting allows you to customize the Gage threshold setting.

_1. Click **Alerts +**.



_2. Make sure the threshold **Case Completion Rate** is selected.

Alerts +

Case Completion Rate ▼

_3. Configure the Alert using the input values shown below:

| Item | Value |
|--------------------|----------------------------------|
| Alert if the value | drops to or below the threshold |
| Message | The case completion rate is low. |

Alerts +

Case Completion Rate ▼

Alert if the value

Message

drops to or below the threshold ▼

The case completion rate is low.

Priority

High

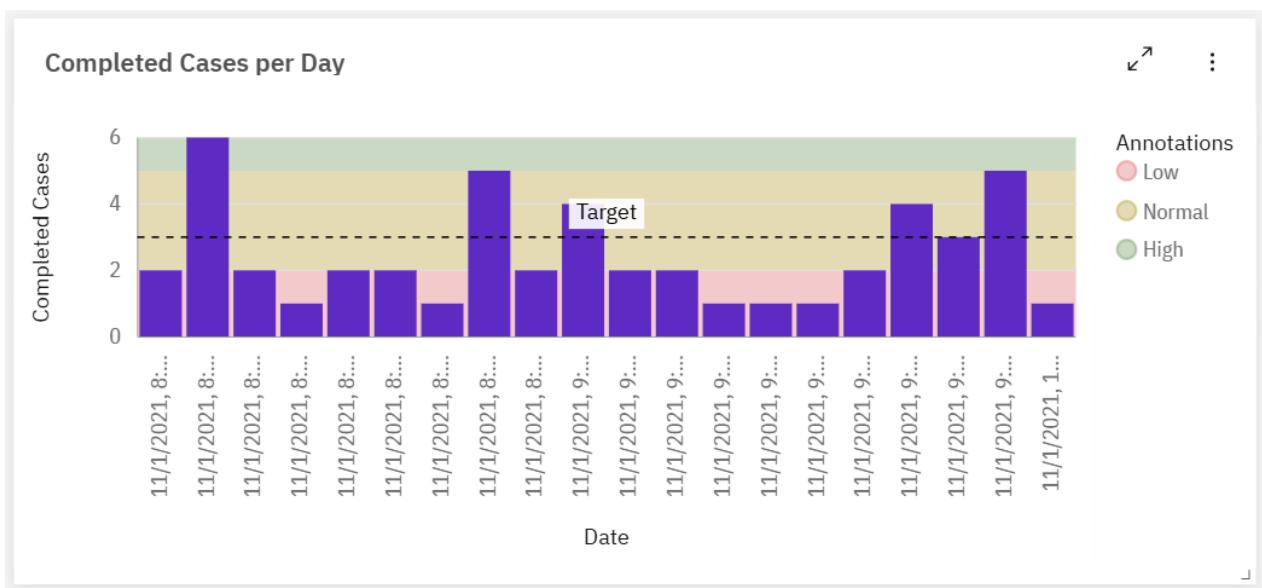
_4. Click **Done**.



█ Note that some alerts may appear temporarily on the right side of the Dashboard. This is expected.

_5. Click the **Save** icon on the toolbar above the Dashboard to save your work!

Your chart should look similar to this.

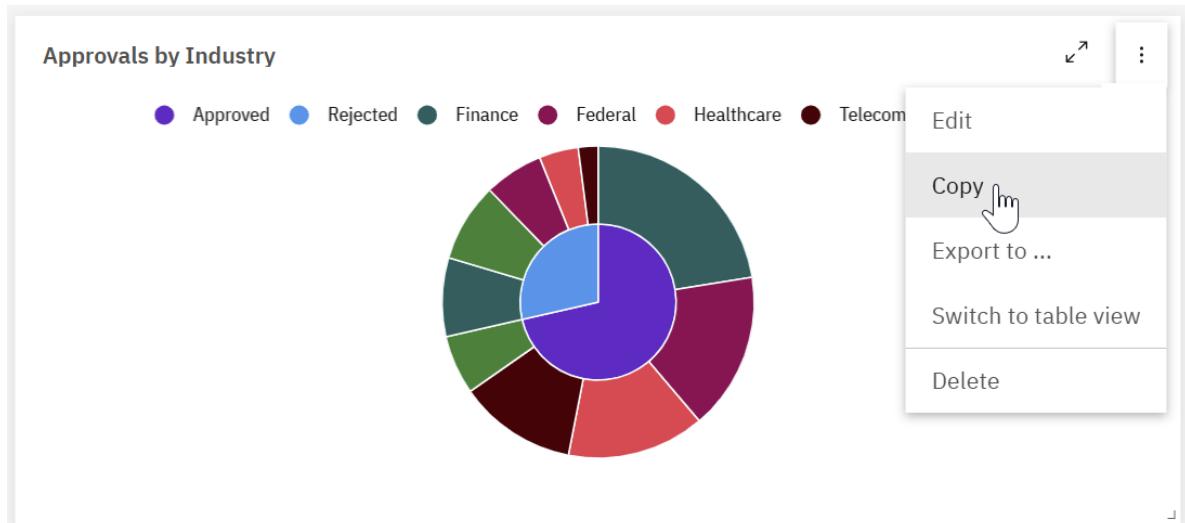


2.2.10 Create "Approvals by Industry Heatmap" Chart

This heatmap chart will use the tile color intensity to indicate the count (the more saturated the color, the higher the count). The tiles will be positioned in a grid. The X-axis will represent the approval state: approved/rejected/approval pending. The Y-axis will reflect the industry.

