

IBM Cognos Analytics  
Version 12.0.x

*Getting Started User Guide*





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# Chapter 1. Cognos Analytics offerings

IBM® Cognos® Analytics is available through multiple offerings. Each offering might support different components, features, data sources, documentation, and other aspects of the product.

The following Cognos Analytics offerings are available in version 12.0 and later.

## IBM Cognos Analytics

Deployment type: Software (stand-alone)

Fully managed by customers; deployed as stand-alone software; can be hosted on premises or on IaaS (any cloud).

## Cognos Analytics on Cloud Pak for Data

Deployment type: Cloud Pak for Data cartridge

Fully managed by customers; deployed as a Cloud Pak for Data cartridge (catalog service); can be hosted on premises or on IaaS (any cloud).

## Cognos Analytics on Cloud Hosted

Deployment type: SaaS (single-tenant)

Managed by IBM, and hosted on IBM Cloud infrastructure.

The IBM Cognos Analytics team works with the customer on configuration and onboarding.

The Cognos Analytics version is updated in consultation with the customer.

For more information, see the service description at <https://ibm.biz/caoc-hosted-sd>.

## Cognos Analytics on Cloud On-Demand

Deployment type: SaaS (multitenant)

Managed by IBM, and hosted on IBM Cloud infrastructure.

Available from IBM Cloud marketplace through self-service.

Cognos Analytics is upgraded automatically and maintained at the latest version.

For more information, see the service description at <https://ibm.biz/caoc-odm-sd>.

**Note:** This offering is available as a 30-day free trial that includes 5 Premium users. For more information, see <https://ibm.biz/caoc-trial-sd>.

The following sections provide information about functionality that is supported by different offerings of Cognos Analytics.

## Key capabilities

Functionality	Cognos Analytics on-premises software	Cognos Analytics cartridge for IBM Cloud Pak for Data	Cognos Analytics on Cloud Hosted	Cognos Analytics on Cloud On-Demand
Reporting	Yes	Yes	Yes	Yes - Premium (1)
Dashboarding	Yes	Yes	Yes	Yes
Stories	Yes	Yes	Yes	Yes
Exploration	Yes	Yes	Yes	Yes - Premium (1)
AI Assistant	Yes	Yes	Yes	Yes
Cognos Portal	Yes	Yes	Yes	No
Cognos Admin Portal	Yes	Yes	Yes	No (2)

1. For more information about Cognos Analytics on Cloud on-Demand user types, see "On-Demand subscription roles" in the *IBM Cognos Analytics on Cloud on-Demand* documentation.
2. For more information about securing content in Cognos Analytics on Cloud on-Demand, see "Securing your content (for On-Demand License users)" in the *IBM Cognos Analytics on Cloud on-Demand* documentation.

## User capabilities

Functionality	Cognos Analytics on-premises software	Cognos Analytics cartridge for IBM Cloud Pak for Data	Cognos Analytics on Cloud Hosted	Cognos Analytics on Cloud On-Demand
Create or edit reports	Yes	Yes	Yes	Yes - Premium
Run reports with prompts	Yes	Yes	Yes	Yes - Premium
Schedule reports	Yes	Yes	Yes	Yes - Premium (1)
Save report output in Cognos Analytics	Yes	Yes	Yes	Yes - Premium
Save report output to cloud	Yes	Yes	Yes	Yes - Premium
Save report output to file system	Yes	Yes (5)	No	No
Set report bursting	Yes	Yes	Yes	No
Receive burst reports	Yes	Yes	Yes	No
View saved report output (2)	Yes	Yes	Yes	Yes
Receive reports by email	Yes	Yes	Yes	Yes
View or interact with active reports	Yes	Yes	Yes	Yes
Create scheduled jobs	Yes	Yes	Yes	No
Import or export Cognos deployment	Yes	Yes	Yes	No (3)
Upload data files	Yes	Yes	Yes	Yes
Upload fonts	Yes	No	Yes	No
Upload images	Yes	Yes	Yes	No
Customization (themes, extensions, palettes)	Yes	Yes	Yes	Yes - Premium (4)
Customization (roles)	Yes	Yes	Yes	Yes - Premium ("6" on page 3)
Customization (user profiles)	Yes	Yes	Yes	No
Create an embedded dashboard (no password)	Yes	No	No (7)	No

1. Only daily, weekly, and monthly schedule frequency is allowed.
2. Viewing the saved report output is not the same as running a report. Standard users can view a report output file (html, csv, and so on) if it was saved by a Premium user in **Team content**.

3. Customers can do a one-time migration from the on-premises or on-cloud hosted offering to the On-Demand offering. For more information, see "Migrating to Cognos Analytics on Demand" in the *Cognos Analytics On Cloud On-Demand* documentation.

**Notes:**

- Only full content store deployments are supported with this one-time deployment.
  - Content exports are not supported.
4. Only Premium users can use this functionality. However, Standard users can use custom visualizations that were published by Premium users.
5. This feature is available if saving output to AWS S3 bucket.
6. Customization can be applied only on a Premium role. The standard role cannot be customized.
7. Can be enabled for users on the capacity model via parameterized URLs. For more information, see <https://community.ibm.com/community/user/businessanalytics/blogs/katie-mccray/2020/09/14/embed-cognos-dashboard-url>.

## Administration capabilities

Functionality	Cognos Analytics on-premises software	Cognos Analytics cartridge for IBM Cloud Pak for Data	Cognos Analytics on Cloud Hosted	Cognos Analytics on Cloud On-Demand
Audit reporting	Yes	Yes	Yes	No
Configure and manage system	Yes	Yes	Yes	No
Manage data server connections	Yes	Yes	Yes	Yes
Manage distribution lists and contacts	Yes	Yes	Yes	No
Manage visualizations	Yes	Yes	Yes	Yes - Premium
Manage users, groups, and roles	Yes	Yes	Yes	Yes
Manage tenants	Yes	N/A	No (1)	No

1. Future roadmap item.

## Authentication and identity providers (IDP)

Functionality	Cognos Analytics on-premises software	Cognos Analytics cartridge for IBM Cloud Pak for Data	Cognos Analytics on Cloud Hosted	Cognos Analytics on Cloud On-Demand
Connect on-premises authentication provider	Yes	N/A (3)	Yes	No
Connect cloud authentication provider	Yes	N/A (3)	Yes	Yes - IBMid
Single sign-on (1)	Yes	N/A (3)	Yes	Yes - IBMid
LDAP (v3 compatible)	Yes	N/A (3)	Yes	No

Functionality	Cognos Analytics on-premises software	Cognos Analytics cartridge for IBM Cloud Pak for Data	Cognos Analytics on Cloud Hosted	Cognos Analytics on Cloud On-Demand
Microsoft Active Directory (AD)	Yes	N/A (3)	Yes (2)	No
OpenID Connect	Yes	N/A (3)	Yes	Yes- IBMiD
Custom Java authentication	Yes	N/A (3)	No	No

1. Single sign-on (SSO) is available with OIDC authentication providers that support this feature.
2. For Cognos Analytics on Cloud Hosted, this provider is available only through an LDAP connector, and only LDAP v3-compatible features are available. Kerberos SSO is not supported.
3. Cloud Pak for Data has an authentication service that handles all supported authentication providers. For more information, see the [Cloud Pak for Data documentation](#).

## Metadata modeling

Functionality	Cognos Analytics on-premises software	Cognos Analytics cartridge for IBM Cloud Pak for Data	Cognos Analytics on Cloud Hosted	Cognos Analytics on Cloud On-Demand
Data modules (web-based modeling)	Yes	Yes	Yes	Yes
Compatible with Framework Manager	Yes	Yes	Yes	No (1)
Compatible with Cube Designer	Yes	No	No	No
Compatible with PowerPlay Transformer	Yes	Yes (2)	Yes (2)	No
Compatible with PowerPlay cubes	Yes	Yes	Yes	No
Supports compatible query mode (CQM) queries	Yes	No	No	No
Supports dynamic query mode (DQM) queries	Yes	Yes	Yes	Yes
Supports OLAP dimensional packages	Yes	Yes	Yes	Yes
Supports dynamic cubes	Yes	No	No	No
Supports PowerCubes	Yes	Yes	Yes	No

1. Framework Manager can be used with Cognos Analytics on Cloud On-Demand only if the customer has an existing support and subscription (S&S) for the on-premises offering, and only as a means to move the on-premises metadata models to the On-Demand offering. The expectation is that new metadata models will be created in Data Modules. Otherwise, Framework Manager is not provided with the On-Demand offering.
2. Transformer use is allowed, but the tool must be run locally, and not on the Cloud or CPD platform.



## Data sources

Functionality	Cognos Analytics on-premises software	Cognos Analytics cartridge for IBM Cloud Pak for Data	Cognos Analytics on Cloud Hosted	Cognos Analytics on Cloud On-Demand
Data modules (web-based modeling)	Yes	Yes	Yes	Yes
Data servers	Yes	Yes	Yes	Yes
Data servers: connect to data servers on cloud	Yes	Yes	Yes	Yes <a href="#">(1)</a>
Data servers: connect to data servers on premises	Yes	Yes	Yes	Yes <a href="#">(1)</a> <a href="#">(2)</a>
Data servers: JDBC connections	Yes	Yes	Yes	Yes <a href="#">(1)</a>
Data servers: ODBC connections	Yes	No	No	No
Data sets	Yes	Yes	Yes	Yes
Framework Manager packages	Yes	Yes	Yes	No
Uploaded data files	Yes	Yes	Yes	Yes
Cognos PowerPlay Transformer cubes	Yes	Yes	Yes <a href="#">(3)</a>	No
Planning Analytics (TM1) as a data source	Yes	Yes	Yes	Yes <a href="#">(4)</a>
Create data set store	Yes	Yes	No	No

1. For information about the supported data servers for Cognos Analytics On Cloud On-Demand, see [IBM Cognos Analytics on Cloud On-Demand: Supported Software Environments](https://www.ibm.com/support/pages/node/737555) (<https://www.ibm.com/support/pages/node/737555>).
2. There is a limit of 10 data server connections per account. IBM Secure Gateway is required, with maximum of 2 Secure Gateway instances per account (5 connections per instance).
3. Can be enabled upon request.
4. Planning Analytics must be configured to use mode 1 security. For more information, see [IntegratedSecurityMode](#).

## Tools, apps, integration

Functionality	Cognos Analytics on-premises software	Cognos Analytics cartridge for IBM Cloud Pak for Data	Cognos Analytics on Cloud Hosted	Cognos Analytics on Cloud On-Demand
Event Studio	Yes	Yes	Yes <a href="#">(2)</a>	No
PowerPlay Studio <a href="#">(1)</a>	Yes	No	No	No
Analytics Content Hub	Yes	Yes	No	No

Functionality	Cognos Analytics on-premises software	Cognos Analytics cartridge for IBM Cloud Pak for Data	Cognos Analytics on Cloud Hosted	Cognos Analytics on Cloud On-Demand
Audit Extensions	Yes	No	No	No
Cognos for Microsoft Office	Yes	Yes	Yes	No
Cognos Analytics (mobile app)	Yes	No	Yes	Yes
Cognos Analytics reports (mobile app)	Yes	No	Yes	Yes
Cognos software development kit (SDK)	Yes	Yes	Yes	No
Dynamic Query Analyzer	Yes	No	No	No
Planning Analytics SSO namespace	Yes	No	Yes	No
Rest API with IBMid	Yes	Yes	Yes	No
Watson Studio	Yes	Yes	Yes	No
Watson Knowledge Catalog	Yes	Yes	Yes	No

1. Event Studio and PowerPlay Studio are legacy components. These studios can be explicitly enabled in Cognos Analytics on-premises.
2. Event Studio and PowerPlay Studio can be enabled in Cognos Analytics on Cloud Hosted upon request.

### Third-party and partner tools

Functionality	Cognos Analytics on-premises software	Cognos Analytics cartridge for IBM Cloud Pak for Data	Cognos Analytics on Cloud Hosted	Cognos Analytics on Cloud On-Demand
BSP MetaManager	Yes	Yes	Yes	No
Jupyter Notebooks	Yes	Yes	See (1)	No
Microsoft Teams	Yes	No	No	No
MotioCI	Yes	Yes	Yes	No
Slack	Yes	Yes	Yes	Yes

1. Jupyter Notebooks are available with the subscription to Watson Studio. For more information, see this article (<https://medium.com/ibm-watson/ibm-cognos-analytics-watson-studio-cloud-better-together-ac011059878f>).

## Licensing, deployment, and support

Functionality	Cognos Analytics on-premises software	Cognos Analytics cartridge for IBM Cloud Pak for Data	Cognos Analytics on Cloud Hosted	Cognos Analytics on Cloud On-Demand
Access to innovation stream (latest GA)	Yes	See (1)	Yes	Yes
Access to Long-term Support Release (LTSR)	Yes	Yes	Yes	No
IBM support for technical issues	Yes	Yes	Yes	Yes
Licensing model: authorized user	Yes	Yes	Yes	Yes
Licensing model: capacity instance	Yes	Yes	Yes	No
Data centers	Managed by the customer	Managed by the customer	Managed by IBM Australia: Sydney Canada: Montreal, Toronto Germany: Frankfurt Netherlands: Amsterdam United States: Dallas, San Jose, Washington D.C.	Managed by IBM Australia: Sydney Brazil: Sao Paulo Germany: Frankfurt Japan: Tokyo Netherlands: Amsterdam United States: Washington D.C.

1. For more information, see <https://www.ibm.com/docs/en/cloud-paks/cp-data/4.5.x?topic=services-cognos-analytics>



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## Chapter 2. User interface

All Cognos Analytics offerings use the same user interface.

