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GO BEYOND

## LTRCCT-2011

### Webex Contact Center - Data and Analytics Lab

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## Introduction

This hands-on lab offers foundational and advanced knowledge of Webex Contact Center key data points and reporting capabilities.

This session will guide you step-by-step on how to design and build analytical Visualizations to capture your business & operational KPIs and actionable insights, how to utilize Agent or Supervisor Desktop to provide your users with real-time information to enhance their daily tasks as well as how to programmatically retrieve data with the use of Cisco Search APIs.

Furthermore, you will have the opportunity to learn and use two Data features, the Experience Management and the Customer Journey Data Services and understand how they power up your Contact Center users with the customer insight they capture. Lastly, you will also grasp how you can fetch your tenant's configuration and how you can measure your Contact Center license usage.

Across the sessions, you will get useful tips and tricks to reap the full benefits of the solution and how easily you can mine your data for key insights.

Upon completion of this lab, you will be able to understand and utilize the following concepts:

- Lab 1: Analyzer
- Lab 2: Desktop
- Lab 3: APIs
- Lab 4: Experience Management (EM)
- Lab 5: Customer Journey Data Services (CJDS)
- Lab 6: Configuration & Usage Data

*There are also a few Demo & Bonus exercises in this lab guide. The theoretical concept of all the exercises will be explained during the lab. The Demo exercises will be simultaneously solved by the presenter (due to the configuration being unimportant or straight-forward) to ensure its concept is properly understood in the allocated time. For the Bonus exercises, the step-by-step implementation may be skipped due to interest of time or based on the participants' live feedback. You are more than welcome to re-visit these exercises afterwards as **access to the lab tenant will be available to you until 21<sup>st</sup> June'24**.*

## Lab Prerequisites

1. Ensure that you have received your student ID from the speakers. Each student has 3 users created for their student number: an **Administrator**, a **Supervisor** and an **Agent**.

In order to get the username for each user, take the username from the table below (based on your studentID) and replace <user> with the words “admin”, “supvr” or “agent” respectively.

For example, if your student ID is 60, then your 3 users are the following:

- Administrator -> [wxcclabs+admin\\_ID060@gmail.com](mailto:wxcclabs+admin_ID060@gmail.com)
- Supervisor -> [wxcclabs+supvr\\_ID060@gmail.com](mailto:wxcclabs+supvr_ID060@gmail.com)
- Agent -> [wxcclabs+agent\\_ID060@gmail.com](mailto:wxcclabs+agent_ID060@gmail.com)

All 3 users have the same login password.

- a. Each User is assigned with a Unique Team and Queue (Supervisor and agent of the same User belong to the same Queue & Team).
- b. All the Voice Queues are Skill-based Queues.
- c. Each Agent is carrying different skills per their assigned Skill Profile (They all have the required skills to be able to answer the call that corresponds to their Queue/Team).

Student ID	Username	Team	Queue	Extension	Password
52	<a href="mailto:wxcclabs+&lt;user&gt;_ID052@gmail.com">wxcclabs+&lt;user&gt;_ID052@gmail.com</a>	CL2024_Data_Team52	CL2024_SBR_QV_Team52	1052	u#6RQ4Y9
53	<a href="mailto:wxcclabs+&lt;user&gt;_ID053@gmail.com">wxcclabs+&lt;user&gt;_ID053@gmail.com</a>	CL2024_Data_Team53	CL2024_SBR_QV_Team53	1053	x3h#pfS%
54	<a href="mailto:wxcclabs+&lt;user&gt;_ID054@gmail.com">wxcclabs+&lt;user&gt;_ID054@gmail.com</a>	CL2024_Data_Team54	CL2024_SBR_QV_Team54	1054	p5zP%BDL
55	<a href="mailto:wxcclabs+&lt;user&gt;_ID055@gmail.com">wxcclabs+&lt;user&gt;_ID055@gmail.com</a>	CL2024_Data_Team55	CL2024_SBR_QV_Team55	1055	k7aTtU@5
56	<a href="mailto:wxcclabs+&lt;user&gt;_ID056@gmail.com">wxcclabs+&lt;user&gt;_ID056@gmail.com</a>	CL2024_Data_Team56	CL2024_SBR_QV_Team56	1056	yS@X8kJM
57	<a href="mailto:wxcclabs+&lt;user&gt;_ID057@gmail.com">wxcclabs+&lt;user&gt;_ID057@gmail.com</a>	CL2024_Data_Team57	CL2024_SBR_QV_Team57	1057	y5#sMjD@
58	<a href="mailto:wxcclabs+&lt;user&gt;_ID058@gmail.com">wxcclabs+&lt;user&gt;_ID058@gmail.com</a>	CL2024_Data_Team58	CL2024_SBR_QV_Team58	1058	L2HL%quN
59	<a href="mailto:wxcclabs+&lt;user&gt;_ID059@gmail.com">wxcclabs+&lt;user&gt;_ID059@gmail.com</a>	CL2024_Data_Team59	CL2024_SBR_QV_Team59	1059	jB36\$kAp
60	<a href="mailto:wxcclabs+&lt;user&gt;_ID060@gmail.com">wxcclabs+&lt;user&gt;_ID060@gmail.com</a>	CL2024_Data_Team60	CL2024_SBR_QV_Team60	1060	gU@93%Yu
61	<a href="mailto:wxcclabs+&lt;user&gt;_ID061@gmail.com">wxcclabs+&lt;user&gt;_ID061@gmail.com</a>	CL2024_Data_Team61	CL2024_SBR_QV_Team61	1061	W@J@5ekn
62	<a href="mailto:wxcclabs+&lt;user&gt;_ID062@gmail.com">wxcclabs+&lt;user&gt;_ID062@gmail.com</a>	CL2024_Data_Team62	CL2024_SBR_QV_Team62	1062	F2%4GmV7
63	<a href="mailto:wxcclabs+&lt;user&gt;_ID063@gmail.com">wxcclabs+&lt;user&gt;_ID063@gmail.com</a>	CL2024_Data_Team63	CL2024_SBR_QV_Team63	1063	F%X9t9HW
64	<a href="mailto:wxcclabs+&lt;user&gt;_ID064@gmail.com">wxcclabs+&lt;user&gt;_ID064@gmail.com</a>	CL2024_Data_Team64	CL2024_SBR_QV_Team64	1064	hPS9%gyB
65	<a href="mailto:wxcclabs+&lt;user&gt;_ID065@gmail.com">wxcclabs+&lt;user&gt;_ID065@gmail.com</a>	CL2024_Data_Team65	CL2024_SBR_QV_Team65	1065	agB%97Hr
66	<a href="mailto:wxcclabs+&lt;user&gt;_ID066@gmail.com">wxcclabs+&lt;user&gt;_ID066@gmail.com</a>	CL2024_Data_Team66	CL2024_SBR_QV_Team66	1066	jS#J69Rs
67	<a href="mailto:wxcclabs+&lt;user&gt;_ID067@gmail.com">wxcclabs+&lt;user&gt;_ID067@gmail.com</a>	CL2024_Data_Team67	CL2024_SBR_QV_Team67	1067	S#xG3#B#
68	<a href="mailto:wxcclabs+&lt;user&gt;_ID068@gmail.com">wxcclabs+&lt;user&gt;_ID068@gmail.com</a>	CL2024_Data_Team68	CL2024_SBR_QV_Team68	1068	amn\$WR8n
69	<a href="mailto:wxcclabs+&lt;user&gt;_ID069@gmail.com">wxcclabs+&lt;user&gt;_ID069@gmail.com</a>	CL2024_Data_Team69	CL2024_SBR_QV_Team69	1069	e\$!7Gkb8
70	<a href="mailto:wxcclabs+&lt;user&gt;_ID070@gmail.com">wxcclabs+&lt;user&gt;_ID070@gmail.com</a>	CL2024_Data_Team70	CL2024_SBR_QV_Team70	1070	fVYMn!4N
71	<a href="mailto:wxcclabs+&lt;user&gt;_ID071@gmail.com">wxcclabs+&lt;user&gt;_ID071@gmail.com</a>	CL2024_Data_Team71	CL2024_SBR_QV_Team71	1071	csVK@3ph

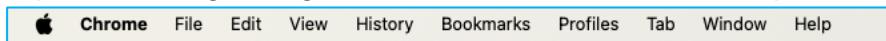
2. Make sure you can login into Control Hub, Desktop & Analyzer following the steps below. It is recommended to use **Chrome** as your browser for this lab.

If you want to receive and answer your own test calls, use of Chrome is **mandatory** during Agent Desktop login.

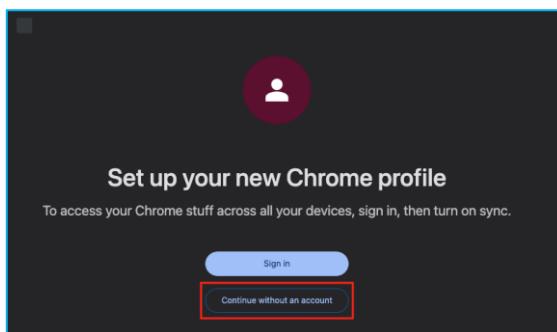
#### Quick Links:

- [Control Hub \(<https://admin.webex.com>\)](https://admin.webex.com)
- [Desktop \(<https://desktop.wxcc-us1.cisco.com/>\)](https://desktop.wxcc-us1.cisco.com/)
- [Analyzer \(<https://analyzer-v2.wxcc-us1.cisco.com/analyzer/home>\)](https://analyzer-v2.wxcc-us1.cisco.com/analyzer/home)

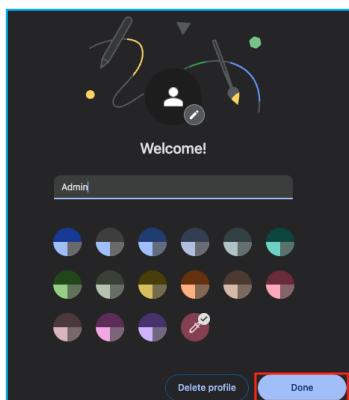
1. If you use Chrome, it is easier to use Chrome profiles for your Administrator, Supervisor & Agent logins. Select **Profiles** on Chrome top bar.



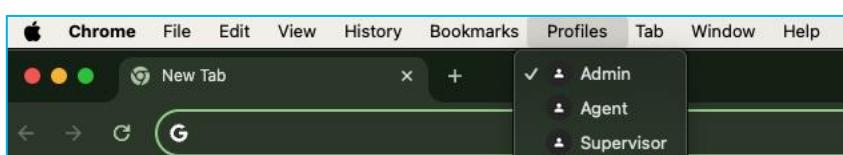
2. Select **Add Profile**.
3. Select **Continue without an account**.



4. Give it a name, e.g. Admin.
5. Click **Done**.

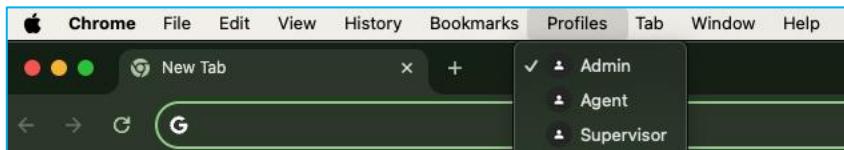


6. Create 2 more profiles for Supervisor and Agent in the same way, naming them respectively.

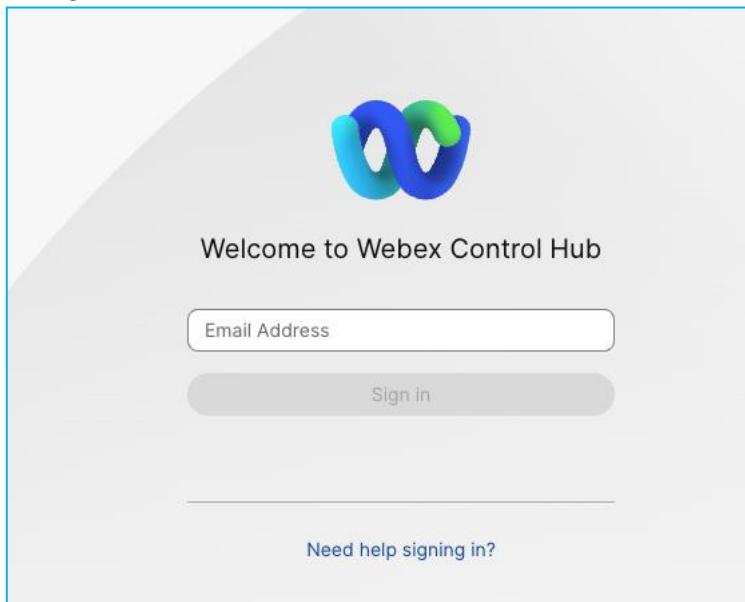


## Login as Administrator

1. Ensure you have selected the Admin Chrome profile.



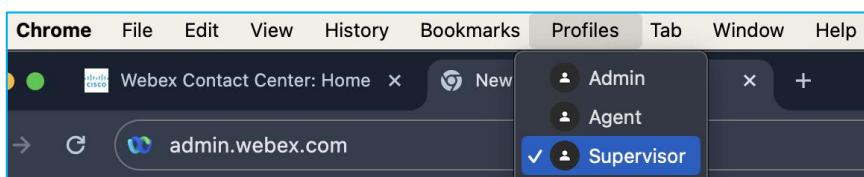
2. Navigate to [Control Hub](#).



3. Use the credentials provided to login with the administrator account. Please note that you will be redirected to another page to login via SSO, use the credentials to complete the login.

## Login as Supervisor

1. Select the Supervisor Chrome profile, which will open a new Chrome browser window, and follow the same steps to login to [Control Hub](#) as Supervisor.



- After logging in to Control Hub, click on **Desktop** from the Quick links on the right side of the page.

The screenshot shows the 'Contact centre overview' page. On the left, there's a sidebar with 'SERVICES' and two categories: 'Contact Centre' (selected) and 'Hybrid'. The main area displays 'Current cycle agent licence usage' with a note 'Billing cycle: n/a' and 'No licence data'. Below this is a section titled 'What's new' with three items: 'Multimedia profiles', 'Sites', and 'Teams'. To the right is a 'Helpful resources' box with links to 'What's new in Webex Contact Centre?', 'Agent desktop user guide', 'Supervisor desktop user guide', and 'Analyser desktop user guide'. The 'Quick Links' sidebar on the right contains links to 'Contact Centre Suite' (with 'Desktop' highlighted), 'Analyser', 'Create new flow', and 'Webex Contact Centre Management Portal'.

- Keep in mind that your supervisor is already logged in the Webex application of your station with the Extension provided in the table above.
- In the pop-up window, select **Supervisor** as Role, **Extension** and enter the Extension provided in the table above. With this option, supervisor will not be able to make or receive calls, as they would need to be logged in as **Supervisor and Agent** to be able to also handle contacts.

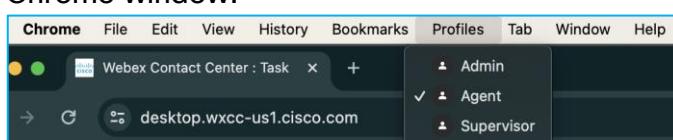
The screenshot shows a 'Station Credentials' form. It has a 'Role' dropdown set to 'Supervisor'. Below it is a 'Dial Number/Extension' field with a note: 'Enter your calling extension number provided by the administrator.' The 'Extension' radio button is selected, and the number '1051' is entered. There is also a 'Remember My Credentials' checkbox. At the bottom are 'Cancel' and 'Submit' buttons.

- Click on **Submit**.

*Note: Currently supervisors cannot login via Desktop/WebRTC. If you want to test a login with WebRTC, make sure to sign in as an agent, as per the steps below.*

## Login as Agent

- Ensure you have selected the *Agent Chrome* profile, which will open a new Chrome window.



2. Agents do not have access to any other portal besides Desktop, so we will navigate directly to [Desktop](#) URL and enter the provided credentials.

For Agent login, we will utilise the new **WebRTC** (Web Real-Time Communication) feature. With this feature, agents can use Agent Desktop without an external phone or extension number. Agent Desktop with WebRTC supports all current voice functionalities such as hold, retrieve, transfer, and conference.

3. In the pop-up window, select **Desktop** as the telephony option in order to utilise WebRTC. Make sure the Team selected is the correct one -based on the table above- and then click on Submit.

Station Credentials

Select your telephony option ⓘ

Dial Number  Extension  Desktop

Desktop allows to receive inbound calls and make outdial calls through the internet.

Team

CL2024\_Data\_Team51

Remember My Credentials

Cancel Submit

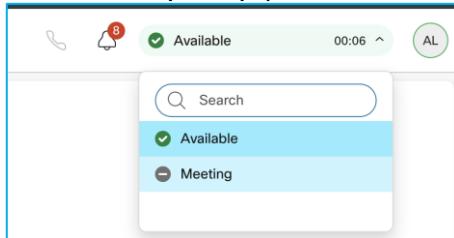
### Instructions to Create Voice Data (Optional)

Exercises in this lab can be completed without the need to create your own voice calls data.

However, you can follow the steps below to make your own voice call, if you wish. All Interactions require an agent Logged in Agent Desktop and in **Available** state.

1. You can make calls to the system to Dial Numbers **+14402308310** (which points to Entry Point **EP\_CL2024\_DataLab**) or **+14402308304** (which points to Entry Point **EP\_CL2024\_DataLab\_PCS**).
2. The two Entry Points have the exact same routing logic, with the only difference between them being how each handles Post Call Survey (which will be explained in Chapter 4).

3. On prompt, enter your Student ID. The number matches the number in your login ID. (e.g. 52)
4. Calls will route to your own queue so ensure your agent is logged in & **available** and your agent will get the call.
5. If you want to finish the call, click on the **End** button as an agent.
6. If you finish the call as an agent as indicated in step 5, on customer end you will be prompted to complete a post-call survey for your experience. When prompted, select a number from 1-5 to indicate your satisfaction and the call will be terminated.
7. Want to try **Callback** and check reports?
  - a. Make your agent **idle** (e.g. Meeting status) and let call go to queue (i.e. enter same prompt).



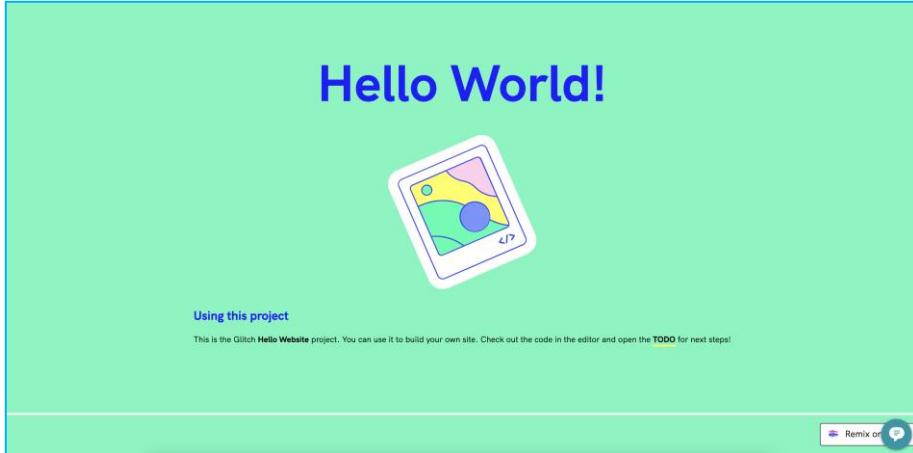
- b. After few seconds of waiting, you will get an option to press 1 for Callback or continue to wait in the Queue.
- c. Press 1 and call will disconnect.
- d. If you now make your agent Available, call will route to them.

*Note: Due to the tenant being a trial one, callback will not be able to successfully connect on the customer leg if the Callback number is not a US one. For the reporting needs of this lab guide, this does not pose a problem.*

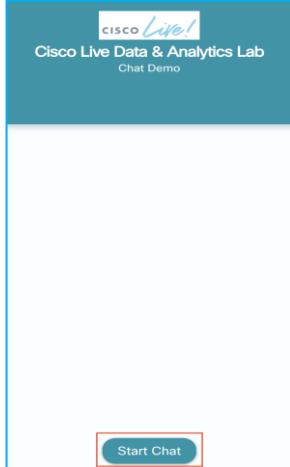
### Instructions to Create Digital (Chat) Data (Optional)

Similarly to voice call above, it is not necessary to follow the steps below to have sufficient data to complete the exercises of this lab, **besides exercise 5.1**. To be able to see updated results on for that exercise, you would need to complete a new chat form, so it is highly recommended to not create any chat data until Lab 5.