Since this chart is almost identical to the *Approval by Industry* chart, we will use the copy-and-paste technique to create this chart from the *Approvals by Industry* chart.

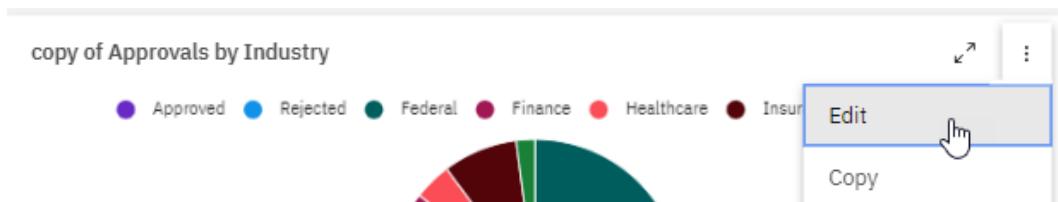
- _1. On the *Approvals by Industry* chart, click the **ellipses** and select **Copy**.



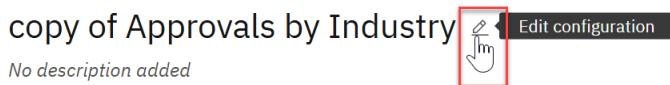
- _2. On the toolbar above the Dashboard, click **Paste**.



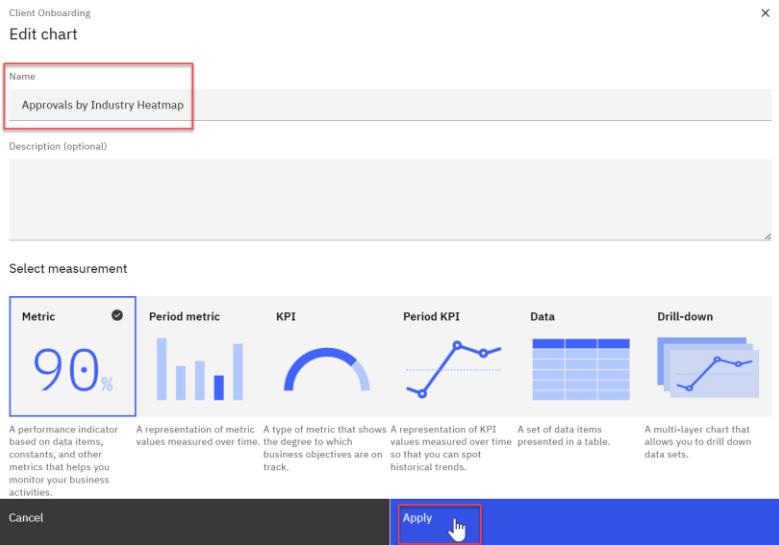
- _3. On the *copy of Approval by Industry* chart, click the **ellipses** and select **Edit**.



- _4. Next to the chart name, click **Edit configuration**.

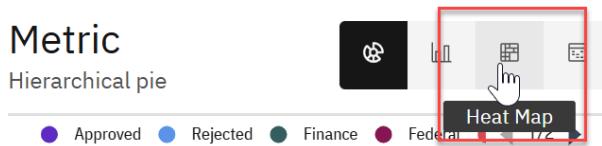


_5. For Name, enter **Approvals by Industry Heatmap** and then click **Apply**.



2.2.10.1 Define Monitoring Information

_1. For visualization, select **Heat Map**.



2.2.10.2 Define Visualization Information

_1. Click the **Visualization** tab.



_2. For Trend settings, enter:

| Item | Value |
|--------------|-----------------|
| X axis label | Approval Status |
| Y axis label | Industry |