Whether you're an analyst, report author, modeler, or administrator, you start by logging in to the Cognos Analytics portal from your desktop or mobile device. Then, you see the Cognos Analytics welcome page. From here, you can start exploring the application. Depending on the work you do, you might need to use different areas of the user interface. For example, if you are a report author, your primary work environment is Reporting. Access to the different areas of the application depends on your role in the organization, access permissions, customizations, or type of the offering (on-premises or cloud), and you might not always see certain areas of the user interface.

The topics in this section provide some basic information about navigating the Cognos Analytics user interface, and creating and managing the application content.

For links to videos, getting started resources, expert blogs, events, and more, visit the [IBM Cognos Analytics community](https://community.ibm.com/community/user/businessanalytics/communities/community-home?CommunityKey=6b10df83-0b3c-4f92-8b1f-1fd80d0e7e58) (https://community.ibm.com/community/user/businessanalytics/communities/community-home?CommunityKey=6b10df83-0b3c-4f92-8b1f-1fd80d0e7e58).

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### Logging in

IBM Cognos Analytics supports authenticated and anonymous user access. To use the application as an authenticated user, you must successfully log in.


To log in, provide your credentials, such as user ID and password, as required by your organization. Anonymous users do not need to log in.

If multiple namespaces are configured for your Cognos Analytics environment, you can log in to the different namespaces in the same session. Each namespace requires its own credentials.

#### Procedure

1. In the login page, select the namespace that you want to log in to.
2. Type your user ID and password, and click **Log in**.  
Your session starts.
3. To log in to a different namespace in the same session, from the personal menu  in the application bar, click **Log into an additional namespace**.

#### What to do next

You log out to end your session. Even if you used multiple namespaces in the session, you log out only once. To log out, from the personal menu  in the application bar, click **Log out**. If you close your web browser without logging out, your session ends.


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### Logging out

You log out to end your Cognos Analytics session. Even if you used multiple namespaces in the session, you log out only once.

**Important:** Ensure that you follow good security practices. If you plan to leave your computer unattended, log out of your Cognos Analytics session first. Do not share your browser session with other users.

#### Procedure

1. In the application toolbar, click the personal menu icon (.
2. In the menu, click **Log out**.

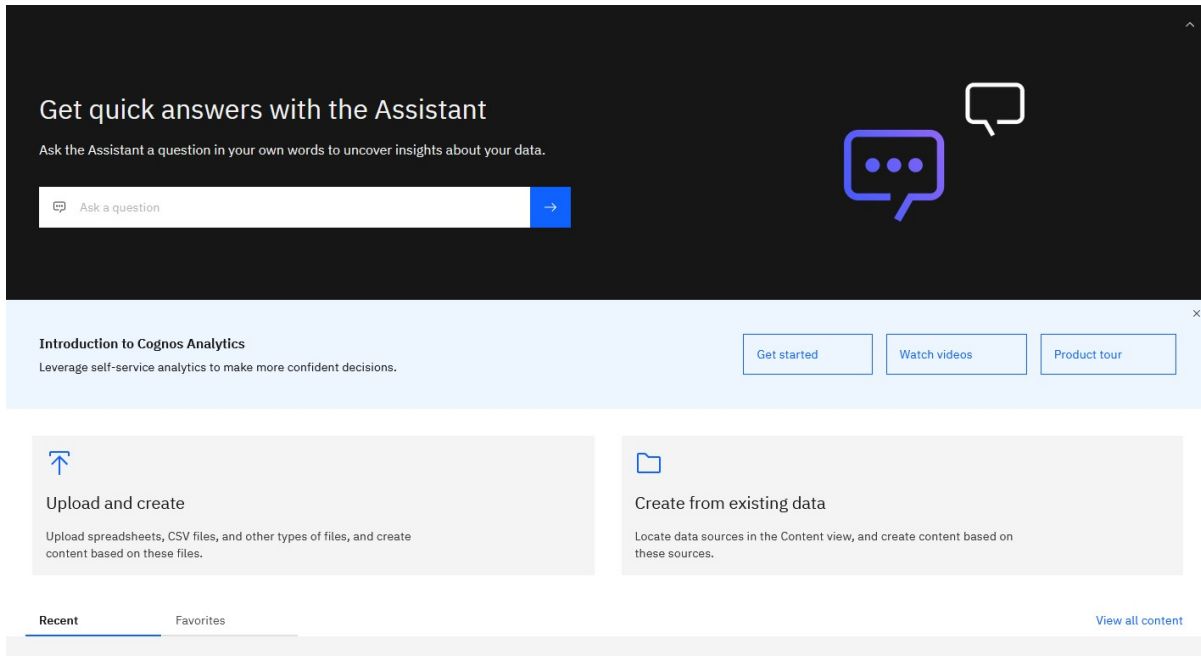
Your session ends.

**Note:** If you close your web browser without logging out, your session ends.

## Welcome page

The welcome page provides quick access to the product functionalities, content, samples, and learning materials.

This is the perfect place to start exploring Cognos Analytics.








The welcome page consists of the following building blocks:

### Global application bar


The global application bar is a constant element of the user interface, no matter what's the component. However, depending on the component, the options in the application bar might be different.

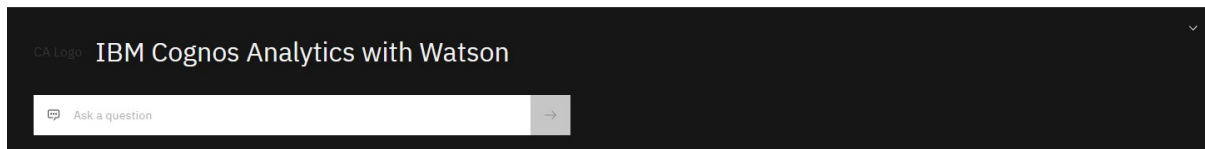
The following are the standard options:

- Open menu icon 
- **IBM Cognos Analytics** home page link
- View switcher
- **My parameters** icon 
- **Learn** icon 
- Notifications icon 
- Personal menu icon 

### Welcome banner

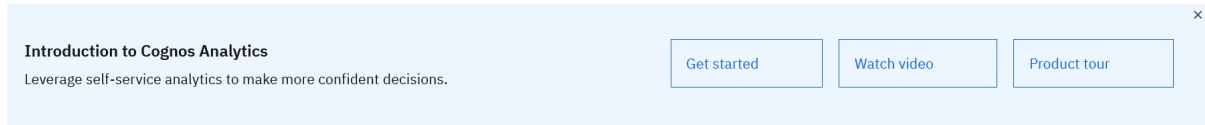
The welcome banner includes the **Assistant** input box where you can connect to a data source and ask questions about your data to gain insights quickly. From here, you can share the insights with other users, or ask the Assistant to create a dashboard for you.

You can hide the Assistant images by clicking the collapse (expand) icon .



## Introduction to Cognos Analytics

This section contains links to the Cognos Analytics learning resources.



From here, you can access the Accelerator catalog that contains best practice guides (**Get started**) and the product videos (**Watch video**).

**Note:** The **Product tour** link is available only for the Cognos Analytics Cloud offerings, and it opens interactive product tours.

You can hide this section by clicking the **Close** icon . Or you can go to the personal menu , and under **Profile and settings** > **Settings**, toggle the **Introduction to Cognos Analytics** switch on or off.

## View all content link

This link opens the **Content** view where you can browse or search for all content that's available to you in Cognos Analytics.

## Upload and create and Create from existing data

These two tiles support the two most basic use cases for creating content in Cognos Analytics. In the first case, the user is guided to upload data files and create content based on these files. In the second case, the user is guided to select a data source from the **Content** view and use this source to create content. In both cases, the system recommends the most suitable type of assets to create based on the data source and user's access permissions. One of the recommended assets is **Automatic dashboard**, assuming that the selected data source can be used to create this type of asset.

**Tip:** In previous product versions, these tiles were named **Upload data and start creating content** and **Create content from existing data**.

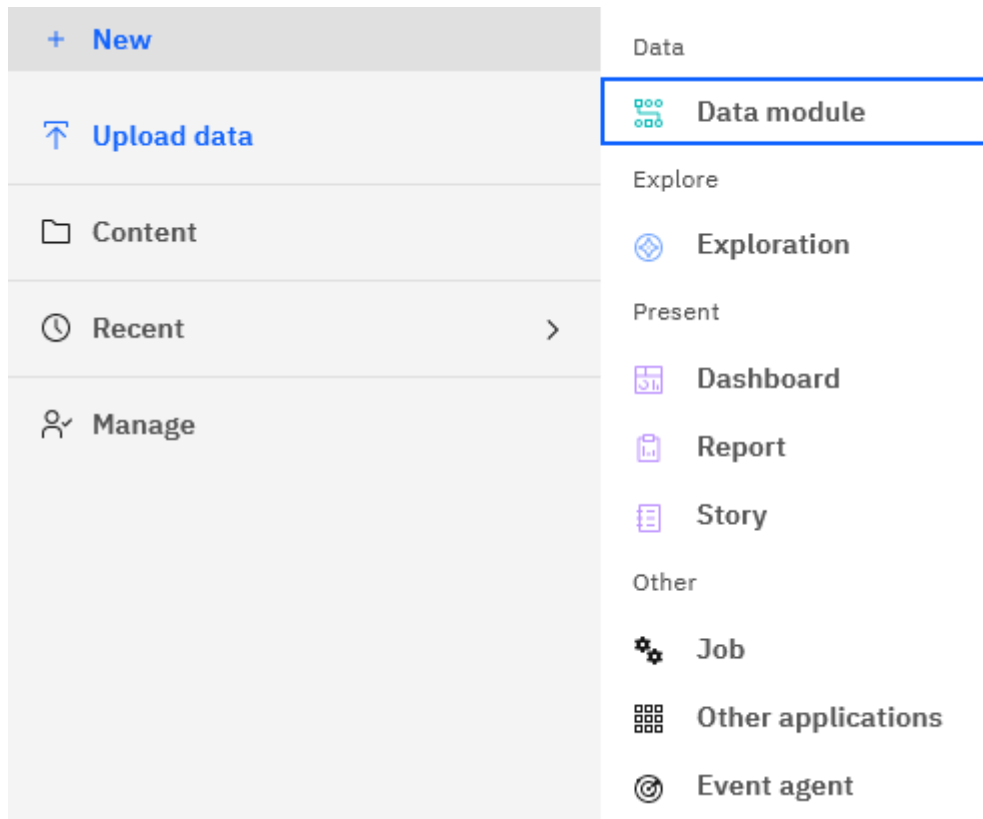
## Recent tab

Here, you can access the recently viewed content, such as dashboards, reports, data modules, and other items, and continue working with them.

## Open menu

The **Open menu** is the main access point to the IBM Cognos Analytics content and functionalities.

Click the **Open menu** icon  in the application bar to access the menu options.



From this menu, you can access the existing Cognos Analytics content (**Content** option), and start creating new content (**New** option). You can also start uploading your own data files (**Upload data** option), view the recently used content (**Recent** option), and access the administrative user interfaces (**Manage** option).


Click the **Content** option to view the **My content**, **Team content**, and other folders. The Cognos Analytics content is stored in these two folders. The content includes any objects that can be created and used in Cognos Analytics: dashboards, reports, stories, explorations, data modules, but also data files, packages, and more.

For more information, see [“Content view”](#) on page 12

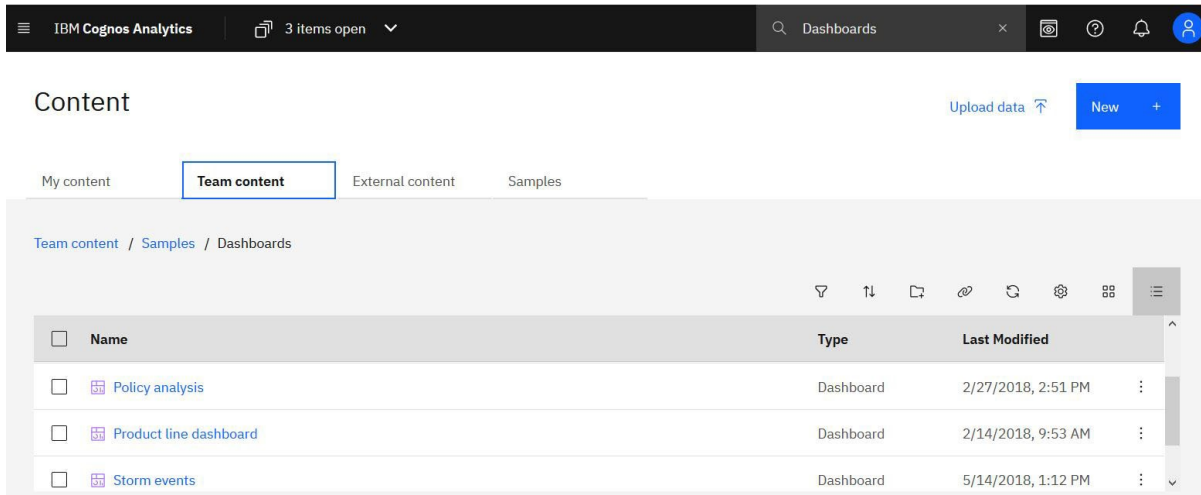
## Content view

The **Content** view shows objects that are created and managed in Cognos Analytics.

The objects such as dashboards, stories, reports, explorations, notebooks, and more, can be considered primary content types. In addition to these primary content types, there are objects such as folders, data modules, packages, uploaded files, jobs, schedules, events, URLs, shortcuts, and more, that users and administrators create or import to provide data, and manage the content.

To access the content view, click the **Open menu** icon  in the application bar, and select the **Content** option. The following page is opened:





The page shows the following tabs (folders):

### Team content

This is the main folder where all shared application content is stored. The items in **Team content** are public and available to all Cognos Analytics users with proper permissions.