1. Navigate to website <https://roomy-flowery-sunday.glitch.me/>



2. Click on the **Chat** bubble icon on the bottom right of the page.
3. On the pop-up, click on **Start Chat**.



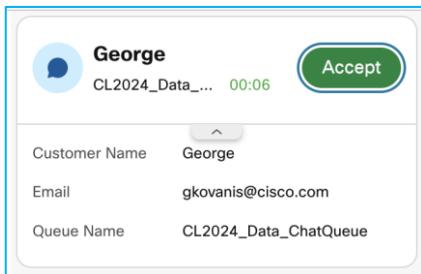
4. Complete all the fields with your details, like below (**Type** should be **Credit**). Make sure that you enter your correct StudentID, otherwise the chat won't be queued to your agent:

A screenshot of a Cisco Live Chat form. The fields are filled as follows:

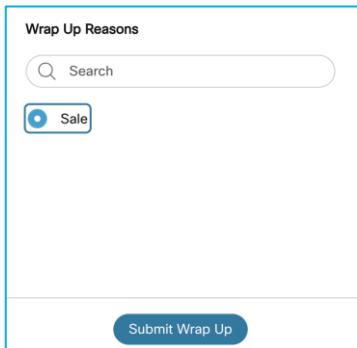
- Name\*: George
- Email\*: gkovanis@cisco.com
- Type\*: Credit
- StudentID\*: 51

A note at the bottom states "This chat is PCI compliant". At the very bottom is a "Send a message" button with three icons: a smiley face, a paper plane, and a right-pointing arrow.

5. You will see a message saying “**Message successfully queued**” and the chat will be routed to your agent, as long as they are logged in and available.
6. Click on **Accept** to handle the incoming chat.



7. You can use the chat windows to chat back and forth between the agent and the customer or you can click on **End** to finish the interaction.
8. Make sure to select a *Wrap Up reason* and then click on **Submit Wrap Up** to finish the contact and return to available status.



## Disclaimer

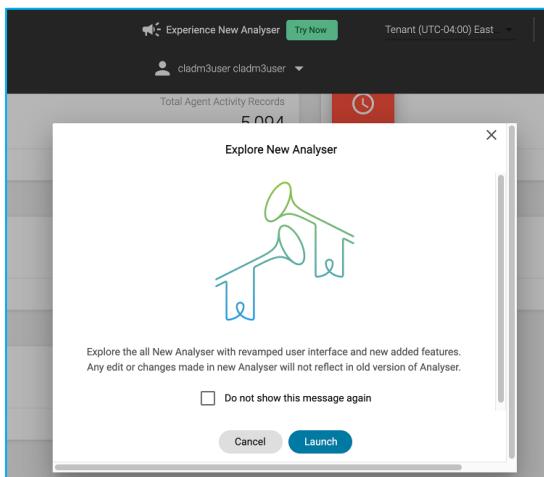
This training document is created to familiarize the student with Webex Contact Center and its Data & Analytics capabilities. Although the lab design and configuration examples could be used as a reference, it is not a real design, thus not all recommended features are used, or enabled optimally. For any design related questions, please contact your representative at Cisco, or a Cisco partner.

# Lab 1: Analyzer

This lab is designed to give you a complete understanding of the Analyzer reporting tool and its capabilities. In the following exercises, goal is to familiarize yourselves with the Analyzer interface, the use of Stock reports, creating a custom report and taking advantage of all the available features and lastly explore the brand-new Analyzer Beta interface.

## Exercise 1.1: Analyzer User Interface

1. Using the *Administrator* profile, login to Analyzer. You can login to Analyzer either directly via the Analyzer [URL](#) or from [Control Hub](#), by clicking on the **Analyser** quick link (which can be found under Contact Center -> Overview).
2. As you login, you may see this pop-up prompting to “Explore New Analyser”. **DO NOT LAUNCH** it at this point, click **Cancel**.



3. Below you can see the “anatomy” of the Analyzer Home page.

A screenshot of the Analyzer Home page. The page has a navigation sidebar on the left with icons for Home, Visualisations, Dashboards, and Variables. The main content area displays four summary cards: 'Home Page (Current)' with 53,526 Agent Activity Records, 'Visualisations' with 30,566 Customer Activity Records, 'Dashboards' with 3,296 Queue Records, and 'Variables' (empty). At the top right, there is a 'Try Now' button for 'Experience the Analyzer Beta', a 'Tenant (UTC-05:00) East' dropdown, a 'Threshold Alerts' icon, and a 'Help Page' button with a red arrow pointing to it. On the far right, there are 'Report Timezone', 'Help' (with a red arrow), 'Log Out', and a status bar showing 'Version : 2.0.19.12-5029'. The bottom of the page includes copyright information: 'Copyright © 2024 Cisco Systems Inc. All Rights Reserved.'

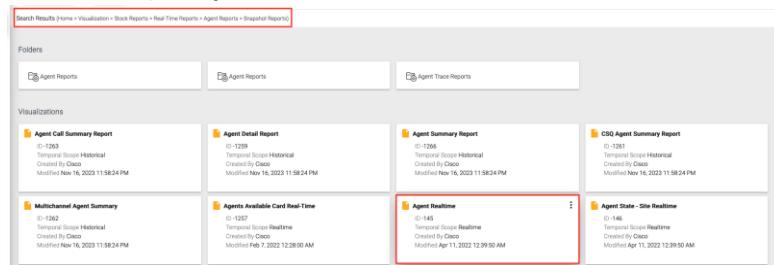
- Click on **Tenant Time zone** option on the header. Set it to **Browser** to set the timezone in which you want to run Visualizations. (You have two possible options: **Tenant or Browser**)



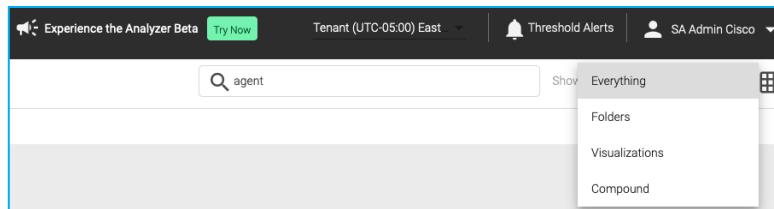
- Click on the **Visualization** tab on the left.



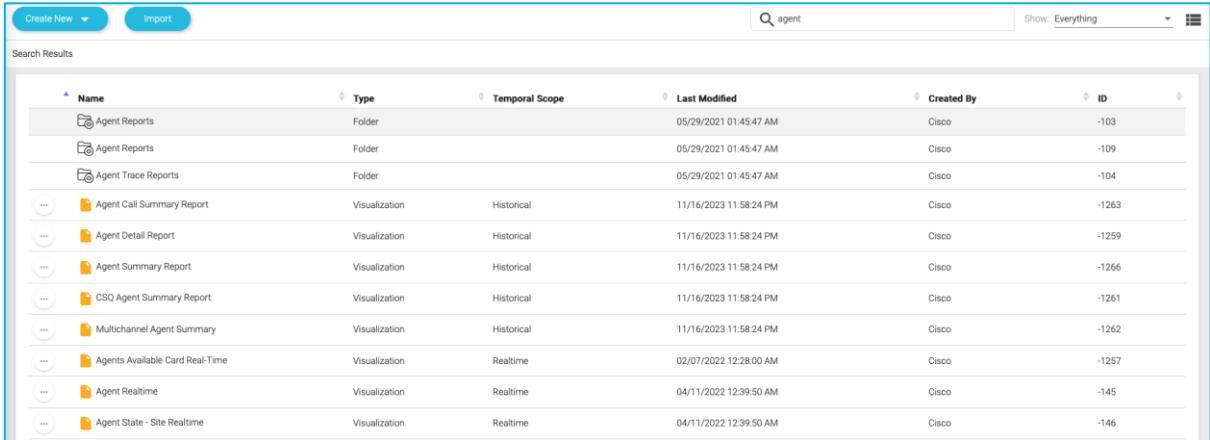
- On the top in **Search** field, search for any keyword like "**agent**":
  - Click once on the **Agent Realtime** report and notice the path that appeared on the top. This option is very useful when you are unsure under which folder a report you searched for is stored.



- Searched items can be further filtered to only show Visualisations or Folders from the **Show** dropdown menu on the top-right corner.

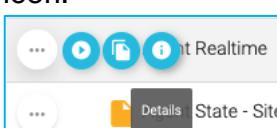


7. Click on the grid  on top-right to change the view to a **List** view.



Name	Type	Temporal Scope	Last Modified	Created By	ID
Agent Reports	Folder		05/29/2021 01:45:47 AM	Cisco	-103
Agent Reports	Folder		05/29/2021 01:45:47 AM	Cisco	-109
Agent Trace Reports	Folder		05/29/2021 01:45:47 AM	Cisco	-104
Agent Call Summary Report	Visualization	Historical	11/16/2023 11:58:24 PM	Cisco	-1263
Agent Detail Report	Visualization	Historical	11/16/2023 11:58:24 PM	Cisco	-1259
Agent Summary Report	Visualization	Historical	11/16/2023 11:58:24 PM	Cisco	-1266
CSQ Agent Summary Report	Visualization	Historical	11/16/2023 11:58:24 PM	Cisco	-1261
Multichannel Agent Summary	Visualization	Historical	11/16/2023 11:58:24 PM	Cisco	-1262
Available Card Real-Time	Visualization	Realtime	02/07/2022 12:28:00 AM	Cisco	-1257
Agent Realtime	Visualization	Realtime	04/11/2022 12:39:50 AM	Cisco	-145
Agent State - Site Realtime	Visualization	Realtime	04/11/2022 12:39:50 AM	Cisco	-146

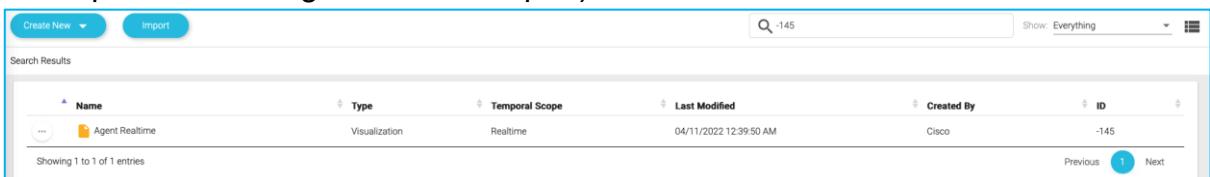
- a. You can sort the reports based on a specific header by clicking on the header, for example click the **ID** header.  
 b. ID is unique for every report and a report can also be searched by its **ID** besides its name.
8. Click the  icon next to the **Agent Realtime** report and then click on Details icon.



9. From the pop-up, you can find useful information such as who created this report, when it was last modified or its ID.



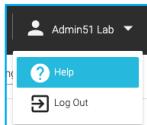
10. Close the popup. Delete the word “agent” from the search and type “-145” (i.e. the Report ID of the Agent Realtime report).



Name	Type	Temporal Scope	Last Modified	Created By	ID
Agent Realtime	Visualization	Realtime	04/11/2022 12:39:50 AM	Cisco	-145

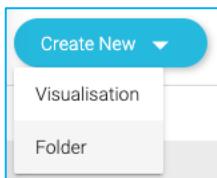
The option to search via ID is extremely useful in Analyzer as report names are not unique unless they are under the same folder.

11. Next, on the top, click on your *username* (e.g. *Admin51 Lab*) and then **Help** to open the help manual for Analyzer.

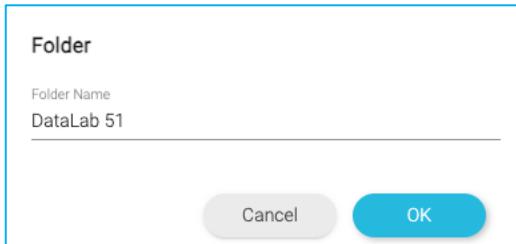


- a. This provides you with an online version of the [Analyzer User Guide](#), a great document that provides information about all the available stock reports, profile variables and functionalities of Analyzer.

12. Now, let's create a folder where you can save any visualizations you will create in the subsequent exercises. To do so, simply click on **Create New -> Folder** on the top left.



13. Give the folder the name “DataLab <StudentID>” based on your student ID (e.g. “DataLab 51”), then click **OK**.



14. Lastly, try to login to [Analyzer](#) again, this time using the *Supervisor* profile.

15. Navigate to Visualizations and try to find the “**DataLab Admin Only**” folder. You will not be able to see it, because this folder has only been permitted to the Administrator profiles.

Tenant Administrators can select which users have access to which folders & reports in Analyzer by configuring their **User Profile** from Management Portal. For example, for this lab’s Supervisors, we have set their access to that folder to **None**.

Report & Dashboard Permissions			
	Name	None	View
↳ Root		<input type="radio"/>	<input type="radio"/>
↳ Stock Reports		<input type="radio"/>	<input type="radio"/>
↳ DataLab 51		<input checked="" type="radio"/>	<input type="radio"/>
↳ DataLab Admin Only		<input type="radio"/>	<input type="radio"/>

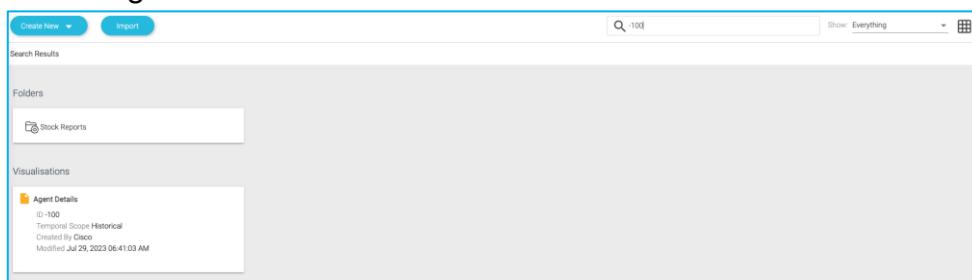
## Exercise 1.2: Using Stock Reports & Extending their Capabilities

In this exercise, we will explore a few commonly used Stock reports, understand some of the KPIs they present and what actions we could take in response to those metrics. Also, we will learn how to edit the stock reports so that we can tailor them to our needs as well as some useful Analyzer capabilities, such as exporting or scheduling a report.

### Stock Report #1: Agent Details (-100)

**Agent Details** report is the most frequently run Stock report when it comes to extracting agent metrics. It provides an abundance of information around an agent, both regarding their call handling metrics (e.g. Calls Handled, Calls Abandoned, Not Responding etc.) and to their daily status distribution (e.g. Total Available Time, Total Idle time etc.). For this example, we will focus on two variables, the **Occupancy**, and the **Not Responding Count**.

1. To find & run this report, while remaining with your **Administrator** account, type either “Agent Details” or “-100” in the search bar.



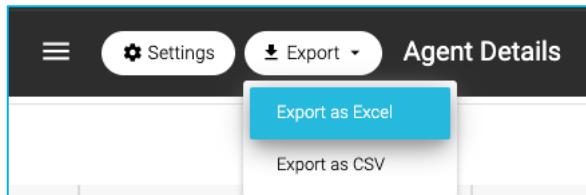
2. To run the report, simply left click twice on it.
3. As you can see, we are immediately presented with a lot of data, which may make it hard to find the information we need. To mitigate this, we can use the **Run-Time filtering** capability on the top right, which lets us dynamically filter some values on the report.
4. Click on **Agent Name** dropdown filter, unselect All and then select only your Agent (their name should have the format “Agent<StudentID> lab”). Also, change the **Duration** to *This Week*.

Analyzer				Settings	Export	Agent Details	Time Zone: (UTC+01:00) Central European Time (Europe/Berlin)
Agent Name	Interval	Multi Media Profile Type	Channel Type	Custom Select	Period Type	Skills	Interval
Agent1 Lab (4)	02/03/2024 (4)	BLENDED (4)	chat (1) email (1) social (1) telephony (1)	All <input type="checkbox"/> Agent1 Lab <input type="checkbox"/> Agent100 Lab <input type="checkbox"/> Agent3 Lab <input checked="" type="checkbox"/> Agent51 Lab	All	All	Daily
						Log In Count	Duration
						0	Last 7 days
Summary						11	

5. You can now review the data for just your user. Feel free to review the whole report to understand the statistics provided. Take a note of the **Occupancy** and **Not Responding Count** columns, as we mentioned.

As an administrator/analyst, if I notice specific teams/agents having high Occupancy, I may need to act by increasing the number of agents under that team or ensuring that calls are distributed equally among agents. Similarly, if we notice that the Not Responding Count of an agent is higher, we will need to engage with that agent to understand if there is possibly a technical fault with their device or if they are not properly attentive towards the Desktop interface.

6. An analyst may also want to export all this information to either review it offline (with the extended capabilities tools like Microsoft Excel may offer) or to feed it to another system. To achieve this, simply click on **Export -> Export as Excel** on the top.

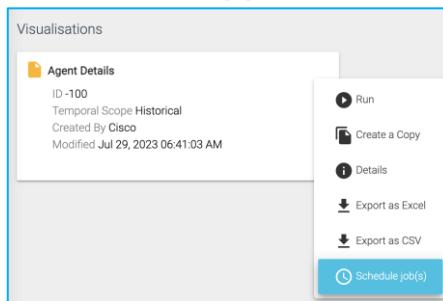


7. Try to open the downloaded file. You will see that the downloaded file will contain the data based on the run-time filters selected.

A	B	C	D	E	F	G	H	I	J	K
1 Time Zone: (UTC+01:00) Central European Time (Europe/Brussels)										
2										
3 Agent Name ↓	Interval ↓	Multi Media Profile Type ↓	Channel Type ↓	Skill Profile ↓	Skills ↓	Log In Count	Contact Handled	Staff Hours	Initial Log In Time	Final Log Out Time
4	02/03/2024	BLINDED	chat	CL2024_SP_Banking_Credit_7	CL2024_Proficiency7, CL2024_L0B=banking_credit*	5.0	0.0	05:05:23	02/03/24 22:52:17	2/3/24 23:53:22
5 AgentS1 Lab			email	CL2024_SP_Banking_Credit_7	CL2024_Proficiency7, CL2024_L0B=banking_credit*	5.0	0.0	05:05:23	02/03/24 22:52:17	2/3/24 23:53:22
6			social	CL2024_SP_Banking_Credit_7	CL2024_Proficiency7, CL2024_L0B=banking_credit*	0.0	0.0	01:05:23	02/03/24 22:52:17	2/3/24 23:53:22
7 telephony			telephony	CL2024_SP_Banking_Credit_7	CL2024_Proficiency7, CL2024_L0B=banking_credit*	1.0	0.0	01:02:05	02/03/24 22:52:17	2/3/24 23:53:22
8 Group Summary	Group Summary	Group Summary	Group Summary	Group Summary	Group Summary	11.0 (SUM)	0.0 (CUSTOM)	16:17:14 (SUM)		
9 Summary	Summary	Summary	Summary	Summary	Summary	11.0 (SUM)	0.0 (CUSTOM)	16:17:14 (SUM)		
10										

What if multiple analysts are interested in a report or we want to make it easier for them to get access to the data without having to login to Analyzer and manually download an Excel or CSV file? We can take advantage of the **Scheduled Job** capability, with which we can request to receive the result of a report in a predetermined time slot.

8. Go back to the Analyzer search tab, hover your mouse on the report box of the Agent Details report and you will see a dots : icon. Click on it and then click on **Scheduled Job(s)**.



9. In the following pop-up, you will define the details of the scheduled email, such as who will receive it, when and if you want any recurrence.

- Job Name:** Set is “DataLab Test” (this is a user-friendly name to define each job)
- Set the time to receive this email for the end of this lab, i.e. at 16:00 of 6/3/2024 (make sure timezone is set to US/Pacific).
- Email:** You can provide your personal email address.
- Subject:** The subject of the email, feel free to provide any title.
- Optionally, you can also add a **Message** for the body of the email or a recurrence by clicking on **Add Recurrence**.

10. When done, click on **Save**. Now, wait *nervously* until end of lab.

## Stock Report #2: CSQ All Fields Report (-1265)

One simple yet powerful report when it comes to retrieving Queue Statistics is the **CSQ All Fields Report**. Besides providing a lot of useful insights, the report is also part of the so-called **Transition Reports**, i.e. it is one of the 9 Stock Reports we have created that match the look and feel of some common Unified Contact Center Express (UCCX) reports, allowing UCCX customers to have a smoother transition to Webex CC.