Heat map settings

Display chart title

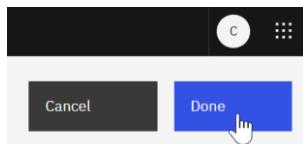
X axis label

Approval Status

Y axis label

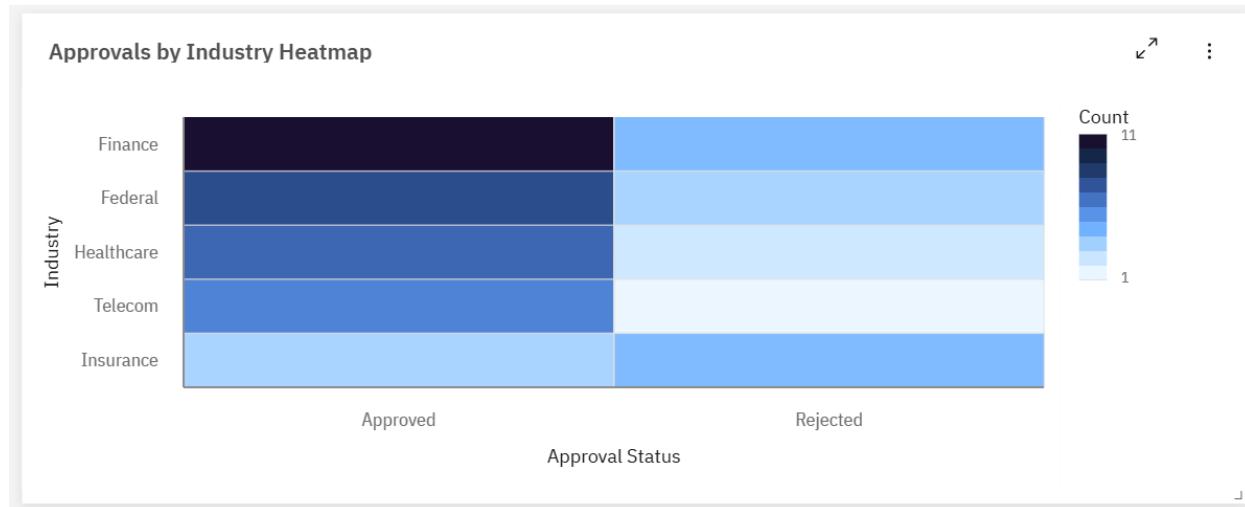
Industry

_3. Click **Done**.



_4. Click the **Save** icon on the toolbar above the Dashboard to save your work!

Your chart should look similar to this.



2.2.11 Create "Client Onboarding Data" Chart

You will be creating a Client Onboarding data chart. The data chart will contain columns representing selected Client Onboarding case properties.

_1. Click **Chart +**.



_2. Enter the following and then click **Create**:

| Item | Value |
|--------------------|------------------------|
| Name | Client Onboarding Data |
| Select measurement | Data |

2.2.11.1 Define Monitoring Information

_1. For the *Monitoring source*, select Workflow (Case) – Client Onboarding.

Monitoring source

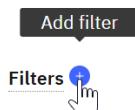
Workflow (Case) - Client Onboarding x | ▾

2.2.11.2 Define Filters

_1. Select the **Filters** tab.



_2. Click the **Filter +** button **three** times to add three filters.



_3. For each Group, select the following values from the dropdown list:

| Group | Data item | Operator | Value |
|-------|----------------------|----------|----------|
| 1 | category – (keyword) | = | icm |
| 2 | type – (keyword) | = | case |
| 3 | state – (keyword) | = | Complete |

Your Filters setting should look exactly like this:

Filters +

| Data item | Operator | Value |
|----------------------|----------|-------|
| category - (keyword) | = | icm |

AND

| Data item | Operator | Value |
|------------------|----------|-------|
| type - (keyword) | = | case |

AND

| Data item | Operator | Value |
|-------------------|----------|----------|
| state - (keyword) | = | Complete |

2.2.11.3 Define Visualization

_1. Select the **Visualization** tab.



_2. Click the **Data columns +** button **five** times to add five data columns.



_3. For each Group, select the following values from the dropdown list:

| Data column | Data item | Label |
|-------------|--------------------------|-------------|
| 1 | CO_ServiceFee (data) | Service Fee |
| 2 | CO_Industry (data) | Industry |
| 3 | CO_AddressCountry (data) | Country |
| 4 | CO_ApprovalStatus (data) | Approved? |
| 5 | duration-seconds | Duration |

Your *Data columns* setting should look exactly like this:

Data columns

| Data item | Label |
|---|-------------|
| CO_ServicesFee (data) - (long) | Service Fee |
| <input type="checkbox"/> Set duration display format | |
| CO_Industry (data) - (keyword) | Industry |
| <input type="checkbox"/> Set duration display format | |
| CO_AddressCountry (data) - (keyword) | Country |
| <input type="checkbox"/> Set duration display format | |
| CO_ApprovalStatus (data) - (keyword) | Approved? |
| <input type="checkbox"/> Set duration display format | |
| duration-seconds - (long) | Duration |
| <input checked="" type="checkbox"/> Set duration display format | |

_4. For the *Duration* table column, select **Set duration display format**, set *Input (source) unit* to Second, and for the *Output (display) unit*, select **Minute**.

| | | |
|---|--|-----------------------|
| duration-seconds - (long) | <input type="checkbox"/> Set duration display format | Duration |
| <input checked="" type="checkbox"/> Set duration display format | Input (source) unit | Output (display) unit |
| Second | Minute | |

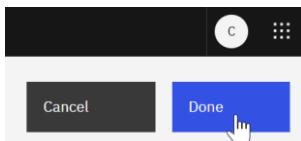
The data in the Data Chart should look similar to this.