**Tip:** If you create a data module using data from an uploaded file and you want the data to be available to other users, store both the data module and the file in **Team content**. This ensures that other users can access a report, dashboard, or story that references the data in the file. This restriction applies to report authors and consumers. Administrators can run reports that use data from any user's **My content** folder.

### My content

Items in this folder are private, and only you can see them.




### Samples

This folder is available when product samples are installed.

### External content



This folder is available when the **Watson Studio URL** is configured in the **Manage** administration component.

### Favorites

This folder contains your favorite items. To mark an item as your favorite, click the unfilled heart icon  for the item. The icon changes to the filled heart . Or, from the item context menu , click **Add to favorites**.

### Custom folders

Custom folders are created by administrators for specific user roles. If such folders exist, they are displayed on separate tabs. Only members of roles with permissions for a specific folder can view the folder.



The contents of each folder can be displayed in the **List view**  or **Tiles view**  (default).

To open an item, click it. The item is opened in the related user interface. For example, a dashboard is opened in the Dashboarding user interface, and a data module - in the modeling interface.

To work with items in the content view, use one of the following user interface elements:

### Actions toolbar

This toolbar is available in both **List view** and **Tiles view**.


Use the toolbar options to organize and find items in folders, change the content view display, add subfolders and URLs. For example, click the **Settings** icon  to change the row size in the list view, or the **Tiles view** icon  to change the display of items from list to tiles.



The options in the toolbar depend on which and how many items are selected. For example, the following options are available for an uploaded file.




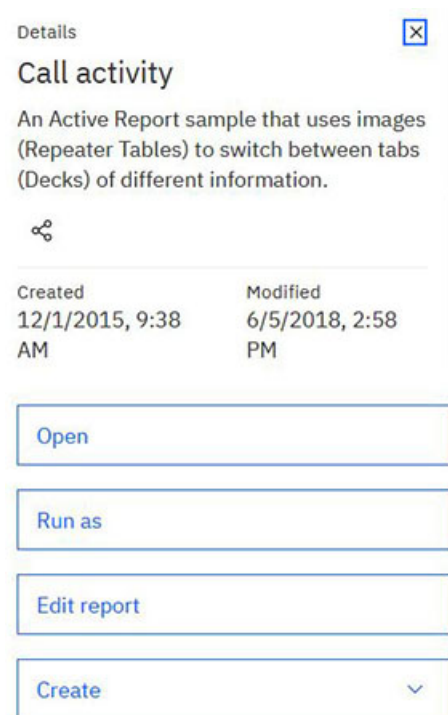
### Action menu

This menu is available for each content item in both **List view** and **Tiles view**. Select an individual item, and click its **Action menu** icon . The menu contains a complete list of actions that are available for the selected item, based on the user permissions. From this menu, you can edit an item, view its properties or details pane, add a shortcut, or delete the item.

The **Action menu** is also referred to as a context menu.

### Details pane

The **Details** option is available for all types of items in the content view, from the actions toolbar or from the context menu . The following example shows the **Details** pane for a report.



The **Details** pane provides the item metadata, allows to share the item, and perform item-specific actions.

### Creating new content and uploading files

You can create new content and upload files directly from the content view by using the following buttons at the top of the page:

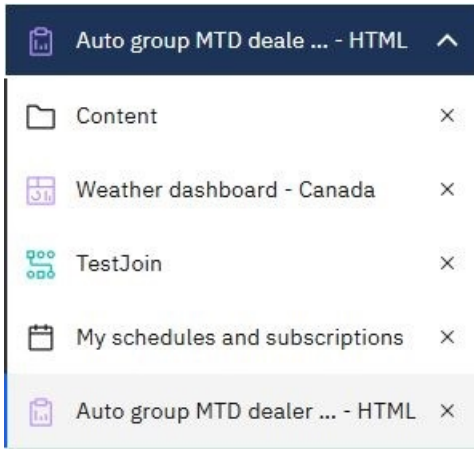


You can also use the **Create** option in the **Details** pane.

## View switcher

The view switcher in the application bar provides a convenient way to navigate between open views, and close the views when they are no longer needed.

You can navigate between different types of items, such as folders, reports, dashboards, stories, schedules, and more, from this view.



## Quick upload

Use **Quick upload** to upload files to IBM Cognos Analytics and simultaneously start a data module, exploration, dashboard, or notebook.

Drag files onto the welcome page to activate the **Quick upload** functionality. When **Quick upload** appears, drop the files into the appropriate box to immediately start building a data module, exploration, dashboard, or notebook. The uploaded files are stored in the folder from which you uploaded them, or in your **My content** folder.

For more information about uploaded files, see [“Requirements for uploaded files” on page 30](#).


## Search

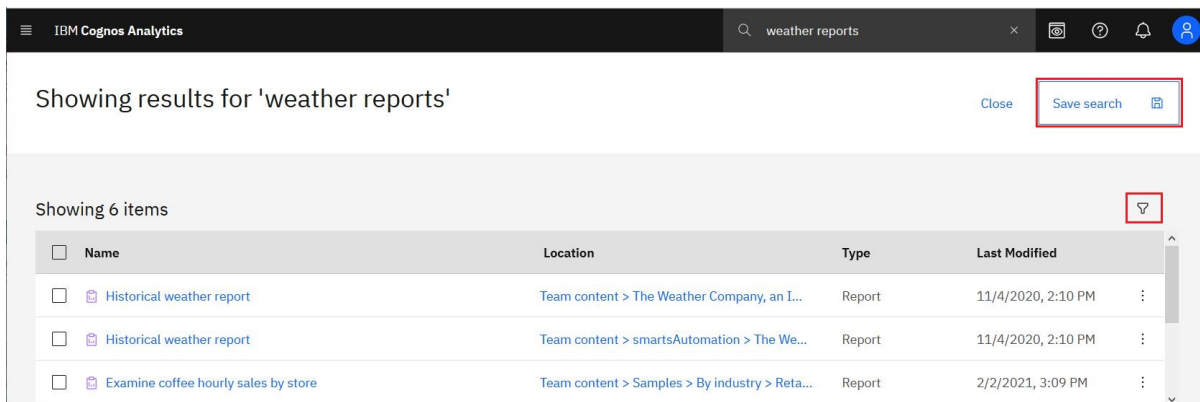
Search is a quick and easy way to find content in your IBM Cognos Analytics application.

You can search for items such as dashboards, stories, data modules, reports, folders, and so on. You can also search for table or column labels, XML report specifications, URL items, shortcuts, templates, and more. Search doesn't return results for content that's archived, but you can access archived content from a report that's listed in one of your folders.

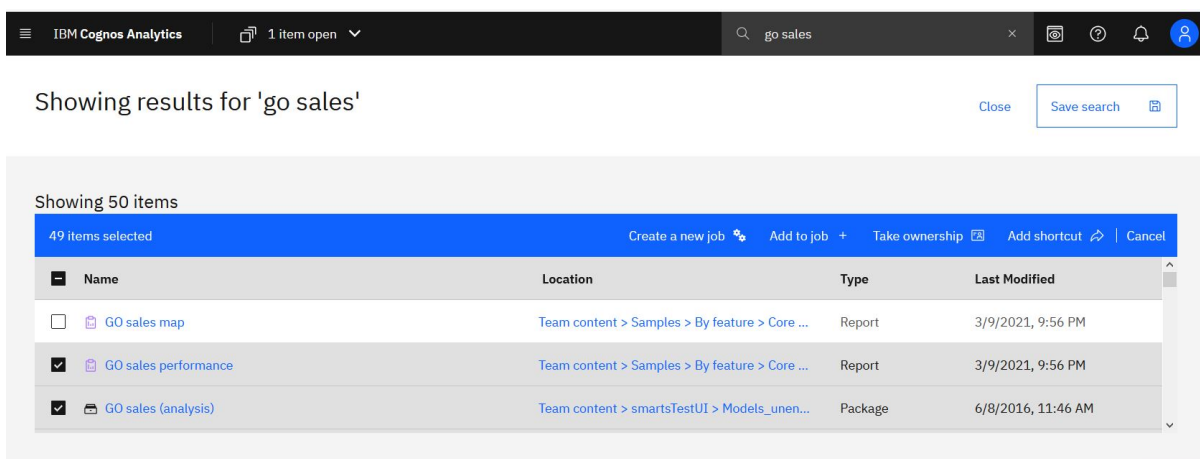
The search box is located in the application bar, as shown in the following screen capture:




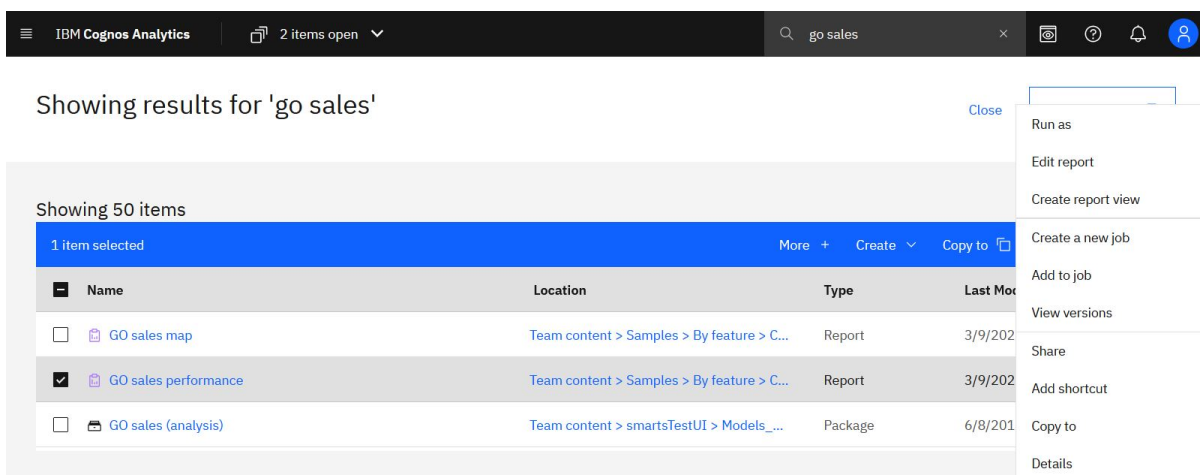
To find items, type the search terms (keywords, phrases, strings), and click the Enter key. After the search results are listed, you can save your search by clicking the **Save search** button. If your search returns too many results, you can click the filter icon , and select the options that you want. The filter option is only available after you do an initial search. The filters are saved with the search.



From the search results page, you can initiate actions on the returned items. If you select multiple items (by clicking their check boxes), the related actions that are available for all or at least one item are shown in the actions toolbar, above the search results.



To view the actions for a specific item, select the checkbox for this item (all other items must be deselected), and click its **Action menu** icon . The actions that are available for the selected item are shown. For example, the following screen capture shows actions for a report.



For more information, see [“Content view”](#) on page 12.

## Special characters in search terms

You can use special characters in your search terms.

The following characters are tested regularly and are safe to use: ~ ` !@#\$%^&\* ( ) - += { [ ] | : ; ' < , > . ? /

## Enclosing the search terms in double quotation marks

When you enclose your search terms in double quotation marks (" "), the search results include only those instances where the terms appear in the exact order as within the double quotation marks. Fuzzy search is deactivated in this case.

## Fuzzy search

Cognos Analytics supports fuzzy search. The results provided by this type of search match the search term closely instead of exactly. Fuzzy search finds relevant results even when you don't know the exact search term or misspell the term.

## Emphasized keywords in search results

The keywords in search results are emphasized by using the bold font style.

If you want to know why certain items appear in the search results, and where exactly is the keyword found, select the item check box in the search results, and in the toolbar that appears, click **Result reason**.

Showing results for 'QTD revenue'


Close Save search

Search results in: All Content

Showing 4 items

1 item selected More + Details ⓘ Result reason ⓘ Delete Cancel

	Name	Location	Type	Last Modified
<input type="checkbox"/>	<b>QTD revenue</b> This sample report is intended to be used with the sample extensions.	Team content > Samples > By feature > Exten...	Report	2/15/2022, 2:16 PM
<input type="checkbox"/>	<b>Auto group MTD dealer sales</b> This sample report displays information about month-to-date dealer...	Team content > Samples > By industry > Auto...	Report	4/13/2023, 8:39 PM
<input checked="" type="checkbox"/>	<b>Auto group executive dashboard</b> This sample dashboard provides an executive view into sales, dealer...	Team content > Samples > By industry > Auto...	Dashboard	4/13/2023, 7:45 PM
<input type="checkbox"/>	<b>Q3 sales action plan</b> This sample story presents the reason behind a sales decline and a ...	Team content > Samples > By industry > Auto...	Story	4/13/2023, 6:22 PM

You can also access the **Result reason** dialog box from the item context menu , by clicking **Result reason**.

## Search index size

The tests show that in a controlled and monitored multi-server installation of Cognos Analytics the size of the search index files grows approximately by 3 GB for every 1 million objects in the content store database.

**Note:** To determine the number of objects in the content store, you can run the `CSSize_profiling_VENDOR_NAME.sql` script that is stored in the `cognos_analytics_location\appcm\configuration\schemas\content` directory. The scripts are provided by vendors. However, this activity requires extra resources, and puts strain on the application CPU and memory.



---

## Chapter 3. Access permissions

Access permissions are used to secure the organization's data.

Your administrator adds you to the groups and roles that have the capabilities and permissions you need to work with secured functions, features, and your organization's content. For example, report authors typically have access to the reporting, but not the managing part of the user interface. Members of the report author role have **Write** permission on a report, but members of a sales group might have only **Run** permission for the same report.

If you want to see what you are permitted to do with a specific report or other entry, see [“Viewing your permissions for content”](#) on page 21.

