IBM Cloud Pak for Business Automation Demos and Labs - Fall 2021

Operational Intelligence

IBM Business Automation Insights

Build Business Performance Center Dashboard

V 1.5

Paul Pacholski

pacholsk@ca.ibm.com

NOTICES

This information was developed for products and services offered in the USA.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive, MD-NC119
Armonk, NY 10504-1785
United States of America

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM websites are provided for convenience only and do not in any manner serve as an endorsement of those websites. The materials at those websites are not part of the materials for this IBM product and use of those websites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

TRADEMARKS

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at “Copyright and trademark information” at www.ibm.com/legal/copytrade.shtml.

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

Cell Broadband Engine is a trademark of Sony Computer Entertainment, Inc. in the United States, other countries, or both and is used under license therefrom.

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

IT Infrastructure Library is a Registered Trade Mark of AXELOS Limited.

ITIL is a Registered Trade Mark of AXELOS Limited.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Linear Tape-Open, LTO, the LTO Logo, Ultrium, and the Ultrium logo are trademarks of HP, IBM Corp. and Quantum in the U.S. and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Table of Contents

1 Lab Introduction

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

This lab will consist of one Exercise:

1. Create Mortgage Solution Dashboard

1.1 Introduction to IBM Business Automation Insights

IBM Business Automation Insights enables capture of events generated by the operational systems that are implemented with the IBM Business Automation products. Captured events are aggregated into business relevant KPIs, and presented them in dashboards for lines of business to have a real-time view on their business operations.

More technical information about BAI: https://ibm.box.com/v/IBM-BAI-Tech-Intro

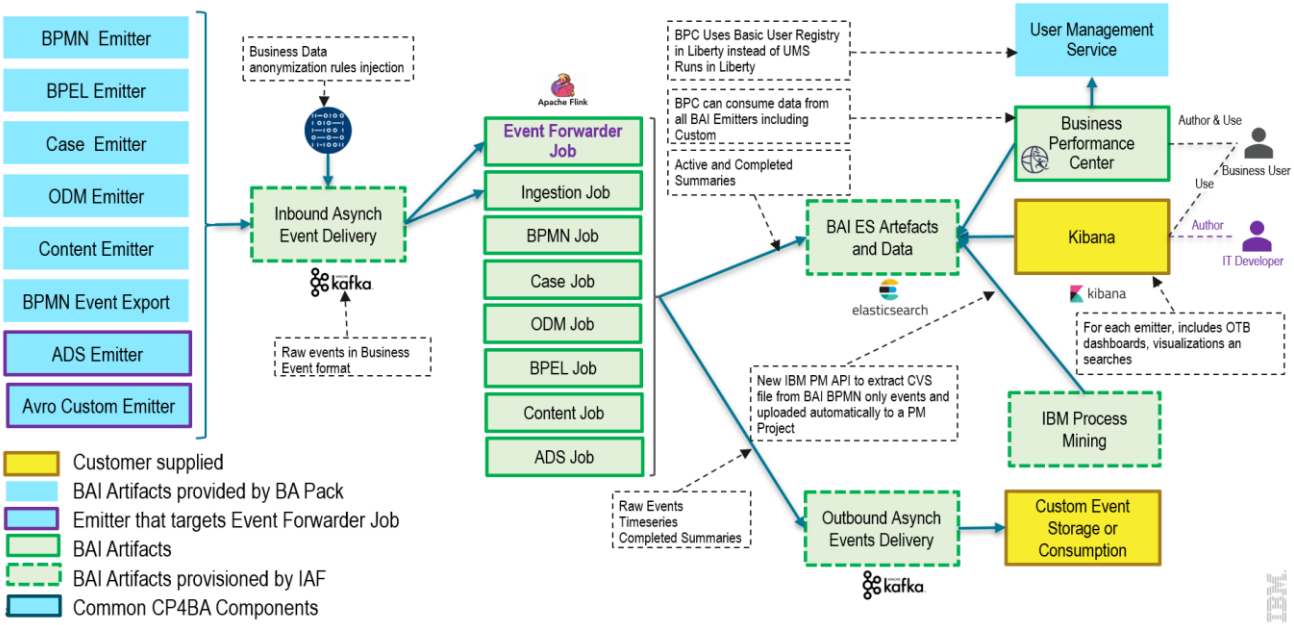


Figure 1. IBM Busines Automation Insights 20.0.1 Architecture

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:

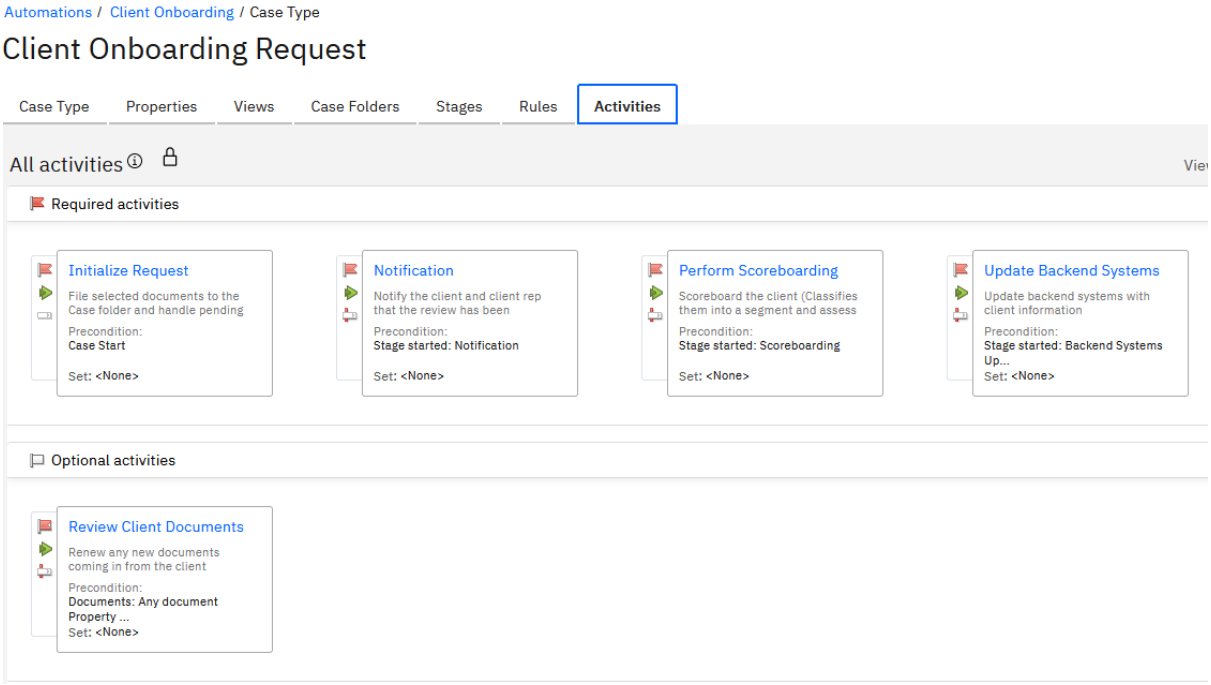
- design and share dashboards in minutes that capture business data in near real time and provide awareness of important business activities and processes.
- prepare, track, and design visualizations of *metrics*, *key performance indicators* (*KPIs*), and other measurements of business performance in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

More information about BPC: https://ibm.box.com/v/BusinessPerformanceCenter

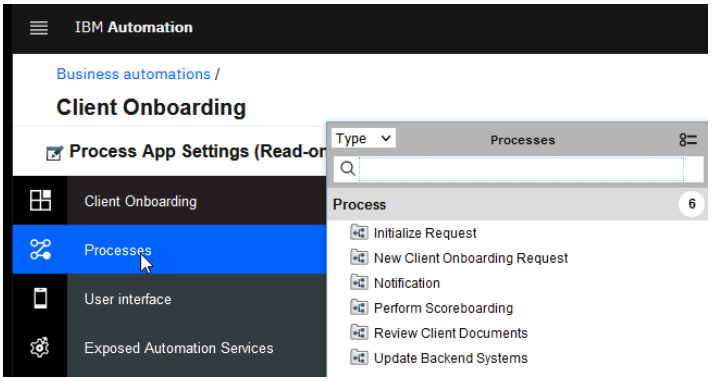
1.2 Lab Overview

The solution used during the labs is *Client Onboarding* Workflow automation which is implemented as a Case with several BPMN Process that implement Case Activities. The automation contains a single Case Type

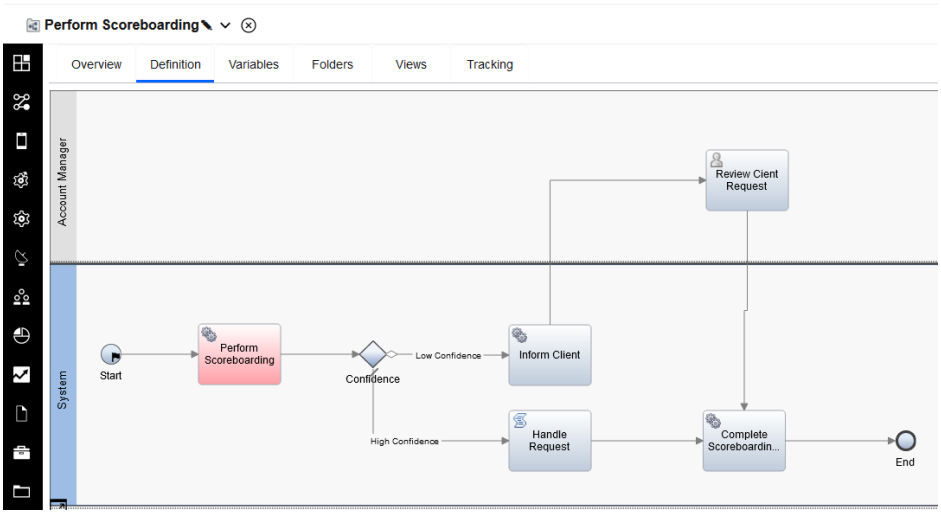
Client Onboarding Requests which contains activities which need to be performed, data, documents and conditions driving the processing.



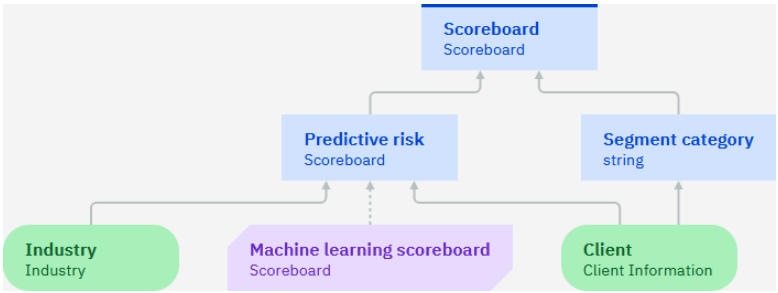
All five Case Activities above are implemented by BPMN Processes (shown blow) in automatically generated Process App (Client Onboarding)



The *Perform Scoreboarding* Activity (shown in light red below) is of particularly interest. It uses Automation Services to invoke Scoreboard decision implemented using Automation Decision Services.



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



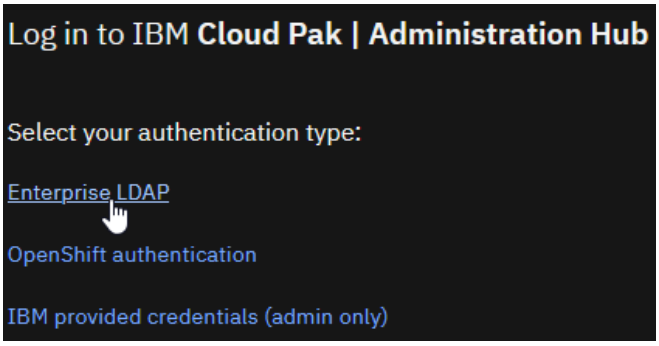
When authoring one of the Charts you will be using data generated bu the above decsion.

1.3 Lab Setup Instructions

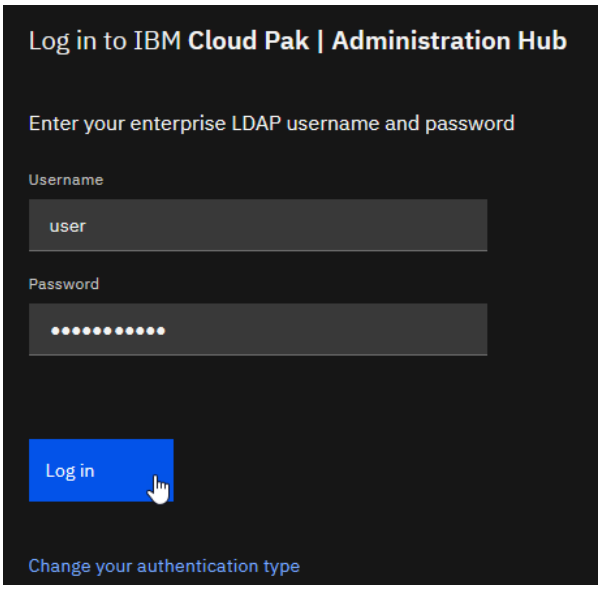
_1. If you are performing this lab as a part of an IBM event, access the document that lists the available systems and URLs along with login instructions. For this lab, you will need to access **IBM Business Performance Center**.

_2. Paste the Business Performance Center URL to your web browser.

_3. Select **Enterprise LDAP** login option



_4. Enter the supplied to you *Username* and *Password* and then click **Log in**

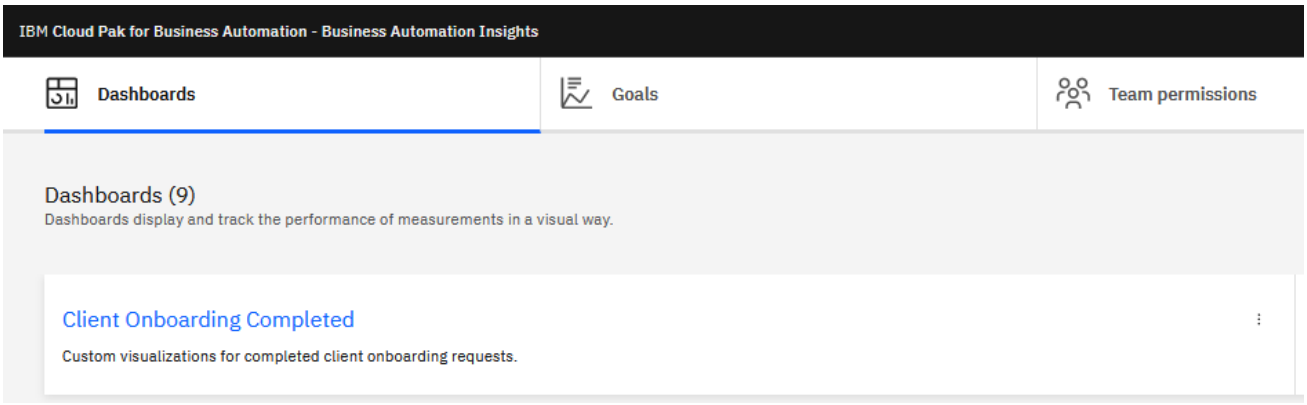


2 Exercise: Create Client Onboarding Workflow Dashboard

2.1 Introduction

In this lab exercise you will use BPC to create a business dashboard that will enable a business user to get a real time business insight into *Client Onboarding* Workflow.

In addition to bult-in dashboards, a reference version of the dashboard you will be building in the lab exercise (called **Client Onboarding Completed**) has already been built for you.



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

> Note that BAI events were already generated for you. But, since you are using a live shared environment with you and other users working on Client Onboarding cases, you may see new events arriving as you are authoring your dashboard. Consequently some of the screen shots in the lab instructions may not look exactly as captured in the lab instructions.