Data

5 columns, 49 rows

| Service Fee | Industry | Country | Approved? | Duration |
|-------------|----------|---------|-----------|---------------|
| 18,000 | Federal | Canada | Rejected | 15.13 minutes |
| 23,750 | Finance | Canada | Approved | 13.26 minutes |

_5. Click **Done**.



_6. Click the **Save** icon on the toolbar above the Dashboard to save your work!

2.2.11.4 Explore the Table Chart

You can export the data in the chart as a spreadsheet in CSV format.

_1. Click the Duration column to sort the table rows by Duration in descending order.

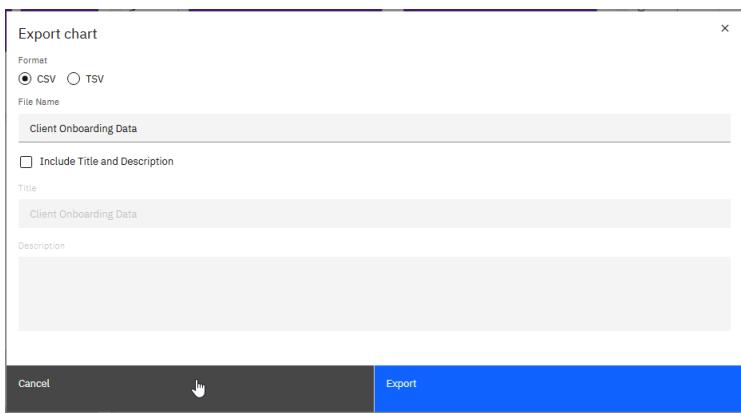
| Client Onboarding Data | | | | |
|------------------------|----------|--------------|-----------|---------------|
| Service Fee | Industry | Country | Approved? | Duration |
| 30,000 | Finance | USA | Rejected | 44.58 minutes |
| 45,000 | Federal | Canada | Approved | 42.51 minutes |
| 38,000 | Telecom | Australia | Approved | 39.4 minutes |
| 20,000 | Finance | South Africa | Approved | 37.96 minutes |
| 38,000 | Federal | Canada | Approved | 34.48 minutes |

_2. Click **vertical ...** and select **Export to ...**

| Client Onboarding Data | | | | |
|------------------------|----------|-----------|-----------|--|
| Service Fee | Industry | Country | Approved? | |
| 30,000 | Finance | USA | Rejected | |
| 45,000 | Federal | Canada | Approved | |
| 38,000 | Telecom | Australia | Approved | |

Edit
Copy
Export to ...
Delete

_3. On the *Export chart* window, click **Cancel**.



2.2.12 Create a Configure Goal

A Goal is a business statement that brings purpose and scope to your dashboards. Goals are used to aggregate charts within a dashboard and to give dashboards a business purpose. A goal's definition includes the details of a specific objective you want to achieve, the time frame for achieving an objective, and identifiers (categories and colors) for the goal.

2.2.12.1 Create a Goal

_1. Click the **arrow** to the left of the Client Onboarding dashboard.

_2. Click **Goals**

_3. Click **Create**

_4. Complete the Goal specifications:

- For **Name**, enter **Focus Corp's top Client Onboarding KPI**
- For the **Description**, enter **Focus on the three top KPIs identified by the senior management team.**
- For **Priority**, select **High**
- Set **Goal color** to **Red**

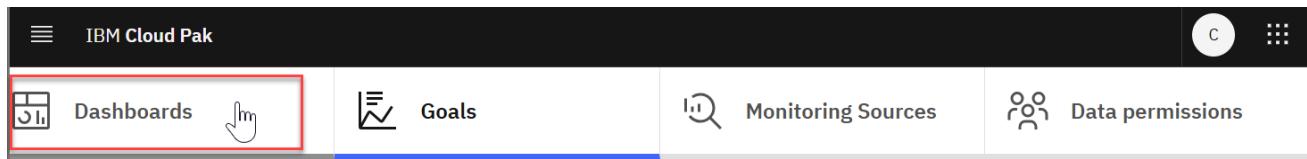
Your Goal definition should look exactly like this:

| | |
|---|--|
| Details | Goal specification |
| <p>Name Focus Corp's top Client Onboarding KPI</p> <p>Description (optional) Focus on the three top KPIs identified by the senior management team.</p> <p>Goal color </p> | <p>Goal classification (optional)</p> <p>Enter category</p> <p>Priority <input type="radio"/> Low <input type="radio"/> Medium <input checked="" type="radio"/> High</p> <p>Start date <input checked="" type="radio"/> Now <input type="radio"/> Custom</p> <p>Valid until <input checked="" type="radio"/> Always valid <input type="radio"/> Custom</p> |

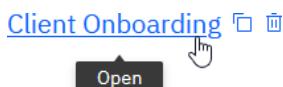
_5. Click **Save**.