If you lack sufficient access permissions for an item, item owners or users with more extensive access permissions can authorize you to use their credentials. For more information, see [“Managing your credentials”](#) on page 97.

For information on administering user access to groups, roles, and capabilities, see the *IBM Cognos Analytics Managing Guide*.

---

### Simple and granular access permissions

Access permissions determine a user's ability to perform a specific action, or access a feature or object.

Permissions for a specific user are a combination of permissions for that user and permissions for the groups and roles where the user is a member. When a user is a member of more than one group or role, deny permissions for one group or role take precedence over granular permissions for a different group or role.

Users have **Read**, **Run**, **Write**, and **Full** permissions for items. These simple permissions represent combinations of more granular permissions that administrators use to control access.

#### Simple permissions mapped to granular permissions

The following simple permissions include combinations of granular permissions:

##### **Read**

Includes the read and traverse granular permissions.

##### **Run**

Includes the read, execute, and traverse granular permissions.

##### **Write**

Includes the read, write, execute, and traverse granular permissions.

##### **Full**

Includes the read, write, execute, traverse, and set policy granular permissions.

#### Granular permissions and permitted actions

The underlying, granular permissions are described in the following list:

##### **Read**

View all the properties of an entry, including the report specification and report output.

**Note:** To run a report with full interactivity, a user must have read permissions on the package or data model that is referenced in the report. For more information about the actions you can do in a report that runs with full interactivity, see "Limited and fully interactive reports" in the *IBM Cognos Analytics Reporting User Guide*.

Create a shortcut to an entry.

### Write

Modify properties of an entry.

Delete an entry.

Create entries in a container, such as a package or a folder.

Modify the report specification for reports created in Reporting and Query Studio.

Create new outputs for a report.

### Execute

Process an entry.

For entries such as reports, agents, and metrics, the user can run the entry.

For data sources, connections, and signons, the entries can be used to retrieve data from a data provider. The user cannot read the database information directly. The report server can access the database information on behalf of the user to process a request. IBM Cognos software verifies whether users have execute permissions for an entry before they can use the entry.

For credentials, users can permit someone else to use their credentials. To use the run as the owner report option, a user must have execute permissions for the account.

### Set policy

Read and modify the security settings for an entry.

### Traverse

View the contents of a container entry, such as a package or a folder, and view general properties of the container itself without full access to the content.

## Setting permissions for content

---

Set access permissions to specify which users, groups, or roles can access your content.

### About this task




You can set permissions for content that you own, such as reports, dashboards, stories, packages, and so on. Permissions can be granted, denied, or set as default.

**Note:** A value of **Default** means that permission is neither granted nor denied.



For information about the types of permissions that you can specify for entries, see [“Simple and granular access permissions”](#) on page 19.

When you set access permissions, you can reference both authentication provider users, groups, and roles, and Cognos groups and roles. However, if you plan to deploy your application in the future, we recommend that you use only the Cognos groups and roles to simplify the process.

### Procedure

1. In **Team content** or **My content**, find your entry, and from its context menu, click **Properties**.
2. On the **Permissions** tab, select the check box **Override parent permissions**, and click the add  icon.
3. Open the namespace that contains the users, groups, or roles for which you want to specify permissions for the entry. To quickly find the entries, click the search  icon, or click the filter  icon to narrow the view of entries within the namespace.



4. Select the users, groups, or roles that you need. You can control-select multiple entries. Click **Add**. The selected users, groups, or roles are added to the security policy of your entry with the basic permission **Read**.
5. To change the permission to **Run**, **Write**, or **Full**, click the set access  icon, and change the permission.
6. Click on the permission name to view the granular permissions that this permission is comprised of. To change the granular permissions, click the set access  icon for a permission, and change the access type to **Grant**, **Deny**, or **Default**.
7. If you want the children entries inherit the same permissions, select the **Apply to all children** check box.
8. Click **Apply**.

## Viewing your permissions for content


---

To secure IBM Cognos Analytics content, administrators assign permissions. You can check your permissions for a report or another entry in the properties for the entry.

### About this task

The Read, Run, Write, and Full permissions represent groupings of more granular permissions that administrators assign. For more information, see [“Simple and granular access permissions” on page 19](#).

### Procedure

1. For an entry in a list, tap the context menu , and then tap **Properties**.
2. On the **General** tab, tap **Advanced**.  
View the **Permission** property, and your permission value for the entry.

## Viewing your permissions for capabilities


---

As a user or member of a group or role, you are assigned the capabilities that you need to work with different IBM Cognos Analytics functions and features.

### About this task

If you are missing a capability that you require, contact your administrator.

### Procedure

1. Tap your personal menu , then tap **Profile and settings** > **Profile**.
2. Under **Advanced options**, tap **View details** for either **Groups and roles** or **My capabilities**.



---

## Chapter 4. Sources of data

To create and run reports, dashboards, stories, or explorations you need data. This data might be made available to you by an administrator who creates packages or data modules, or you could upload your own data files.

You can use data modules, packages, data sets, and uploaded files as sources of data for your IBM Cognos applications.

When data modules and models are built, and queries are planned and executed, the data source is required to describe the column data type to the query service. The query service maps the source column data types to the types it supports. If the source data type is not supported by the query service, the query service treats it as an unknown type. For more information, see "Supported SQL data types" in *IBM Cognos Analytics Data Modeling Guide*.

---

### Data modules

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

Data modules are created in the web modeling component in IBM Cognos Analytics, and saved in **Team content** or **My content**. You can use multiple input sources for a single data module.

**Tip:** If you create a data module using data from an uploaded file and you want the data to be available to other users, store both the data module and the file in **Team content**. This ensures that another user can run a report that references the data. This restriction applies to report authors and consumers. Administrators can run reports that use data from any user's **My content** folder.

Data modules can be used as sources for reports, dashboards, stories, explorations, notebooks, data sets, and other data modules.

For more information, see the *IBM Cognos Analytics Data Modules Guide*.

Data modules that are sourced from IBM Planning Analytics cubes are created in the administration component.

---

### Packages

A package is a subset of a model, which can be the whole model, that is made available to the IBM Cognos Analytics application.

Relational packages are created in IBM Cognos Framework Manager, and OLAP packages in IBM Cognos Cube Designer and in IBM Cognos Administration. For more information, see the chapter on publishing packages in the *IBM Cognos Framework Manager User Guide*.

Not all types of packages can be used in all Cognos Analytics components. Only Reporting can use all types of packages traditionally supported in earlier versions of Cognos Analytics.

For dashboards and stories, the following packages are supported:

- Relational, dynamic query mode packages.
- Relational, compatible query mode packages if there is a JDBC connection defined for each data source in the package.
- Dimensional OLAP packages that are based on PowerCubes, dynamic cubes, Planning Analytics data sources, dimensionally modeled relational (DMR) data sources, and other data sources.

The modeling component supports only relational, dynamic query mode packages as sources for data modules.

For more information, see the *IBM Cognos Analytics Data Modeling Guide*.

**Note:** Cognos Analytics doesn't support Framework Manager namespaces, which are containers that organize and uniquely qualify content in a model. The namespaces are shown as folders when Framework Manager packages are viewed in data modules, dashboards, and other content.

## Data sets

Data sets are customized collections of data items that you use frequently. As you make updates to the data set, the dashboards, stories, or explorations that use that data set are also updated the next time you run them.

You can create data sets from packages or data modules, and use as sources to create dashboards, stories, explorations, and data modules.

The administrator can set size limits on data sets that apply to all users. For more information, see [Enforcing size limits on data sets](#).

You can't create a report directly from a data set. However, to use the data from the data set in a report, create a data module from the data set, and then use the data module as a source for your report.

The data set mechanism is based on the Cognos Analytics report foundation. You add data to a data set in a similar manner as you add data to a list report. You can switch between **Page design** and **Page preview** modes. The **Query** view provides an alternative way to modify the data sets. In this view, you can copy and paste queries from existing reports, manage advanced filters and prompts, and rename queries.

Here is an example of a data set in the **Page preview** mode.

← → | Data set > Pages > Page1

**Insertable objects**

Find

- Auto group data module
  - Sales
  - Sentiment
  - Recalls
  - Dealers
  - Models

Dealer Name	City	Address	Current Quarter [Quantity Sold]
Weston Auto	Arvada	9825 W 58th Ave	307
Colfax Auto	Denver	1350 W Colfax Ave	267
Northern Auto Sales	Denver	3320 W 38th Ave	338
Suwanda's Auto	Westminster	200 W 136th Ave	213
Great Outdoors Auto	Denver	9190 E 33rd Ave	324
South Parker Auto	Aurora	6462 S Parker Rd	271
Narezney's Auto	Colorado Springs	1905 S Federal Blvd	257
North Parker Auto	Aurora	2651 Parker Rd	277
Club Auto Sales	Federal Heights	9190 N Federal Blvd	291
Broadway Auto	Littleton	6300 S Broadway	219

☒ Summarize detailed values, suppressing duplicates, for relational data sources  
☐ Row suppression  
 Reset

## Creating data sets

Create data sets to group customized collections of data items that you use frequently.

If a data set is based on a package with multiple data server connections or signons, the connection or signon that you choose is saved with the data set. If the package connection information changes later, users might see the ambiguous connection message. To avoid this message, edit the data set choosing the new connection or signon, and save the data set using the **Save as** option. Select yes when asked whether you want to overwrite the data set. The data set is saved with the new connection or signon and its subsequent refreshes use the new information.

## Before you begin

Review the "Best practices for improving query performance on uploaded files and data sets" in the *IBM Cognos Analytics Managing Guide*.

The package or data module that you plan to use as a source for your data set must already be saved in **Team content** or **My content**.

## About this task

The list in the data set can be associated with only one query. If you want to add data items from different queries to your data set, you can create a custom query in the **Queries** view that contains data items from different queries.

When creating or editing data sets, you can reuse queries from Cognos Analytics reports. For more information, see ["Reusing report queries in data sets" on page 27](#).

## Procedure

1. Locate the package or data module in **Team content** or **My content**.
2. From the package or data module context menu, click **Create data set**.

The data set editor is opened in the **Page design** mode.

3. Drag the data items from the **Insertable objects** pane to the work area. The items appear as columnar data in a similar fashion to a list report.

To preview data in the data set, switch from the **Page design** mode to the **Page preview** mode.

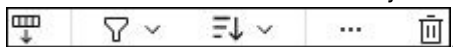
4. For relational data or for data modules, select the **Summarize detailed values, suppressing duplicates, for relational data sources** checkbox.

If you aren't sure if this checkbox must be selected, clear it and then select it again to see how the data is aggregated. Condensed data with fewer rows usually leads to better performing reports and dashboards. A reason for not aggregating the data in your data set is that you lose some details in the process, and the data from one system might not match the data from another system. This is especially true for calculations, such as an average.


5. Select **Row suppression** if you want to hide rows with no data or zeros.


Suppressing rows without data gives you a more concise view of your data set.

6. Refine the data in the data set by using the options in the on-demand toolbar



To view the toolbar, click any column.

To add filters to the columns or individual items of the data set, click the item, and then click the filter icon  in the toolbar. You can add a customized filter or use one of the predefined filters.

To sort the values, click the sort icon , and select from the available sort options.

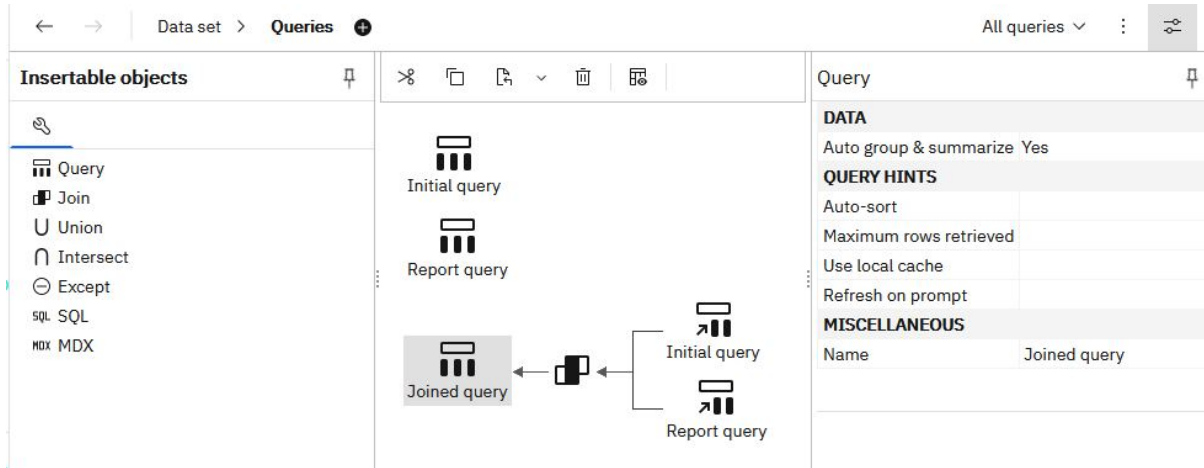
To view the column expression, click the **More** icon , and select **Edit Query Expression**.

7. Use the **Query** view to access more data set functionality.

From the **Data set** menu, click **Queries** to open the Query Explorer.

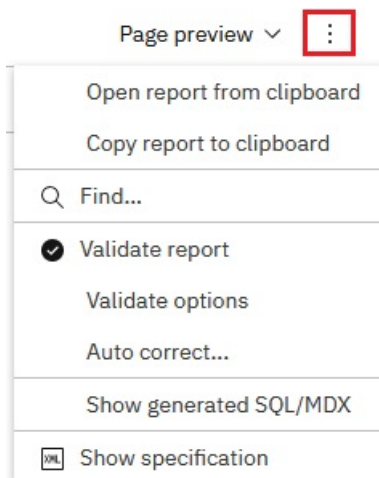
In this view, you can copy and paste queries from existing reports, manage advanced filters and prompts, or rename the queries.