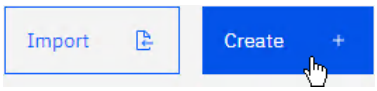
2.2 Exercise Instructions

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

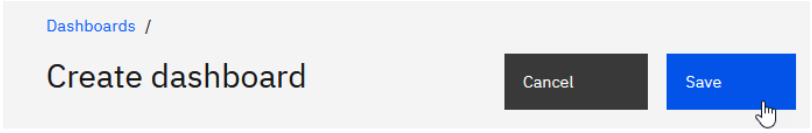
- Client Onboarding **Dashboard**
- **Charts** used in the Client Onboarding dashboard
- A Chart **Alert**
- A **Goal** to group related Charts

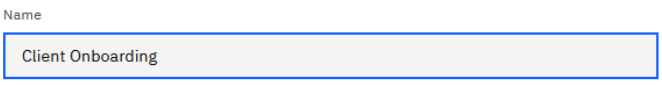
2.2.1 Create a Dashboard

_1. Click Create +



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

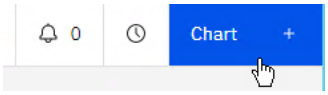




2.2.2 Create “Average Revenue from Service Fees for Approved Clients” Chart

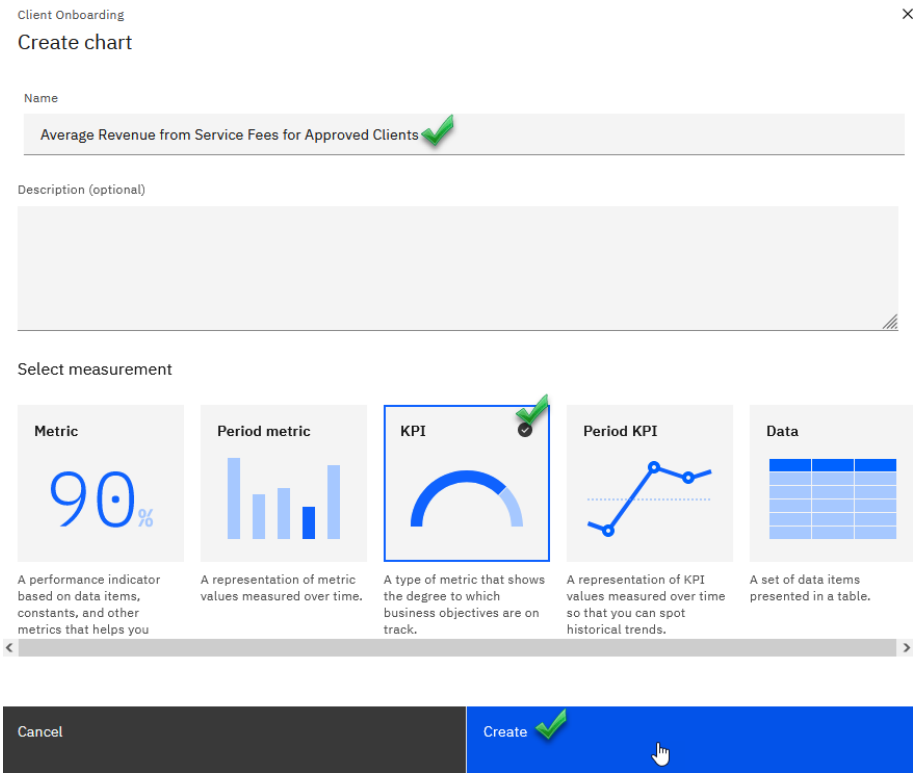
This gauge chart will be showing the average revenue from service fees for clients that were approved.

_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

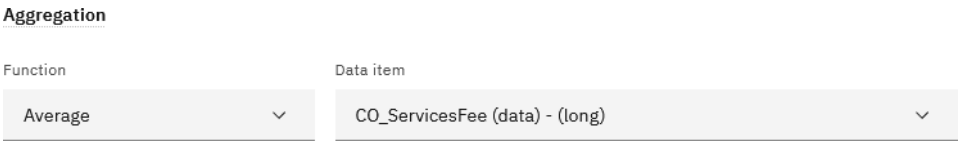


2.2.2.1 Define Monitoring Information

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

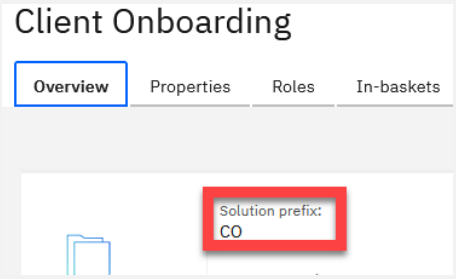
This will select events from Client Onboarding Workflow.

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

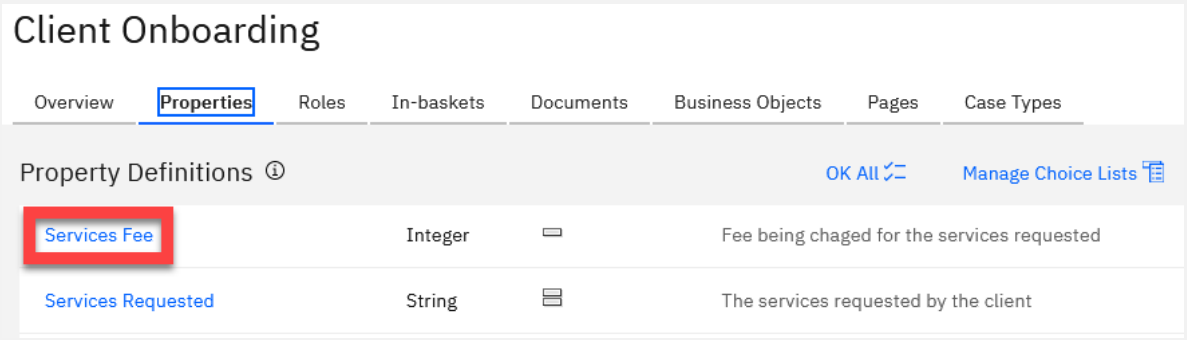


If you are wondering how this Case Property got into BAI, take a look at these comments...

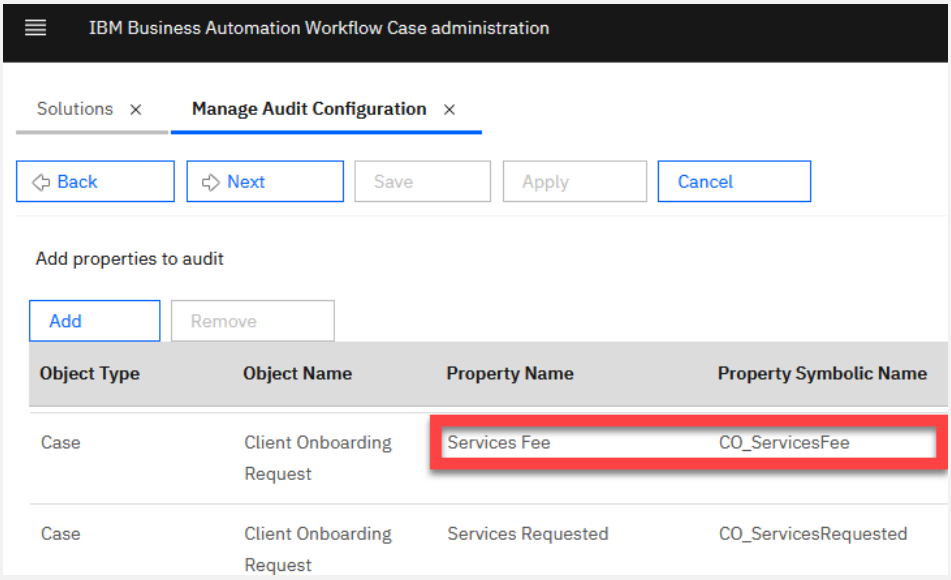
CO in CO_ServciesFee is Client Onboarding Solution prefix.



ServicesFee in CO_ServciesFee is the name of the of the Client Onboarding Case properties

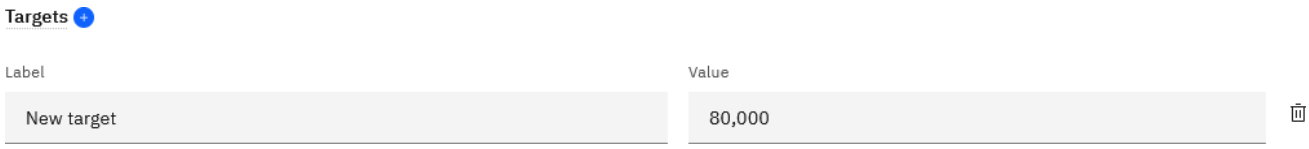


For BAI Case Emitter to add this property to the emitted events we need to configure Client Onboarding Audit Configuration



_3. Click **Add target +**

_4. For *Value* enter **80000**

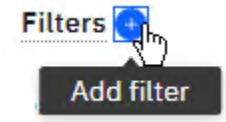


2.2.2.2 Define Filter Data

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

_1. Select **Filters** tab

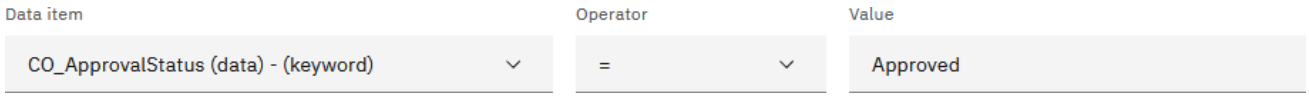
_2. Click **Filter +** button.



_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:



2.2.2.3 Define Visualization

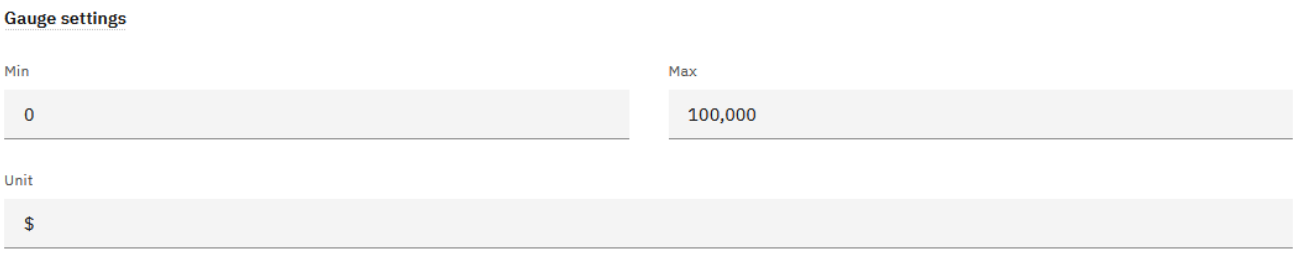
This setting allows you to customize your Chart display settings.

_1. Select **Visualization** tab

_2. Enter the following values:

Item	Value
Min	0
10	10000
Unit	$

Your Gauge setting should look exactly like this:



2.2.2.4 Define Thresholds

This setting allows you to customize Gage threshold setting.

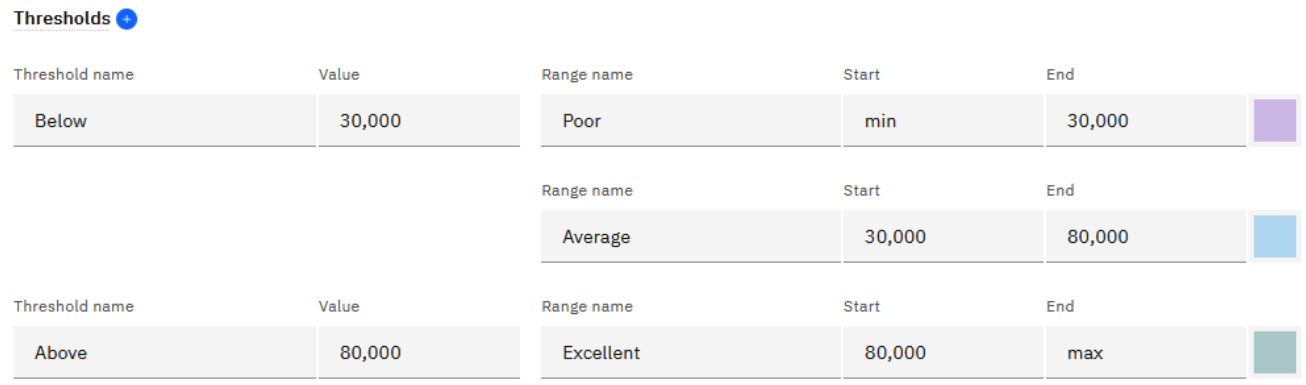
_1. Select **Threshold** tab

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

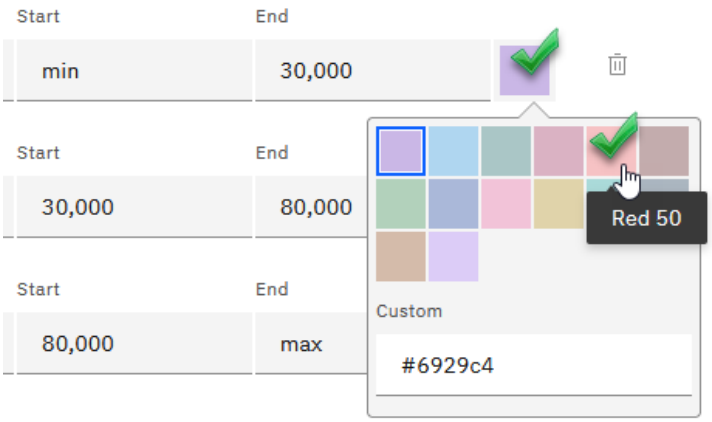
_3. For each group select the following values from the dropdown list:

Threshold	Data item	Value
1	Threshold name	Below
	Value	30000
	Range name 1	Poor
	Range name 2	Good
2	Threshold name	Above
	Value	80000
	Range name	Excellent

Your Thresholds setting should look exactly like this:



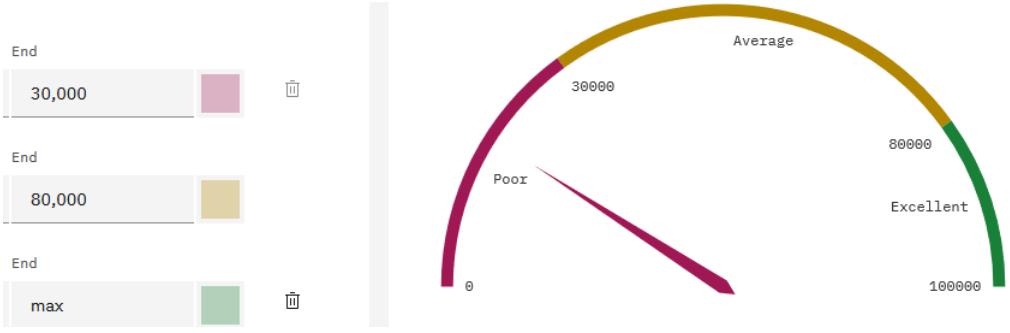
_4. Click **Purple Color patch** and then select **Red color patch** from the palette



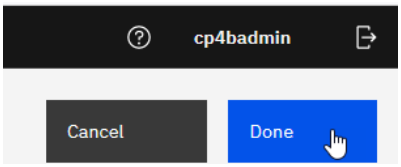
_5. Using the above steps customize the other two colors

Item	Value
Orange	Yellow
Excellent Color	Green

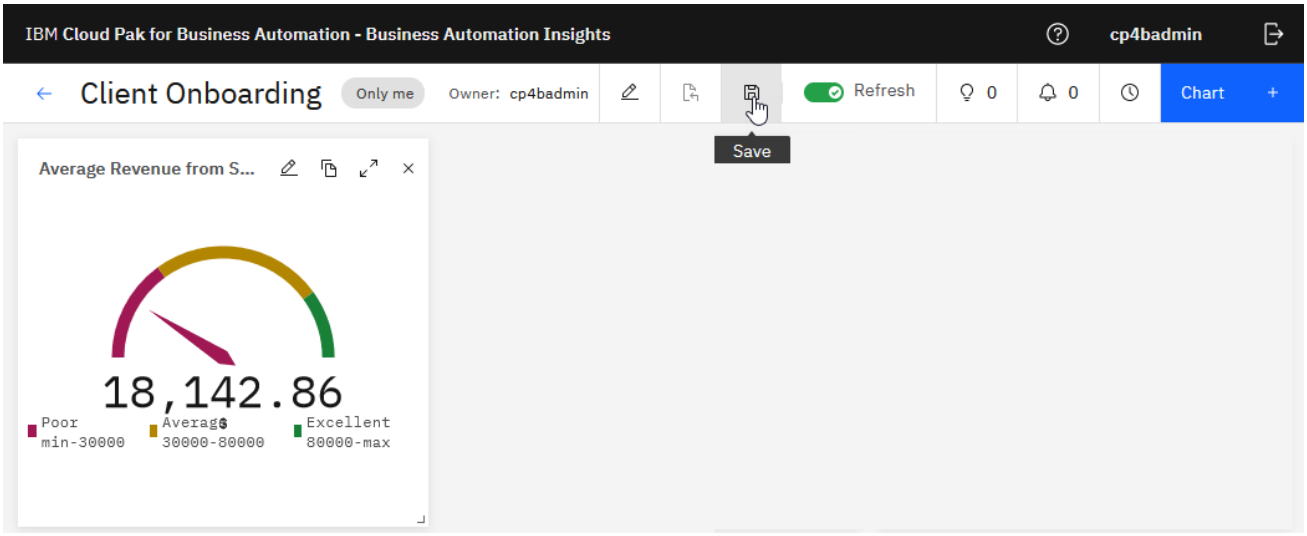
The color settings should look exactly like this:



_6. Click **Done**



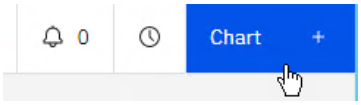
_7. On the Dashboard Toolbar click **Save** icon to save you work!