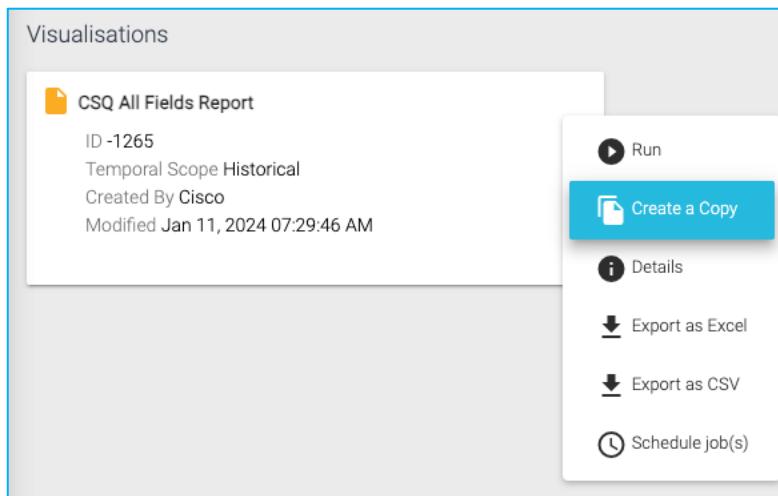
- To find & run this report, similarly as before, type either “CSQ All Fields Report” or “-1265” in the search bar. Click twice on the report to run it.

Queue Name	In Service Level%	Calls Presented	Calls Handled	Percentage Handled	Average Handled Time	Max Connected Time	Calls Abandoned	Duration
CL2024_CCAL_Queue (1)	100.00%	9	4	44.44%	02:09:03	00:05:26	4	44s
CL2024_Queue1 (1)	100.00%	1	0	0.00%	00:00:00	00:00:00	1	10s
CL2024_SBR_QV_Team5	92.86%	28	6	21.43%	00:00:50	00:00:44	4	14s
CL2024_SBR_QV_Team5	100.00%	1	0	0.00%	00:00:21	00:00:16	0	0.01
CL_DEMO (1)	75.00%	4	1	25.00%	00:04:58	00:02:54	2	50s

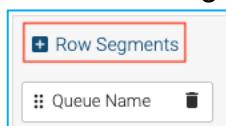
2. Change the **Duration** Run-Time filter to *This Week*.
3. You can immediately see that this report provides us clear insight for some of the most important Contact metrics on a Queue level, such as **Calls Handled, Average Handled Time, Percentage Abandoned or Avg Speed of Answer**.

Although Stock reports can provide great insights, it is possible that they do not provide all the information you may need. Thus, we have the option to **Edit** a Stock Report to request additional data. To do so:

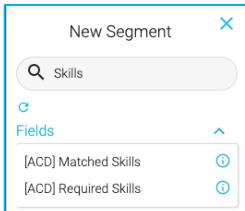
4. Go back to the Analyzer search tab, hover your mouse on the report box and you will see a dots  icon. Click on it and then click on **Create a Copy**.



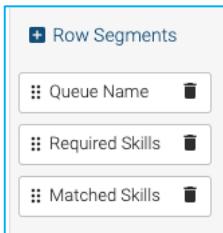
5. We will fully explore the edit mode of Analyzer in the next chapter, so don't be worried if this new interface seems a bit daunting! We will only focus on two things for now.
6. In Profile Variables, you see a lot of dark-grey boxes. These variables are created for the report but are hidden, which means they are not presented when we run the report. It is very useful to know when we try to build a new report that many Stock reports have such hidden variables that administrators can unhide at will based on their needs, by simply clicking on the eye icon  next to each variable.
7. Our goal, however, for this current edit is to add some Skill insights to our report, as we are using Skill-Based Routing. To achieve this, first click on Row Segments.



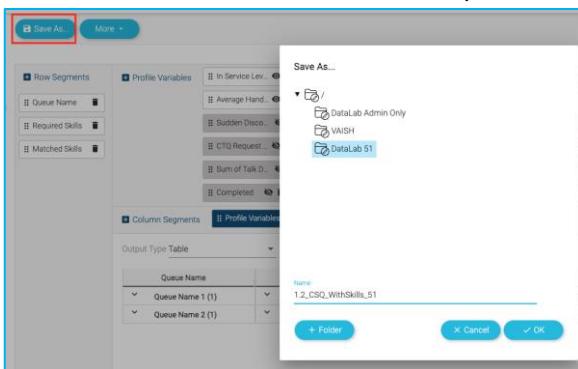
8. A tab will appear on the left with all the possible variables we can use for that report. In the Search bar, search for **Skills**.



9. Drag & Drop both **Required Skills** and **Matched Skills** under Queue Name in the Row Segment area.



10. Click on **Save As...** on the top. Select the folder you have created in the previous exercise and give your report a meaningful name, e.g. 1.2\_CSQ\_WithSkills\_<StudentID>. Click **OK**.



11. Finally, click on **Preview** next to Save As to run the report. You can now see the additional context we provided in the report to now be able to see for each Queue which was the skill requirement for the incoming contacts and which was the actual skill of the agents that handled these calls.

Queue Name	Required Skills	Matched Skills	In Service Level%	Calls Presented	Calls Handled
CL2024_CCAL_Queue (1)	N/A (1)	N/A (1)	100.00%	9	4
CL2024_Queue1 (1)	N/A (1)	N/A (1)	100.00%	1	0
CL2024_SBR_QV_Team51 (5)	N/A (1)	N/A (1)	33.33%	3	0
	CL2024_Proficiency==7, CL2024_LOB=banking (2)	N/A (1)	100.00%	1	1
		CL2024_Proficiency=7, CL2024_LOB="credit,banking" (1)	100.00%	19	4
	CL2024_LOB=credit (1)	CL2024_LOB="credit,banking" (1)	100.00%	4	1
	CL2024_LOB=insurance (1)	N/A (1)	100.00%	1	0
CL2024_SBR_QV_Team52 (1)	CL2024_Proficiency==9, CL2024_LOB=banking (1)	CL2024_Proficiency=10, CL2024_LOB="insurance,banking" (1)	100.00%	1	0
CL_DEMO (2)	N/A (1)	N/A (1)	66.67%	3	0
	CL2024_LOB=credit (1)	N/A (1)	100.00%	1	1

### Stock Report #3: Queue All Fields Report (-1268)

Since the previous report seems to be able to provide comprehensive insights for Queues, why was there a need to introduce a completely new repository in **Queue Records**? Let's run one of the new stock reports and see if there are any differences.

- Without closing the previous report, go back to the Analyzer search page and search for either "Queue All Fields Report" or "-1268" in the search bar. Click twice on the report to run it.

Queue Name	Channel Type	Service Level Configured (in seconds)	Calls Presented	Calls Handled	Agent To DN Transfer Count
CL2024.LOCAL.Queue (1)	telephony (1)	60 (1)	9	5	0
CL2024.Data.ChatQueue (1)	chat (1)	30 (1)	2	2	0
CL2024.Queue1 (1)	telephony (1)	60 (1)	1	0	0
CL2024.SBR_QV_TeamS1 (1)	telephony (1)	30 (1)	29	23	0
CL2024.SBR_QV_TeamS2 (1)	telephony (1)	30 (1)	1	1	0
CL_DEMO (1)	telephony (1)	120 (1)	4	2	0

- Change the **Duration** Run-Time filter to *This Week*.
- Notice the **Summary** of the **Calls Presented** column in each report on the bottom of the page. Is it the same?

Summary	46
Summary	93.02%

That is the major advantage of the new repository. Although it also provides new insights that were not previously available (e.g. **Calls Moved Out of Queue** column), its key value is the capability to take into account all the queues a call went through during its journey.

For example, a call that landed in Queue1 and then was transferred to Queue2 and after a while from Queue2 to Queue3 will be considered as **1 Call presented** in the previous report (CSR Repository), while in the report (Queue Repository) it will be 3 different calls presented, each one with its own metrics.

## Stock Report #4: Callback Report (-1249) (Bonus)

We discussed that callbacks can be a solution when we encounter *high Queue Wait Times or Abandon rates*. But how can we track if our **callbacks** are actually efficient?

1. Go back to the Analyzer search page and search for either “Callback Report” or “-1249” in the search bar. Click twice on the report to run it.

The screenshot shows the Cisco Call Center Analyzer interface. In the search results section, there is a single item: "Callback Report ID: -1249 Temporal Scope: Historical Created By: Cisco Modified: Aug 25, 2023 08:19:07 AM". The "Callback Report" link is highlighted, indicating it has been clicked.

2. Change the **Duration** Run-Time filter to *This Week*.
3. Review the report, mainly focus on the **Last Callback Status & Final Reason** columns. These columns will provide us with the data on how many of our callbacks were successful (connected to the customer) as well what was the reason the failed callbacks were not successful (e.g. Queue Timeout, CUSTOMER\_BUSY).

The screenshot shows the "Callback Report" table in the Cisco Call Center Analyzer. The table includes columns for Callback Number, Preferred Agent Name, Agent Name, Team Name, Last Callback Status, Final Reason, Terminated by, and Failed Callback Retry Count. The "Last Callback Status" and "Final Reason" columns are highlighted with red boxes. The data shows several entries where the final reason is either "CUSTOMER\_BUSY" or "CUSTOMER\_UNAVAILABLE".

Callback Number	Preferred Agent Name	Agent Name	Team Name	Last Callback Status	Final Reason	Terminated by	Failed Callback Retry Count
-3227045983	N/A	N/A	N/A	Failure	CUSTOMER_BUSY	Customer	0
1227045983	N/A	N/A	N/A	Failure	CUSTOMER_UNAVAILABLE	Customer	0
-3227045983	N/A	N/A	N/A	Failure	CUSTOMER_BUSY	Customer	0
-3227045983	N/A	N/A	N/A	Failure	CUSTOMER_BUSY	Customer	0
1227045983	N/A	N/A	N/A	Failure	CUSTOMER_UNAVAILABLE	Customer	0

If our callback success rate is low, we need to review the Final Reason. If, for example, the primary reasons for an unsuccessful callback request are that customers aren't reachable or busy at callback time, as an administrator I can consider implementing the [Callback Retry](#) feature, which enables the system to try again if the initial callback attempt was unsuccessful.

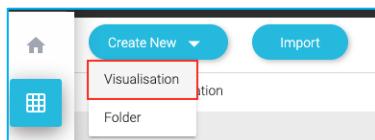
### Exercise 1.3: Create a Visualization from Scratch

In this exercise, our goal is to build a report from the ground up without the help of any existing stock report, while taking advantage of multiple Analyzer reporting features. Let's assume the objective is to create an Agent state report in real-time providing the following data insights:

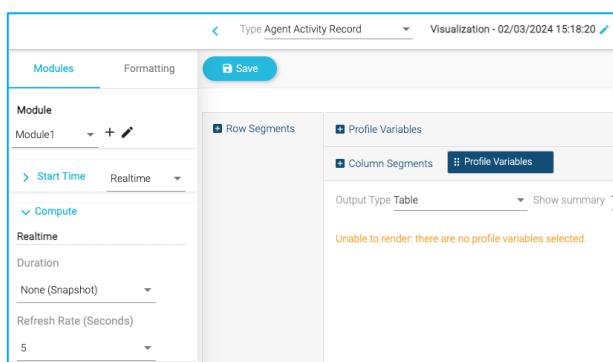
- State of Agents on real-time basis for Voice channel.
- Capture key metrics:
  - Agent Team
  - Agent Name
  - Agent State
  - Idle Code Name
  - Total number of Agents logged-in
  - Number of Agents in Available and Idle state for each team
  - Duration in current state
- Create a high-level view, based on line of business (LOB).
- Have Data summarized based on each LOB.
- Have options to filter the data based on LOB and Idle code.
- Create some visual indication when certain agents in Idle state for long duration.

To achieve the above, we need to do the following steps:

1. Create a new Visualization in Analyzer.



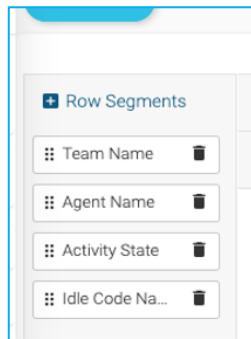
2. Set the type as **Agent Activity Record**.
3. Set **Start Time** as *Realtime*.
4. Set **Duration** as *None (Snapshot)*.
5. Set **Refresh Rate (seconds)** as *5*.



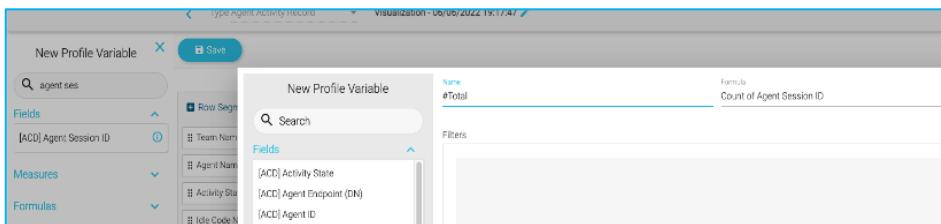
Next, we will begin adding variables to the visualization.

6. Click on **Row Segments** and from the left-side bar, **drag & drop** the following variables under Row Segments:

- Team Name
- Agent Name
- Activity State
- Idle Code Name

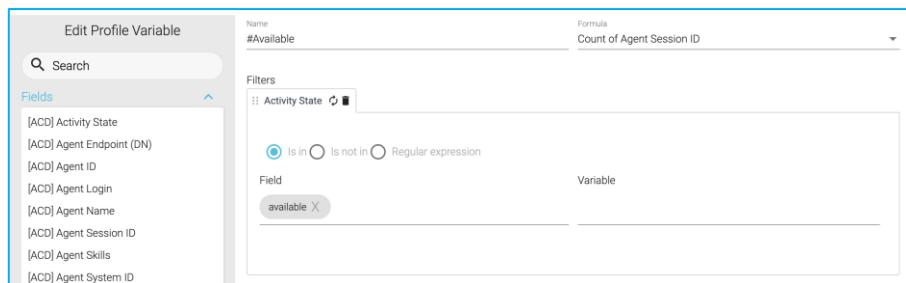


7. Next, click on **Profiles Variables**, find and drag **Agent Session ID**, make sure to change Name to *#Total* and that Formula is set to *Count of Agent Session ID*. Click on **Save**.



8. We now want to create a variable with the number of **Available** agents. To do so, repeat step 7 by adding Agent Session ID, but this time make the following changes:

- Set Name as *#Available*.
- Drag **Activity State** from the left in the **Filter** area. Make sure **is in** option is selected and find the field *available*. Save the variable.



9. We also want the number of idle agents. To do so, repeat step 8 but this time the **filter** value should be *idle*. Re-name that variable to *#Idle* as well.

**Edit Profile Variable**

Name: #Idle

Formula: Count of Agent Session ID

Filters: Activity State Is in idle

Field: idle

10. Next, we need to capture the current state's **Duration**. We will achieve this by using a formula to subtract the **Activity Start Time** from **Current Time**, which will give us the activity duration.

- Search for Profile variable **Activity Start Timestamp** (under Measures).
- Under formula, select **Minimum Activity Start Timestamp** and save it.

**New Profile Variable**

Name: Minimum Activity Start Timestamp

Formula: Minimum Activity Start Timestamp

Filters: Activity Start Timestamp Is in Minimum Activity Start Timestamp

Fields: [ACD] Activity State, [ACD] Agent Endpoint (DN), [ACD] Agent ID, [ACD] Agent Login

- Right-click on the created profile variable and click on **New Formula**.
- Name it **Duration** and swap the fields by clicking .
- Click  on the empty field and select Current Timestamp.
- Select  subtraction operator. Formula should be as shown below. Click **Save**.

**New Formula**

Name: Duration

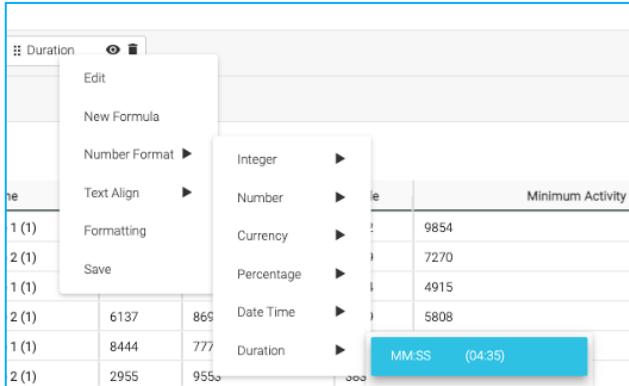
Formula: Arithmetic Expression

Type a numeric value or select a column  
Current Timestamp

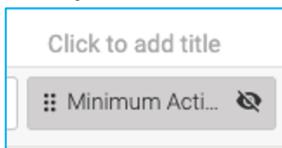
Minimum Activity Start Timestamp

Cancel Save

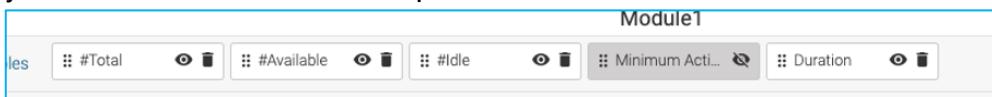
- 11.** Right click the **Duration** profile variable you created, and set **Number Format > Duration** as **MM:SS**.



- 12.** Hide the created **Minimum Activity Start Timestamp** profile variable clicking on the icon.



- 13.** Re-order the variables by dragging and dropping the variables in the order that you wish to see them in the report.



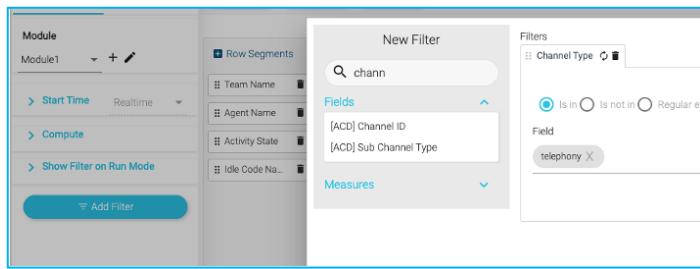
- 14.** Save the report as **1.3\_AAR\_RT\_AgentState\_<StudentID>** (e.g. **1.3\_AAR\_RT\_AgentState\_51**) under your previously created student folder. Click **Preview** to see what you have created so far.

Module1								Time Zone : (UTC+01:00) Central European Time (Europe/Amsterdam)
Team Name	Agent Name	Activity State	Idle Code Name	#Total	#Available	#idle	Duration	
CL2024_CCAL_Team (1)	Agent100 Lab (1)	idle (1)	Meeting (1)	16	0	16	46:37	
CL2024_Data_Team51 (2)	Agent51 Lab (1)	available (1)	N/A (1)	16	16	0	00:14	
	Supervisor51 Lab (1)	idle (1)	Meeting (1)	16	0	16	00:41	

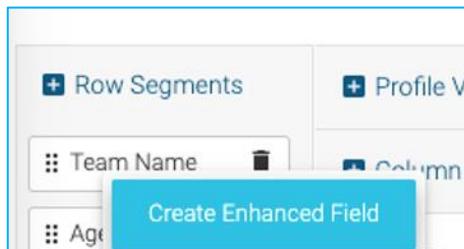
Notice that the **#Total** count for each agent is “16”.

- This is because each agent is a multi-channel agent (they have in total 16 channels, comprising of 1 voice, and 5 chat, 5 email & 5 social).
- In this case, we want to capture data only for the Voice channel so we need to add the appropriate filter.

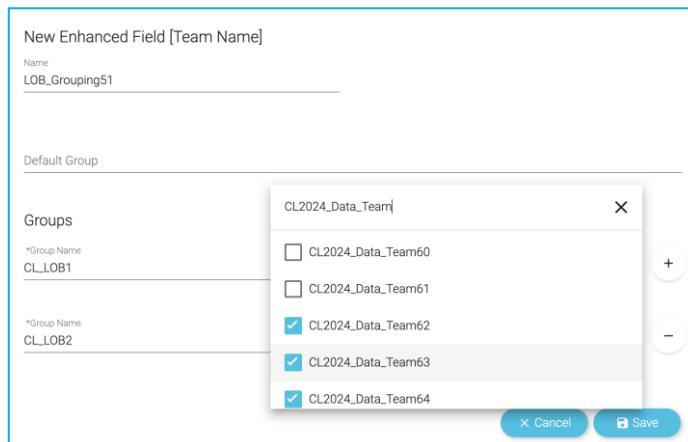
- 15.** Go back to report’s edit mode, click on **Add Filter** on the left and add the filter for field **Channel Type** with value as **Telephony**.