2.2.12.2 Set a business goal for selected charts

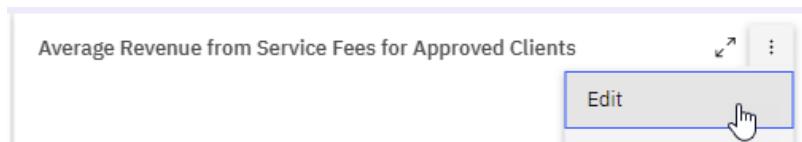
_1. Click **Dashboards**.



_2. Click the **Client Onboarding** dashboard.



_3. On the **Average Revenue from Service Fees for Approved Clients** chart, click the **ellipsis** and select **Edit**.



_4. For the Business goal, from the dropdown list, select **Focus Corp's top Client Onboarding KPI**

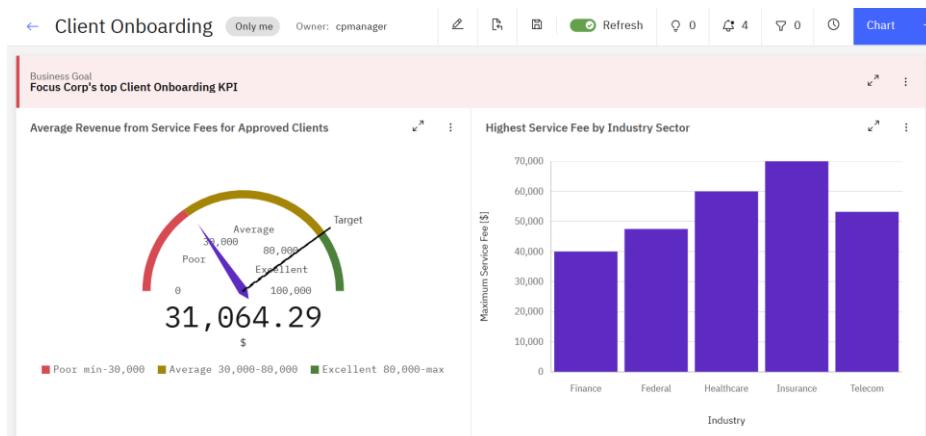


_5. Click **Done**.



_6. Repeat the above steps to add a Business Goal to the **Highest Service Fee by Industry Sector**.

_7. The top of your Dashboard should now look similar to this:

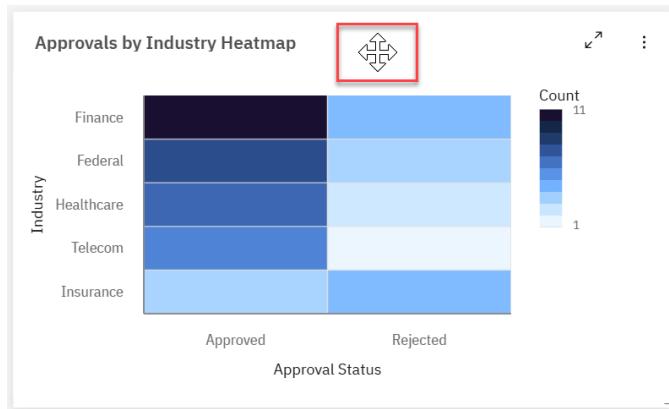


2.2.13 Change Dashboard Layout

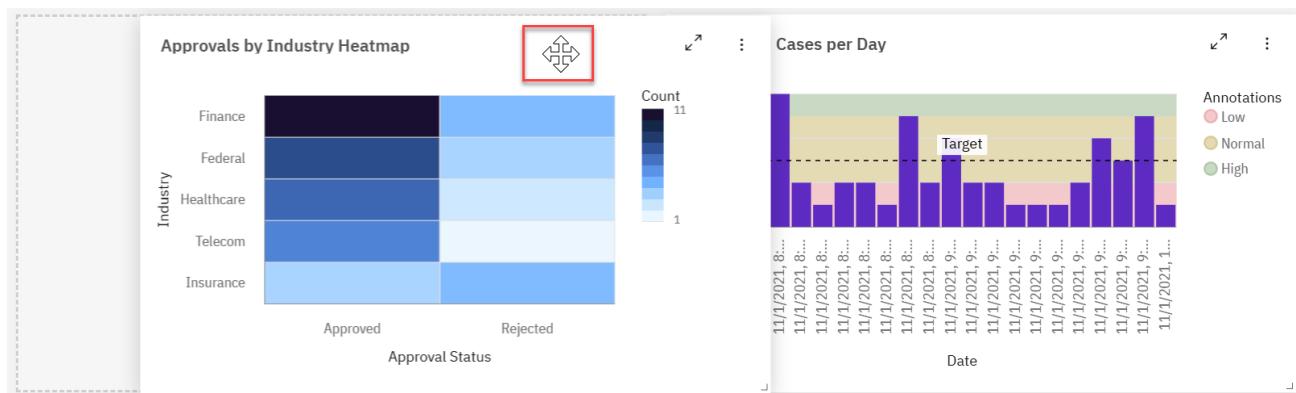
You will now customize your Dashboard by moving and changing chart sizes.