2.2.3 Create "Approvals by Industry" Chart

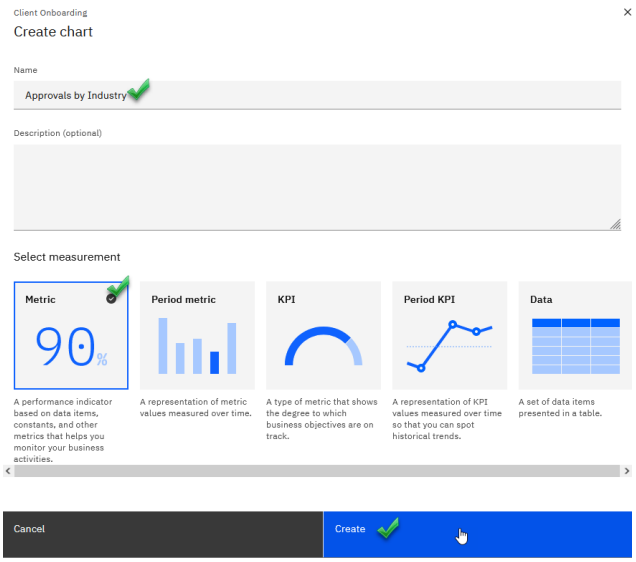
This hierarchical pie chart will be showing the state of approvals (Approved, Rejected Under Review) by industry.

_1. Click **Chart +**



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

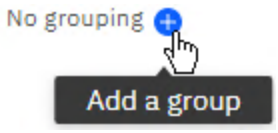
Item	Value
Name	Approvals by Industry
Select measurement	Metric



2.2.3.1 Define Monitoring Information

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

_2. Click **Add a group +** button **twice**

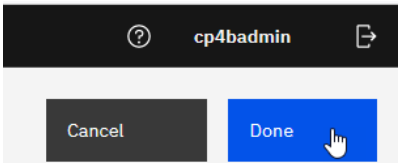


_3. Enter the following keywords for the *Group by* entries:

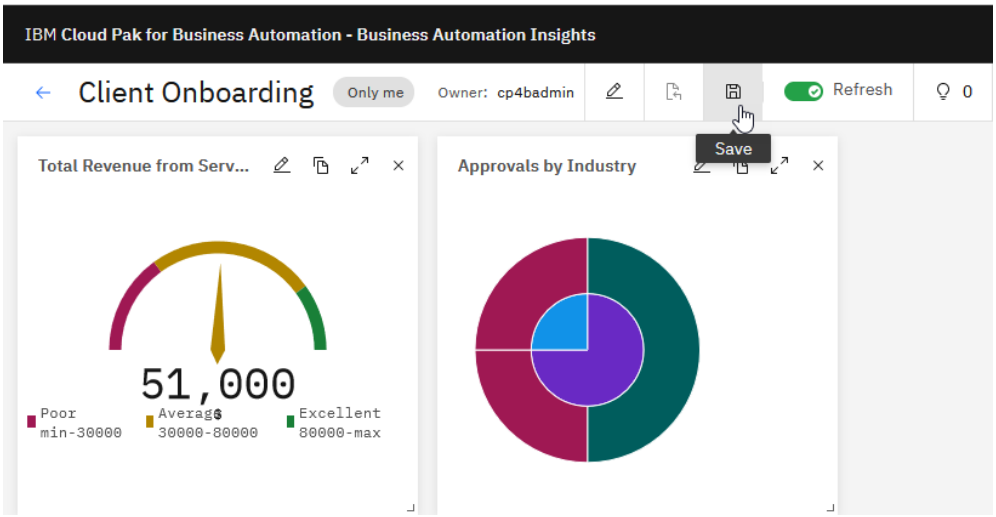
Item	Value
1	CO_ApprovalStatus (data) – (keyword)
2	CO_Industry (data) – (keyword)

_4. For chart type select **Hierarchical pie**

_5. Click **Done**



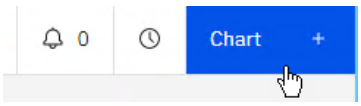
_6. On the Dashboard Toolbar click **Save** icon to save you work!



2.2.4 Create “Services Subscription by Industry with Drilldowns” Chart

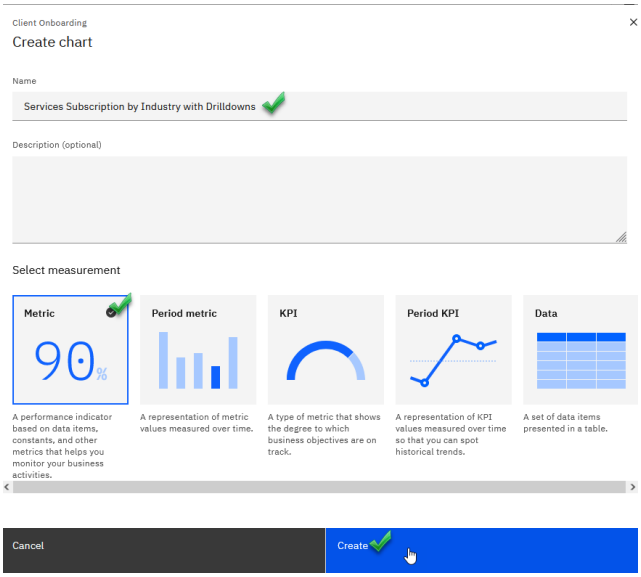
This pie chart will be showing the service subscriptions by industry. Additional feature of this chart is ability to drill down by service > industry > country.

_1. Click **Chart +**



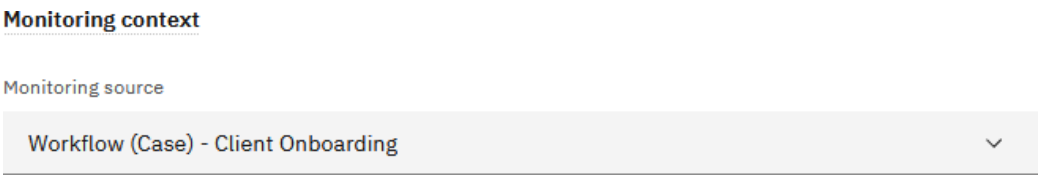
_2. Enter the following and then click **Create**

Item	Value
Name	Services Subscription by Industry with Drilldowns
Select measurement	Metric

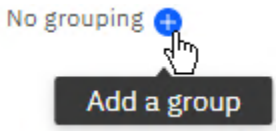


2.2.4.1 Define Monitoring Information

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



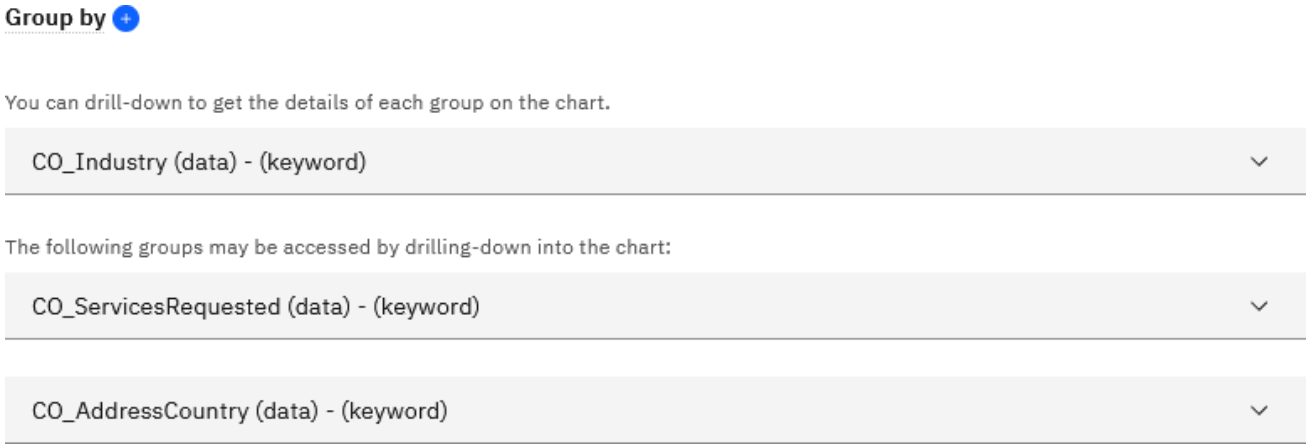
_2. Click **Add a group +** button **three times**



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

Item	Value
1	CO_Industry (data) – (keyword)
2	CO_ServiceRequested (data) – (keyword)
3	CO_AddressCountry (data) – (keyword)

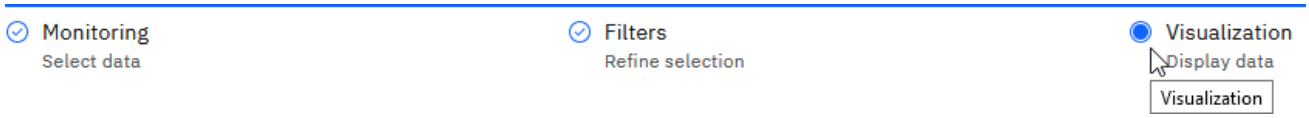
Drill down groups should look exactly like his:



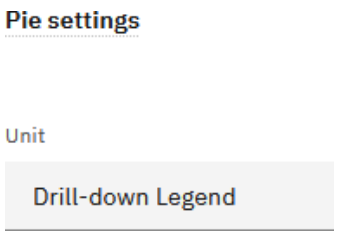
_4. For chart type select **Hierarchical pie**

2.2.4.2 Define Visualization Information

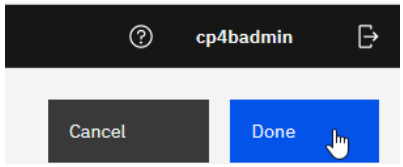
_1. Click **Visualization** tab



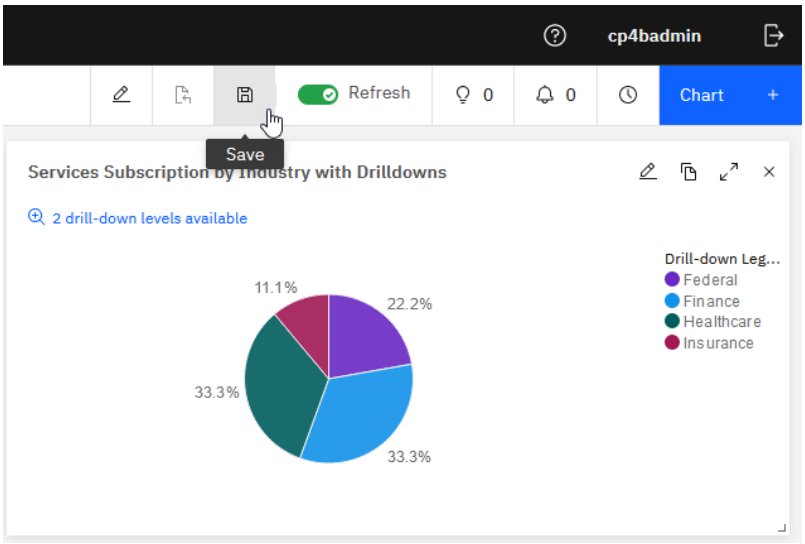
_2. For *Pie settings* > *unit* enter **Drill-down Legend**



_3. Click **Done**

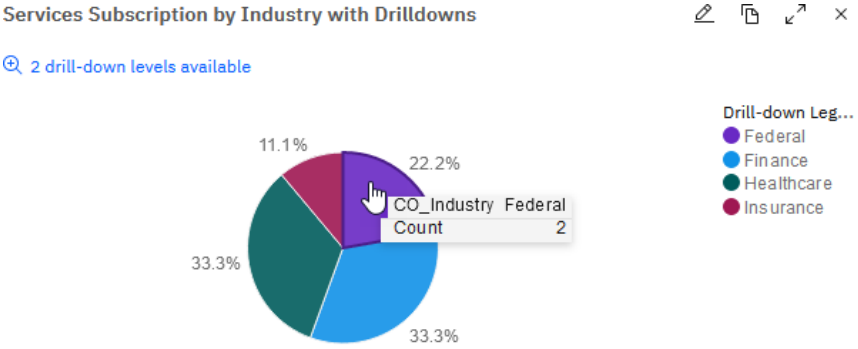


_4. On the Dashboard Toolbar click **Save** icon to save you work!

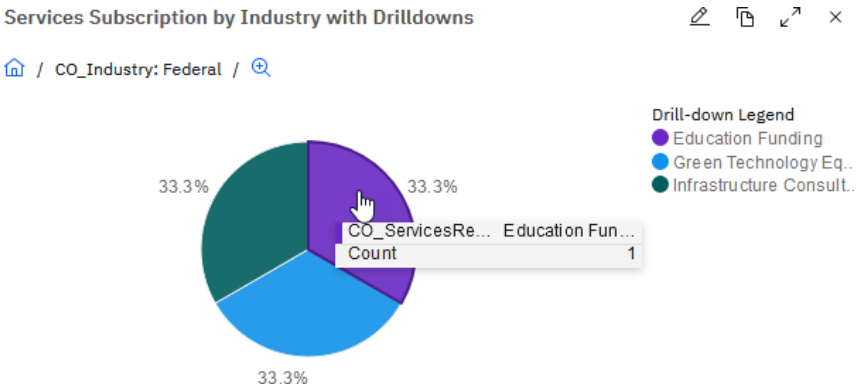


2.2.4.3 Explore Drill-down capability

_1. Select first drill-down level by clicking on **Federal** Industry

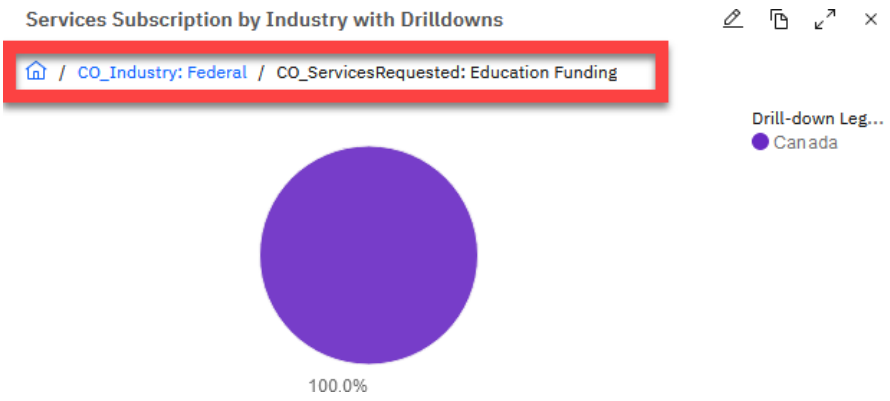


_2. Select second drill-down level by clicking on **Education Funding** Service

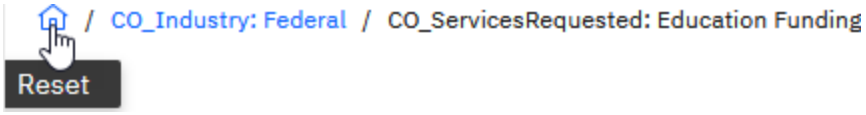


_3. You should now see all the countries for *Federal > Education Funding* grouping.