Here is an example of a data set in the **Queries** view:



**Note:** The query names are used as table names when the data set is used to create data modules. Use logical names that clearly describe the data when renaming the queries.

8. Click the **More** icon to access additional functionality:



Click **Validate report** to validate the data set, or click **Show generated SQL/MDX** to view the data set SQL.

9. Click the save icon , and choose one of the following options to save the data set:

- To save the data set for the first time or to save changes to the data set, click **Save**. This option saves the metadata, but doesn't load the data. Depending on the data set, loading data might take some time.
- To save an updated data set as a new data set, click **Save as**. This option saves the metadata, but doesn't load the data. Depending on the data set, loading data might take some time.
- To save the data set and load the data, click **Save and load data**. In addition to saving the new or changed metadata, this option loads data. The data is immediately available when you create a dashboard or story.

## Results

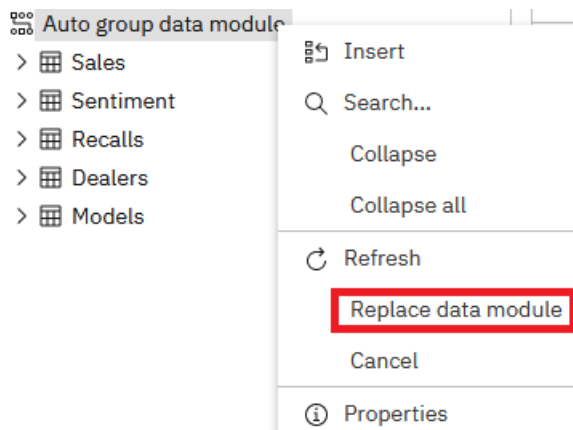
The data set object is created in a location that you saved it to.

## What to do next

To edit the data set, open it from **Team content** or **My content**.

You can replace data items in the data set with data items from a different query. In the **Page design** or **Page preview** mode, click the **Reset** button. The previously selected data items are removed, and you can start adding new ones to the list.

You can also replace the data module or package that was used as a source for the data set. Right-click the source name in the **Insertable objects** pane, and select the **Replace data module** or **Replace package** option, as shown in the following screen capture:



## Reusing report queries in data sets



You can reuse existing queries from Cognos Analytics reports by copying either individual queries or entire report specifications into data sets.

The data set and the report from which you copy the queries must be based on the same type of data source, either a data module or a package.

When you copy an individual report query, you add the query to the data set, and can continue working with the data set.

When you copy the report specification, the data set is overwritten and you can use the query (or queries) from the report in the data set. The report layout is not copied. The data set is renamed to the default **New data set**. You can then save it as a new data set.


### Procedure

1. Create or open an existing data set.
2. From **Team content** or **My content**, open the Cognos Analytics report in the edit mode.
3. Use the following steps to copy an individual query into your data set:
  - a) In the report, from the **Report** menu, click **Queries** to open the report **Queries** view.
  - b) Right-click the query that you want to copy, and click **Copy**.
  - c) Go back to the data set, and from the **Data set** menu, click **Queries**.
  - d) Right-click anywhere in the empty space in the **Queries** view, and click **Paste**. The new query is added to the view.
  - e) Save the data set.
4. Use the following steps to copy the report specification:
  - a) From any page in the report, click the **More** icon , and select **Copy report to clipboard**.
  - b) Go back to the data set, click the **More** icon , and select **Open report from clipboard**.
  - c) Paste the report specification into the empty box that is displayed, and click **OK**.

You are back in the data set list view. The data source and the query in the data set were replaced. The data set name is shown as **New data set**, even if you started with a data set named differently.

- d) Open the **Queries** view. All queries from the report are copied into the data set.
- e) Save the data set using the **Save as** option.
5. From the **Data set** menu, click **Pages > Page1**. You are back in the data set list view.
6. Click the **Reset** button to break the list association with the previous query.

The data items are removed from the list. You can now add data items from a different query, including the copied report queries, to the list.

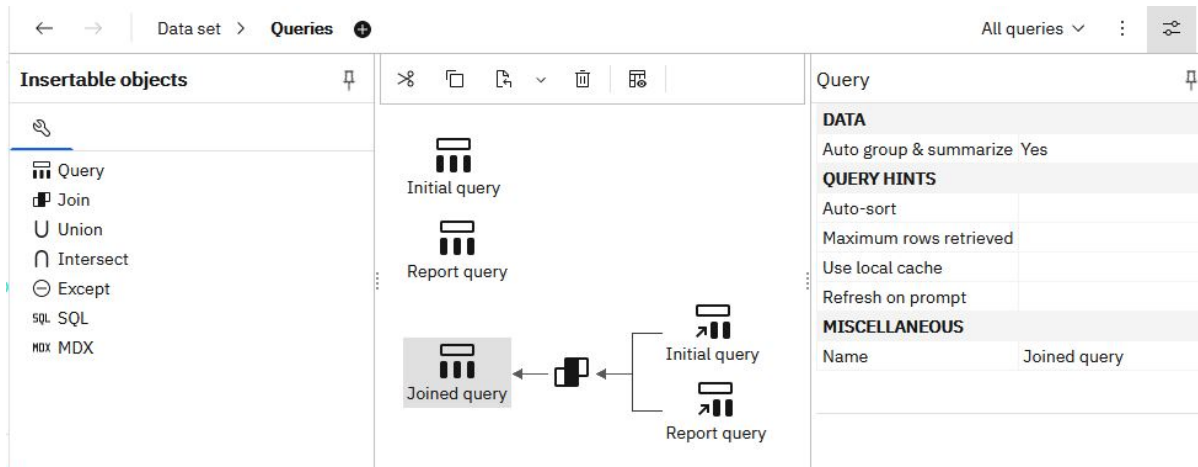
7. In the **Insertable objects** pane, click the **Data items** tab .

The report queries and their data items are shown in the tab.

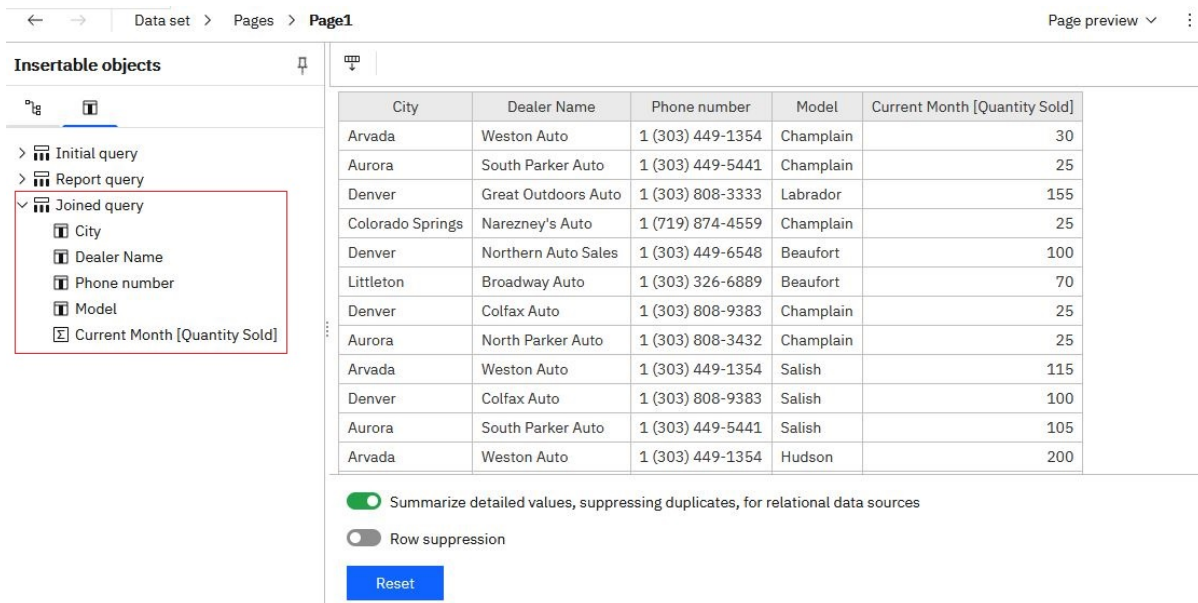
8. Drag items from one query to the data set list.
9. Save the data set.

## Results

Here is an example of the **Queries** view after a query labeled **Report query** was copied into the data set. The report query was joined with a preexisting query labeled **Initial query**.



Later, the data items from the **Joined query** were used to populate the list in the data set.



City	Dealer Name	Phone number	Model	Current Month [Quantity Sold]
Arvada	Weston Auto	1 (303) 449-1354	Champlain	30
Aurora	South Parker Auto	1 (303) 449-5441	Champlain	25
Denver	Great Outdoors Auto	1 (303) 808-3333	Labrador	155
Colorado Springs	Narezney's Auto	1 (719) 874-4559	Champlain	25
Denver	Northern Auto Sales	1 (303) 449-6548	Beaufort	100
Littleton	Broadway Auto	1 (303) 326-6889	Beaufort	70
Denver	Colfax Auto	1 (303) 808-9383	Champlain	25
Aurora	North Parker Auto	1 (303) 808-3432	Champlain	25
Arvada	Weston Auto	1 (303) 449-1354	Salish	115
Denver	Colfax Auto	1 (303) 808-9383	Salish	100
Aurora	South Parker Auto	1 (303) 449-5441	Salish	105
Arvada	Weston Auto	1 (303) 449-1354	Hudson	200



## Uploaded files

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You can upload supported file types, such as Excel spreadsheets, CSV files, or ZIP files, to IBM Cognos Analytics and use them as a source of data to create dashboards, explorations, data modules, and other content.

The uploaded files are stored in the folder in **Team content** to which you uploaded them, or in your **My content** folder.

### Supported file types

Only supported types of data files can be uploaded to Cognos Analytics.

**Tip:** Both upper case and lower case file types are supported.

#### Microsoft Excel workbook files (.xls and .xlsx)

The supported Microsoft Excel file formats include .xls and .xlsx workbook files.

The file formats .xlsb and .xlsm aren't supported.

All worksheets in a multi-tab workbook are uploaded simultaneously. Each worksheet appears as a separate table in Cognos Analytics.

The following conditions apply to uploading Microsoft Excel files:

- .xlsx files that are saved in OpenOffice aren't supported.
- Password-protected Excel files aren't supported.
- Filters in Excel files are ignored. You can use the filtering options in data modules to reapply the filters.
- Comments before the first header row are interpreted as column headers.

Text before the first row that describes the worksheet is incorrectly read as a column header. If you need a description of the worksheet, leave an empty row at the end of your data, and add the description under the empty row.

- Totals and subtotals are treated as part of the data.

Totals can be mistaken as unsummarized data, and give misleading results. Consider removing totals and subtotals from your data before uploading the file.

- The files can contain merged cells.
- Each file can contain a maximum of 2000 columns.

However, for better query performance, avoid uploading files with hundreds of columns. Try to remove redundant columns and rows from the files before uploading the files.

#### Delimiter-separated value files (.csv, .tsv, .tab, and .txt)

The supported delimiter symbols include commas, tabs, semi-colons, and pipes (|). The file extension can be .csv, .tsv, .tab, or .txt.

The following conditions apply to uploading delimiter-separated values files:

- Quotation mark characters escape literal values. Single quotation marks (') and double quotation marks (") are supported.
- Record separators separate rows. Newline (\n), carriage return (\r), and carriage return followed by newline (\r\n) are supported.
- If your file is encoded as Unicode, it must contain a byte order mark (BOM) as the first character.
- Each string value in a file can contain a maximum of 5000 characters. Any extra characters are truncated.
- The date and time values in the files must be in a supported format. Otherwise, the data might not be rendered properly in visualizations. Cognos Analytics supports the ISO 8601 standard formats for times.

The following date formats are supported:

- M/d/yy
- MMM d, y
- MMMM d, y
- dd-MM-yy
- dd-MMM-yy
- yyyy-MM-dd

The following time formats are supported:

- h:mm a
- h:mm:ss a
- h:mm:ss a z
- HH:mm
- HH:mm z
- HH:mm:ss
- HH:mm:ss.SS
- HH:mm:ss z
- HH:mm:ss.SS z

## Jupyter Notebook files (.ipynb)

You can upload Jupyter Notebook (.ipynb) files that were created in a Jupyter environment outside of Cognos Analytics.

For more information, see [“Uploading external notebooks” on page 62](#).

## Compressed files (.zip and .gz)

The compressed file types that you can upload to Cognos Analytics are .zip and .gz files.

The .zip file can contain files with different (supported) extensions, such as .csv, .xls, .xlsx, or .txt. The .gz format can be used only with .csv files, which means that only the .csv.gz extension is supported.

When a .zip file is uploaded, all files inside the ZIP archive are treated as if they were from one Excel workbook, and a table is created for each file. If a file inside the ZIP archive contains multiple worksheets, a table is created for each worksheet. Each of those tables is named using the *FileName - SheetName* naming convention. For example, a .zip file contains the Product.csv and Geography.xlsx files, where Geography.xlsx contains two sheets, Country and Region. After the .zip file is uploaded to Cognos Analytics, the file is shown with the following 3 tables: Product, Geography - Country, and Geography - Region. Cognos Analytics tries to detect joins between all of these tables.

The files inside a ZIP archive are saved together in **Team content** or **My content**. You cannot replace a subset of files that were uploaded as a single .zip file. The whole .zip file must be replaced.

## Requirements for uploaded files

Your data files must meet size, structure, and data requirements.

**Important:** Your administrator determines how uploaded files are stored:

- They can be stored as Parquet files in the Content Manager database or external Content Manager store. This is the default setting.
- They can be stored as relational tables in a Db2 database that is managed by a Data sets server connection.