2.2.13.1 Move Approvals by Industry Heatmap Chart

_1. Click and hold the **title area** on the *Approvals by Industry Heatmap* chart:

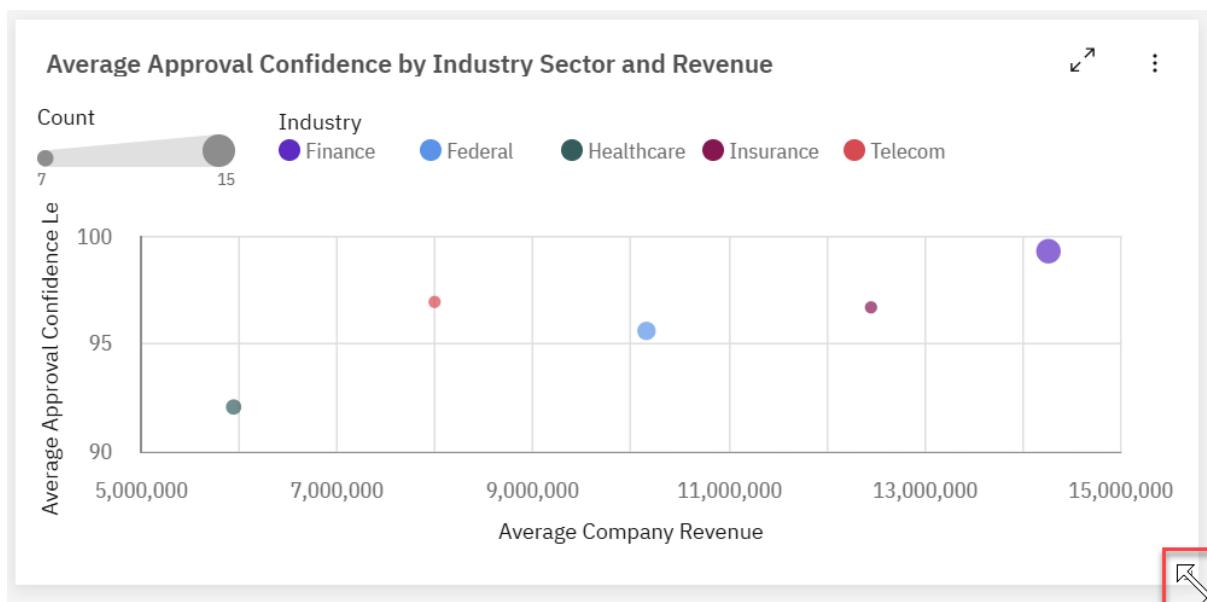


_2. Drag the chart to the empty area left of the Completed Cases per Day chart and release.

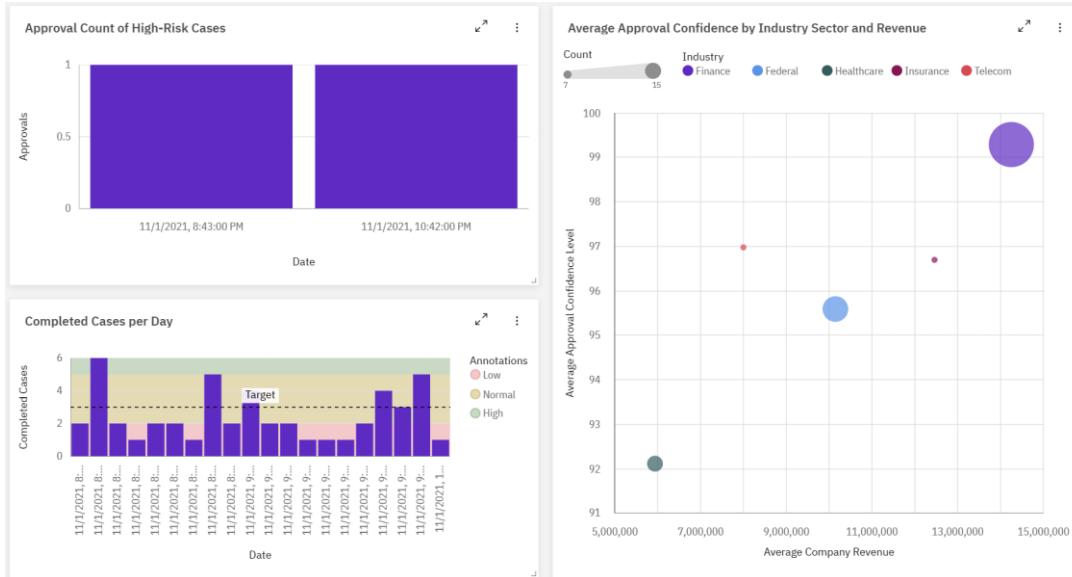


2.2.13.2 Expand chart Average Approval Confidence by Industry Sector and Revenue.

_1. Click and hold the image expander in the bottom right corner of the **Average Approval Confidence by Industry Sector and Revenue** chart.