Note the breadcrumbs....



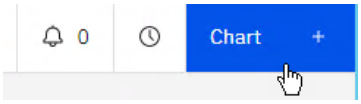
_4. Click **Reset** to get back to original view



2.2.5 Create "Highest Service Fee by Industry Sector" Chart

This bar chart will be showing highest service fee by industry sector.

_1. Click **Chart +**



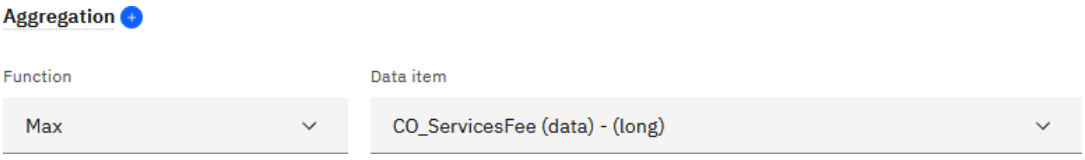
_2. In *Client Onboarding- Create chart* window, enter the following and then click **Create:**

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

2.2.5.1 Define Monitoring Information

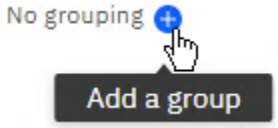
_1. For *Monitoring source* select Workflow (Case) – Client Onboarding

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



_3. For chart type select **Bar**

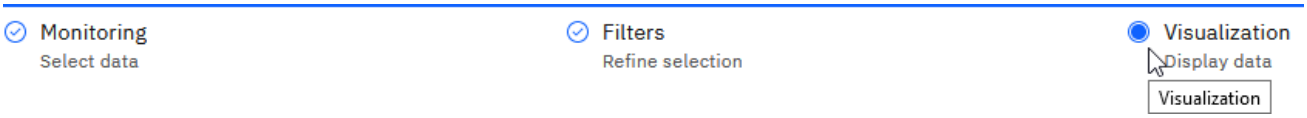
_4. Click **Add a group +** button



_5. Enter **CO_Industry (data) – (keyword)**

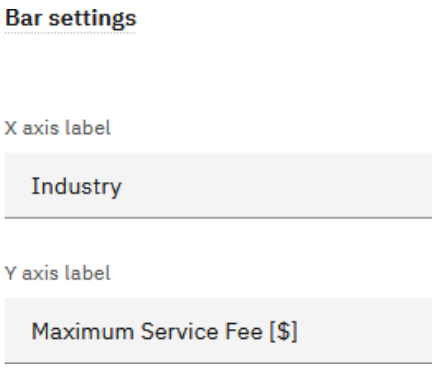
2.2.5.2 Define Visualization Information

_1. Click **Visualization** tab

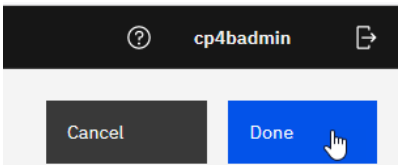


_2. For Bar settings enter:

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

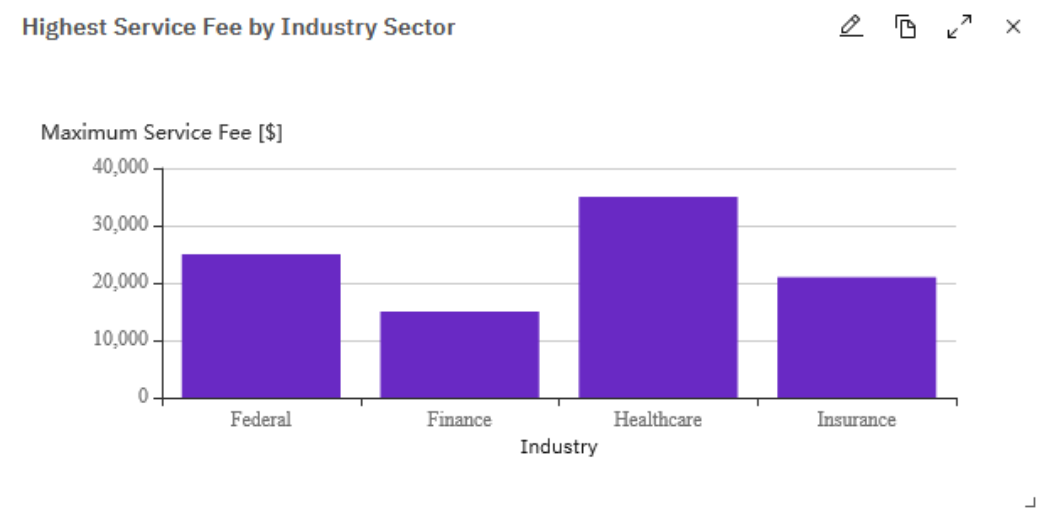


_3. Click **Done**



_4. On the Dashboard Toolbar click **Save** icon to save you work!

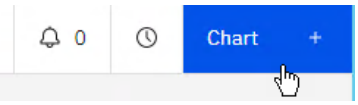
You chart shgoyuld look similar to this



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

This bar chart will be showing the approval counts for high-risk cases in a given time period. High-risk cases are identified by the decision service (which uses ML service to score risk level) and serves as a suggestion for approvers. This may be an important metric as it indicates that the ML model decision was overridden by a the approved and there the ML model may have not been accurate and may need re-training.

_1. Click **Chart +**



_2. In *Client Onboarding- Create chart* window, 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 *Monitoring source* select Workflow (Case) – Client Onboarding

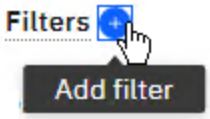
_2. On *Interval* change the setting to **Minutes(s)**

_3. For chart type select **Bar**

2.2.6.2 Define Filters and Predictions

_1. Select Filters and predictions tab

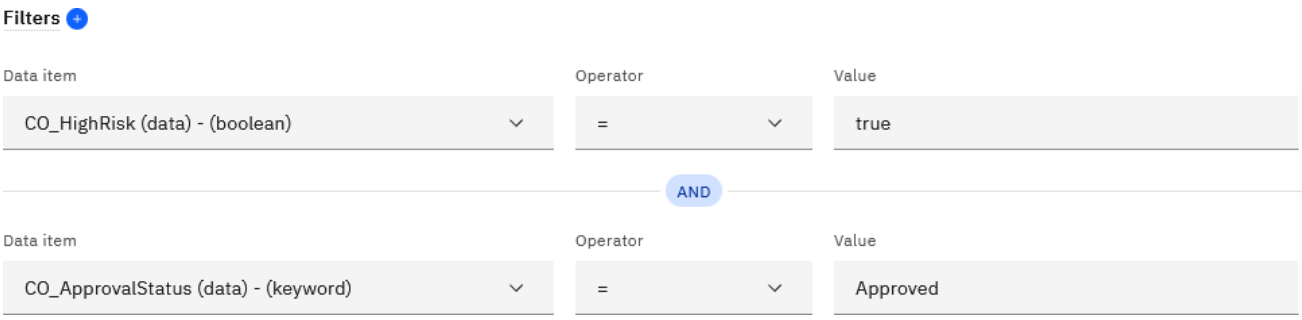
_2. Click **Filter +** button **twice** to add two Filters.



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

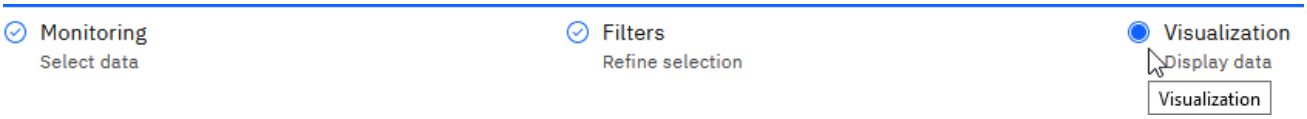
Group	Data item	Operator	Value
1	CO_HighRisk (data) – (boolean)	=	true
2	CO_ApprovalStatus (data) – (keyword)	=	Approved

Your Filters setting should look exactly like this:



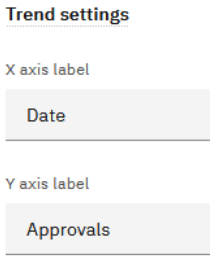
2.2.6.3 Define Visualization Information

_1. Click Visualization tab

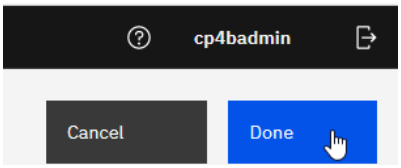


_2. For Bar settings enter:

Item	Value
X axis label	Date
Y axis label	Approvals

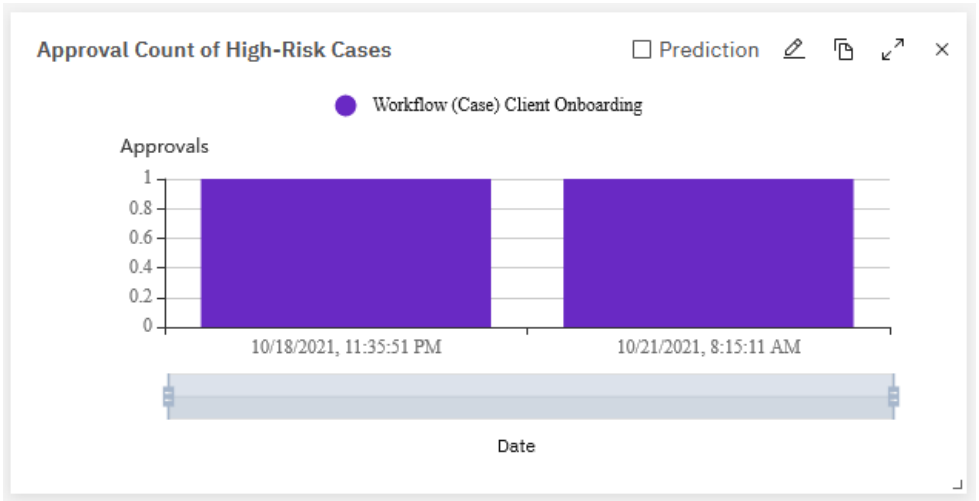


_3. Click **Done**



_4. On the Dashboard Toolbar click **Save** icon to save you work!

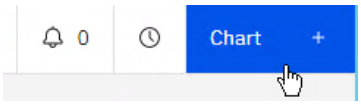
You chart shgoyuld look similar to this



2.2.7 Create “Average Approval Confidence by Industry Sector and Revenue” Chart

You will be creating Average Approval Confidence by Industry Sector and Revenue bubble chart. The bubble color will indicate the industry. The bubble size will indicate how many cases were hander a given industry. The bubbles will be positioned in a grid with X-Axis being the average revenue and the Y-Axis the average approval confidence level.

_1. Click **Chart +**



_2. In *Client Onboarding- Create chart* window, 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

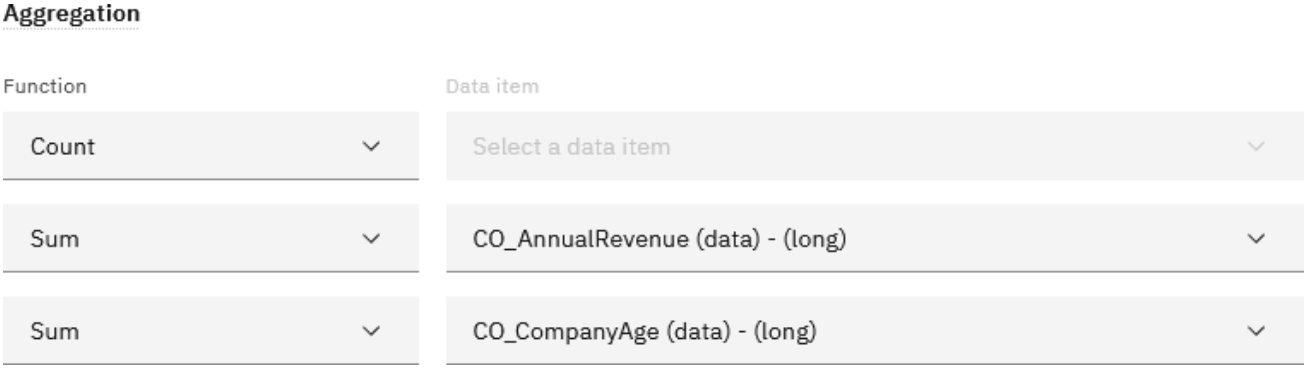
_1. For *Monitoring source* select Workflow (Case) – Client Onboarding

_2. Click **Add a group +** button

_3. Select **CO_Industry (data) – (keyword)**

_4. Click **Aggregation +** button **twice** to add two Aggregations

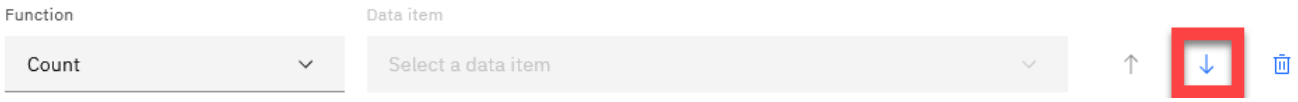
Note that two Aggregations were added below Count



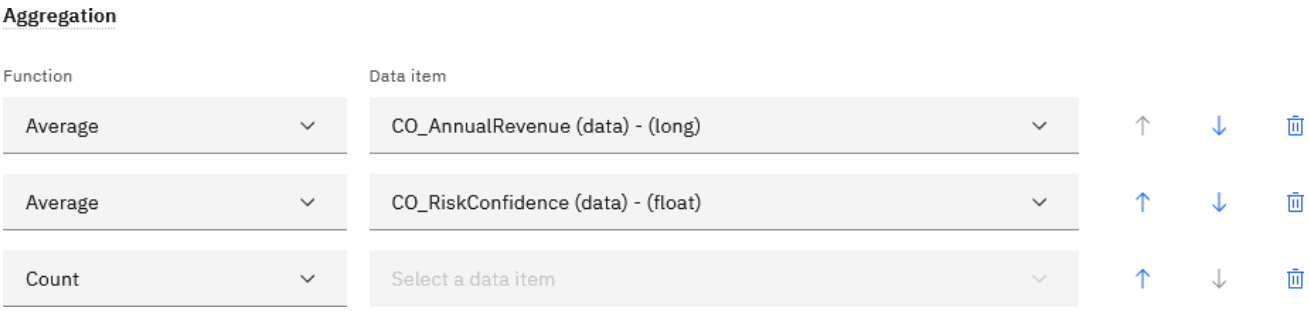
_5. For the two new Aggregations select the following values from the dropdown list:

Aggregation	Function	Data item
2	Average	CO_AnnualRvenue (data) – (long)
3	Average	CO_RiskConfidence(data) – (float)

_6. Use the **Down Arrow** on the Count Aggregation to move it to the bottom (make it the last Aggregation).