- 16.** Next, we are asked to create a high-level view based on the **LOB**. To do so, we are going to utilize the **Enhanced Fields** feature. To create a LOB group, right click on the *Team Name* and then **Create Enhanced Field**.



- Name the field **LOB\_Grouping<StudentID>**, using your dedicated Student ID.
- Add 2 groups containing the following teams:
  - **CL\_LOB1** should contain from Team CL2024\_Data\_Team52 until CL2024\_Data\_Team61.
  - **CL\_LOB2** should contain from Team CL2024\_Data\_Team62 until CL2024\_Data\_Team71.
  - Set Default Group name as **CL\_LOB\_Default**.
- Keep in mind you can use the Search option to only filter for the teams of this lab, using for example the search string **CL2024\_Data\_Team**.



- 17.** We can make enhanced fields **global** to be able to re-use them again on other Visualizations. To do so, right click on the created Grouping, click on **Save** and on the pop-up select **Save** again.

Save Enhanced Field

Name  
LOB\_Grouping51

Cancel Save

18. If you want to re-use this **Enhanced Field** in the future, click on **Row Segments** and under Fields you can find all the created Enhanced Fields.

New Segment X

Search

Fields

Enhanced Fields

LOB\_Grouping077

19. Next, we want to create a Summary on LOB level. To be able to do so, we first need to move the created LOB\_Grouping as the top Row Segment, as only the top row segment can be summarized in each report.

+ Row Segments

LOB\_Grouping... Delete

Team Name Delete

Agent Name Delete

Activity State Delete

Idle Code Na... Delete

20. Now, to create the summary:

- Click on the **Show Summary** dropdown and select the *LOB\_Grouping* you created.

Output Type Table Show summary Table level Customise

LOB\_Grouping51  LOB\_Grouping51

- Next, click **Customize** next to Show Summary and then on the *LOB\_Grouping* level tab.

Customise Report Summary

Define the summary formula

Table level **LOB\_Grouping51 level**

#Total	NONE	#Available	NONE
#Idle	NONE	Minimum Activity Start Timestamp	NONE
Duration	NONE		

**X Cancel** **Save**

- By default, for the second level (the one we are currently at), all the variable summaries are set to **NONE**. We need to define ourselves which arithmetical operation we want to perform as summary for each column.
- Select SUM for #Total, #Available and #Idle and Save.

Customise Report Summary

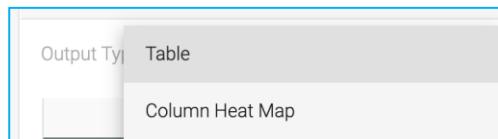
Define the summary formula

Table level **LOB\_Grouping51 level**

#Total	SUM	#Available	SUM
#Idle	SUM	Minimum Activity Start Timestamp	NONE
Duration	NONE		

**X Cancel** **Save**

21. We also want to provide visual indications if agents are in a state for too long. Although, today, we are not able to select specific colour coded thresholds for such scenarios, we can update the **Output Type** to be a *Column Heat Map*.



22. Lastly, click on **Show Filters on Run Mode** on the left and select the Duration and the LOB\_Grouping.

> Start Time Realtime

> Compute

> Show Filter on Run Mode

Choose up to 5 from below

Duration  
 LOB\_Grouping51  
 Team Name  
 Agent Name  
 Activity State

**Add Filter**

> Filters

The report is now done! Save it, click on Preview and review what you created!

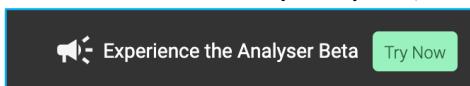
The screenshot shows a Cisco Analyzer interface with a report titled "1.1.AAR\_RT\_AgentState\_51". The report is for "Module1". The data is organized into columns: LOB\_Grouping1, Team Name, Agent Name, Activity State, Idle Code Name, #Total, #Available, #Idle, and Dur. The data rows include entries for CL\_L0B1 (2) and CL2024\_Data\_Team51 (2). The summary row at the bottom indicates a total of 2 agents, with 1 available and 1 idle.

LOB_Grouping1	Team Name	Agent Name	Activity State	Idle Code Name	#Total	#Available	#Idle	Dur
CL_L0B1 (2)	CL2024_Data_Team51 (2)	Agent51 Lab (1)	available (1)	N/A (1)	1	1	0	25:18
		Supervisor51 Lab (1)	idle (1)	Meeting (1)	1	0	1	29:45
Summary					2	1	1	

## Exercise 1.4: Analyzer Beta

**Analyzer Beta** is the new Analyzer version, offering a fresh look & feel on report presentation, new capabilities as well as a more efficient backend architecture. Today, as Analyzer Beta cannot provide all the report creation capabilities that current Analyzer can (**only Historical Stock reports are available**), Analyzer users can run both platforms in parallel. Goal of this exercise is to familiarize yourselves with this new platform and its features:

1. To login to Analyzer Beta, click on the **Try Now** button on top of the page and it will cross-launch. If prompted, enter your administrator credentials.



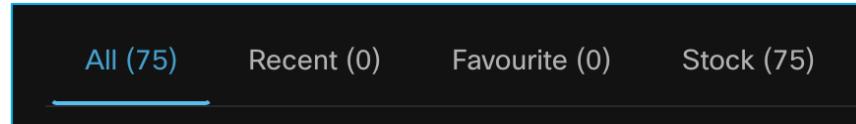
2. You will see a new home page with a list of dashboards as well as a new search bar to search through the various dashboards.

A screenshot of the Analyzer Beta interface showing a list of dashboards. The header includes a search bar and filters for "All", "Recent (0)", "Favourite (0)", and "Stock (75)". The main area displays a table with columns: Name, Labels, Last Edited By, Last Edited, Created By, and Actions. Each row represents a dashboard with its name, labels (e.g., Stock, Transition, Historical, Multimedia), and creation details. A footer at the bottom shows copyright information: "Copyright © 2024 Cisco Systems, Inc. All Rights Reserved."

3. New Analyzer allows user to switch to Dark Mode. If you find it more convenient, click on your name icon on the top-right, and then click on the **Switch to Dark Mode** toggle. As you can see, from the same path, you can also update the Time Zone that the reports will run on, similar to what we learnt before.

A screenshot of the Analyzer Beta user settings menu. It shows a "Time Zone" dropdown set to "Tenant - EDT (America/New\_York)". Below it is a "User Settings" section with a "Switch to Dark Mode" toggle switch that is currently turned on (blue). At the top right, there is a circular profile icon with the letters "AL" and a "Sign Out" button.

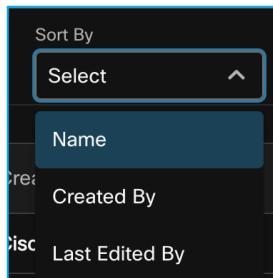
4. **Reports and Dashboards** are grouped under following Tabs:
- All:** Lists all the dashboards and reports.
  - Recent:** Lists the most recent dashboards that you viewed.
  - Favorite:** Lists the dashboards that you have marked as favorite.
  - Stock:** Lists the predefined stock historical dashboards provided by Cisco (currently, until customization becomes available, this should be equal to All tab).



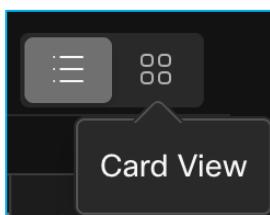
5. You can **favourite** a dashboard by clicking on the Star icon next to its name. For example, try to mark *Abandoned Call Detail Activity Report* as favourite. You will see the Favourite tab counter increasing to “(1)”.



6. You can use the **Sort By** dropdown menu to change the order of appearance for the reports.

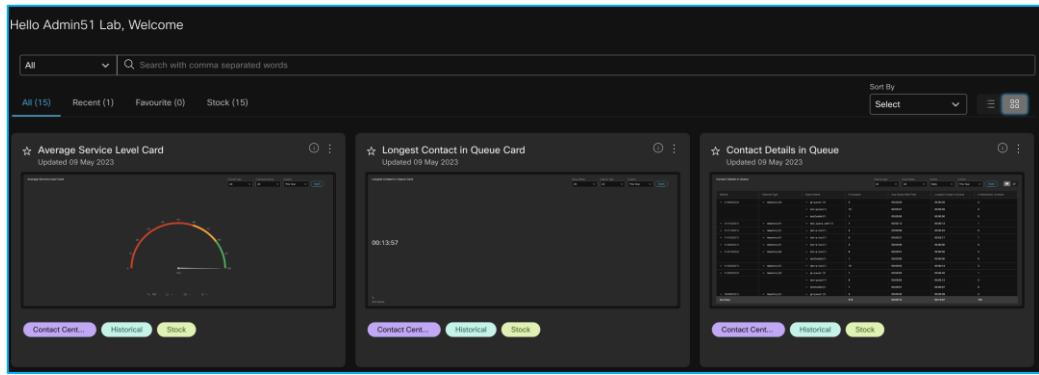


7. Next to it, we have the option to switch between List View & Card View. Click on the *Card View*.



8. The **List View** is the default view and allows easy navigation and quick access to the entire collection of stock dashboards.

The **Card View** provides a compact and visual representation of the stock dashboards, displaying snapshots of up to 15 dashboards in a single view.

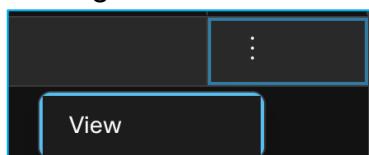


9. Switch back to *List View*. Take a note of the Labels column. We've replaced folder-based navigation with labels. The predefined labels help you find and sort stock historical dashboards. The labels are color-coded to enhance the user experience.
10. You can search for dashboards using **labels**. For example, use the word "Agent" in Search Bar. You will not only see dashboards with the string *Agent* in the name but also all the dashboards that have the label *Agent*.

The screenshot shows a list of dashboards with a search bar at the top containing "Agent". Below the search bar, there are filters: "All (24)", "Recent (2)", "Favourite (0)", and "Stock (24)". The main area is a table with columns: Star icon, Name, and Labels. The "Labels" column uses colored buttons to categorize the dashboards. One dashboard, "Agent Historical Dashboard", is highlighted with a blue border.

	Name	Labels
☆	Agent Call Summary Rep...	Stock Transition
☆	Agent Detail Report	Stock Transition
☆	Agent Summary Report	Stock Transition
☆	CSQ Agent Summary Re...	Stock Transition
☆	Multichannel Agent Sum...	Stock Transition
☆	Agent Historical Dashboard	Agent Historical Stock
☆	Team Historical Dashboard	Agent Historical Stock
☆	Agent Details by Social C...	Agent Historical Stock
☆	Agent Idle Auxiliary	Auxiliary Historical Idle Stock
☆	Agent Statistics	Agent Historical Stock
☆	Contacts Handled By Age...	Agent Historical Stock

11. Now, let's try to run a report. Find and run the **Agent Details** report we also ran on exercise 1.2. You can run a report either by double-clicking on it or by right clicking the dots under column **Actions -> View**.

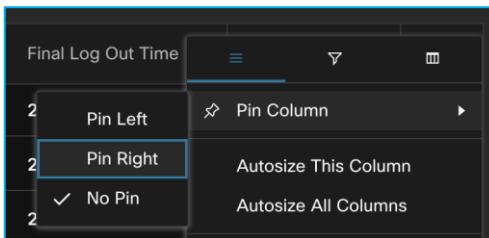


Agent Details											Time Zone : CET (Europe/Amsterdam)	
Agent Name <input type="button" value="All"/> Channel Type <input type="button" value="All"/> Interval <input type="button" value="Daily"/> Duration <input type="button" value="Last 7 days"/> <input type="button" value="Apply"/>												
Agent Name	Interval	Multi Medi...	Channel Ty...	Skill Profile	Log In Count	Contact Ha...	Staff Hours	Initial Log In Time	Final Log Out Time	Occupancy	Idle Co...	
Agent... (4)	02/02/24 (4)	BLEN... (4)	chat(1)	N/A(1)	3	1	00:43:01	02/02/24 16:49:45	2/2/24 17:04:05	2.87%	6	
			email(1)	N/A(1)	3	0	00:43:01	02/02/24 16:49:45	2/2/24 17:04:05	0%	6	
			social(1)	N/A(1)	0	0	00:43:01	02/02/24 16:49:45	2/2/24 17:04:05	0%	6	
			teleph... (1)	N/A(1)	1	0	00:14:20	02/02/24 16:49:45	2/2/24 17:04:05	0%	2	
<b>Summary</b>												20
Agent... (8)	01/30/24 (4)	BLEN... (4)	chat(1)	N/A(1)	15	2	07:09:44	01/30/24 08:43:26	1/30/24 20:06:30	4.77%	30	
			email(1)	N/A(1)	15	0	07:09:44	01/30/24 08:43:26	1/30/24 20:06:30	0%	30	
			social(1)	N/A(1)	0	0	07:09:44	01/30/24 08:43:26	1/30/24 20:06:30	0%	30	
			teleph... (1)	N/A(1)	3	0	01:25:57	01/30/24 08:43:26	1/30/24 20:06:30	0%	6	
01/31/24 (4)	BLEN... (4)	chat(1)	N/A(1)	5	1	07:12:42	01/31/24 13:35:52	1/31/24 15:02:25	5.02%	10		
			email(1)	N/A(1)	5	0	07:12:42	01/31/24 13:35:52	1/31/24 15:02:25	0%	10	
			social(1)	N/A(1)	0	0	07:12:42	01/31/24 13:35:52	1/31/24 15:02:25	0%	10	
			teleph... (1)	N/A(1)	1	0	01:26:32	01/31/24 13:35:52	1/31/24 15:02:25	0%	2	
<b>Summary</b>											0.71%	216
											98	4
											101:52:06	

12. Change the Run-Mode filter of **Duration** to *This Week*. In contrast to the previous Analyzer version, you now need to click on **Apply** for filters to take effect.

Now, let's see some of the new or updated features of Analyzer Beta:

13. **Pin Column:** Pinning a column keeps it visible at all times irrespective of user scrolling left or right. To pin a column (let's find and use *Occupancy* as a column example), click on the hamburger  icon next to the desired column, then Pin Column -> Pin Right.

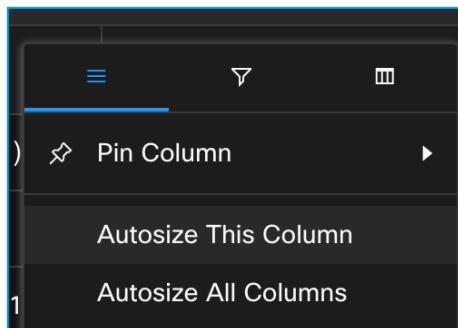


14. **Move Column:** It is possible to dynamically drag & drop a column to a new position. Simply left click and hold the column and move it to the new position you want it to be.

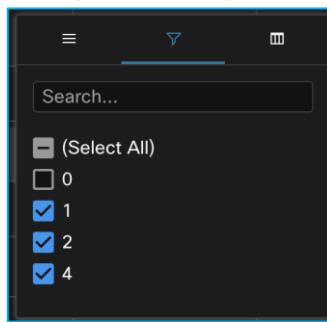
Note: Moving a column does not work with Row Segments, only with variable columns.

15. As a test, try to swap the position of the first two columns *Log In Count* & *Contact Handled* by using this feature.

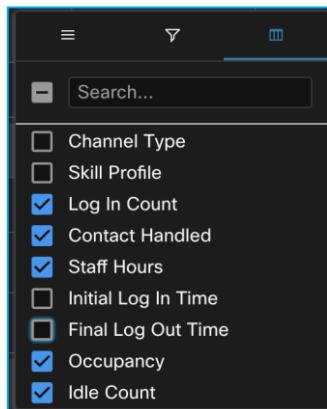
16. **Autosize Column:** We can now easily autosize one or all columns at the same time. Click again on the hamburger icon of the column you want to autosize, and then click on **Autosize This Column**.



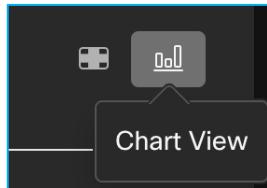
17. **Column Filtering:** Besides the Run-mode filter, when running a report, we can also filter a column to only see specific values of it and hide all other rows. Let's use this to hide any rows with no *Contacts Handled*. So, click on the hamburger icon of the *Contacts Handled* column, then on the middle filter tab and **unselect** the option 0. Report should update instantly with your choice:



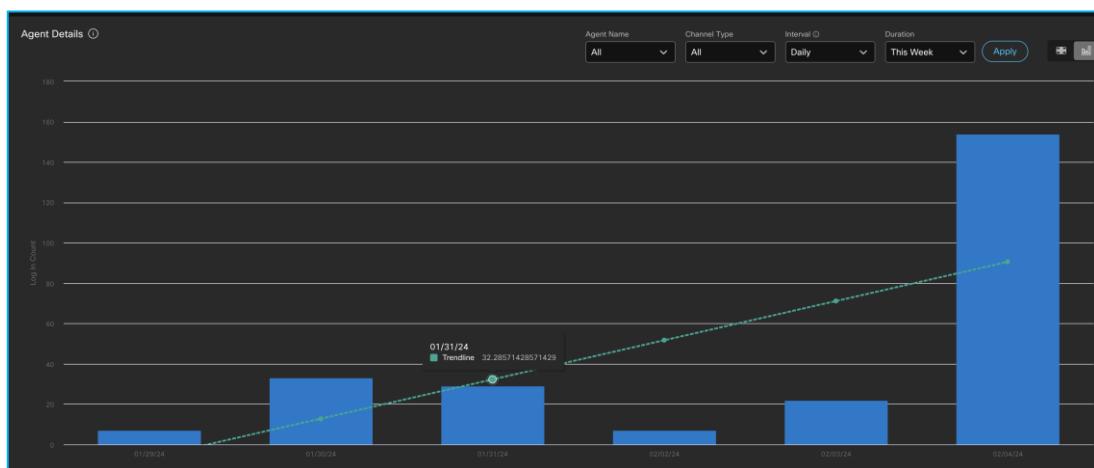
18. **Column Hide/Unhide:** Last but not least, if we click on the hamburger icon and go to the last tab, we will see a dropdown list of all the columns of the report. **Unselect Initial Log In Time & Final Log Out Time** to hide these reports. Again, the report updates instantly with your choice.



19. You can also switch to a **Chart View** to get a graphical representation of some of the report's data.



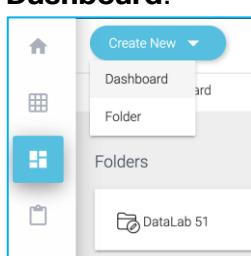
In Chart view, the new Analyzer introduces Trend Line, which is a visual representation of trends with data points. When viewing a dashboard, the presence of a trend line allows users to quickly identify and understand the underlying trend or pattern within the data.



### Exercise 1.5: Dashboards (Bonus)

Dashboards allow users to create a single view comprising of multiple visualizations of different types (stock/customer, historical/realtime, contact/agent). We will try to create a dashboard with the reports we used in the previous exercises, by following these steps:

1. Make sure you are using the *Administrator* account and that you are not using Analyzer Beta (as it does not allow for custom creation).
2. Navigate to the Dashboards section of Analyzer and click on **Create New -> Dashboard**.

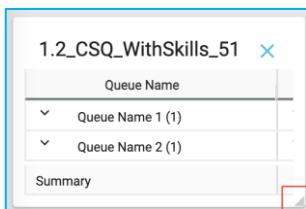


- On the left tab, you can see all the stock and custom created visualizations. Find and open your student folder, then **drag & drop** both of the created visualizations on the area to the right.

The screenshot shows a dashboard titled 'Dashboard - 02/04/2024 21:45:26'. On the left, there's a sidebar with 'Modules' and 'Formatting' tabs, and a list of reports including 'DataLab 51', 'DataLab Admin Only', 'Stock Reports', 'VAISH', and several queue-related reports. Two custom visualizations are displayed in the main area: '1.2\_CSQ\_WithSkills\_51' and '1.3\_AAR\_RT\_AgentState\_51'. Both visualizations have a blue border and are currently collapsed, showing only their titles and a 'Summary' section below.

**Tip:** If you are having issues with dragging the visualizations, try dragging it next to an already added report instead of a random free space in the dashboard.

- You can see that by default, the visualizations are not properly sized or in a presentable format. Click & hold the arrow on the bottom-right of each window to resize each visualization.