Depending on the storage method that your administrator specifies, in addition to the requirements listed below, uploaded files must meet the requirements of the database where they are stored. For more information, see [Differences between Parquet and Db2 storage](#).

## Supported data elements

The data in uploaded files can contain only certain elements.

### What is supported?

- Tabular data, consisting of simple columns with headers

**Note:** Column headers must appear in the first row.

### What is not supported?

- Pivot tables
- Crosstabs
- Images
- Charts
- Merged cells
- Tables inside tables

## Supported formats for date and time values

IBM Cognos Analytics supports the ISO 8601 standard formats for date and time.

The following date formats are supported:

- M/d/yy
- MMM d, y
- MMMM d, y
- dd-MM-yy
- dd-MMM-yy
- yyyy-MM-dd

The following time formats are supported:

- h:mm a
- h:mm:ss a
- h:mm:ss a z
- HH:mm
- HH:mm z
- HH:mm:ss
- HH:mm:ss.SS
- HH:mm:ss z
- HH:mm:ss.SS z

## Size limits

The size limits for uploaded files are configured by administrators in **Manage > Configuration > System > Data**. The settings that need to be modified are **Size limit per upload of data (MB)** and **Size limit of stored data per user (MB)**.

The following file size limitations apply to individual users:

- Maximum size of each individual file. The default is 100 MB.

- Maximum size of all uploaded files. The default is 500 MB.

The administrator can set size limits on uploaded files that apply to all users. For more information, see [Setting limits for data file uploads](#).

## Uploading files

You can upload supported file types from any location to which your computer has local or LAN access.

You can upload each data file individually or upload multiple files concurrently. Multiple files can also be compressed for a one-step upload. There are advantages and disadvantages to uploading multiple files as one compressed file versus uploading the files individually. For more information, see the section "Compressed files (.zip, .gz)" in ["Supported file types" on page 29](#).


**Tip:** Both uppercase and lowercase file names are supported.

### Before you begin

Review the "Best practices for improving query performance on uploaded files and data sets" in the *IBM Cognos Analytics Managing Guide*.

### Procedure

1. Use the following methods to upload files:

- In the Cognos Analytics welcome page, click the **Open menu** icon  in the application bar, and then click **Upload data**. Browse for the files on your local drive or on the LAN, and select one or multiple files to upload them.
- Drag one or multiple files from your local drive onto the welcome page to activate the **Quick upload** functionality. When **Quick upload** appears, drop the files into the appropriate box to immediately start building a data module, exploration, dashboard, or a notebook.
- From the **Content** view, click **Upload data**. Locate the files on your local drive or on the LAN, and select one or multiple files to upload them. The files are saved to the folder from which you initiated the upload.

**Tip:** At different upload stages, progress and error messages appear for single-file uploads, and consolidated progress messages for multi-file uploads.

2. Optional: While the upload is occurring, you can click **Cancel** at any time.

**Tip:** If you click **Cancel** or close your browser while you are uploading multiple files, your files may or may not get uploaded. For more information, see ["Interrupting an upload of multiple files"](#) in the *IBM Cognos Analytics Managing Guide*.

3. If the **Replace data** message is displayed, it means that a file was uploaded before, and you can either replace or append data to the file.

For more information, see "Updating data in uploaded files" in the *IBM Cognos Analytics Managing Guide*.

### Results

By default, the uploaded files are saved in **My content**. When the upload was initiated from a specific folder in **Team content** or **My content**, the files are saved to that folder.

If an administrator specified a different default, shared location in **Team content** for uploaded files at the role, tenant, or global level, you can save the uploaded files to this location.

**Note:** For a short time after the file upload, the file is disabled as [data sampling](#) takes place. While the file is disabled, you can't click a link to open it or apply certain actions to the file. When the data sampling is completed, the uploaded file is enabled.

If you see an error message that you have exceeded your limit of stored data, you can [view a list of all your stored data](#), delete items you no longer need, and then try uploading the new file again.

## **What to do next**

Use uploaded files to create dashboards, stories, explorations, data modules, and data sets.

To join two uploaded files, create a data module using these files as sources.

Reporting can't use uploaded files directly. However, the files can be incorporated into a data module, which can then be used as a source in Reporting.



---

## Chapter 5. Explorations

Explore is a flexible workspace where you can discover and analyze data.

You can also explore an existing visualization from a dashboard or story. Uncover hidden relationships and identify patterns that turn your data into insights. Correlated insights are represented by a green icon with a number on the x-axis, y-axis, or the title of a chart.

---


### Starting an exploration from an existing dashboard or story

When you are working on a dashboard or story, you can create or edit an exploration directly from a visualization.

#### About this task

Complete these steps to open a visualization in a new exploration or to add to an existing exploration:

#### Procedure


1. Open an existing dashboard or story.
2. Select a visualization.
3. Click the **Explore** icon  in the toolbar.
4. Select **New exploration** or **Add to existing**.

---

### Starting a new exploration from the Open menu

From the **welcome** page, you can start a new exploration from the **New** menu.

#### Procedure

1. Click the **Open menu** icon , and then click **+ New**.
2. Click **Exploration**.
3. Select a data source and click **Add**.

A starting points page is generated from the data source you selected.

---

### Starting a new exploration from a data asset in the Content page

You can select the **Action menu** on a recently used data asset in any of the **Content** folders.

#### Procedure


1. In a folder in the **Content** page, such as **Team content** or **My content**, locate the data asset, such as a data module, that you want to use as a source for your exploration.
2. Select the data asset checkbox, and from its **Action menu**, select **Create exploration**.

---

### Adding a data source

Add a data source to your exploration to explore its data.

#### Procedure

1. In the **Selected sources** pane, click the **Add a source**  icon.

2. Go to **My content** or the **Team content** folder, and select the data source that you want to add. Click **Add**.
3. Expand the data source in the **Selected sources** pane to see what's available.
4. Use the starting points page to generate a relationship diagram from your data.



---

## Chapter 6. Reports

IBM Cognos Analytics standard and active reports are created in the IBM Cognos Analytics - Reporting component.

After a report is saved in the portal, you can view, run, or edit it. You can view report outputs in various formats and languages. You can also distribute the report by email or by bursting, or send it to mobile devices. Reports can also be scheduled to run at regular time intervals.

For information about managing reports, see [Chapter 9, “Managing content,” on page 67](#).

---







### Viewing and interacting with reports

IBM Cognos Analytics reports are located in **Team content**, **My content**, or other folders, where you can open or run them from.

The report opens in a viewer. You now have different options, such as subscribe, save as a report view, edit in reporting, and more. The available options depend on the type of report that you view. When a report runs in the interactive viewer, you also have options to see different data in the report by filtering, drilling up and down, and more.

Choose the options that best suit your needs for viewing frequency and personalization. If you want to see a report on a regular basis, subscribe to it. If it's really important, you can set it as your home page. If you entered prompt and parameter values and you want to save those so you don't have to enter them every time, save the report as a report view. If you choose to edit, the report opens in Reporting with all the tools you need. For more information, see *The user interface in IBM Cognos Analytics Reporting User Guide*.




Depending on the report type, the appropriate actions are available in the viewer:










- **Subscribe** (from the **More** menu  in the application bar). Delivers reports with your prompt values and options.
- **Save as report view** (from the **Save** menu  in the Reporting toolbar). Saves your prompt values and options in a view.
- The **Edit** toggle switch  **Edit**. Enables the Reporting edit mode  **Edit**.
- **Run as**. Choose the output format.
- **Save** and **Save as** (from the **Save** menu  in the Reporting toolbar).
- Copy values from the HTML report output. Click the copy icon  in the report toolbar, and select **Copy raw value**.

If you view saved report output, and you want to be alerted when there's a new version of the report, tap **Notify me**.

You can find entries in **Team content** by searching. But you can also save and organize your items in **My content**, which is useful for saving report views with your custom prompts or for saving report output versions.


When a report runs in the interactive viewer, the following options are available in the toolbar that appears when you select a report object:


- Sort data .
- In lists, group data .
- Summarize data .

- Convert a list or crosstab to a chart, or change a chart to a different chart type .
- In crosstabs and charts, suppress columns or rows  or swap columns and rows .
- Drill through to another report.
- Add calculated members .
- Drill up, drill down, and perform dimensional operations, such as top/bottom filtering .
- Run the report as Excel or CSV output.
- Select and interact with the elements of a chart, such as the bars in a bar chart.
- View lineage information for a data item .
- Access a business glossary, such as the IBM InfoSphere® Information Governance Catalog, for a data item .
- Create, edit or remove filters .
- Share or embed report output, preserving the context of the current view of the report, such as prompt values.  
To share or embed report output, click the **Share** icon .
- Run a report as the report owner or with the capabilities granted to the owner.  
In the Cognos Analytics portal, access the **Properties** slideout of the report, click the **Report** tab, and then open the **Advanced** section.

## Run variations of reports with report views

If you want to run an existing IBM Cognos Analytics report with different prompt values, schedules, delivery methods, run options, languages, or output formats, you can create a report view. Creating a report view does not change the original report.

To create a report view , run a report using the prompt values or other run options that you want and in the save options, select **Save as report view**. Your prompt values and run options are saved in the view. If you want to edit the prompt values for the report view, open the report view properties panel.

You can also create a report view in **My content** or **Team content**. Tap the context menu  next to a report, and then tap **Create report view**.

In the properties panel for the report view, you can see a link to the source report. If the source report is moved to another location, the report view link is maintained. If the source report is deleted, the report view link breaks.


## Report versions

If you run IBM Cognos Analytics reports, you see the latest data from the source. But often you view report outputs, such as when a report you subscribe to is delivered.

Report outputs are generated by subscriptions, schedules, multiple formats or languages, bursting, and delivery methods that include save, print, and email.


In many instances, you are notified and receive a link to view the report output, but you can also view saved and archived versions of reports in your **Content** page.

### Save a report version

When a report with the **Run with full interactivity** property set to No is run, you can click the **Save** icon  in the Reporting toolbar to create a new saved output version of the report.


When a report with the **Run with full interactivity** property set to Yes is run, the **Save** and **Save as** options are available. Use the **Save** option to update the original report specification, as if you were editing the report. Use the **Save as** option (from the **Save** menu) to create a copy of the original report specification with a different name or in a different location in Cognos Analytics.

### View report versions and archived versions


In the **Content** view, from the report context menu , click **View versions**.

**Note:** When users from different time zones download the saved report output version, its timestamp shows the GMT-0 (GMT-Z) time zone. This timestamp is correct and cannot be configured. The GMT-0 time zone, and not the user's time zone, is used in the timestamp so that when users from different time zones download the report version, it's clear that they are looking at the exact same version of the report. The timestamp would be misleading if it showed the user's time zone because this could imply that the report was generated at different times.


### Set the maximum number of occurrences of run history or report versions that you can save

In the **Content** view, from the Action menu , click **Properties**. On the **Report** tab, expand **More options**. Then, in the **Display of run history** or **Display of report output versions** field, specify the maximum number of occurrences.

### Set the maximum duration that a run history item or report version is retained before it is deleted

In the **Content** view, from the Action menu , click **Properties**. On the **Report** tab, expand **More options**. Then, in the **Display of run history** or **Display of report output versions** field, specify the maximum duration of the item.

### Delete saved outputs for report versions


In the **Content** view, from the report context menu , click **View versions**. Click an entry in the list, and then click the delete icon. Deleting removes all saved output formats for the report version.

## Subscribing to reports

If you use an IBM Cognos Analytics report regularly, you can subscribe to it. When you subscribe, you pick the time, date, format, and where you want it delivered. When you subscribe to a report, the subscription includes all your prompt and parameter values.


### About this task

The subscription option is available when you run and view a report, but not when you are in editing mode or when you view saved output.


**Tip:** To ensure that you are in view mode, and not in edit mode, turn off the **Edit** toggle  **Edit**.

If you edit a report, you must save it before you can subscribe.

After you subscribe, each time your report is delivered, you are notified by a red circle on the

**Notifications** icon  in the application bar. The number in the red circle indicates the number of notifications that you have not yet viewed. Tap the notifications icon to find a message with a link to view the report output.

### Procedure

1. Run a report.
2. In the application bar, tap , and then tap **Subscribe**.
3. Select your subscription options, and then tap **Create**.

Your subscription is created.


## What to do next


After you create your subscriptions, you can view and manage them. For more information, see [“My schedules and subscriptions”](#) on page 95.

## Notifications

---

Notifications help you stay on top of important data. If you subscribe to a report or report view, you are notified every time your subscription is delivered. If you view saved output and you want to know when there's a new version of the report, you can subscribe to it.


The **Subscribe** option is available in view mode of a saved output version of a report when you tap the More button  in the application bar.

**Tip:** To ensure that you are in view mode, and not in edit mode, turn the edit toggle  **Edit** off.

If you request notification and then someone runs that report, you get a notification with a link to the updated version.

When you subscribe, if you choose the **Save the report on the system** delivery option, you receive a notification with a link to the new report version. To see all your notifications, tap the **Notifications** icon



in the application bar. When you receive a new notification, a number is added to the icon .

For more information, see [“Subscribing to reports”](#) on page 39.

---

## Chapter 7. Dashboards and stories

IBM Cognos Analytics provides dashboards and stories to communicate your insights and analysis. You can assemble a view that contains visualizations, such as a graph, chart, plot, table, map, or any other visual representation of data. You can customize a dashboard, story, or visualization by changing its visual properties.

### Dashboards

A dashboard helps you to monitor events or activities at a glance by providing key insights and analysis about your data on one or more pages or screens. You can explore the data that is shown in a visualization by using the interactive title, drilling up or down columns, and viewing the details of a data point.