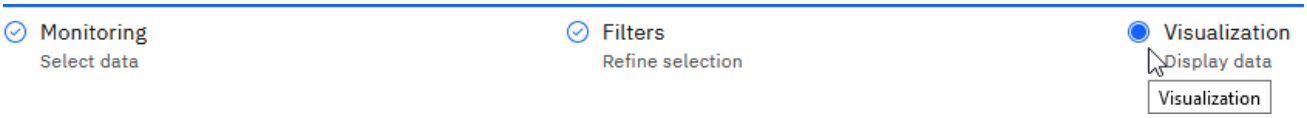


Your Aggregations setting should look exactly like this:



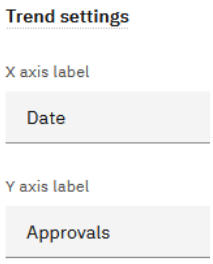
2.2.7.2 Define Visualization Information

_1. Click **Visualization** tab

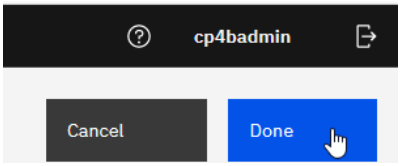


_2. For Bubble settings enter:

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

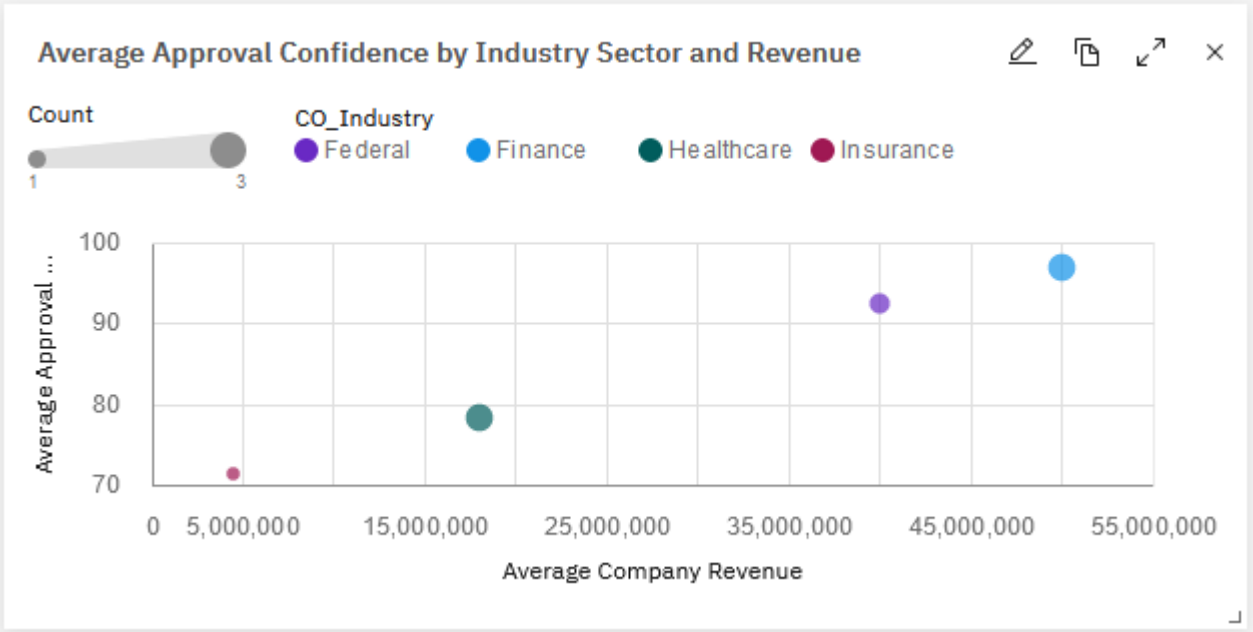


_3. Click **Done**



_4. On the Dashboard Toolbar click **Save** icon to save you work!

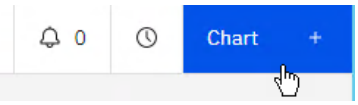
You chart shgoyuld look similar to this



2.2.8 Create "Activity Duration Distribution in Case Completion" Chart

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

_1. Click **Chart +**



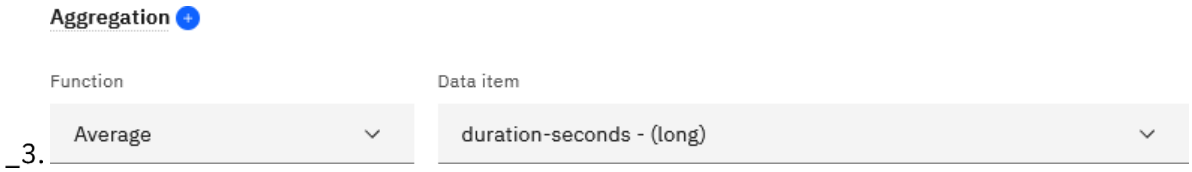
_2. In *Client Onboarding- Create chart* window, enter the following and then click **Create:**

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

2.2.8.1 Define Monitoring Information

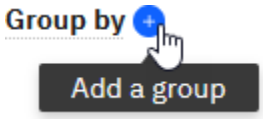
_1. For *Monitoring source* select Workflow (Case) – Client Onboarding

_2. Change the Aggregation values by setting *Function* to **Average** and *Data item* to **duration-seconds – (long)**



_3.

_4. Click **Add a group +** button

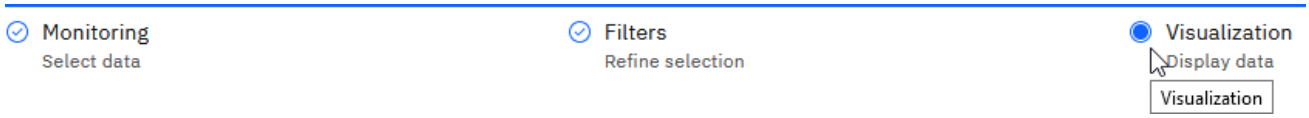


_5. Select task-name – (keyword)

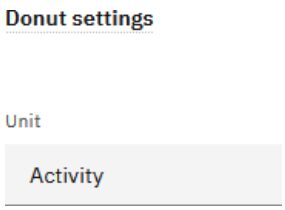
_6. Set visualization type to **Donut**

2.2.8.2 Define Visualization Information

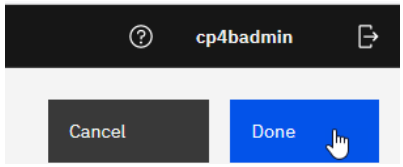
_1. Click **Visualization** tab



_2. For *Donut settings* set *Unit* to **Activity**

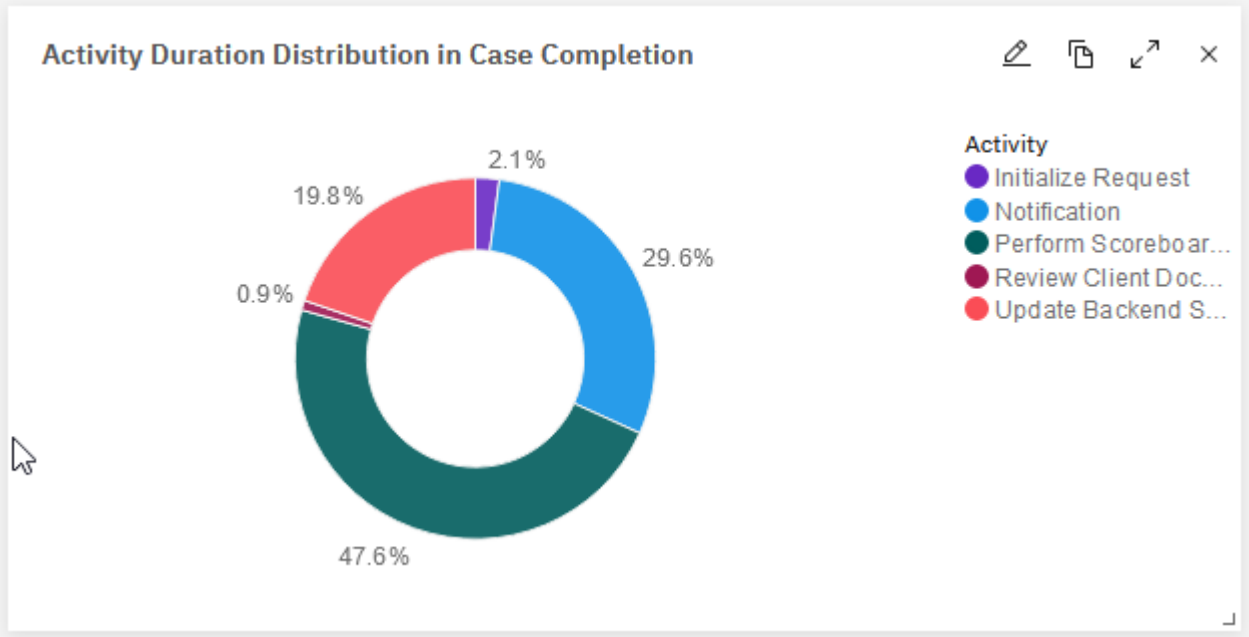


_3. Click **Done**



_4. On the Dashboard Toolbar click **Save** icon to save you work!

You chart should look similar to this



2.2.9 Create "Completed Cases per Day" Chart

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

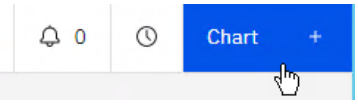
Note that the title states "per Day" but given the data set used for this lab the scale set "per Minute".

This chart will also include two advanced features:

1. Predictions – you will be predict number of cases completed in the future (20 future days into the future). This is a very value tool to enable capacity human resources planning.
2. Alerts – you will be visual indications when number of cases completed falls below 2 in a given time period.

Note that the KPI Predictions are not base on ML. Depending on the data, KPI Prediction use the following algorithms: ARIMA, Seasonal ARIMA, or Exponential Smoothing.

_1. Click **Chart +**



_2. In *Client Onboarding- Create chart* window, 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

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

_3. Click **Targets +** button

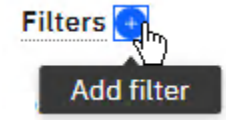
_4. For *Label* enter **Target** and for *Value* enter **3**

_5. For visualization select **Bar**

2.2.9.2 Define Filters

_1. Select **Filters** tab

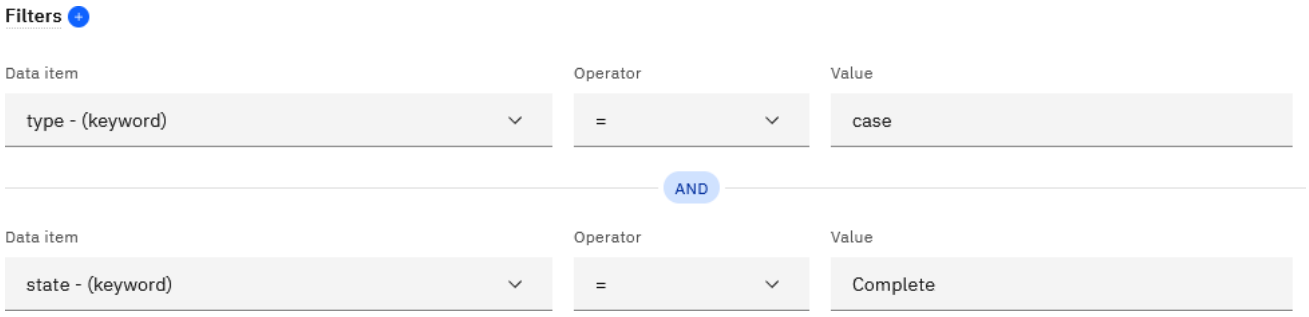
_2. Click **Filter +** button **twice** to add two Filters



_3. Select the following values for each Filter:

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

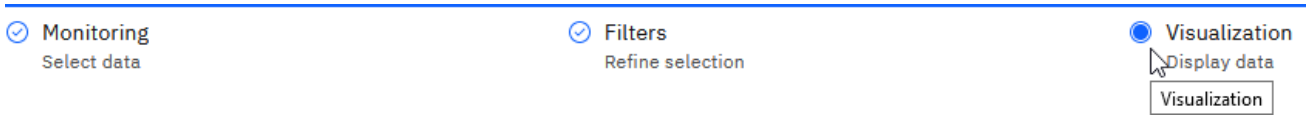
Your Filter setting should look exactly like this:



_4. Enable Predictions

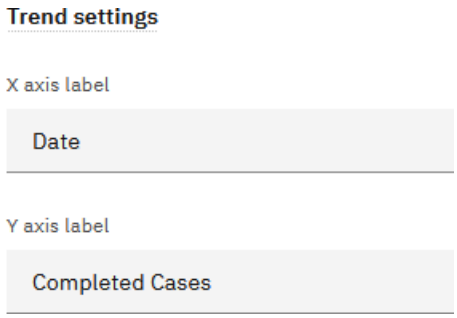
2.2.9.3 Define Visualization Information

_1. Click Visualization tab



_2. For Trend settings enter:

Item	Value
X axis label	Date
Y axis label	Completed Cases



2.2.9.4 Define Thresholds

This setting allows you to customize Gage threshold setting.

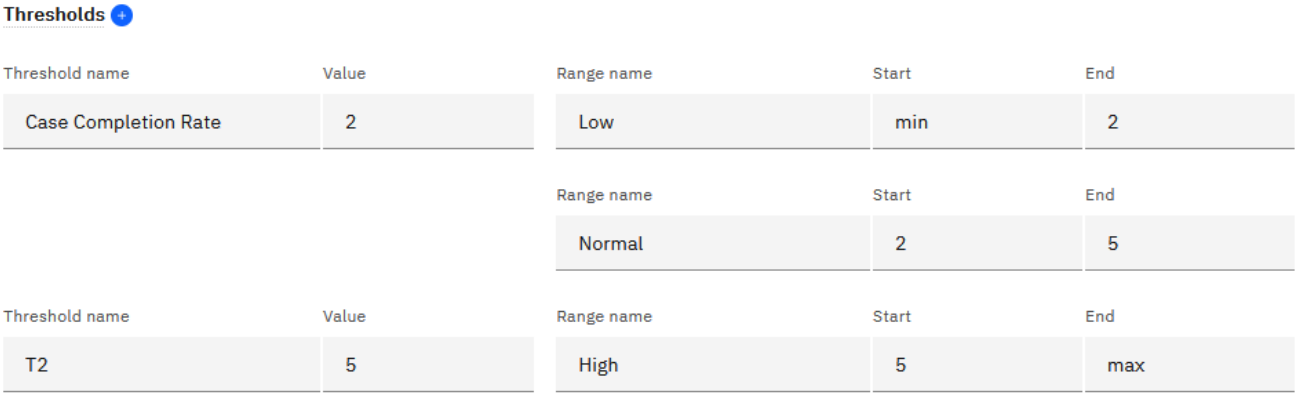
_1. Select **Threshold** tab

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

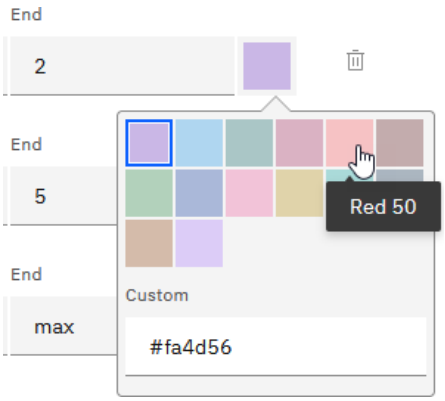
_3. For each group select the following values from the dropdown list:

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:



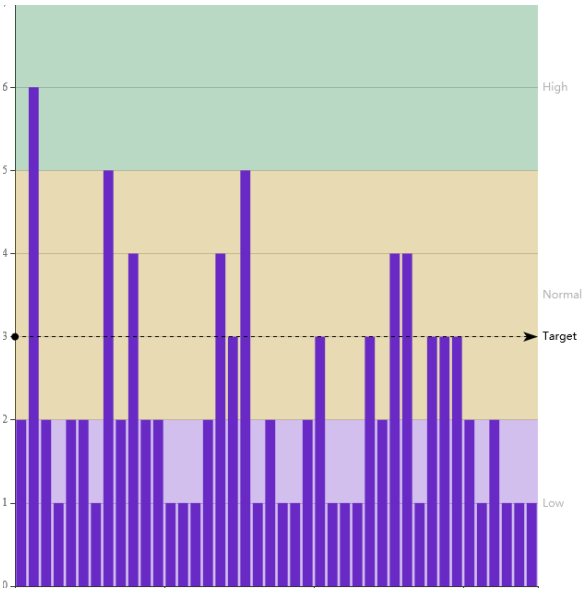
_4. Click **Purple Color patch** and then select **Red color patch** from the palette



_5. Using the above steps customize the other two colors

Item	Value
Normal	Yellow
High	Green

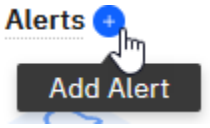
_6. The color settings should look exactly like this:



2.2.9.5 Define Alert

This setting allows you to customize Gage threshold setting.