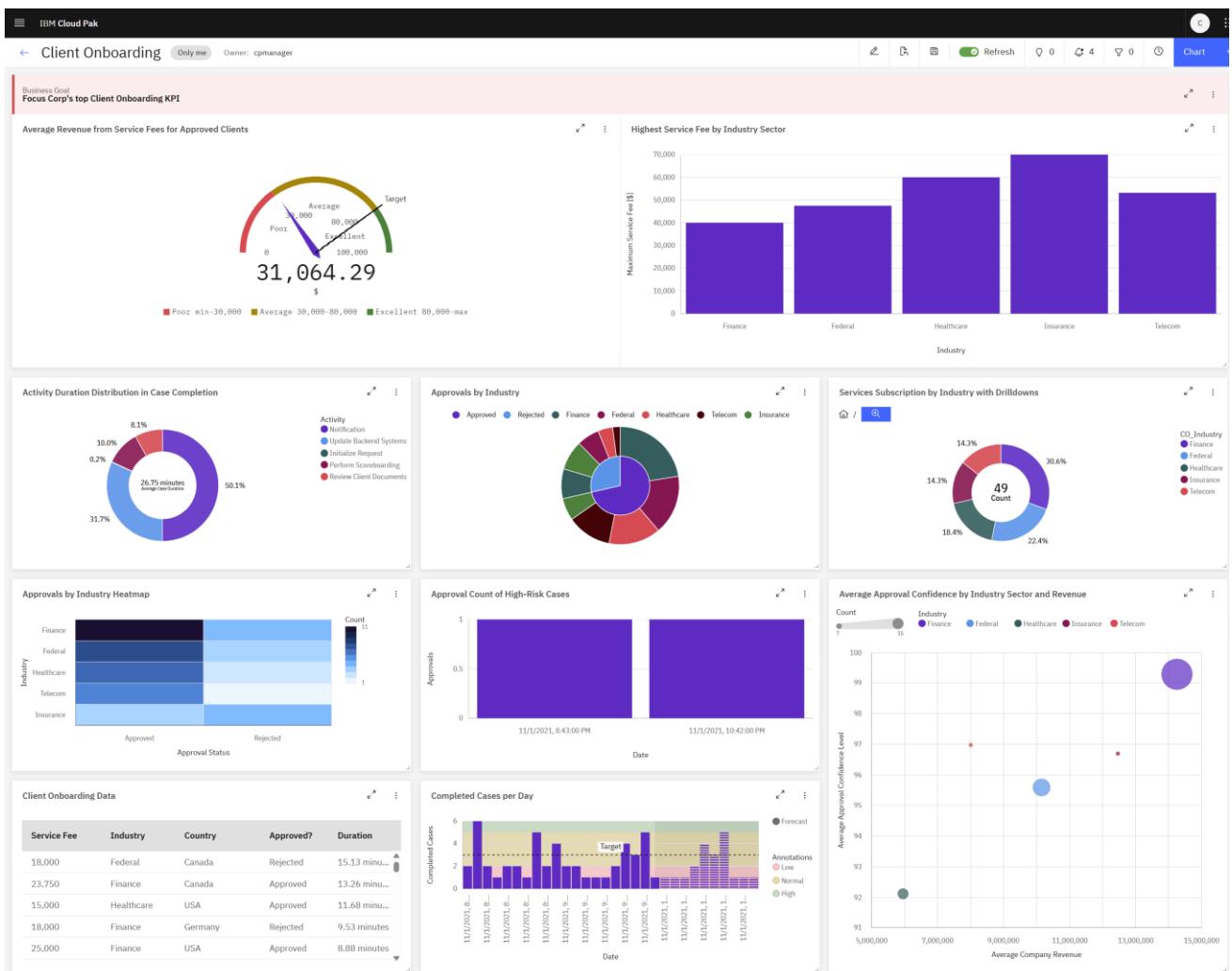


_2. Stretch the chart downwards until it achieves the height of two charts.



_3. Click the **Save** icon on the toolbar above the Dashboard to save your work!