You can change the visualization type or change the columns that are used in the visualization. You can use filters to focus on one area of your data or to see the impact of one column, and you can use calculations to answer questions that cannot be answered by the source columns.

For information about managing dashboards, see [Chapter 9, “Managing content,” on page 67](#).

### Stories

A story is a type of view that contains a set of scenes that are displayed in sequence over time. Types of stories include slide show and guided journey.

Stories are similar to dashboards because they also use visualizations to share your insights. Stories differ from dashboards because they provide an over-time narrative and can convey a conclusion or recommendation.

For example, each slide in a story contains an analysis, insight, or piece of information that is revealed as the viewer runs a slide show. The slides build upon each other until the final slide, which provides a conclusion or summary. You can also create the effect of animation by having visualizations and objects appear and disappear during a scene in a story.

You can quickly assemble a story by reusing analysis, insights, and visualizations that you set aside in your collection of pins. You can also add new visualizations, media, web pages, images, shapes, and text to your story.

For information about managing stories, see [Chapter 9, “Managing content,” on page 67](#).



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## Chapter 8. Notebooks

If IBM Cognos Analytics for Jupyter Notebook is enabled in IBM Cognos Analytics, you can work with notebook documents.

You can work with notebook documents, also referred to as notebooks, much like other content in Cognos Analytics.

**Note:** Before working with notebooks in Cognos Analytics, you should know how to work with and develop notebooks in Jupyter Notebook. You should be familiar with the Jupyter Notebook Editor.

CognosIBM Analytics for Jupyter Notebook supports the following notebook functionality:

### Create and upload notebooks

Create notebooks. Edit, save, copy, and move notebooks. When you open a notebook, you work in the Jupyter Notebook Editor.

Create a notebook from the **Open menu** , by selecting the **New** option.

Upload notebooks that were created outside of Cognos Analytics. For more information, see [“Uploading external notebooks” on page 62](#).

### Run and work with data in a notebook

The CADATAConnector API provides the `read_data()` and `write_data()` methods to read Cognos Analytics data sources and write to a data source. For example, you can run a notebook that reads external data, produces output, and saves the output as a data source.

You can use the Python and R programming languages in your notebooks.

For more information, see [“Reading data from a data source” on page 45](#) and [“Writing data to a data source” on page 49](#).

### Include notebook output in a dashboard, story, or report

Embed the output from a notebook code cell in a dashboard, story, or report. For example, you have a notebook that creates a visualization that is not available in Cognos Analytics. You can add this visualization to a dashboard or story by embedding the code cell that creates it.

For more information adding notebook output to a dashboard or story, see *Adding a Notebook widget* in the *Dashboards and Stories User Guide*.

For more information adding notebook output to a report, see *Including output from a notebook* in the *Reporting User Guide*.

To ensure that the notebook visualizations display properly in dashboards, use some [coding best practices](#).

## Samples

The samples show you how to work with notebooks in Cognos Analytics. If the samples are installed, you'll see them in **Team content > Samples > Notebooks**. For more information, see *Importing and configuring the Jupyter samples* in the *Samples Guide*.


**Note:** Before you can work with notebooks, CognosIBM Analytics for Jupyter Notebook must be installed and configured in your Cognos Analytics environment. Contact your administrator to confirm that you have the capability to work with notebooks. If you don't have the notebook capability, you won't see any of the functionality described in the following sections.

## Creating a notebook

---


When you create a notebook, it opens in the Jupyter Notebook Editor.

### Procedure

1. From the **Open menu** , click **New**, and then click **Notebook**.

**Tip:** If you don't see the **Notebook** selection, the notebook capability might not be enabled for you. Contact your administrator to find out.


The notebook opens in the Jupyter Notebook Editor.

2. To save the notebook, do the following steps:
  - a) Click **Save** , and then click **Save as**.
  - b) Choose the destination, type a name for the notebook, and click **Save**.

## Notebook actions

---


After you've saved a notebook, you can perform actions on it from the welcome page or from **My content** or **Team content**.

Click the **Action menu**  for the notebook, and select one of the following actions:

### Edit

Open the notebook in the Jupyter Notebook Editor.

### Run

Run the notebook in the background. A message is displayed when the notebook starts running and when it finishes. Also a notification is added to your unread notifications .

### View

When you view a notebook, you can see its contents but you can't edit or run it.

### Properties

View the notebook properties. This is where you can schedule a notebook to run at regular intervals or on a specific date and time. For more information, see "Scheduling an entry" in the *IBM Cognos Analytics Getting Started Guide*.

### Create a new job

Add a notebook to a job that runs the notebook at a scheduled time. For more information, see "Using jobs to schedule multiple entries" in the *IBM Cognos Analytics Getting Started Guide*.

### Take ownership

Take ownership of the notebook. When you own a notebook, you can change the permissions for it. This action is available only in **Team content** since you already own the notebooks in **My content**. For more information, see "Simple and granular access permissions" in the *IBM Cognos Analytics Getting Started Guide*.

### Copy or move

Copy or move the notebook. For more information, see *Copying or moving entries* in the *IBM Cognos Analytics Getting Started Guide*.

### Create a shortcut

Create a shortcut to your notebook in **My content** or **Team content**.

### Share

You can copy the URL of the notebook and use it in other places. If Cognos Analytics is connected to a collaboration tool, such as Slack, you can send a link to your notebook to other users. For more information, see "Sharing content" in the *IBM Cognos Analytics Getting Started Guide*.

### Remove from Recent

Remove the notebook from the **Recent** view. It still exists in **My content** or **Team content**.



## Delete

Delete the notebook from Cognos Analytics.

**Tip:** You can also access these actions in **My content** or **Team content** from the actions toolbar for a notebook. A subset of these actions is available if you do not have the **Edit notebook** capability.

## Reading data from a data source

---

You can read Cognos Analytics data in a notebook using the Python or R programming languages.

You can read the following types of Cognos Analytics data sources in a notebook:

- Uploaded CSV or XLS files
- Data sets
- Data modules
- Framework Manager packages, including OLAP data

**Note:** Cognos Analytics does not support reading from data that requires user input. For example, a query subject in Framework Manager with a parameterized filter.

To quickly insert the `read_data()` method in a notebook cell, do the following steps:

1. Create or edit a notebook and position your cursor in the cell after which you want to do the read.

2. Click **Sources** .

3. Navigate to a data source, select it, and then click **Open**. The method is inserted in the cell with the data source to read specified.

Alternatively, you can type the code in a cell:

### In Python

```
data = CADataConnector.read_data(parameters as described in the following sections)
```

### In R

```
data <- CADataConnector$read_data(parameters as described in the following sections)
```

One of the following items is returned from the method:

#### DataFrame

Returned by default.

#### List of DataFrame

Returned when the **sheet\_name** parameter is specified and multiple sheets are requested.

#### Iterator of DataFrame

Returned when the **chunksize** or **iterator** parameter is specified.

## Parameters common to all data sources

For examples of how to code the `read_data()` method, see [“Python notebook examples” on page 53](#).

The following parameters can be specified for all supported data source types:

Parameter	Required or optional	Description
path id	Specify one of <b>path</b> or <b>id</b>	<p>Path to the data source. If the data source is in <b>My content</b>, specify <code>.my_folders</code> at the start of the path. If the data source is in <b>Team content</b>, specify <code>.public_folders</code> at the start of the path. For example, to specify a file called sales-notebook that is stored in <b>My content</b>, specify</p> <pre>path=".my_folders/sales-notebook"</pre> <p>The ID of the file. For information about how to get the ID of a file, see <a href="#">“Finding the ID of a file” on page 52</a>. For example:</p> <pre>id="i1f8d76c0fAD34J9CA50118746935D9X7"</pre>
usecols	optional	<p>List of integers or strings that identifies a subset of columns to be returned. You can specify one or more columns by the position number of the column in the file or by column name. For example, to request columns <b>City</b> and <b>Quantity</b>, specify</p> <p><b>In Python</b></p> <pre>usecols=["City", "Quantity"]</pre> <p><b>In R</b></p> <pre>usecols=list("City", "Quantity")</pre> <p>If not specified, then all columns are returned.</p> <p><b>Note:</b> This parameter is not applicable for OLAP data in a Framework Manager package.</p>
chunksize	optional	<p>An integer. If specified, the method returns an iterator. The value specifies the number of rows to return each time the method is invoked. For example, to return 3 rows, specify</p> <pre>chunksize=3</pre> <p>If both <b>chunksize</b> and <b>iterator</b> are not specified, then a DataFrame is returned.</p>

Parameter	Required or optional	Description
iterator	optional	<p>If specified, the method returns an iterator. Specifying</p> <pre>iterator=True</pre> <p>without <b>chunksize</b> specified returns one row each time the method is invoked.</p> <p>Specifying <code>iterator=True</code> with <b>chunksize</b> specified, returns <b>chunksize</b> rows each time the method is invoked.</p> <p>Reset the iterator using the reset method:</p> <p><b>In Python</b></p> <pre>iterator.reset()</pre> <p><b>In R</b></p> <pre>iterator\$reset()</pre> <p>method.</p>
nrows	optional	<p>The maximum number of rows returned. Specify an integer.</p> <p>If omitted, the maximum number of rows returned is 10,000. If</p> <pre>nrows=0</pre> <p>is specified, then the column headings are returned.</p>

## XLS file parameters

Uploaded files are treated as sheets of data. Reading one of these data sources returns the rows for the specified sheet of data in the data source.

The following parameter applies only to XLS files:

### sheet\_name

Optional. Integer, string, or a list of integers or strings. Specifies the integer position of a specific sheet or tab in an XLS file. The first sheet is 0. If you specify a list of strings or integers, then a list of the corresponding sheets is returned. If not specified, the value defaults to 0. Example:

#### In Python

```
sheet_name=["sheet2", "sheet3"]
```

#### In R

```
sheet_name=list("sheet2", "sheet3")
```

## Data module parameters

Reading data from a data module must reflect the modeling done on the data source. For example, a join between two tables and aggregation types to apply.

The following parameters apply only to data modules:

Parameter	Required or optional	Description
table_name	Optional	<p>String or list of strings. Restrict the scope of the request to specific table(s) in the data module. Specify the table(s) by table name(s).</p> <p>If you omit <b>table_name</b>, the <code>read_data()</code> method returns a DataFrame that contains the names of the tables defined in the data module. Example:</p> <p><b>In Python</b></p> <pre>table_name=["table1","table2"]</pre> <p><b>In R</b></p> <pre>table_name=list("table1","table2")</pre>
calculation	Optional	String or list of strings. Read a calculation from a data module. Specify a calculated column in the data module.

## Package parameters

Reading data from a package must reflect the modeling done on the data source. For example, the relationship between objects in the package.

The following parameters apply only to packages:

Parameter	Required or optional	Description
query_subject	Optional	<p>String or list of strings. Restrict the scope of the request to the specific query subjects(s) in the package. Specify the query subject(s) by query subject name(s). Example:</p> <pre>query_subject="query1"</pre>
folder_name	Optional	<p>String or list of strings. Restrict the scope of the request to a folder in the package. Displays the contents of all folder(s) with that name in the package. If you want to see only the content of folder c that's in folder b that's in folder a specify the <b>folder_name</b> parameter as a list:</p> <p><b>In Python</b></p> <pre>folder_name=["a","b","c"]</pre> <p><b>In R</b></p> <pre>folder_name=list("a","b","c")</pre> <p>This returns only the folder c in this path, even if there are other folders with the name c in the package.</p>
metadata	Optional. Applies only to OLAP data in a Framework Manager package.	<p>Value can be True or False.</p> <p>Specifying</p> <pre>metadata=True</pre> <p>returns the query subjects in the package. Specifying</p>

Parameter	Required or optional	Description
		<pre>metadata=False</pre> <p>returns the data in the package. If not specified, then a default value of False is used.</p>

**Note:** You can use either single or double quotation marks in a method but not a mix of both.

## Writing data to a data source

You can write Cognos Analytics data in a notebook using the Python or R programming languages.

You can save or create the data source in **My content** or **Team content**.

To write data to the data source, specify the following code in a notebook cell:

### In Python

```
data = CADATAConnector.write_data(parameters as described in the following sections)
```

### In R

```
data <- CADATAConnector$write_data(parameters as described in the following sections)
```

Parameter	Required or optional	Description
data	required	Pandas.DataFrame. Contains the table of data, which is written to the file.
path id	Specify one of <b>path</b> or <b>id</b>	<p>Path to the data source. If the data source is in <b>My content</b>, specify <code>.my_folders</code> at the start of the path. If the data source is in <b>Team content</b>, specify <code>.public_folders</code> at the start of the path. For example, to specify a file called <code>sales-notebook</code> that is stored in <b>My content</b>, specify</p> <pre>path=".my_folders/sales-notebook"</pre> <p>The ID of the file. For information about how to get the ID of a file, see <a href="#">“Finding the ID of a file”</a> on page 52. For example:</p> <pre>id="i1F8D76C0FAD34J9CA50118746935D9X7"</pre>

Parameter	Required or optional	Description
mode	optional	<p><b>x</b> Create the file and write to it. If the file exists, the method fails with an exception. Default value.</p> <p><b>w</b> Overwrite any data that exists in the file. The columns that you are writing to the file must match the ones in the file. Create the file if it doesn't exist.</p> <p><b>a</b> Append to the end of the file. The columns that you are adding to the file must match the ones in the file. Create the file if it doesn't exist.</p> <p>Example:</p> <pre>mode="w"</pre>

**Note:** You can use either single or double quotation marks in a method but not a mix of both.

For examples of how to code the `write_data()` method, see [“Python notebook examples” on page 53](#) and [“R notebook examples” on page 56](#).

## Searching for data objects

You can search for data objects in a notebook using the Python or R programming languages.

The `search_data()` method is used to find data objects so that they can be further processed using the `CADDataConnector`.