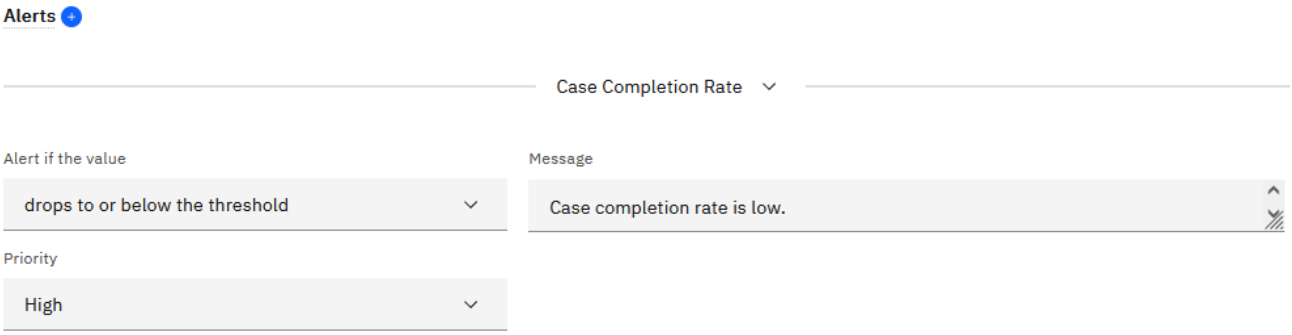
_1. Click Alerts +



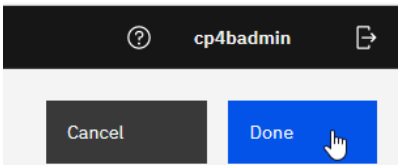
_2. Make sure threshold **Case Completion Rate** is selected

_3. Configure the alert using input values shown below

Item	Value
Alert if the value	Drops to or below the threshold
Message	Case completion rate is low.

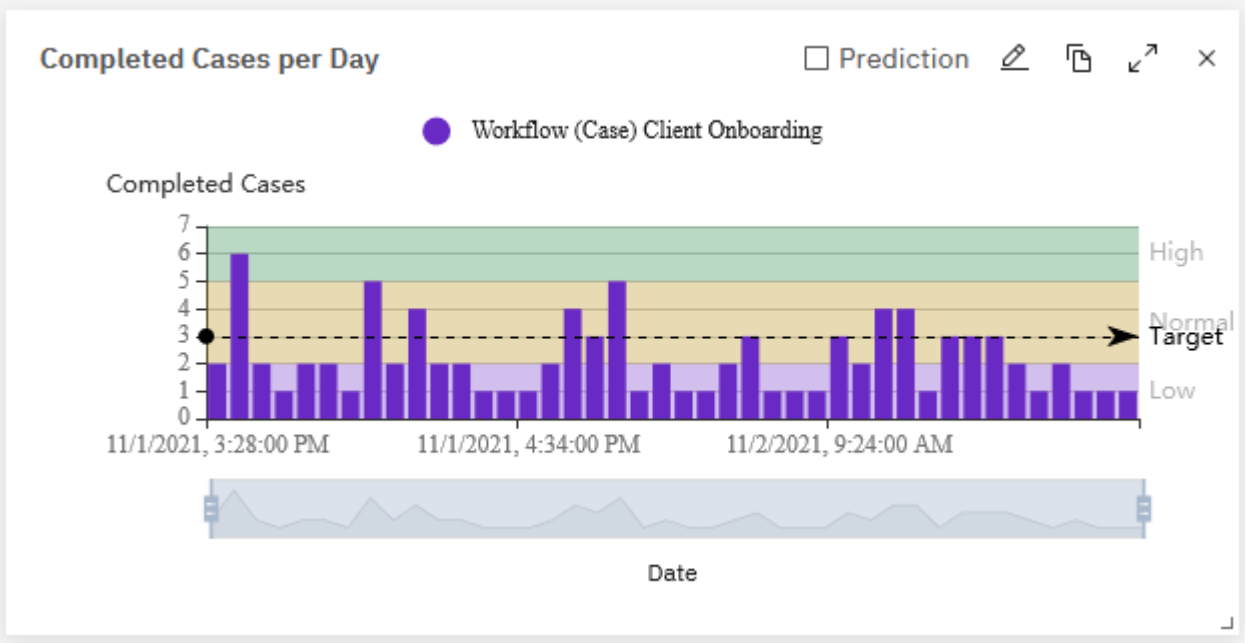


_4. Click **Done**



_5. On the Dashboard Toolbar click **Save** icon to save you work!

You chart shgoyuld look similar to this



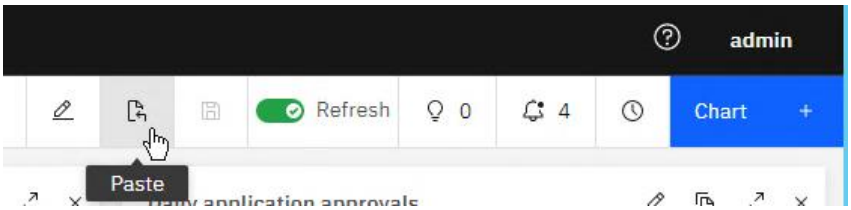
2.2.10 Create "Approvals by Industry Heatmap" Chart

You will be creating Approvals by Industry heatmap chart. The tile color intensity will indicate count (the deeper the color the higher the count). The tiles will be positioned in a grid. The X-Axis will represent the approvals 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 copy-and-paste technique to create this chart from the *Approvals by Industry* chart.

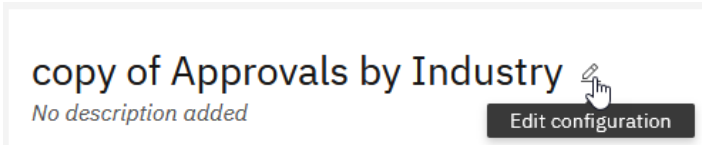
_1. On the *Approval by Industry* chart click **Copy**

_2. On the *BPC main toolbar* click **Paste**

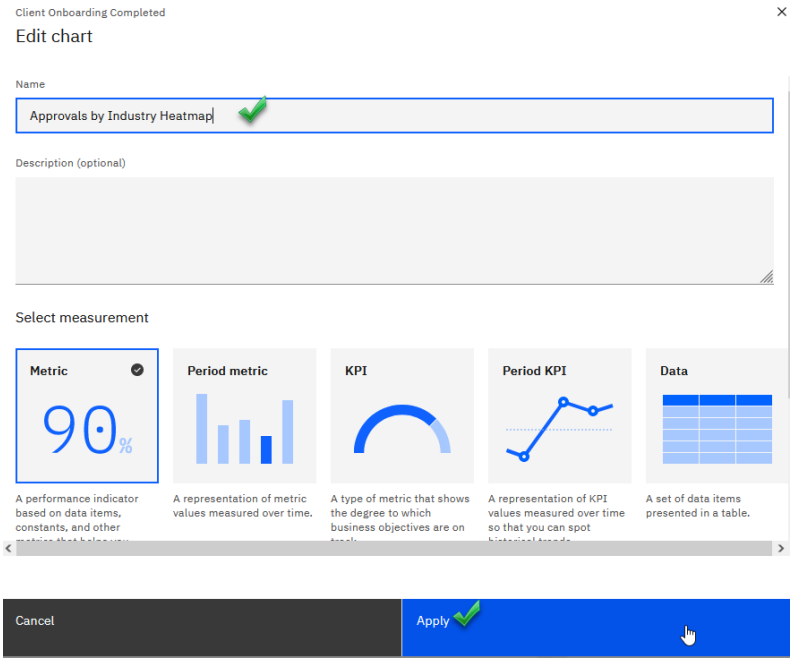


_3. On the copy of *Approval by Industry* chart click **Edit**

_4. Click **Edit configuration**

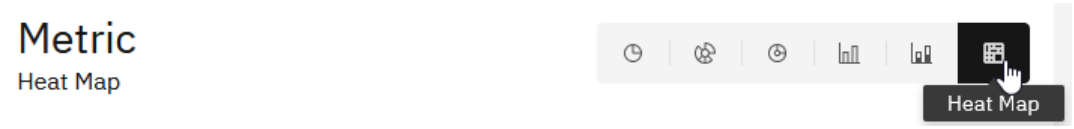


_5. For *Name* enter **Approvals by Industry Heatmap** and then click **Apply**

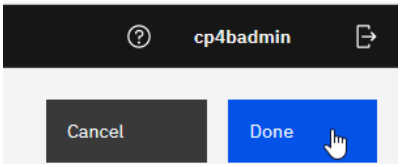


2.2.10.1 Define Monitoring Information

_1. For visualization select **Bar**

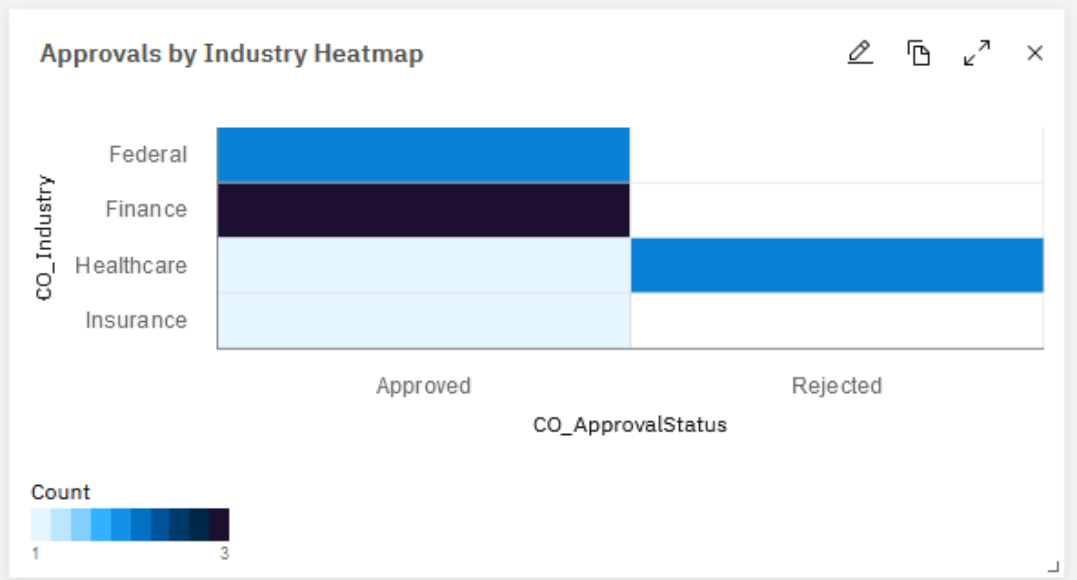


_2. Click **Done**



_3. On the Dashboard Toolbar click **Save** icon to save you work!

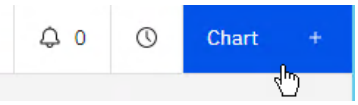
You chart shgoyuld look similar to this



2.2.11 Create "Client Onboarding Data" Chart

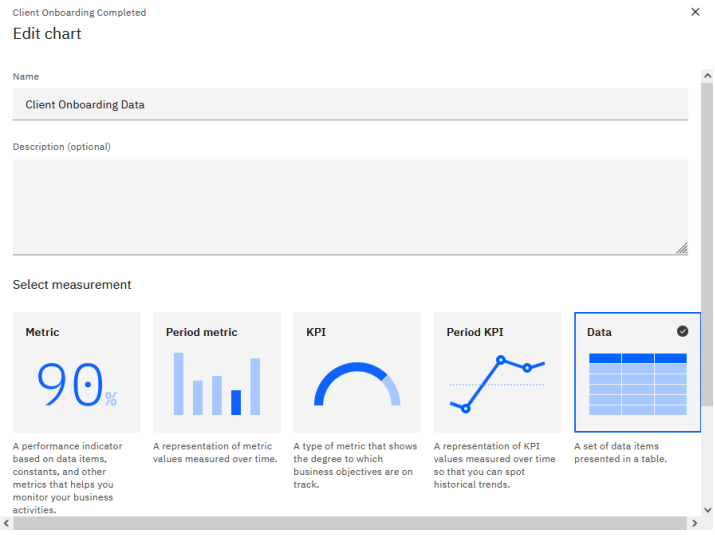
You will be creating Client Onboarding data chart. The data chart will contain columns representing selected Client Onboarding case properties.

_1. Click **Chart +**



_2. In *Client Onboarding- Create chart* window, enter the following and then click **Create:**

Item	Value
Name	Client Onboarding Data
Select measurement	Data



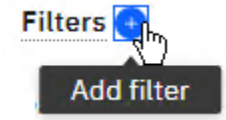
2.2.11.1 Define Monitoring Information

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

2.2.11.2 Define Filters

_1. Select **Filters** tab

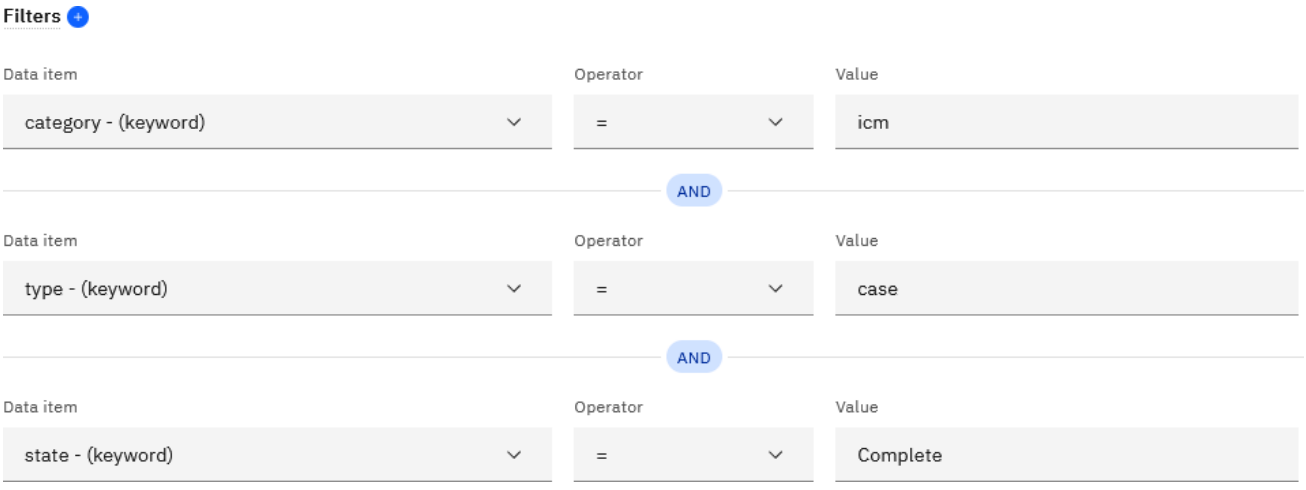
_2. Click **Filter +** button **three times** to add three Filters.