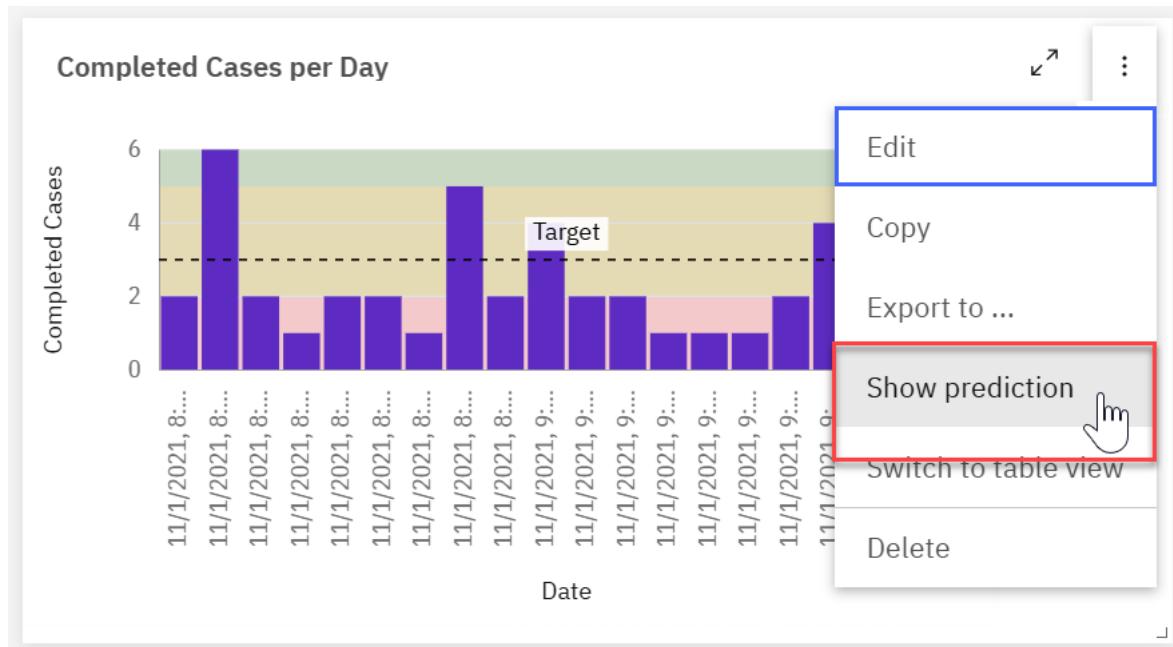
_4. Your final version of the Client Onboarding Dashboard should now look similar to this:



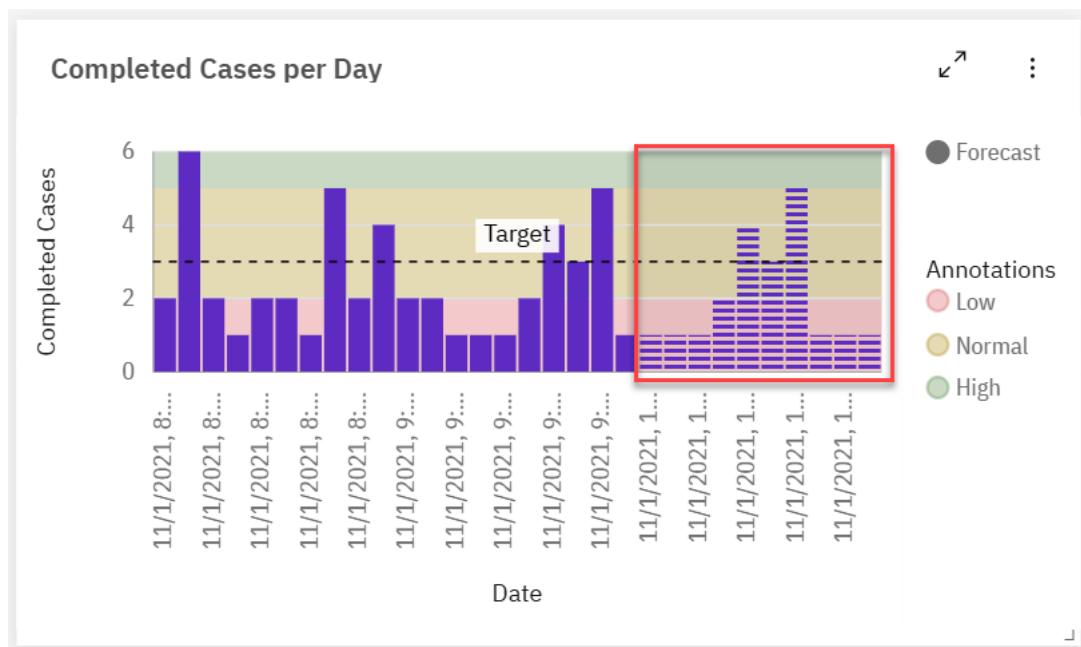
2.2.14 Explore Advanced Dashboard Features

2.2.14.1 KPI Predictions

- _1. Click the ellipses on the Completed Cases per Day chart and then select **Show prediction**.



- _2. You should now see the predicted case completion rate information.



2.2.14.2 Dashboard Alerts

- _1. Click the **Alert** icon in the toolbar above the Dashboard.



_2. You should now see all the alerts generated whenever the Case Completion Rate reached or went below the lower threshold (2) you defined in the Completed Cases per Day Chart.

Alerts ×

4

High (4) Medium (0) Low (0)

The KPI value went below the threshold "Case Completion Rate"
11/1/2021, 10:42:00 PM

The case completion rate is low.

Completed Cases per Day

You may see a different number of alerts generated when other users work on the Client Onboarding case.

2.3 Summary

In this lab, you learned how to use the Business Performance Center to build a dashboard and provide insights into a Client Onboarding solution for a line of business users. Specifically, you learned how to create and configure the following BPC artifacts: Dashboards, Charts, Chart Alerts, and Goals.

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