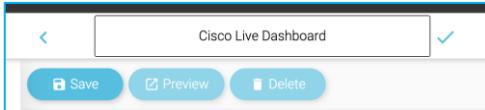
- Resize the visualization so that they take the entire length of the page and they are stacked on top of each other, like below.

The screenshot shows the Cisco Live Dashboard with two visualizations stacked vertically. The top visualization is '1.2\_CSQ\_WithSkills\_51' and the bottom one is '1.3\_AAR\_RT\_AgentState\_51'. Both are now properly sized and fit the width of the page. The '1.2\_CSQ\_WithSkills\_51' visualization displays a table with two rows of queue names and their respective skill counts. The '1.3\_AAR\_RT\_AgentState\_51' visualization displays a table with agent state information across different teams and activity levels.

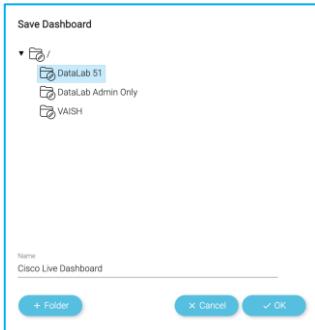
Queue Name	Required Skills	Matched Skills	In Service Level%	Calls Presented
Queue Name 1 (1)	N/A (1)	N/A (1)	358200.00%	2612
Queue Name 2 (1)	N/A (1)	N/A (1)	921800.00%	7641

LOB_Grouping51	Team Name	Agent Name	Activity State	Idle Code Name	#Total	#Aval
LOB_Grouping51 1 (16)	Team Name 1 (8)	Agent Name 1 (4)	Activity State 1 (2)	Idle Code Name 1 (1)	5167	4434
				Idle Code Name 2 (1)	9684	3063
					181002	164363

6. Name the dashboard as “**Cisco Live Dashboard**”.



7. Save the Dashboard under your Student folder and then click on **Preview** to run.



8. You can see that even though they are different Visualizations, there are still some Run-Mode Filters we can use and apply on all visualizations simultaneously.

Queue Name	Required Skills	Matched Skills	In Service Level%	Cells Presented	Cells Handled	
CL2024_CCAL_Queue (1)	N/A (1)	N/A (1)	100.00%	9	4	44.44%
CL2024_Queuel (1)	N/A (1)	N/A (1)	100.00%	1	0	0.00%
CL2024_SBR_QV_Team51 (5)	N/A (1)	N/A (1)	33.33%	3	0	0.00%
	CL2024_Proficiency>=7, CL2024_LOB="credit,banking" (2)	N/A (1)	100.00%	1	1	100.00%
		CL2024_Proficiency>=7, CL2024_LOB="credit,banking" (1)	100.00%	19	4	21.05%
Summary			93.02%	43	11	25.58%

LOB_Grouping51	Team Name	Agent Name	Activity State	Idle Code Name	#Total	#Available	#Idle	Du
CL_LOB1 (2)	CL2024_Data_Team51 (2)	Agent51 Lab (1)	idle (1)	Meeting (1)	1	0	1	50:13
		Supervisor51 Lab (1)	idle (1)	Meeting (1)	1	0	1	49:58
Summary					2	0	2	50:13

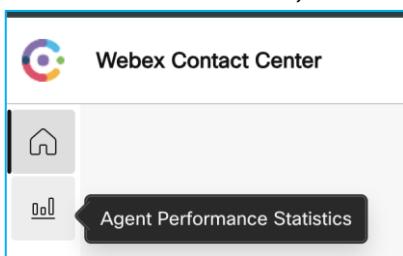
## Lab 2: Desktop

In many cases, it's not only supervisors or administrators but also agents that need access to some reporting and statistics. Since *Analyzer* is, by default, *not accessible* to agents, there are other ways that we can share such data insights with them. In this lab, you will explore some of them, such as the Agent Personal Statistics (APS) tab in Agent desktop, the direct access via URL as well as embedding reports on the Agent Desktop itself. Furthermore, you will get familiar with the Supervisor Desktop, a brand-new interface for supervisors to be able to simultaneously manage their teams and handle incoming contacts, if need be. Specifically, you will go through the dashboards and metrics that are available in the Supervisor Desktop.

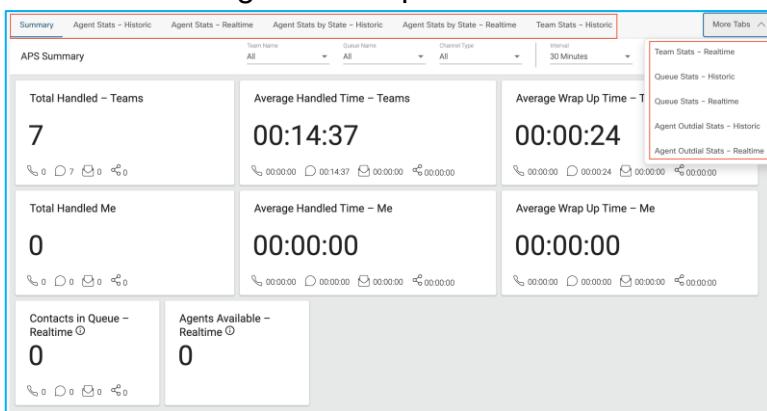
### Exercise 2.1: Agent Personal Statistics

Agent Personal Statistics(APS) is a unique tab in the Agent Desktop that provides Agent with 11 different dashboards containing information on Queue, Team or Agent level. To access it:

1. Make sure you are logged in to [Desktop](#) using the *Agent* profile.
2. On the bar on the left, select the **APS** icon.



3. Within APS, there are multiple tabs of data. Navigate through the APS dashboards available in the Agent Desktop.



4. Go back to the first tab called **Summary**. While on the **Summary** report, the agent can filter their view. We now have the ability to save these filters in cache so that next time agent logs in, the filters will already be in place.

- Choose different options from the Team Name, Queue Name, Channel Type. Notice that the data on the screen updates.

The screenshot shows a search bar with the following fields: Team Name: CL2024\_Data\_Tea..., Queue Name: All, Channel Type: telephony, Interval: 30 Minutes, Duration: This Week. There is also a refresh icon.

- The tabs inside the APS reports are **persistent**, i.e. the agent desktop will remember the last tab you visited if you navigate away to the home screen or any other page. Let's select the **Queue Stats - Historic** tab. Then click the **Home** tab on the left side.

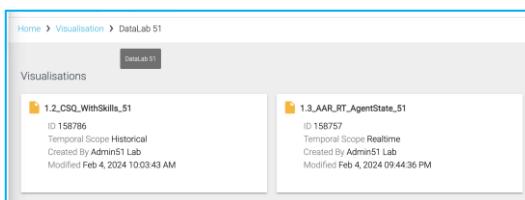
The screenshot shows a table with columns: Interval, Channel Type, Queue Name, # Contacts, Avg Queue Wait Time. Data rows are: 01/30/2024 (1) chat (1) CL2024\_ChatQ (1) 2 00:00:00; 01/31/2024 (1) chat (1) CL2024\_ChatQ (1) 1 00:00:00; 02/01/2024 (1) chat (1) CL2024\_ChatQ (1) 1 03:00:11; 02/04/2024 (1) chat (1) CL2024\_ChatQ (1) 4 00:00:31. To the right is a dropdown menu with options: Team Stats - Realtime, Queue Stats - Historic (which is highlighted), Queue Stats - Realtime, Agent Outdial Stats - Historic, and Agent Outdial Stats - Realtime.

- Go back to the **APS tab**. You will notice that the **Queue Stats - Historic** is the default tab in your APS viewer.

## Exercise 2.2: Agent Direct URL Access

Analyzer is a premium functionality which is only accessible for Supervisors or Administrators but there are few use-cases where supervisors would like to share certain visualizations with Agents (Standard or Premium) for sharing the insights they are looking. This is possible with the **Share Browser Links** functionality.

- We will run & share the report created in exercise 1.3. Switch back to your **Administrator** browser session and in the **Analyzer** tab.
- If you do not have the report already open, go to Visualizations and open your own student folder. If, for any reason, you did not complete the report in exercise 1.3, you can use the report **1.3\_AAR\_RT\_AgentState\_51** under the *DataLab 51* folder.



3. Run the report **1.3\_AAR\_RT\_AgentState**. Copy the URL of the page.

LOB_Grouping\$1	Team Name	Agent Name	Activity State	Idle Code Name	#Total	#Available	#idle	Duration
CL_LOB1 (2)	CL2024_Data_TeamS1 (2)	AgentS1 Lab (1)	idle (1)	Meeting (1)	1	0	1	21:07
		SupervisorS1 Lab (1)	idle (1)	Meeting (1)	1	0	1	21:16
	Summary				2	0	2	

4. Switch back to your Agent browser session, open a new tab and paste the URL. You can now run the report as an agent.

Note: Drilldown option is not possible when you run a report as an agent through a shared link.

LOB_Grouping\$1	Team Name	Agent Name	Activity State	Idle Code Name	#Total	#Available	#idle	Duration
CL_LOB1 (1)	CL2024_Data_TeamS1 (1)	AgentS1 Lab (1)	available (1)	N/A (1)	1	1	0	03:07
	Summary				1	1	0	

You may notice that the agent does not see the same amount of data that the report shows when run by the administrator. This is expected based on the access control we discussed in exercise 1.1.

### Exercise 2.3: Embedding the Report into the Agent Desktop (Bonus)

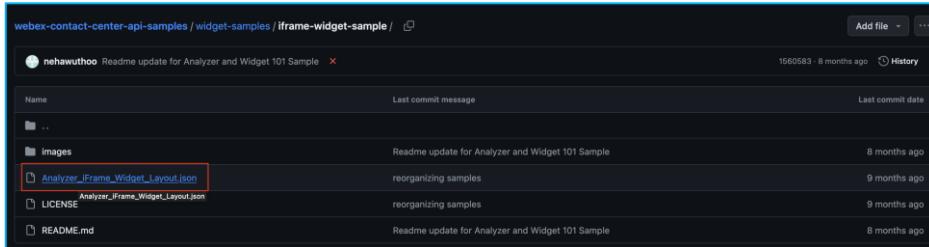
The Desktop UI configuration is “controlled” by the Desktop Layout. If we want to add any additional elements (in this case an Analyzer report) for the Agent to see in their desktop interface, we need to update their respective Desktop Layout accordingly. In this exercise, we will embed the report we created in exercise 1.3 in the Desktop for agent to access without needing the URL.

**Note:** The current desktop layout of all agents already includes an embed report to directly check the feature. If you do not want to configure your own desktop layout, skip to step 17.

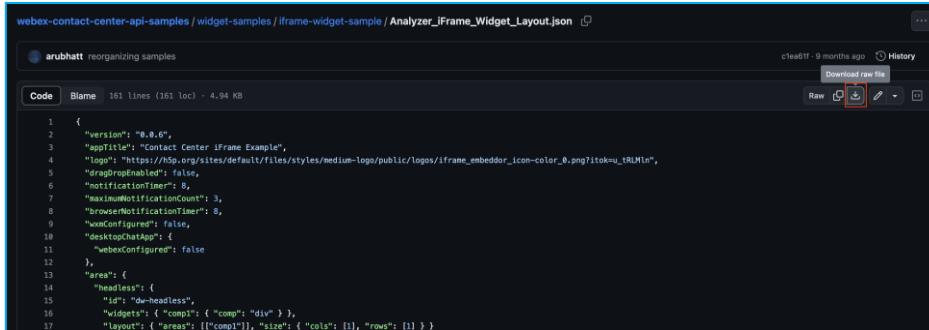
To create the desktop layout:

1. Navigate to the [Analyzer iFrame Widget Sample](#) GitHub page.

2. Click on the **Analyzer\_iFrame\_Widget\_Layout.json** file.



3. Click on the **Download raw file** icon.



4. Open the downloaded JSON file in any editor (e.g. Notepad++).

5. In line 116, change the URL in the **src** attribute with the URL of the report you want to embed.

```

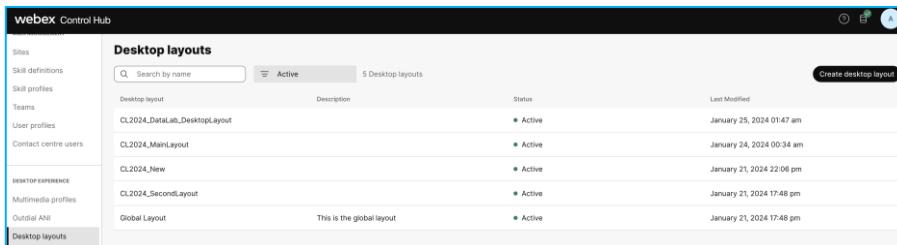
103  "nav": {
104    "label": "Analyzer iFrame Widget",
105    "icon": "https://qemailmedia.s3.amazonaws.com/d3116af2-20cd-4306-b471-0a44cc164308/AnalyzerReport_3323586588428918.png",
106    "iconType": "other",
107    "navigateTo": "iframe-widget",
108    "align": "top"
109  },
110  "page": {
111    "id": "iframe-widget",
112    "widgets": {
113      "left": {
114        "comp": "agentx-wc-iframe",
115        "attributes": {
116          "src": "https://analyzer-v2.wxcc-us1.cisco.com/analyzer/view/visualization?tId=1c71287f-2f41-458b-b101-c4e61612355&rId=62287"
117        }
118      }
119    }
120  },
121  "layout": {
122    "areas": [{"left": ""}],
123    "size": {
124      "cols": [1],
125      "rows": [1]
126    }
127  }

```

6. Save the file.

7. In your **Administrator** browser session, login to [Control Hub](#). Re-enter your administrator credentials, if prompted.

8. Using the navigation bar on the left, go to **Desktop Experience -> Desktop Layouts**.



9. Click on **CL2024\_DataLab/DesktopLayout**.

10. On the Teams list, find your own Team and remove it by clicking X.



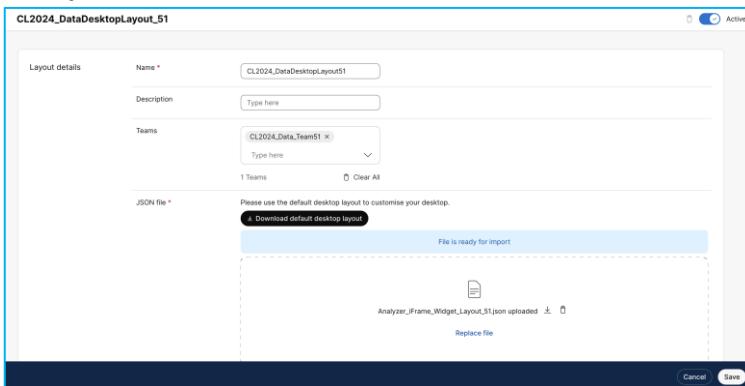
11. Click on **Save**. This action was necessary as each team can only be part of one Desktop Layout, so we would not have been able to assign the desktop layout to our team otherwise.

12. Click on **Create desktop layout** on the top-right.

13. Give a name for your layout in the format  
**CL2024\_DataLab/DesktopLayout<StudentID>**.

14. In the teams, search and add your agent's team.

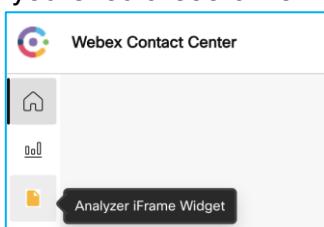
15. Lastly, click on **Choose a File** and select the JSON you created on step 6.



16. Save the configuration. Our agent's desktop layout should now contain the embedded report.

17. Using the Agent chrome browser session, **login** to Desktop. If you are still logged in from previously, you **need to refresh** the page to see the updated Desktop Layout.

18. On the left, you should see a new tab named Analyzer iFrame Widget. Click it.



19. We can now see the report we created embedded in the Agent Desktop.

The screenshot shows the Cisco Webex Contact Center Agent Desktop interface. The main window displays the 'Analyzer' module titled '1.3\_AAR\_RT\_AgentState\_51'. The interface includes a left sidebar with navigation icons and a summary card stating 'No tasks'. The main content area shows a table with one row of data:

LOB_Grouping51	Team Name	Agent Name	Activity State	Idle Code Name	#Total
CL_L0B1 (1)	CL2024_Data_Team51 (1)	Agent51 Lab (1)	available (1)	N/A (1)	1

Below the table, there is a summary section showing recent activity logs:

Time	Event	Details
01:16 AM	Sale	George   00:05
12:06 AM	Sale	George   18:00
04:12 PM	Sale	+322345683   00:13
04:09 PM	Sale	George   00:55

### Exercise 2.4: Supervisor Desktop Dashboard (Demo)

Supervisor Desktop (ESD) offers many new capabilities to Supervisors. In terms of reporting, the ESD Home page includes a **Dashboard** with **multiple widgets** that provide a real-time view of the teams supervised by the user while there is also a dedicated **Team Performance Details** tab which gives a comprehensive report of each supervised agent's status.

1. Using your *Supervisor* browser session, make sure you are logged in to Desktop.
2. You can immediately see the new dashboard and its widgets. Take your time to familiarize yourself with the metrics each widget provides.

The screenshot shows the Cisco Webex Contact Center Supervisor Desktop Dashboard. The main interface features several performance metrics displayed in a grid:

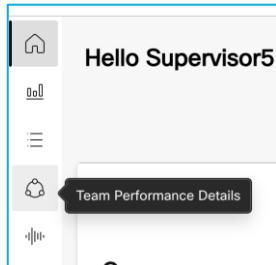
Contacts in Progress	Contacts in Queue	Longest Contact Currently in Queue	Total Contacts Handled
0	0	00:00:00	5

Below these are three performance indicators:

- Average Service Level: A gauge showing 50%.
- Average Handle Time: A gauge showing 00:00:52.
- Total Contacts Abandoned: 0.

At the bottom, there are two sections: 'Contact Details Currently in Queue' and 'Agent State Report'.

- You can also the Run-Mode filters on the top right to further slice your presented data.
- Next, from the navigation bar on the left, click on Team Performance Details.



- In this page, you can see a lot of information about each agent such as their **status**, how much **time** they are in that status, the **contact details** -if they are on an active interaction- as well as their **Site & Team**. Although not necessarily related to Reporting, under Actions column, you can see that as a supervisor you can either *Monitor* an agent call or *Change Agent State*.

Team Performance Details												
<input type="text"/> Search      Displaying 1 Agent <input type="button"/> Reset <input type="button"/> Customise <input type="button"/> Export												
Agent Name	Agent State	Agent State Duration	Phone Number	Site	Team	Contact Status	Time in Contact	Actions				
Agent51 Lab	Available	00:29:01	Desktop	CL2024_Site	CL2024_Data_Team51	-	-					

## Lab 3: APIs

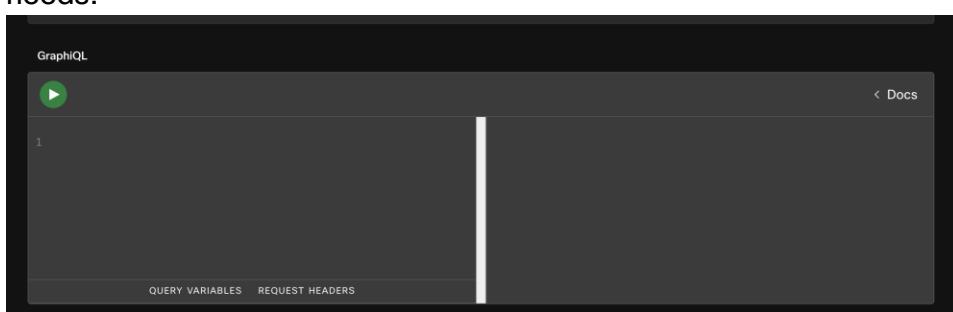
APIs in Webex Contact Center allow us to fetch information programmatically without the need of a graphical interface, creating powerful automations or full-scale applications. When it comes to Reporting data, the Webex CC API to use is the [Search API](#). In this lab exercise, you will learn how to create Search APIs based on the GraphQL standard to programmatically fetch the information stored in Analyzer repositories.

### Exercise 3.1: Build a Search API from Scratch

Although in this lab exercise, we will build a GraphQL from scratch based on a predefined set of needs, it is highly recommended that you explore the newly released [Search API Getting Started guide](#), as not only it explains all the concepts of GraphQL and how to build your queries, but it provides a wide range of example requests that you can directly copy and use it.