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

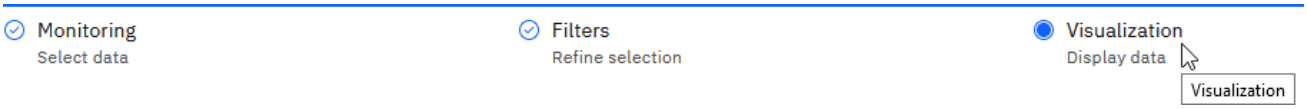
Group	Data item	Operator	Value
1	category – (keyword)	=	icm
2	type – (keyword)	=	case
3	state – (keyword)	=	Complete

Your Filters setting should look exactly like this:



2.2.11.3 Define Visualization

_1. Select **Visualization** tab

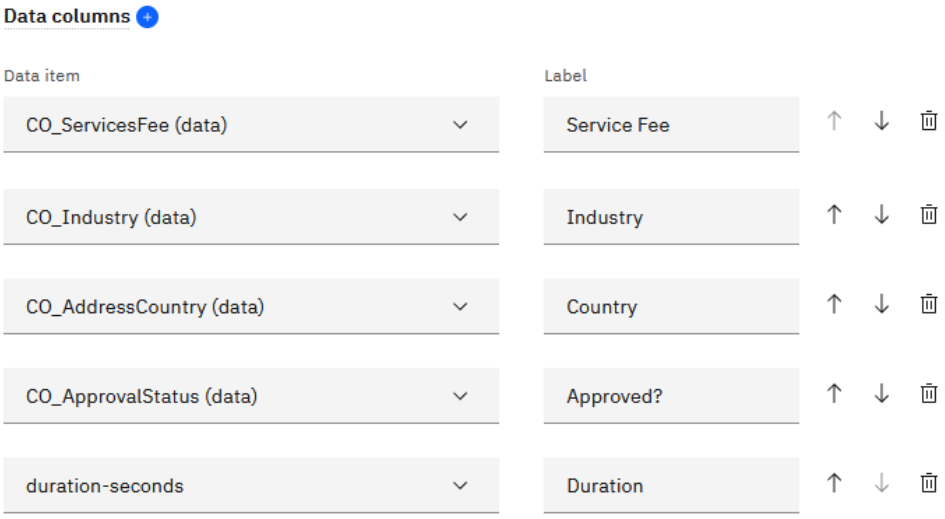


_1. Click **Data columns +** button **5 times** to add five data columns

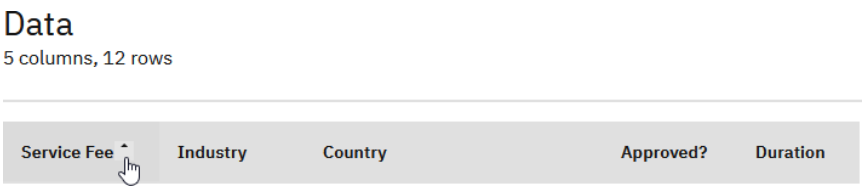
_2. For each group select the following values from the dropdown list:

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:



_3. Click **Service Fee** column to sort the data by Service Fee column.



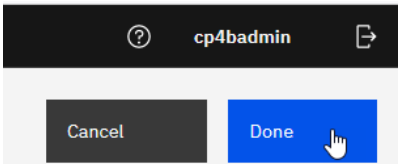
The data in the Data Chart should look similar to this

Data

5 columns, 12 rows

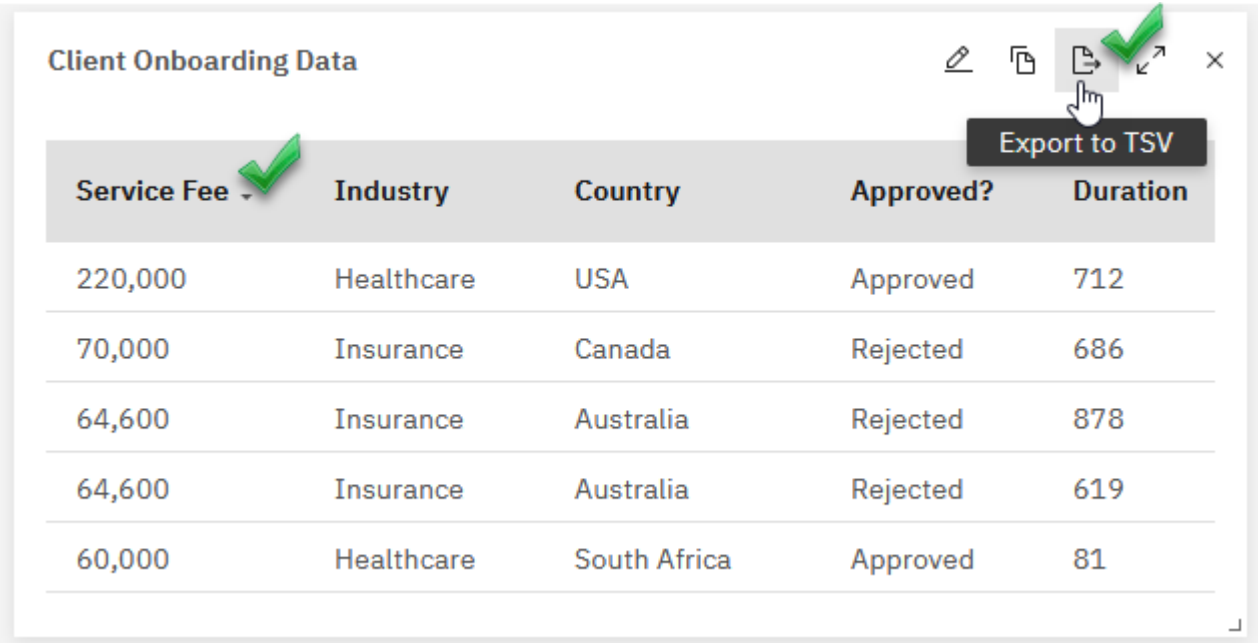
Service Fee	Industry	Country	Approved?	Duration
35,000	Healthcare	United States of America	Rejected	60
25,000	Federal	United States of America	Approved	71
21,000	Healthcare	United States of America	Approved	76
21,000	Healthcare	United States of America	Rejected	84
15,000	Finance	United States of America	Approved	51
15,000	Finance	United States of America	Approved	59
15,000	Federal	Canada	Approved	52
15,000	Finance	United States of America	Approved	59

_4. Click **Done**



_5. On the Dashboard Toolbar click **Save** icon to save you work!

The chart should look similar to this



Note:

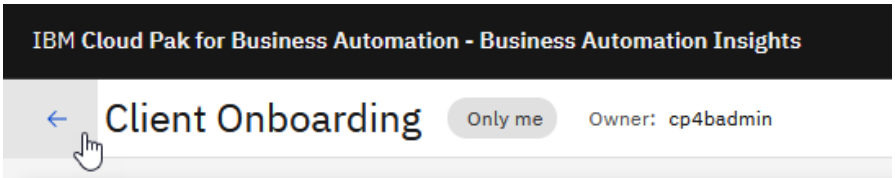
1. If you can sort the data in the chart. For example in the screen shot above the chart is sorted by Service Fee column
2. You can export the data in the chart as a spreadsheet in the TSV format.

2.2.12 Create a Configure Goal

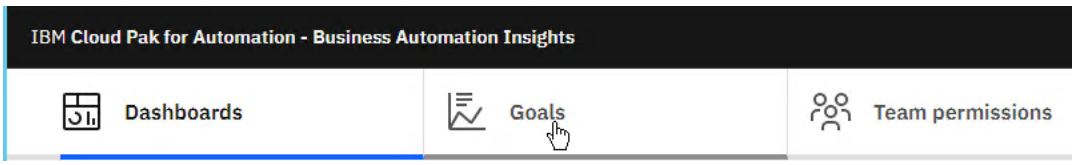
A Goal is a business statement that brings purpose and scope to your dashboards. Goals are used to aggregate charts within a dashboard and to give dashboards a busines purpose. A Goal's definition include: the details of a specific objective you want to achieve; the time-frame for achieving an objective;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

2.2.12.1 Crete a Goal

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



_2. Click **Goals**



_3. Click **Create**

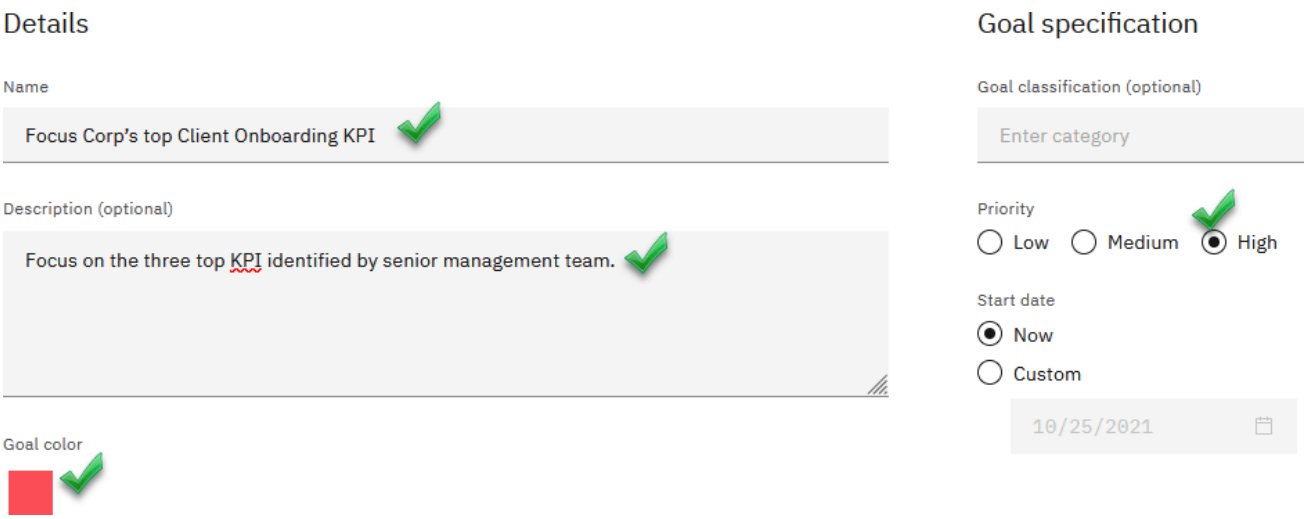
_4. For *Name* enter Focus Corp's top Client Onboarding KPI

_5. For *Description* enter Focus on the three top KPI identified by senior management team.

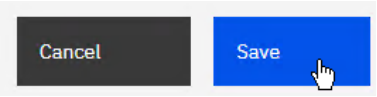
_6. For *Priority* select **High**

_7. Click *Goal color* to **Red**

_8. Your Goal definition should look exactly like this:

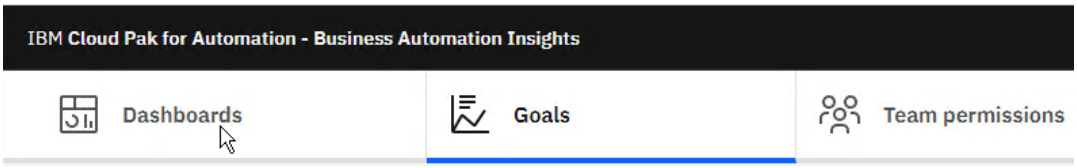


_9. Click **Save**

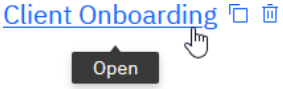


2.2.12.2 Set business goal for selected charts

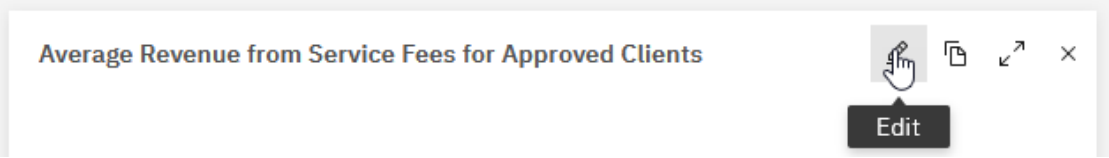
_1. Click **Dashboards**



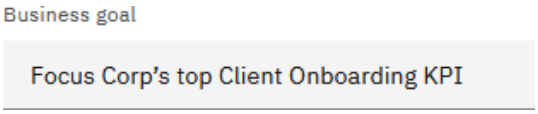
_2. Click **Client Onboarding** dashboard



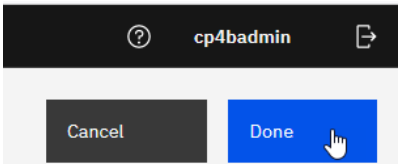
_3. On Average Revenue from Service Fees for Approved Clients dashboard click **Edit** button



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

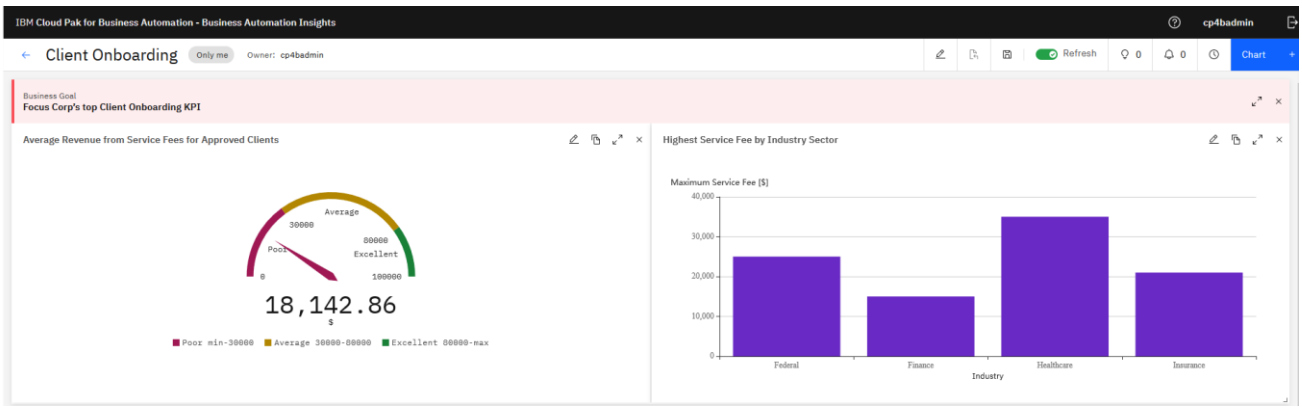


_5. Click **Done**



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

Your dashboard should now look similar top this:

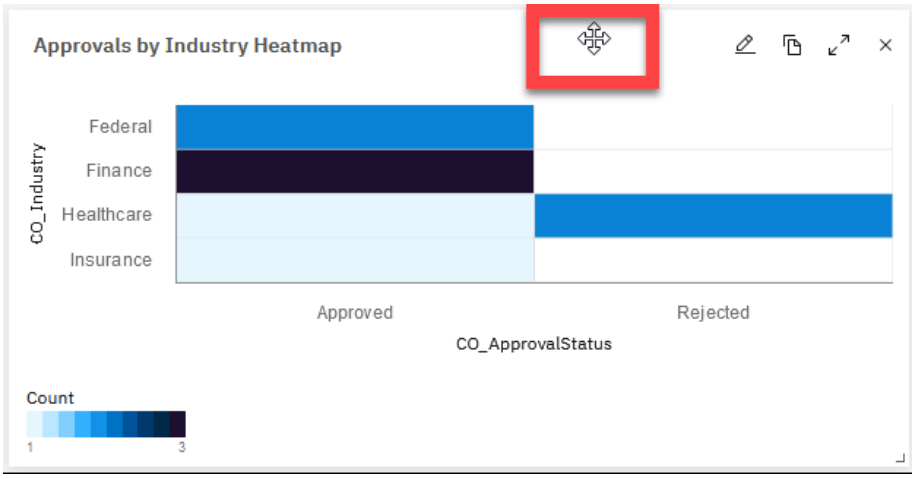


2.2.13 Change Dashboard Layout

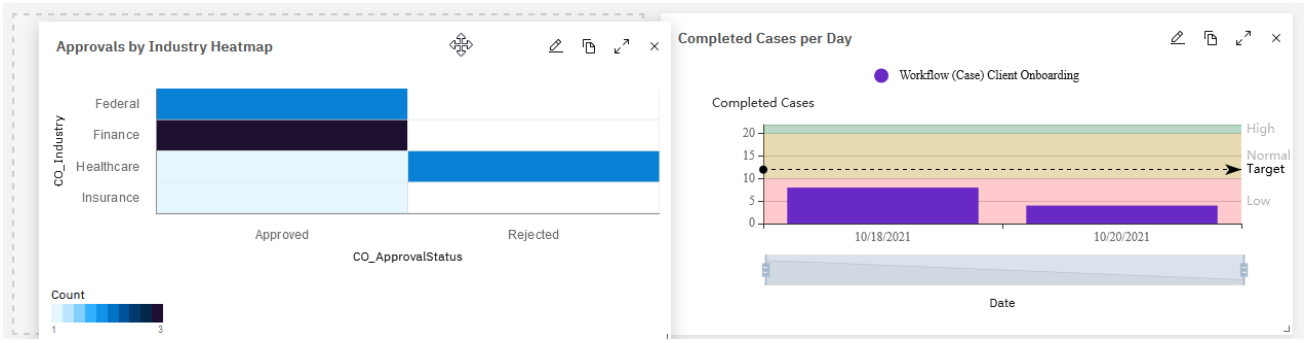
You will now customize your dashboard by moving and changing chart sizes.

2.2.13.1 Move Approvals by Industry Heatmap Chart

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

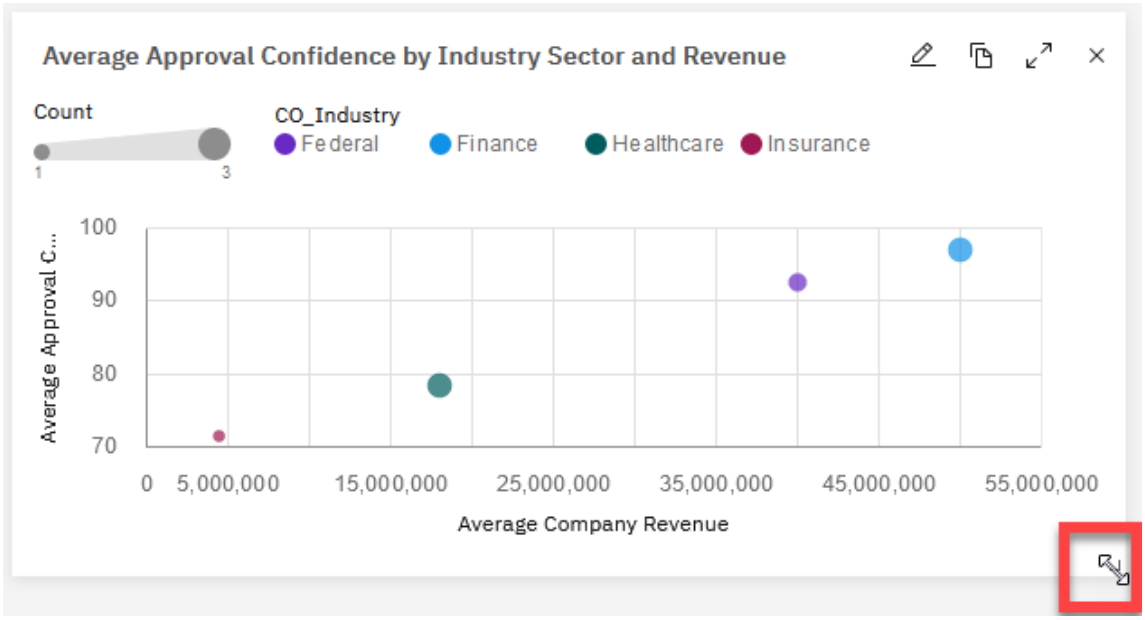


_2. **Drag** the chart to the empty area to the left of the Completed Cases per Day chart

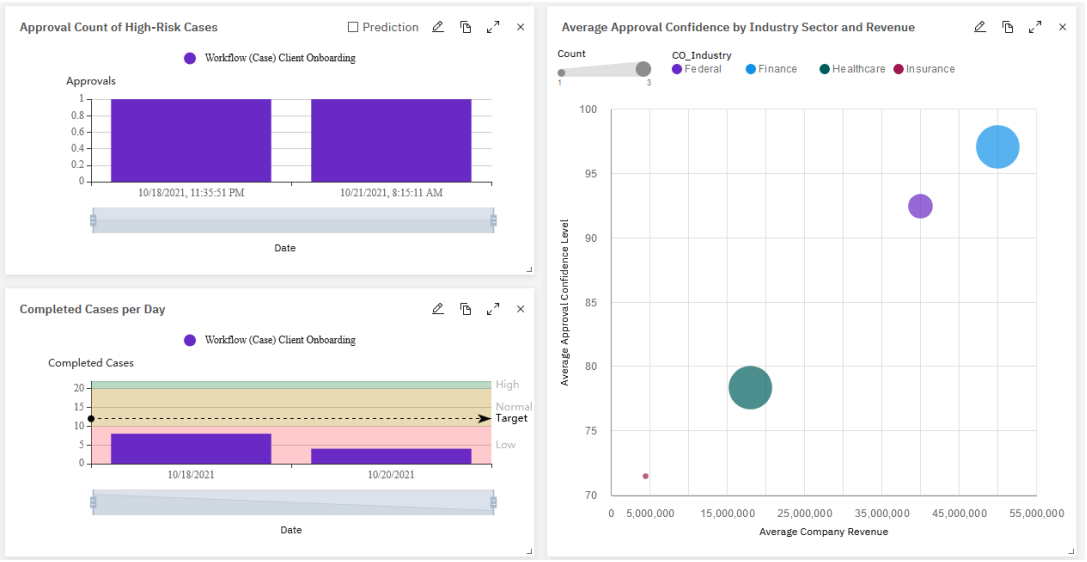


2.2.13.2 Expand Chart Average Approval Confidence by Industry Sector and Revenue

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

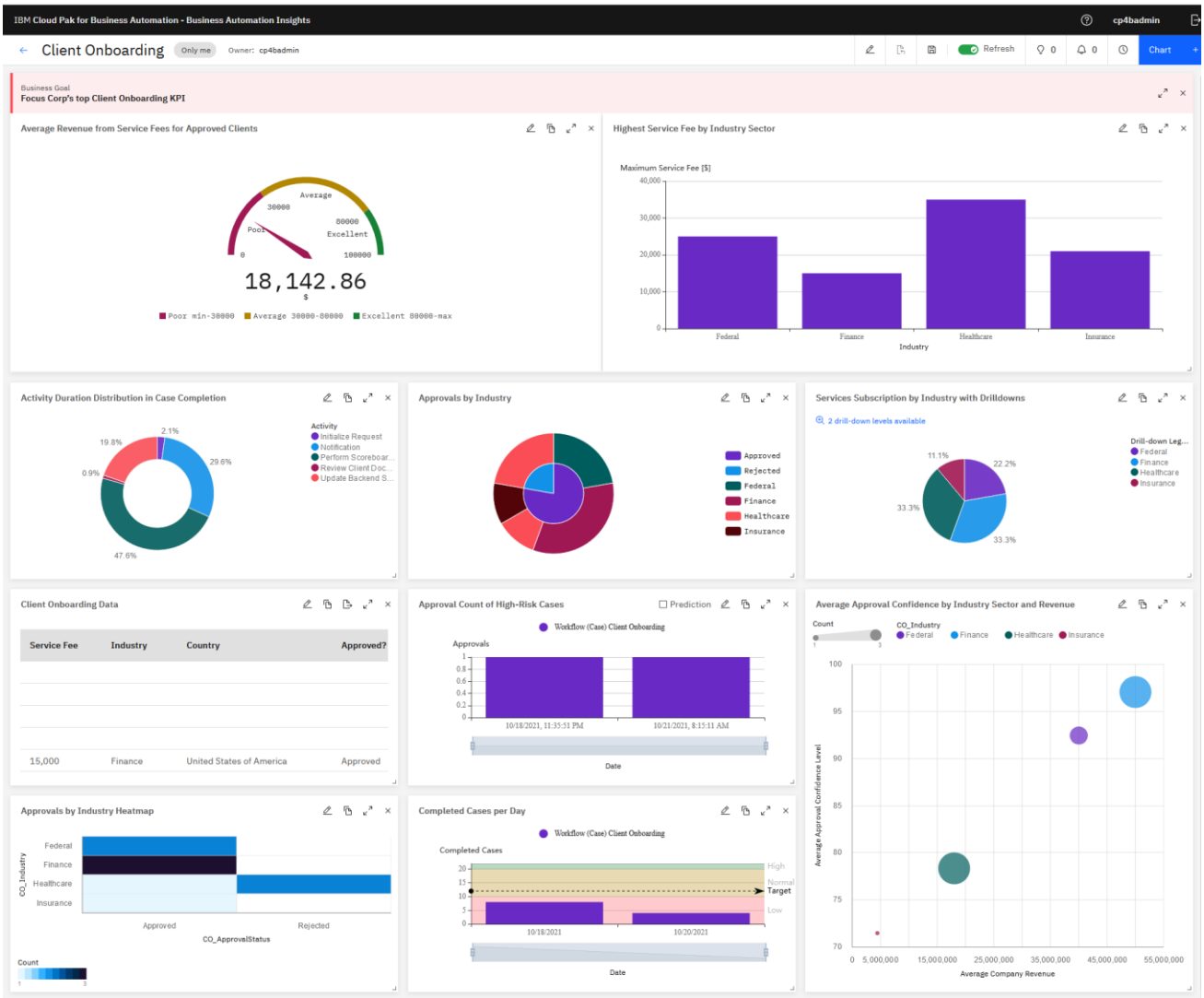


_2. **Stretch** the chart downwards util it achieves the height of two charts



_3. On the Dashboard Toolbar click **Save** icon to save you work!

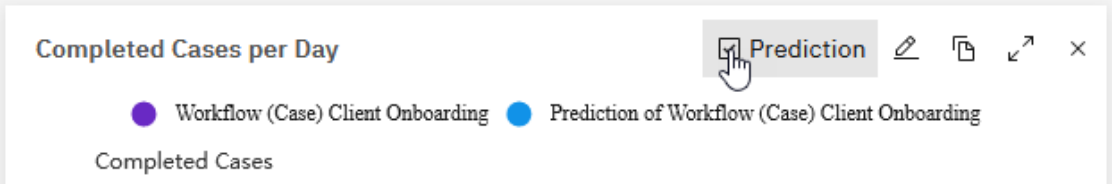
Your final version of the Client Onboarding Dashboard should now look similar to this:



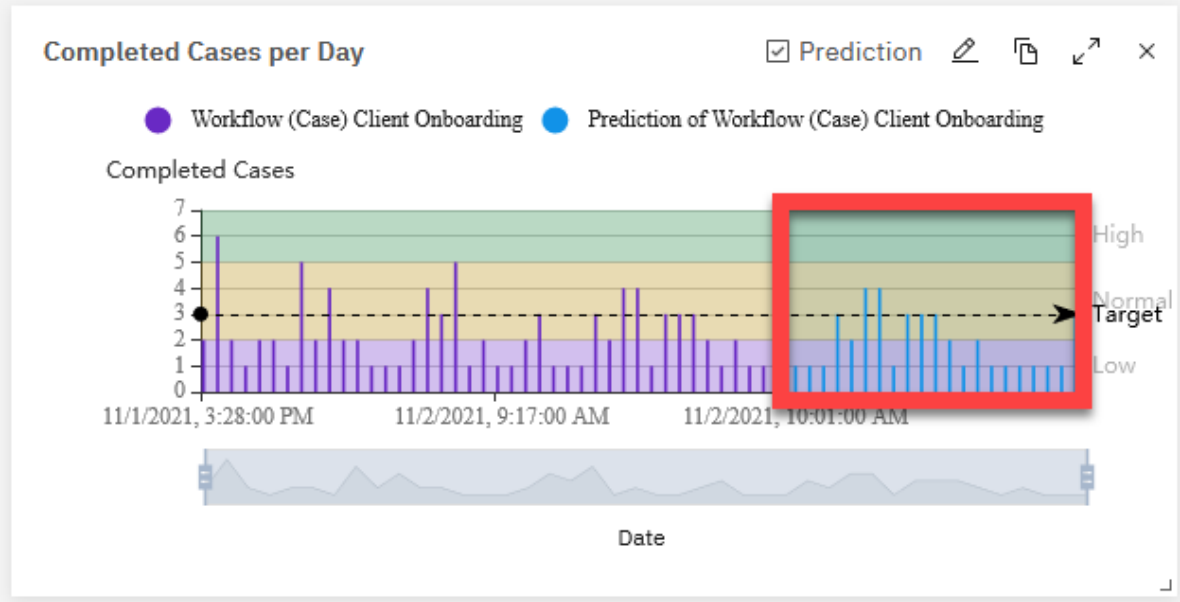
2.2.14 Explore Advanced Dashboard Features

2.2.14.1 KPI Predictions

_1. On the *Completed Cases per Day* chart click **Predictions**

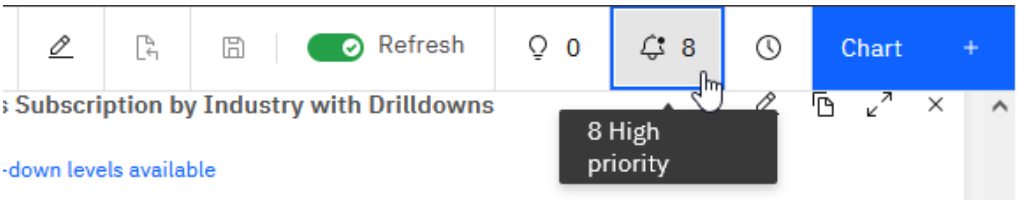


You should now see the predicted case completion rate information



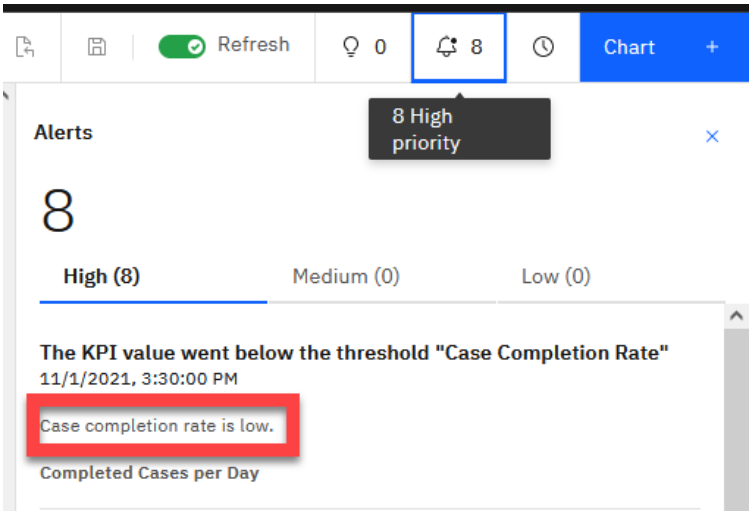
2.2.14.2 Dashboard Alerts

_1. Click **Alert** icon in the toolbar on top of the Dashboard



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

Because you are this is a shared environment may see more alerts generated when other users work on the Client Onboarding case.



2.3 Summary

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