***The request is to fetch the number of contacts handled this Monday, segmented based on Team & Agent level and filtered to only include voice inbound calls.***

1. We will build the query directly in the [Developer Portal](#). Of course, in general, you can either create the query in your own editor first and copy the result in the Developer portal or by using an API tool (e.g. Postman).
2. Make sure you access the [Developer Portal Search API](#) page using your *Administrator* browser session.
3. Click on **Try Out -> Maximize Screen**. Feel free to resize the window to your needs.



4. Since we are interested in the **count** of a value, it means we will need to use the **aggregation GraphQL** query structure we learnt.
5. First step is to identify the data repository. Since we are interested in number of contacts, we will want to utilize the CSR repository, so we will use the task/taskDetails:

```
query {  
  taskDetails(){  
    }tasks{  
    }  
    1  query {  
    2  taskDetails(){  
    3  
    4  }tasks{  
    5  }
```

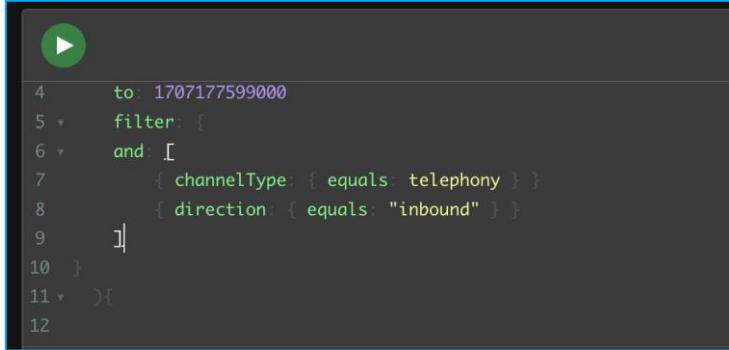
6. We then need to set the **query range**. We can use an [epoch converter](#) page to find these dates. Using the page, we see that we want to fetch data from **1707091200000** until **1707177599000** (Keep in mind time needs to be in ms).

```
from: 1707091200000  
to: 1707177599000
```

```
1  query {  
2    taskDetails(  
3      from: 1707091200000  
4      to: 1707177599000  
5    ){  
6  
7    }tasks{  
8  }
```

7. Next, we need to identify if we have any **filters**. From the request, we see that our contacts need to meet two simultaneous requirements (1) be voice calls only (2) be inbound, so we will use the **and** operator.

```
filter: {  
  and: [  
    { channelType: { equals: "telephony" } }  
    { direction: { equals: "inbound" } }  
  ]  
}
```



```

4      to: 1707177599000
5  filter: {
6    and: [
7      { channelType: { equals: "telephony" } }
8      { direction: { equals: "inbound" } }
9    ]
10  }
11  }{
12

```

- Now, we need to define what field we actually want to perform aggregation on and what kind of aggregation. We want to fetch the number of calls, so we will use the operation **COUNT**.

```

aggregations: [
  { field: "id", type: count, name: "Calls count" }
]

11  aggregations: [
12    { field: "id", type: count, name: "Calls count" }

```

- Since we are asked to segment based on Team Name & Agent Name, we do need to **Group By**, which is the next step, based on these two values. We also need to add the default **aggregation** part.

```

) { tasks {
  lastTeam {
    name
  }
  lastAgent {
    name
  }
  aggregation {
    name
    value
  }
}

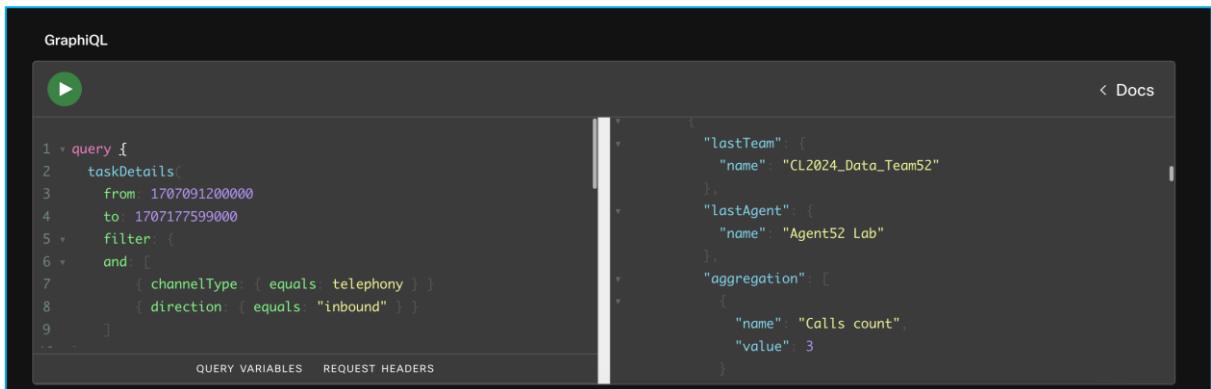
) : tasks [
  lastTeam {
    name
  }
  lastAgent {
    name
  }
  aggregation [
    name
    value
  ]

```

10. Lastly, we need to add the standard pagination query lines.

```
    } pageInfo {  
      hasNextPage  
      endCursor  
    }  
  
25 } pageInfo {  
26   hasNextPage  
27   endCursor  
28 }
```

11. We can now run the query and confirm we build it properly.



### Exercise 3.2: Extract the GraphQL Query using browser (Demo)

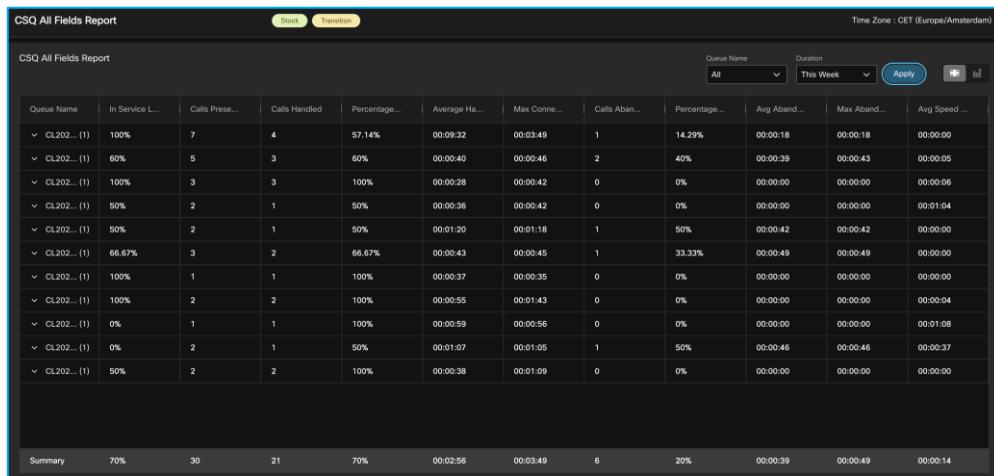
**GraphQL** is not only the protocol that the **Search API** is based on, but also the one that **Analyzer** Beta dashboards are created on. This means that we somehow should be able to extract the GraphQL query from the report itself. We can do this with the use of **Developer Tools** of any major browser.

1. Using the *Administrator* browser session, navigate to Analyzer Beta.

The screenshot shows the Analyzer Beta dashboard. At the top, a header reads "Hello Admin51 Lab, Welcome". Below the header is a search bar and a navigation bar with links for "All (75)", "Recent (3)", "Favourite (1)", and "Stock (75)". The main area is a table displaying a list of reports:

★	Name	Labels	Last Edited By	Last Edited	Created By	Actions
★	Abandoned Call Detail Ac...	Block Transition	Cisco	09 May 2023	Cisco	⋮
★	Agent Call Summary Rep...	Block Transition	Cisco	09 May 2023	Cisco	⋮
★	Agent Detail Report	Block Transition	Cisco	09 May 2023	Cisco	⋮
★	Agent Summary Report	Block Transition	Cisco	09 May 2023	Cisco	⋮
★	Application Summary Re...	Block Transition	Cisco	09 May 2023	Cisco	⋮
★	CSQ Activity Report by W...	Block Transition	Cisco	09 May 2023	Cisco	⋮

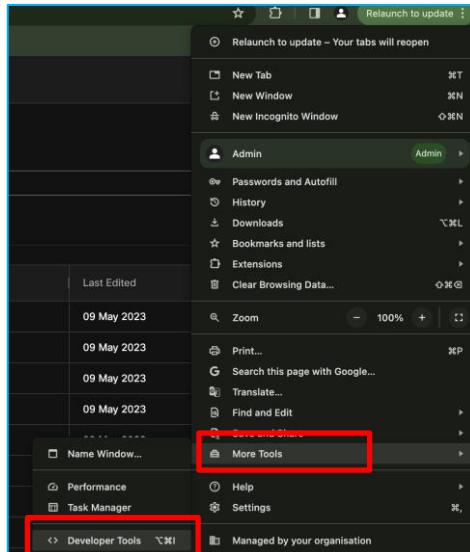
- Run a report, e.g. **CSQ All Fields Report**. Make sure to update the Run-On Filter to “This Week” to have data.



The screenshot shows a table titled "CSQ All Fields Report" with data for multiple queues. The columns include Queue Name, In Service L..., Calls Prese..., Calls Handled, Percentage..., Average Ha..., Max Connec..., Calls Aban..., Percentage..., Avg Aband..., Max Aband..., and Avg Speed ... . The data is filtered for "This Week".

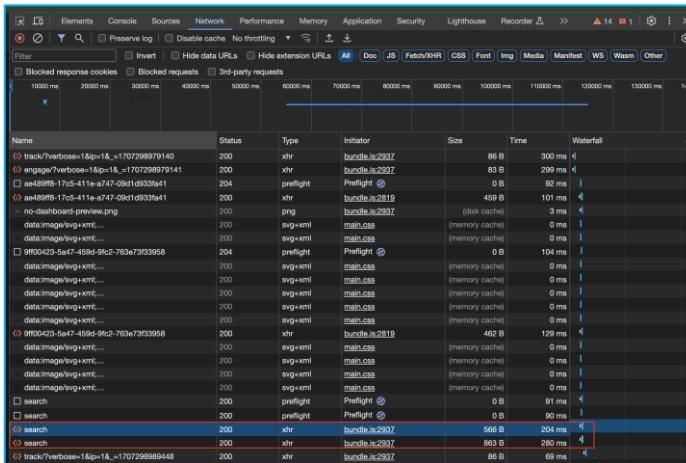
Queue Name	In Service L...	Calls Prese...	Calls Handled	Percentage...	Average Ha...	Max Connec...	Calls Aban...	Percentage...	Avg Aband...	Max Aband...	Avg Speed ...
CL202... (1)	100%	7	4	57.14%	00:09:32	00:03:49	1	14.29%	00:00:18	00:00:18	00:00:00
CL202... (1)	60%	5	3	60%	00:00:40	00:00:46	2	40%	00:00:39	00:00:43	00:00:05
CL202... (1)	100%	3	3	100%	00:00:28	00:00:42	0	0%	00:00:00	00:00:00	00:00:06
CL202... (1)	50%	2	1	50%	00:00:36	00:00:42	0	0%	00:00:00	00:00:00	00:01:04
CL202... (1)	50%	2	1	50%	00:01:20	00:01:18	1	50%	00:00:42	00:00:42	00:00:00
CL202... (1)	66.67%	3	2	66.67%	00:00:43	00:00:45	1	33.33%	00:00:49	00:00:49	00:00:00
CL202... (1)	100%	1	1	100%	00:00:37	00:00:35	0	0%	00:00:00	00:00:00	00:00:00
CL202... (1)	100%	2	2	100%	00:00:55	00:01:43	0	0%	00:00:00	00:00:00	00:00:04
CL202... (1)	0%	1	1	100%	00:00:59	00:00:56	0	0%	00:00:00	00:00:00	00:01:08
CL202... (1)	0%	2	1	50%	00:01:07	00:01:05	1	50%	00:00:46	00:00:46	00:00:37
CL202... (1)	50%	2	2	100%	00:00:38	00:01:09	0	0%	00:00:00	00:00:00	00:00:00

- Open the **Developer Tools** of Chrome.



- Make sure you are on the **Network** tab of the tools. When you are, refresh the page.

5. You will need to find the **/search** packet. Click on it to open it.



6. Go the **payload** tab and click **view source**. Make sure you view the complete request and then copy it.

7. Paste it to any editor. All keys are wrongly in quotes “”, so you need to remove them from all of them, e.g. `"lastQueue": -> lastQueue`.

8. There are many ways you can perform this step and it depends on the tools you have available.

- You can make all the changes manually.
- You can use an editor's capabilities to automatically remove them.
- You can use the Developer Portal Try Out option and get warning messages for every error you need to fix.
- You can use a ChatGPT/OpenAI powered tool to automate the process.



9. When finished, you should have a ready GraphQL query that you can use either in the Developer Portal on Search API or directly in your applications.

## Lab 4: Experience Management (EM)

Experience Management is a feature suite aimed to effortlessly survey customers for their feedback across all channels. Today, through EM, administrators can setup **Post Call IVR surveys** to capture customer satisfaction after an interaction with an agent is completed.

This lab is designed to “onboard” students to this new feature (which is currently only available in US), its configuration and its reporting capabilities. Also, due to some of the limitations that exist today in Reporting when it comes to EM, lab’s second exercise will demonstrate **another way** that Webex CC administrators can **setup post call surveys**.

For both exercises, the required settings to setup the post call survey are already configured.

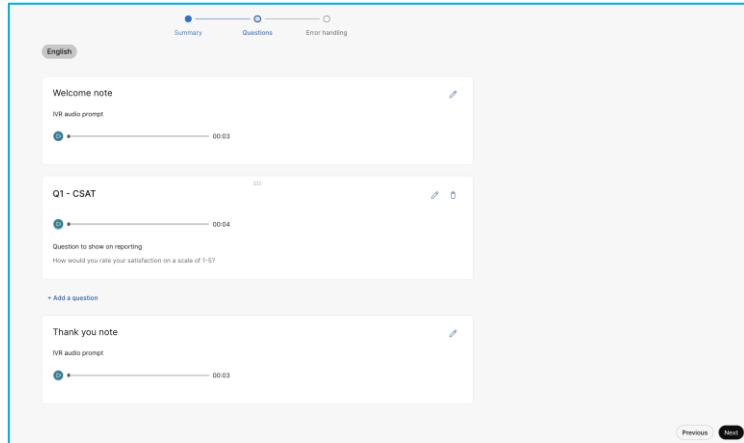
### Exercise 4.1: Explore the new Experience Management Survey Builder (Demo)

Before starting this exercise, you can optionally create new post call survey data for this exercise by calling on DN **+14402308310** and following the instructions mentioned in the “How to Make Voice Data” chapter in Introduction, by connecting with your agent and then ending the call from the Agent side to prompt the survey.

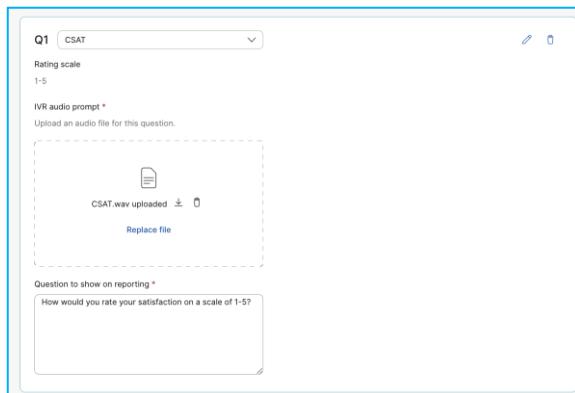
1. In order to check your existing surveys or create new ones, you need to login to Control Hub using your *Administrator* browser session.
2. Navigate to **Contact Centre -> Customer Experience -> Surveys**.

Contact Centre	Surveys				
<a href="#">Create a new survey</a>					
Overview	Name	Type	Responses	Status	Updated at
CUSTOMER EXPERIENCE	CL2024_DataLab_Survey	IVR	11	Complete	01/24/2024, 02:45 AM
Channels	WebeOneSurvey	IVR	12	Complete	12/11/2023, 07:36 PM
Queues	Post_Call_IVR	IVR		Complete	10/26/2023, 12:27 AM
Business Hours	test_digital_survey	DIGITAL		Complete	10/25/2023, 10:57 PM
Audio prompts	User001spanish	IVR	5	Complete	10/13/2023, 03:33 PM
Flows	Test_Survey	IVR		Complete	09/27/2023, 01:09 PM
Call recording schedules	Post Call IVR ID073	IVR		Incomplete	12/01/2023, 01:00 AM
<b>Surveys</b>	Test_D054	IVR		Incomplete	12/01/2023, 01:00 AM
	Post Call IVR ID097	IVR		Incomplete	12/01/2023, 01:00 AM
	Post Call IVR	IVR		Incomplete	12/01/2023, 01:00 AM
	sdfsd	IVR		Incomplete	12/01/2023, 01:00 AM
Contact centre users					

3. The survey created for this lab is **CL2024\_DataLab\_Survey**. You can click on it to check its configuration.
4. In the *Survey Edit mode*, you can see the building blocks of the survey. Specifically, for this one we have:
  - a. One Welcome note
  - b. One survey question (CSAT)
  - c. A Thank you note in the end of the survey

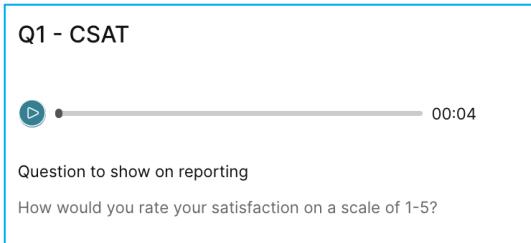


5. You can click on the pencil icon to edit the question or the trash bin icon to completely remove it. You **cannot** remove the welcome or thank you notes.
6. Click on the **Edit** option for Q1, you will see all the available options.



7. Firstly, you see this question is setup as one of the predefined options (CSAT). You can either use a predefined one (NPS, CSAT, CES) or a completely custom one (Other).
8. Since this is a CSAT question, the **Rating Scale** is not customizable and goes from 1-5
9. Next, you also see the IVR prompt uploaded for the customer to listen when in this question. You can **Download**, **Delete** or **Replace** this file.
10. Lastly, you can define how this question will be marked as in Reporting, i.e. the column name when you extract the survey's responses. This is not related to Analyzer reporting columns.

11. If you click the **Edit** button again, you see there is “media player” bar on this (as with every) question. If you click on the **Play**  icon, you can actually listen to the .wav file configured.



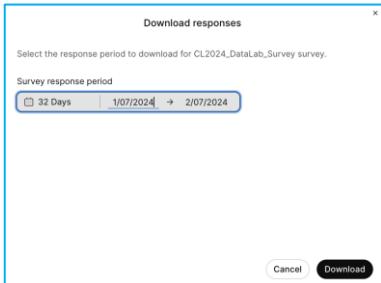
12. If you click on **Next**, you can see a few more settings, in particular those related to *Errors*. You can select what prompt will be played in case of invalid input, timeout error as well as the maximum number of allowed attempts.

13. Since we do not want to make any change on the survey at this point, you can click on **X** on the top right to close the Survey *Edit mode*.

14. Now, if you want to see the survey responses for each survey, you need to click on the **Download** button of the respective survey.



15. A pop-up will appear, asking you the time period for which you want to fetch the survey responses. Keep it as is and click on **Download**.



16. Open and review the downloaded file. You can see information such as the **Timestamp** of when the response was created, for **which survey**, the **status** (if it was completed), the actual **score** and the **Contact Session ID** associated with that response.

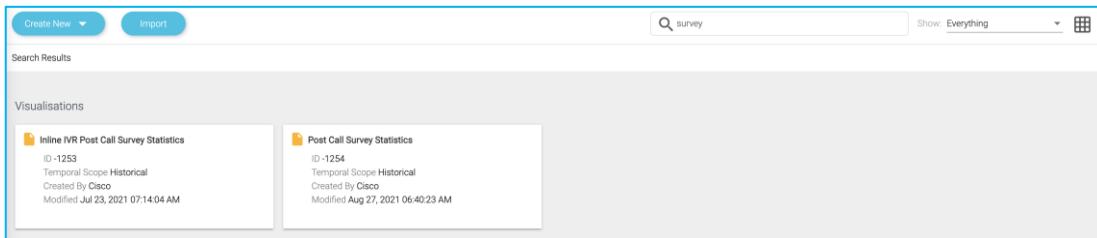
A	B	C	D	E
1 Response Date & Time	Questionnaire	Response Completion	How would you rate your satisfaction on a scale of 1-5? (Rating: Scale)	Contact_Session_ID
2 24-Jan-2024 21:41	CL2024_DataLab_Survey	Complete	5	c55e48d3-3cdc-4994-ad78-af317d243c3
3 24-Jan-2024 23:49	CL2024_DataLab_Survey	Complete	3	743c405d-fd82-49b2-97f0-19242d5ce619
4 25-Jan-2024 00:24	CL2024_DataLab_Survey	Complete	4	ed68d931-5c64-4106-8914-b1a312193c2f
5 25-Jan-2024 23:36	CL2024_DataLab_Survey	Complete	3	a5913ebf-7943-4483-9d60-0273b1258e2e
6 25-Jan-2024 23:38	CL2024_DataLab_Survey	Complete	5	8283af7b-18aa-47e5-9323-7ec29f5f0f07
7 05-Feb-2024 16:00	CL2024_DataLab_Survey	Complete	4	41ad67ea-1ac2-49b9-a879-b7fe21a998db
8 05-Feb-2024 18:59	CL2024_DataLab_Survey	Complete	3	e2ebefff-3fd1-46aa-9885-d7488f13588b
9 05-Feb-2024 19:15	CL2024_DataLab_Survey	Complete	2	77ef739b-0d14-b4-4230-7fb7b254a494
10 05-Feb-2024 19:19	CL2024_DataLab_Survey	Complete	4	03b6d1-e8e2-4532-9d47-7ca73e6d46f
11 05-Feb-2024 19:42	CL2024_DataLab_Survey	Complete	5	52f6952e-e3b7-410c-ad07-313259158797
12 05-Feb-2024 19:52	CL2024_DataLab_Survey	Complete	5	ce165bab-df7d-4cc1-ac84-a7777de8c7a4

Besides this Excel file we downloaded, does *Analyzer* offer any reporting capabilities on customer surveys today?

17. While remaining on the same *Administrator* browser session, **launch Analyzer** (if it was previously closed) and go to **Visualizations**.

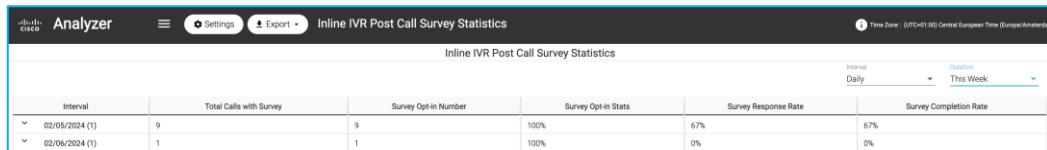
18. In the search bar, search for “**survey**”.

19. Double-click report “**Inline IVR Post Call Survey Statistics**” to run it.



20. Change the **Duration** Run-Time filter to *This Week*.

21. As you can see, there is not much information available in Analyzer today. We can only see the number of surveys opt-ins and their completion rate.



## Exercise 4.2: “Manual” Surveys using the Flow Designer

Before starting this exercise, you can optionally create new post call survey data for this exercise by calling on DN **+14402308304** and following the instructions mentioned in the **“How to Make Voice Data”** chapter in Introduction, by connecting with your agent and then ending the call from the Agent side to prompt the survey.

We will try to create a very simple report, similar to the Excel file downloaded in previous exercise:

1. Make sure you are in Analyzer page using the *Administrator* account.
2. Click on **Create new -> Visualisation** to create a new report.
3. On the left, change **Start Time** to *This week*.
4. Click on **Profile Variables**. Search for **Contact Session ID** and drag and drop it. Select the **Value of Contact Session ID** under formula and click on Save.

5. In the same way, add **CL2024\_SurveyQuestion** and **Contact Start Timestamp** (under Measures) as variables. CL2024\_SurveyQuestion is actually a Global Variable we have created, in which we store the result of the survey question.

The screenshot shows a horizontal row of three profile variables. From left to right: "Value of Contact Start Timestamp" (with a small icon), "Value of CL2024\_SurveyQuestion" (with a small icon), and "Value of Contact Start Timestamp" (with a small icon). Each variable has a "Edit" button to its right.

6. Right-click on *Contact Start Timestamp* and change its **number format** to *Date Time* as shown below.

The screenshot shows the 'Number Format' dialog for the variable 'Value of Contact Start Timestamp'. The 'Date Time' option is selected. A dropdown menu lists several date/time formats, with the value '(2012-01-25 04:35:15 AM)' highlighted at the bottom.

7. Lastly, click on **Add filter** on the left to create a report filter. We want to create a filter that only shows calls that had a survey response.
8. Create a filter for profile variable **CL2024\_SurveyQuestion** using **Regular Expression** and set it equal to “[1-5]”. This will fetch all survey responses, as long as this field got populated. Click on Save.

The screenshot shows the 'New Filter' dialog. The filter is named 'cl2024'. The 'Fields' section shows 'CL2024\_SurveyQuestion' selected. The 'Filters' section shows a single filter: 'CL2024\_SurveyQuestion' with the condition 'Is in' and the value '[1-5]'. The 'Save' button is visible at the bottom right.

9. Save the report. Make sure to select your own Student folder and give it a name in the format of 4.2\_PCS\_<StudentID>.



10. Click on Preview.

Module1		
Value of Contact Session ID	Value of CL2024_SurveyQuestion	Value of Contact Start Timestamp
b425ea12-b502-47a7-9eab-15a61f0e5a56	4	2024-02-05 8:06:49 PM
3213a1ec-0ed0-407e-9eb4-d51b1bb59f	5	2024-02-05 8:08:53 PM
d84cfcc3-b434-4827-aef6-74d6b05bc03	5	2024-02-05 8:22:38 PM
f0341804-639e-4175-ac0e-53732314c27	3	2024-02-05 8:23:39 PM
94960b70-28c9-411a-aed2-9ec8b151fe2	3	2024-02-05 8:29:02 PM
b1d94981-f65b-459e-bd32-822edf0f9e08	5	2024-02-05 8:35:45 PM
ff625784-4ed2-4535-92d0-5ffa540defae	5	2024-02-05 8:46:23 PM

Even though this is a simple report that resembles the one in exercise 4.1, the fact that this information is now available in Analyzer means we can do all kinds of complex reporting. We can add Team/Agent as variables to see which agents handled each survey or we can create *Count based* reports to extract aggregations on Survey responses and even segment is per our criteria (e.g. per Queue).

## Lab 5: Customer Journey Data Services (CJDS)

This lab is designed to teach you the basic concepts and functionalities of Customer Journey Data Services (JDS), both in regard to the JDS Widget that can be added in Agent Desktop as well as the API capabilities of the solution, since JDS remains an API-first solution today. You will learn how to use the JDS widget, how to add new customers (identities) to your JDS database as well as how to use the JDS APIs to extract information and act upon it. Optionally, you can follow the step-by-step configuration of JDS Widget in the Desktop Layout.

### Exercise 5.1: Familiarize yourself with JDS Desktop Widget

JDS Desktop Widget provides agents with an interface that shows the end customer's complete journey with the agent's business, aggregated metrics of their experience as well as the customer's unique identifiers (aliases).

**Note:** The current desktop layout of all agents already includes the JDS Widget. If you want to configure the widget on your own, you can follow the steps on Exercise 5.2.

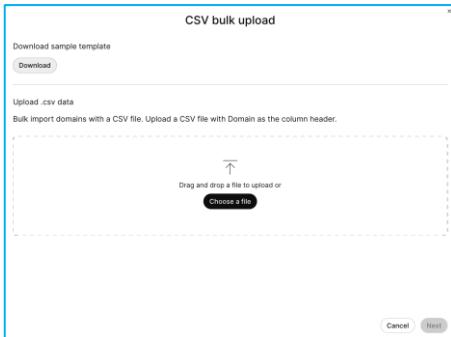
1. Before checking the JDS Widget in Desktop, we need to add a new identity for your student in order to be able to be identified by the solution.
2. In your **Administrator** browser session, navigate to [Control Hub](#). Re-enter your administrator credentials, if prompted.
3. Navigate to **Customer Journey Data** under Monitoring.

The screenshot shows the Cisco Control Hub dashboard. On the left, there is a sidebar with navigation links: Overview, Alerts centre, Metrics, Analytics, Troubleshooting, Reports, Customer Journey Data (which is selected and highlighted in blue), Management, Users, Groups, Locations, Workspaces, Devices, and Apps. The main content area has a title "Customer Journey Data" with sub-links "Journey projects" and "Settings". Below this is a section titled "Introducing Customer Journey Data" with a brief description and a "Create a journey project" button. The "Journey projects" section lists several projects with their IDs, names, descriptions, and status indicators. One project, "CL2024\_Data", is highlighted with a red border.

4. A project (named **CL2024\_Data**) has already been created for the purposes of this lab. Click on it to check its configuration.
5. Click on the **Identities** tab. Identities are all the end-customer profiles created to be tracked by this specific JDS project.

The screenshot shows the "Identities" tab for the "CL2024\_Data" project. At the top, it displays the project details: Project ID: 05e6d1f12a2e0449eb02cfb, and a note: "JDS for Data LT for CLEMEA2024". Below this is a search bar and a table with columns: First Name, Last Name, Phone Number, Email Address, and Customer ID. The table contains 32 records of customer data, each with a small preview icon and a "Details" link.

6. You need to add your own profile, so click on **Add identities**.
7. You can only add identities in the UI by uploading a CSV file. To check the expected format of the CSV, click on **Download** to download the sample template.



8. Open the file. You see the expected format is the following:  
*Id,First Name,Last Name,Email Addresses,Phone Numbers,Customer Ids,Social Ids.*
9. Enter a row with your details keeping in mind the following:
  - **Id** field should be left empty.
  - If you want to add multiple **email addresses**, **phone numbers** or **customer IDs**, you need to use the pipe “|” delimiter between them. For example, try to add your phone number both with and without a plus sign.
  - **Customer ID** is a unique ID given by the JDS administrator to each customer. Make sure to use a large number to avoid conflicts with existing customer IDs.

10. Based on the above, your new line should look similar to this:

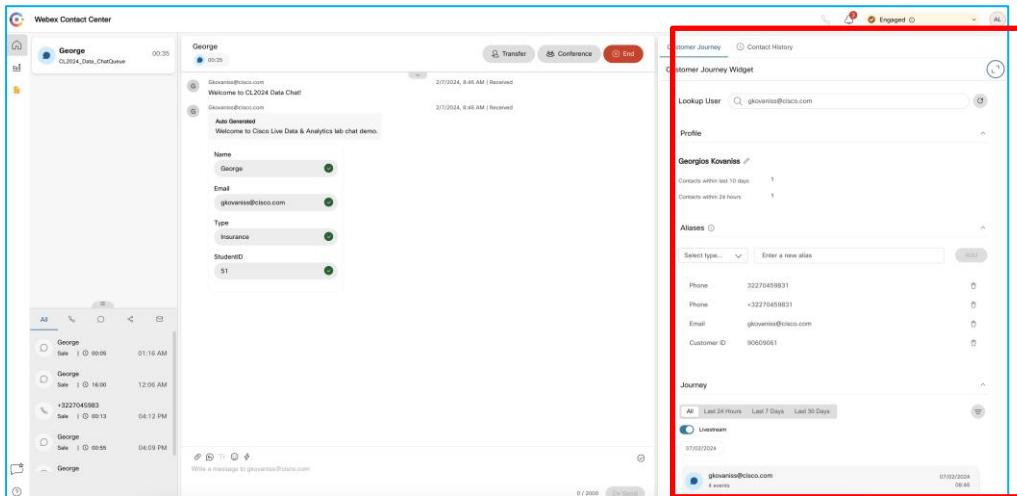
	A
1	Id,First Name,Last Name,Email Addresses,Phone Numbers,Customer Ids
2	,Georgios,Kovaniss,gkovaniss@cisco.com,+3227045983 3227045983,90609061
3	

11. **Save** the file.
12. Back in Control Hub, click on **Choose a file** and select the file you created. Click on **Next**.
13. If all is good, you will see the Import Status as **Completed**. In case of errors, you will get the message *Completed with Errors* and the option to download the error file to understand what you need to fix.
14. Click on **Close**. You should now be able to see your created identity in the list.
15. Now, in your Agent browser session, set your agent to available. Agents need to be in an active interaction to see the JDS widget.

16. The easiest way to create an interaction would be by opening a new chat from <https://roomy-flowery-sunday.glitch.me/>, following the steps in the Introduction.

- Make sure the **email you provide in the Chat form matches** the one you entered in your identity.

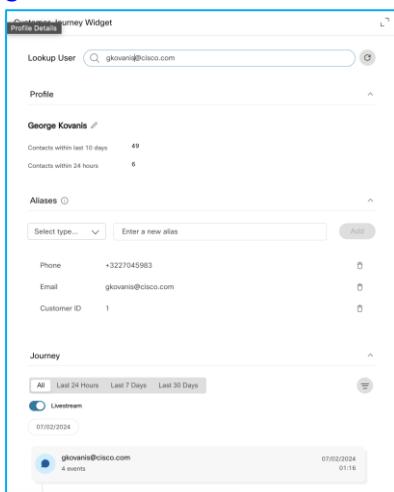
17. Accept the chat interaction. You should now see the JDS widget loaded and presenting the customer's information.



18. You see that you can dynamically update the person's profile, e.g. edit the Name or add/remove aliases. Try to remove one of the phone aliases by clicking on the trash bin.



19. Besides the current customer's information, you can use the **Lookup user** search bar to search for any person in the JDS database. Try to search for [gkovanis@cisco.com](mailto:gkovanis@cisco.com) and see if you get any results.



20. You can end the chat now. If you go back to Administrator JDS page and refresh it, you should see your aliases updated and the one phone alias removed.

## Exercise 5.2: Configure JDS Widget in Desktop Layout (Bonus)

The process to add the JDS Widget is also thoroughly explained in the [webex help center page](#), including this [video walkthrough](#).

1. Download the Desktop Layout JSON file on the CJDS [GitHub](#) page by clicking on the download icon.

A screenshot of a GitHub repository page for 'CiscoDevNet/cjaas-widgets'. The repository is public. The 'Code' tab is selected, showing the file 'JDSDesktopLayout10.json'. A blue arrow points to the 'Download' button at the top right of the code viewer. The file content shows a JSON object with properties like 'agent', 'version', 'appTitle', 'logo', and 'eternalNavigateOnCurrentTask': false.

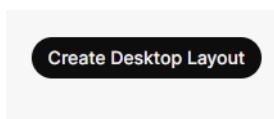
```
1  {
2    "agent": {
3      "version": "0.1.0",
4      "appTitle": "Webex Contact Center",
5      "logo": "",
6      "eternalNavigateOnCurrentTask": false
7    }
8  }
```

2. Sign in to Control Hub with your administrator credentials and go to

- Contact Center > Desktop Layouts



3. Create a new Layout.



4. Provide the Layout name as **CL2024\_DataLab/DesktopLayout\_<ID>** and assign your agent team.

A screenshot of the 'Layout Details' configuration form. It includes fields for 'Name \*' (with a placeholder 'Type here'), 'Description' (placeholder 'Type here'), 'Teams' (placeholder 'Type here' with a dropdown arrow), '0 Teams' (button), and 'Clear All' (button).

**Note:** Before mapping your team to the new layout, ensure you remove your team from the previous layout i.e. **CL2024\_DataLab/DesktopLayout**. Otherwise, the team name will not be visible in the dropdown.

**CL2024\_DataLab/DesktopLayout**  
ID: eae472d9-bbbc-429e-81bb-82c77ba6083d • Last Modified: May 27, 2024 09:38 AM

The screenshot shows the 'Layout Details' page for 'CL2024\_DataLab/DesktopLayout'. It includes fields for 'Name' (CL2024\_DataLab/DesktopLayout), 'Description' (Type here), and a 'Teams' section. The 'Teams' section lists several teams: CL2024\_Data\_Team62, CL2024\_Data\_Team61, CL2024\_Data\_Team57 (highlighted with a red box and a red arrow), CL2024\_Data\_Team58, and CL2024\_Data\_Team60. Below the list are buttons for '6 Teams' and 'Clear All'.

5. Upload the Desktop Layout JSON file that you downloaded in step 1.

The screenshot shows the 'File is ready for import' section of the desktop layout configuration. It includes a 'Download default desktop layout' button, a file upload area with 'Default Desktop Layout.json uploaded' and a trash icon, and a 'Replace file' button. A note at the bottom states: 'This is an unmodified Desktop Layout. Therefore, new layout features appear on the Desktop upon reload or when the user signs into the Desktop next time'.

6. Click Save.

7. Refresh the Agent Desktop and create a new interaction (e.g. new chat).

8. JDS Widget added to this new layout should be visible in the Desktop.

## Exercise 5.3: Explore the CJDS APIs (Demo)

As JDS is an API-first solution, there is a very wide [range of APIs](#) available. To make the introduction to them easier, Cisco has created a [JDS API Collection](#) that you can download and import in your API tool (e.g. Postman) and start playing around, in conjunction with various use cases. In this exercise, we will perform a few usual API operations that performed in JDS. For simplicity, [we will again use the Developer portal to directly run our APIs.](#)

1. Using your *Administrator* browser session, navigate to Developer Portal, specifically to the [Journey API](#) page.
2. Firstly, let's try to *add one more alias* to the user we created in previous exercise.
3. To do so, first we would need to get our Person ID, as it is an input requirement for the API.
4. We can find the PersonID either from the Control Hub (the automatically generated ID column) or we can use the **“Search For An Identity Via Aliases”** API. Navigate to that API's [page](#).
5. On the top-right, click on **Try Out**.
6. We can see that we need to fill in some parameters to be able to run this API.
  - a. **WorkspaceID** we have retrieved in the previous exercise, it is 65b1a5f13b2db949b6bd2cfb.
  - b. For **aliases**, you can use any of the aliases you added to your user, let's use the e-mail for example.

7. Fill these parameters and click on Run. The response should be like below:

The screenshot shows a request configuration and its corresponding response. In the 'Request' section, under 'Header', 'Authorization' is set to 'Use personal access token' with a hidden token value. Under 'Parameters', 'workspaceld' is set to '65c3343ced2a/b3b2ee1c401'. A green 'Run' button is visible. Below, the '200 Response' section displays a JSON object with 'meta' and 'data' fields. The 'id' field of the first data item is highlighted with a red box.

```
{
  "meta": {
    "organizationId": "e56f00d4-98d8-4b62-a165-d05a41243d98"
  },
  "data": [
    {
      "id": "65c3343ced2a/b3b2ee1c401",
      "firstName": "Georgios",
      "lastName": "Kovaniss",
      "phone": [
        "32270459831"
      ],
    }
  ]
}
```

8. As you can see, response has a lot of information. For now, we are interested in the **id** only.
9. We can now go to the “**Add one/more Identities to a Person**” API [page](#).
10. Click on **Try Out**. In the parameters, add the WorkspacelD and personId we already have.

11. In the **Request Body**, delete all the other parameters and only keep email (as per image). Add another email address to be linked with that person and click on Run. Output should be similar to below:

The screenshot shows a REST API testing interface. At the top, there are buttons for "Sample Code" and "Try Out". Below that, the "Request" section displays two parameters: "personId" (string value: 65c3343ced2a7b3b2ee1c401) and "organizationId" (string value: 1eb65fdf-9643-417f-9974-ad72cae0e10f). The "Request Body" section contains the following JSON:

```
{  
  "email": [  
    "gkovaniss@cisco.com",  
    "secondemail@cisco.com"  
  ]  
}
```

A red box highlights this JSON body. Below it is a "Run" button. The "200 Response" section shows the API's output:

```
..  
"data": {  
  "id": "65c3343ced2a7b3b2ee1c401",  
  "firstName": "Georgios",  
  "lastName": "Kovaniss",  
  "phone": [  
    "32270459831"  
  ],  
  "email": [  
    "gkovaniss@cisco.com",  
    "secondemail@cisco.com"  
  ],  
  "temporaryId": []  
}
```

12. If you go back to the **Customer Journey Data** page in Control Hub, you should see the second email address added.

13. Lastly, let's try to **create a new event** via API. So far, we have only seen the default generated events (call, chat) but we can create any kind of Event and add it to the customer's journey (e.g. customer visited our webpage).

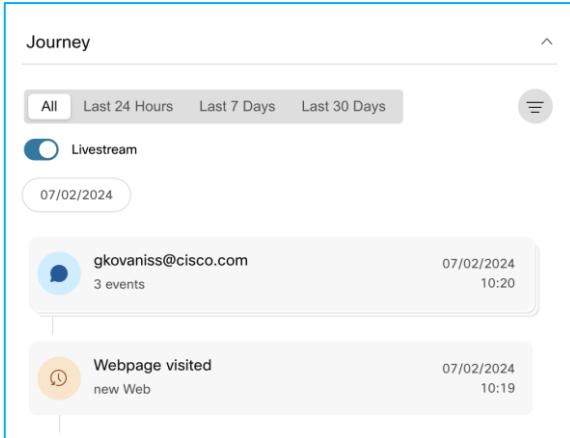
14. Navigate to the “Journey Event Posting” API [page](#). Click on **Try Out** and add the Workspaceld.

15. Add the below **Request Body** and click on **Run**:

```
{  
  "id": "9ab65fdf-9643-417f-9974-ad72cae0e10f",  
  "specversion": "1.0",  
  "type": "task:new",  
  "source": "web",  
  "identity": "email",  
  "identitytype": "gkovaniss@cisco.com",  
  "datacontenttype": "application/json",  
  "data": {  
    "origin": "Webpage visited",  
    "topic": "Support page access",  
    "channelType": "Web"  
  }  
}
```

16. You should receive a **200 OK**. Now, go back to your Agent Session and make a new contact from this identity to load the JDS widget.

17. If you check the Journey now, you should also see the event we created above:



The screenshot shows the Cisco JDS Journey interface. At the top, there is a header labeled "Journey" with a dropdown arrow icon. Below the header are three time filter buttons: "All" (selected), "Last 24 Hours", "Last 7 Days", and "Last 30 Days". There is also a "Livestream" toggle switch, which is turned off. A date selector shows "07/02/2024". The main area displays two events for a customer identified by the email "gkovaniss@cisco.com". The first event is "3 events" on "07/02/2024" at "10:20". The second event is "Webpage visited new Web" on "07/02/2024" at "10:19".

And this is where the true “power” of JDS API lies. We can customize this Event API as much as we want and track any kind of engagement we had with this customer and present it to the agent.

## Lab 6: Configuration & Usage Data

This lab is designed to quickly familiarize you with the new License Usage cards that provide an accurate tracking of the tenant's Agent & IVR license consumption. Furthermore, you will learn how to extract the configuration objects (and specifically the created Teams) of your Contact Center in two different ways, via the bulk export functionality in Control Hub as well as via API.

### Exercise 6.1: License Usage Cards (Demo)

**Note: As the lab tenant is using trial licenses, the usage card in this lab will not display any data. Steps are provided as guidance for production tenants.**

1. Using the **Administrator** profile, navigate to the Control Hub.
2. If not already, navigate to the **Contact Centre -> Overview** tab from the navigation bar on the left.

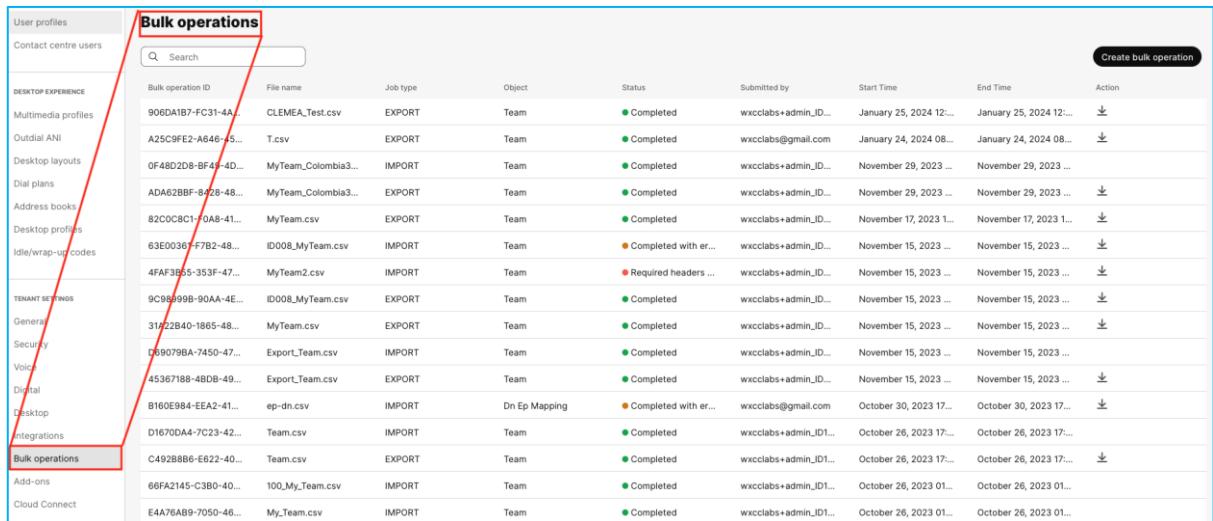
The screenshot shows the 'Contact centre overview' page in the Cisco Webex Control Hub. On the left, there's a navigation sidebar with sections like 'Main menu', 'Contact Centre' (which is selected and highlighted in grey), 'Customer Experience' (Channels, Queues, Business Hours), 'Audio prompts', 'Flows', 'Call recording schedules', and 'Surveys'. Below that is 'User Management' (Sites, Skill definitions, Skill profiles, Teams, User profiles, Contact centre users). The main content area has a title 'Contact centre overview'. Underneath it, a section titled 'Current cycle agent licence usage' is shown, with a note 'Billing cycle: n/a' and a small flower icon. A red box surrounds this entire section. Below it is a 'No licence data' message with a note 'Please contact the partner for more licence information.' To the right of this is a dropdown menu with 'Agent licence' and 'IVR port licence' options, also highlighted with a red box. Further right are 'Helpful resources' (links to 'What's new in Webex Contact Centre?', 'Agent desktop user guide', etc.) and 'Quick Links' (links to 'Contact Centre Suite' and various management tools like Desktop, Analyser, Create new flow, etc.).

3. From the drop-down menu inside the card, you can switch between **Agent license** usage and **IVR port license** usage.

## Exercise 6.2: Import/Export Configuration data from Control Hub (Bonus)

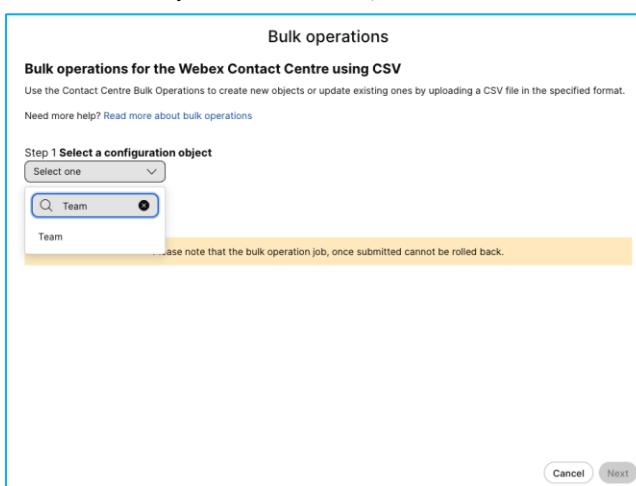
As a tenant administrator, I will often need to either get an overview of all my configured objects (export) or add/edit multiple configuration objects at the same time (import). Webex Contact Center allows to achieve this functionality with the use of **Bulk Operations**.

1. Using the *Administrator* profile, while in Control Hub, navigate to **Contact Center** -> **Bulk Operations** under *Tenant Settings*.



User profiles	Bulk operations								
Contact centre users	Search	File name	Job type	Object	Status	Submitted by	Start Time	End Time	Action
DESKTOP EXPERIENCE									
Multimedia profiles	906DA1B7-FC31-4A...	CLEMEA_Test.csv	EXPORT	Team	● Completed	wxcclabs+admin_ID...	January 25, 2024 12...	January 25, 2024 12...	
Outdial ANI	A25C9FE2-A646-4D...	T.csv	EXPORT	Team	● Completed	wxcclabs@gmail.com	January 24, 2024 08...	January 24, 2024 08...	
Desktop layouts	0F48D2D8-BF41-4D...	MyTeam_Colombia3...	IMPORT	Team	● Completed	wxcclabs+admin_ID...	November 29, 2023 ...	November 29, 2023 ...	
Dial plans	ADA62BBF-8428-4B...	MyTeam_Colombia3...	EXPORT	Team	● Completed	wxcclabs+admin_ID...	November 29, 2023 ...	November 29, 2023 ...	
Address books	82C00C8C1-0A8-41...	MyTeam.csv	EXPORT	Team	● Completed	wxcclabs+admin_ID...	November 17, 2023 1...	November 17, 2023 1...	
Desktop profiles	63E0036-F7B2-4B...	ID008_MyTeam.csv	IMPORT	Team	● Completed with er...	wxcclabs+admin_ID...	November 15, 2023 ...	November 15, 2023 ...	
Idle/wrap-up codes	4FAF3B5-353F-47...	MyTeam2.csv	IMPORT	Team	● Required headers ...	wxcclabs+admin_ID...	November 15, 2023 ...	November 15, 2023 ...	
	9C984998-90AA-4E...	ID008_MyTeam.csv	EXPORT	Team	● Completed	wxcclabs+admin_ID...	November 15, 2023 ...	November 15, 2023 ...	
TENANT SETTINGS	31A22B40-1865-48...	MyTeam.csv	EXPORT	Team	● Completed	wxcclabs+admin_ID...	November 15, 2023 ...	November 15, 2023 ...	
General	D890798A-7450-47...	Export_Team.csv	IMPORT	Team	● Completed	wxcclabs+admin_ID...	November 15, 2023 ...	November 15, 2023 ...	
Security	45677188-4BDB-49...	Export_Team.csv	EXPORT	Team	● Completed	wxcclabs+admin_ID...	November 15, 2023 ...	November 15, 2023 ...	
Voice	B160E984-EEA2-41...	ep-dn.csv	IMPORT	Dn Ep Mapping	● Completed with er...	wxcclabs@gmail.com	October 30, 2023 17...	October 30, 2023 17...	
Digital	D1670DA4-7C23-42...	Team.csv	IMPORT	Team	● Completed	wxcclabs+admin_ID1...	October 26, 2023 17...	October 26, 2023 17...	
Desktop	C492BBB-E622-40...	Team.csv	EXPORT	Team	● Completed	wxcclabs+admin_ID1...	October 26, 2023 17...	October 26, 2023 17...	
Integrations	66FA2145-C3B0-40...	100_My_Team.csv	IMPORT	Team	● Completed	wxcclabs+admin_ID1...	October 26, 2023 01...	October 26, 2023 01...	
Bulk operations	E4A76AB9-7050-46...	My_Team.csv	IMPORT	Team	● Completed	wxcclabs+admin_ID1...	October 26, 2023 01...	October 26, 2023 01...	
Add-ons									
Cloud Connect									

2. In that tab, you can already see the complete history of previous import/export bulk requests including the job type, the requested object, the user who requested and when the task was completed. Also, you can click on the download icon under the Action column to download the past bulk operations.
3. Click on **Create Bulk operation** button.
4. From the drop-down menu, select *Team* as the configuration object.



- As soon as you select an object, Step 2 appears to let you select to either Export existing or Import additional configuration. In our scenario, we want to export the objects, thus enter a name under **Enter file name** (e.g. *CLUS24\_Team\_Export<studentID>*), replacing <studentID> with your ID and click on **Next**.

Bulk Operations

**Bulk Operations for Webex Contact Center using CSV**

Use the Contact Center Bulk Operations to create new objects or update existing ones by uploading a CSV file in the specified format.

Need more help? [Read more about Bulk Operations](#)

**Step 1 Select a configuration object**

Team

**Step 2 Choose a bulk operation**

Export the current objects or download the sample CSV file. To create or update objects, upload a CSV file in the desired format.

Existing Team in the organization

Enter File Name \*

CLUS24\_Team\_Export

Import

Drag and drop your CSV file here or [click to browse](#)

[Download a Sample Template](#)

Please note that the Bulk Operation job, once submitted can't be rolled back.

[Cancel](#) [Next](#)

- Export job will start to run. You can monitor its progress, or you can close the pop-up and let it run in the background and download it later when it is completed. In our case, due to small amount of configuration, job will complete quickly so wait until it is done. When it has completed, click on **Download export file** to download the Teams objects.

**Bulk operations**

**Export Status**

Export object: Team

Started at 01:44 pm 25 Jan 2024 by wxcclabs+admin\_ID051@gmail.com

Ended at 01:44 pm 25 Jan 2024

Status: ● Completed

[Download export file](#)

- Alternative, you can click on **Close**, find the row corresponding to your request and click on  $\downarrow$  to download the same file.

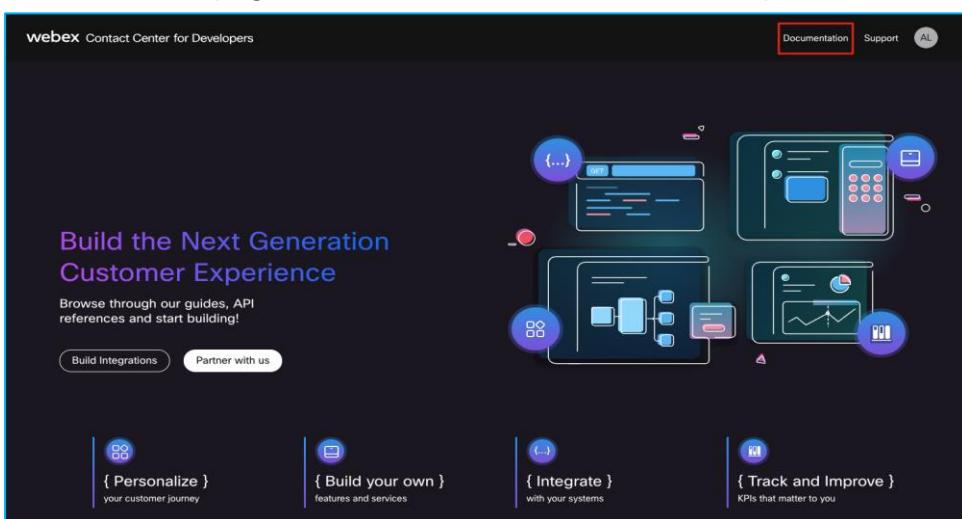
Bulk operation ID	File name	Job type	Object	Status	Submitted by	Start Time	End Time	Action
63699D14-EA0D-4F...	CLEMEA24_Team_Ex...	EXPORT	Team	● Completed	wxcclabs+admin_ID...	January 25, 2024 13:...	January 25, 2024 13:...	$\downarrow$

- Open the downloaded CSV and review the content. Try to find your own Team and review its configuration.

## Exercise 6.3: Use APIs to Export Configuration (Bonus)

Besides Reporting (Search API) or JDS that we already saw, we can use Webex CC APIs to fetch, create, edit or delete configuration objects as well (e.g. Entry Points, Queues, Teams etc.). In this lab, we are going to use the API Developer Portal to directly run our APIs, but as with every API, we can achieve the same by using Postman or another similar tool.

1. Navigate to the [Developer Portal](#). If you are not logged in, click on **Sign In** on top-right and login with your **Administrator** account.
2. From the home page, click on **Documentation** on the top bar.



3. On the navigation bar on the left, search for *Team*. Click on it, then click on **List Teams**.

This screenshot shows the 'Team' documentation page. On the left, there's a sidebar with a menu: Overrides, Progressive Dialer, Queues, Search, Site, Skill, Skill Profile, Subscriptions, Tasks, Team (which is selected and highlighted with a red box), User Profiles, Users, Work Types, GUIDES, Contact Control APIs, Desktop, Digital Transcript Json Details, and Getting Started With Search ... . The main content area has a title 'Team' and a paragraph explaining what a Team resource is. It then lists three API endpoints: 'List Teams' (GET /organization/{orgId}/team), 'Create A Team' (POST /organization/{orgId}/team), and 'Get A Team By ID' (GET /organization/{orgId}/team/{id}). Each endpoint includes a brief description and a link to the detailed API reference. To the right of the main content, there's a 'Contents' sidebar with links to REST APIs, List Teams, Create A Team, Get A Team By ID, Update A Team By ID, Delete A Team By ID, and Bulk Export Teams.

- Click on **Try Out** on the top-right to directly test the API from the browser.
- Click on **Run** to run the API query with no filters. You should see a “200 Response” below indicating the API ran successfully.

```

{
  "id": "0807f5da-cb12-4594-9afc-1b95f323d040",
  "name": "CL2024_Data_Team62",
  "teamType": "AGENT",
  "teamStatus": "IN_SERVICE",
  "active": true,
  "siteId": "f3a1d0b2-0dc4-445f-8ea8-f57ee3108057",
  "desktopLayoutId": "eae472d9-bbbc-429e-81bb-82c77ba6083d",
  "siteName": "CL2024_Site",
  "skillProfileId": "397c1c42-d1c3-4e82-871a-fb898cf0d06d",
  "multiMediaProfileId": "1eedf78d-1350-4d8d-8415-4f441c38ca14",
  "userIds": [
    "5bd164c9-1984-47b0-9d12-de3c1e3b9fdc",
    "19a18049-47dc-44cf-8867-8b7cbb3b5472"
  ],
  "description": ""
}

```

- As the response format is not easy to read or search, click on copy icon to copy it to clipboard.
- Open Notepad++ application and paste the text there. Search for your Team, the information should have a format similar to below:

```
[
  {
    "id": "0807f5da-cb12-4594-9afc-1b95f323d040",
    "name": "CL2024_Data_Team62",
    "teamType": "AGENT",
    "teamStatus": "IN_SERVICE",
    "active": true,
    "siteId": "f3a1d0b2-0dc4-445f-8ea8-f57ee3108057",
    "desktopLayoutId": "eae472d9-bbbc-429e-81bb-82c77ba6083d",
    "siteName": "CL2024_Site",
    "skillProfileId": "397c1c42-d1c3-4e82-871a-fb898cf0d06d",
    "multiMediaProfileId": "1eedf78d-1350-4d8d-8415-4f441c38ca14",
    "userIds": [
      "5bd164c9-1984-47b0-9d12-de3c1e3b9fdc",
      "19a18049-47dc-44cf-8867-8b7cbb3b5472"
    ],
    "description": ""
  }
]
```

- As you can see, when using API to retrieve information, most of the data retrieved will contain the ID and not necessarily a user-friendly name of the contained objects (e.g. `deskstopLayoutId`, `skillProfileId`). This is why API is only preferred as a part of a broader programming solution, where the developer can design a 1:1 mapping between the object ID and name.
- However, you can still use the Developer Portal to see in which object each ID refers to. For example, let's say we want to see in which Skill Profile the `skillProfileId` is mapped. From the navigation bar on the left, click on **Skill Profile** and then on **Get A Skill Profile By ID**.

The screenshot shows the 'Desktop Layout' section of the API reference. On the left, there is a sidebar with various API endpoints like 'Changelog', 'Address Book', etc. The 'Desktop Layout' endpoint is highlighted with a red box. The main content area shows the 'Create Desktop Layout' endpoint (POST /organization/{orgid}/desktop-layout) and the 'Get Desktop Layout By ID' endpoint (GET /organization/{orgid}/desktop-layout/{id}). The 'Get Desktop Layout By ID' endpoint is also highlighted with a red box. To the right, there is a 'Contents' sidebar with links to 'REST APIs' and specific methods like 'Create Desktop Layout', 'Get Desktop Layout By ID', etc.

- Click on **Try Out**. From the extracted Team, copy the `desktopLayoutId` and paste it in the **id** box under **Parameters**. Click on **Run**.

The screenshot shows the 'Try Out' interface for the 'Get Desktop Layout By ID' endpoint. It has tabs for 'Sample Code' and 'Try Out'. Under 'Request', there is a note about a hidden personal access token. In the 'Parameters' section, the 'id' parameter is highlighted with a red box and contains the value '397c1c42-d1c3-4e82-871a-fb898cf0d06d'. Below, there is a 'Run' button and a 'Response' tab showing the JSON response. The response includes fields like 'id', 'name' (highlighted with a red box), 'description', 'activeSkills', and 'activeEnumSkills'.

- Find the "name" variable of the response to see what was the Skill Profile of your team.

You have successfully completed all the tasks of the lab, **congratulations!**

If you were not able to complete any of the exercises in time or if you want to use your student user to further explore, **access to the tenant** with your student user will be available until February 23<sup>rd</sup>.

Lastly, please remember to fill out the **session survey**!

# Thank You!!!