The result provides a list of data objects and their connection paths, which may be copy/pasted for use with the various connection and access functions in the `CADDataConnector`.

To search for data objects, specify the following code in a notebook cell:

### In Python

```
data = CADDataConnector.search_data(parameters as described in the following sections)
```

### In R

```
data <- CADDataConnector::search_data(parameters as described in the following sections)
```

Parameter	Required or optional	Description
query='search_term'	optional	<p><code>search_term</code> can be any data object.</p> <p>If no parameters are supplied, that is, <code>CADDataConnector.search_data()</code>, all data objects available are selected, to a maximum of 50. See an <a href="#">example of the resulting output</a>.</p>

Parameter	Required or optional	Description
<code>types=types</code>	optional	<p><code>types</code> can be replaced with any number of (separated by either ' ' or ';') the following data object types:</p> <ul style="list-style-type: none"> <li>• uploadedFile</li> <li>• dataset</li> <li>• dataset2</li> <li>• module</li> <li>• package</li> </ul> <p>Example:</p> <pre>types='module,dataset'</pre> <p>If <code>types=types</code> is not specified, the default is all of the types listed above.</p>
<code>max=number</code>	optional	<p><code>number</code> is any number greater than zero.</p> <p>Example:</p> <pre>max=20</pre> <p>If <code>max=number</code> is not specified, the default is</p> <pre>max=50</pre> <p>Use a higher number if you see a message that the maximum results were returned.</p>

**Note:** You can use either single or double quotation marks in a method but not a mix of both.

## Example output when no parameters are specified

When no parameters are supplied, the output appears in a list:

```
Results found: 50. ( see more results by using "max=" parameter with a number higher than 50 )

Type          Open path
package       .public_folders/Samples/Models/GO sales (analysis)
package       .public_folders/Samples_LG_DQ/Models/GO Data Warehouse (query)
package       .public_folders/Samples/Models/GO sales (query)
package       .public_folders/Samples_LG_DQ/Models/GO Sales (query)
package       .public_folders/Samples/Models/GO data warehouse (query)
package       .public_folders/Samples_LG_DQ/Models/GO Data Warehouse (analysis)
package       .public_folders/Samples/By feature/Audit
package       .public_folders/Samples/Models/GO data warehouse (analysis)
package       .public_folders/Samples_LG_DQ/Models/GO Sales (analysis)
package       .public_folders/Samples/Data/Sporting goods company
uploadedFile  .public_folders/Samples/By feature/Notebooks/Data/Source files/Notebook data/
Weather
uploadedFile  .public_folders/Samples/By feature/Notebooks/Data/Source files/
Hospital_floor_plan.xlsx
.....
```

## Python notebook examples

```
CADDataConnector.search_data('boston')
```

Returns everything with 'boston' in the name or data, to a maximum of the default number of results.

```
CADDataConnector.search_data(types='module,package',max=100)
```

Returns only modules or packages to a maximum of 100 results.

```
CADDataConnector.search_data(max=20)
```

Returns everything to a maximum of 20 results.

**Note:** All or none of the parameters may be used. If the query is to be used, it must be the first parameter. The other parameters are named and are not position-dependent.

## R notebook examples

```
CADDataConnector::search_data('boston')
```

Returns everything with 'boston' in the name or data, to a maximum of the default number of results.

```
CADDataConnector::search_data(types='module,package',max=100)
```

Returns only modules or packages to a maximum of 100 results.

```
CADDataConnector::search_data(max=20)
```

Returns everything to a maximum of 20 results.

**Note:** All or none of the parameters may be used. If the query is to be used, it must be the first parameter. The other parameters are named and are not position-dependent.

## File paths that contain a forward slash

---

To reference a file or folder name that contains a folder slash in the CADDataConnector API, you must use a specific syntax.

To enable the CADDataConnector API to differentiate between a forward slash that indicates folder structure and a forward slash that is part of a file or folder name, enclose each folder or file name in single or double quotation marks, separate each folder or file name in the path with a comma, and enclose the whole thing in square brackets.

In the following example, the path to a file named `my/data.csv` is `my/folder-1/my/folder-2/my/data.csv`.


```
data = CADDataConnector.read_data(path=["my/folder-1","my/folder-2","my/data.csv"])
```

## Finding the ID of a file

---

To reference a file in the CADDataConnector API, you can use its ID.

### Procedure

1. In a content page, such as **My Content** or **Team content**, click the **Action menu**  for a file, and select **Properties**.
2. On the **General** tab, click **Advanced**. The **ID** field contains the file ID.



## Python notebook examples

Here are some examples that demonstrate how to work with Cognos Analytics data sources in a notebook using the Python programming language.

**Tip:** To switch your notebook's programming mode from **R** to **Python**, from the **Kernel** menu, select **Change kernel > Python**.

### Reading a file

The following example reads a file called `SampleFile_GOSales.xls`, outputs the entire file, and then specifies the **nrows** and **usecols** parameters to output the **City** and **Quantity** columns for the first 2 rows of data in the file.

```
In [1]: data = CDataConnector.read_data(path="public_folders/jmdatasets/SampleFile_GOSales.xls")

In [2]: data.head()
Out[2]:
```

	Retailer country	Province or State	City	Postal code	Short postal code	Order method type	Retailer type	Retailer	Product line	Product type	Year	Quarter	Quantity	Unit cost	Unit price	Unit sale price	Re
0	United Kingdom	West Midlands	Birmingham	B29 5DW	B2	Web	Outdoors Shop	Seamate Chandeliers	Camping Equipment	Cooking Gear	2014	Q3	1868	2.90	6.59	6.26	11
1	Canada	Saskatchewan	Regina	S1J 3C5	S1J	Web	Sports Store	Ultra Sports	Camping Equipment	Cooking Gear	2017	Q2	3659	3.01	6.59	6.26	22
2	United States	Florida	Miami	33176	33176	Web	Sports Store	Island Sports	Camping Equipment	Cooking Gear	2016	Q2	1218	2.93	6.59	6.48	7
3	United Kingdom	West Midlands	Birmingham	B20 3BA	B2	Web	Department Store	Leisure Land	Camping Equipment	Cooking Gear	2015	Q4	1638	2.93	6.59	6.19	10
4	United Kingdom	West Midlands	Birmingham	B20 3BA	B2	Web	Department Store	Leisure Land	Camping Equipment	Cooking Gear	2016	Q4	1315	2.93	6.59	6.26	8

5 rows x 22 columns

```
In [ ]:

In [5]: data = CDataConnector.read_data(path="public_folders/jmdatasets/SampleFile_GOSales.xls",
data
nrows=2, usecols=['City', 'Quantity'])
Out[5]:
```

	City	Quantity
0	Birmingham	1868
1	Regina	3659

```
In [ ]:
```

### Reading part of a file

Specify **iterator** and **chunksize** to work with chunks of data, rather than the whole data source all at once. The following example reads 20,000 rows at a time from the `SampleFile_GOSales.xls` file.

```
In [23]: iter = CDataConnector.read_data(path="public_folders/jmdatasets/SampleFile_GOSales.xls",
chunksize = 20000)

In [24]: for chunk in iter:
display(chunk.head(2))
```

	Retailer country	Province or State	City	Postal code	Short postal code	Order method type	Retailer type	Retailer	Product line	Product type	Year	Quarter	Quantity	Unit cost	Unit price	Unit sale price	Reven
0	United Kingdom	West Midlands	Birmingham	B29 5DW	B2	Web	Outdoors Shop	Seamate Chandeliers	Camping Equipment	Cooking Gear	2014	Q3	1868	2.90	6.59	6.26	1168
1	Canada	Saskatchewan	Regina	S1J 3C5	S1J	Web	Sports Store	Ultra Sports	Camping Equipment	Cooking Gear	2017	Q2	3659	3.01	6.59	6.26	2296

2 rows x 22 columns

	Retailer country	Province or State	City	Postal code	Short postal code	Order method type	Retailer type	Retailer	Product line	Product type	Year	Quarter	Quantity	Unit cost	Unit price	Unit sale price	Reven
0	Germany	Bayern	München	80800	80800	Web	Eyewear Store	Weltblick	Personal Accessories	Eyewear	2017	Q1	1082	25.70	61.84	59.636222	64158.
1	United Kingdom	Greater London	London	E14 7LB	E1	Web	Sports Store	Total Sports	Personal Accessories	Eyewear	2015	Q4	206	28.15	61.84	60.230000	12383.

### Writing to a file

The following example writes the contents of a DataFrame table of data in to a file called `regions sales`, which is then stored in **My content**.

```
In [20]: import pandas as pd
newData = pd.DataFrame({'Regions': ['Americas', 'Europe', 'Asia'], 'Sales': [300, 400, 500]})

In [21]: newData
Out[21]:
```

	Regions	Sales
0	Americas	300
1	Europe	400
2	Asia	500

```
In [22]: CDataConnector.write_data(newData, path="my_folders/region sales", mode="w")
```

### Reading a data module

A data module has relationships, aggregations, calculated columns, and so on, defined on its data. The `read_data()` method defines a section of data from a data module by selecting columns from the tables

in the module. The data that is returned includes the relationships, aggregations, calculated columns, and so on, defined in the data module.

Specifying the `read_data()` method without the **table\_name** parameter returns a **DataFrame** that contains the names of all the tables defined in the data module, as shown in the following example:

```
In [26]: data = CDataConnector.read_data(path=".public_folders/jmdatasets/sample_data_module")
data
Out[26]:
```

	Name	Table Name	Type
0	American Time Use Xlsx	M1_American_time_use_xlsx	Data
1	Banking Loss Events Xlsx	M1_Banking_loss_events_xlsx	Data

In the following example, the `M1_American_time_use_xlsx` table in the `sample_data_module` data module is read and the columns **Year** and **Children** are returned.

```
In [28]: data = CDataConnector.read_data(path=".public_folders/jmdatasets/sample_data_module",
data
table_name="M1_American_time_use_xlsx",
usecols=["Year", "Children"])
Out[28]:
```

	Year	Children
0	2004	0.844863
1	2009	0.863970
2	2010	0.881495
3	2006	0.959833
4	2008	0.902300
5	2012	0.832634
6	2003	0.872129
7	2005	0.938406
8	2007	0.914562
9	2011	0.835999

## Reading a calculated column from a data module

Use the **calculation** parameter to read a calculated column from a data module.

The following example reads 2 calculations from the `calculation_data_module` data module.

```
In [5]: # Multiple calculations can be read at once
data = CDataConnector.read_data(
    path=".my_folders/calculation_data_module",
    calculation=['half_population', 'double_population']
)
data
Out[5]:
```

	half_population	double_population
0	16940919.0	67763676

## Reading a package

Like a data module, a package has relationships, aggregations, calculated columns, and so on, defined on its data. In addition, a package logically groups data into query subjects and folders. You can use the `read_data()` method to navigate through the structure of a package by using the **query\_subject** and **folder\_name** parameters.

The following code reads the `Go_data_warehouse` package:

```
In [1]: toplevel = CDataConnector.read_data(path=".public_folders/jmdatasets/GO_data_warehouse (query)")
In [2]: toplevel
Out[2]:
```

	Name	Query Subject	Type
0	HR (query)	N/A	Folder
1	Sales and Marketing (query)	N/A	Folder
2	Finance (query)	N/A	Folder
3	Filters	N/A	Folder

Specifying the **folder\_name** parameter returns the contents of all folder(s) with that name in the package. If you want to return only the content of one specific folder, for example folder c, that's inside folder b, that's inside folder a, put a list of the folder names in the **folder\_name** parameter. The

following example uses the **folder\_name** parameter to get all of the query subjects in the Employee expense folder:

```
In [3]: CADataConnector.read_data(path=".public_folders/jmdatasets/GO data warehouse (query)", folder_name=toplevel['Name'][0])
```

```
M In [4]: hr
```

```
Out[4]:
```

	Name	Query Subject	Type
0	Employee expense (query)	N/A	Folder
1	Employee expense plan (query)	N/A	Folder
2	Employee position summary (query)	N/A	Folder
3	Employee ranking (query)	N/A	Folder
4	Employee recruitment (query)	N/A	Folder
5	Employee succession (query)	N/A	Folder
6	Employee summary (query)	N/A	Folder
7	Employee survey (query)	N/A	Folder
8	Employee survey target (query)	N/A	Folder
9	Employee training (query)	N/A	Folder

```
In [5]: exp = CADataConnector.read_data(path=".public_folders/jmdatasets/GO data warehouse (query)", folder_name=hr['Name'][0])
```

```
In [6]: exp
```

```
Out[6]:
```

	Name	Query Subject	Type
0	Employee expense fact	[Employee expense (query)][Employee expense f...	Data Sheet
1	Account	[Employee expense (query)][Account]	Data Sheet
2	Employee by manager	[Employee expense (query)][Employee by manager]	Data Sheet
3	Employee by region	[Employee expense (query)][Employee by region]	Data Sheet
4	Employee expense	[Employee expense (query)][Employee expense]	Data Sheet
5	Organization	[Employee expense (query)][Organization]	Data Sheet
6	Organization (consolidated)	[Employee expense (query)][Organization (cons...	Data Sheet
7	Position-department	[Employee expense (query)][Position-department]	Data Sheet
8	Time	[Employee expense (query)][Time]	Data Sheet
9	YTD Time	[Employee expense (query)][YTD Time]	Data Sheet

The following code returns the query items that are in the Employee expense fact query subject:

```
In [20]: expfacts = CADataConnector.read_data(path=".public_folders/jmdatasets/GO data warehouse (query)",
query_subject=[exp['Query Subject'][0]])
```

```
In [21]: expfacts
```

```
Out[21]:
```

	Expense unit quantity	Expense total	Expense unit quantity YTD	Expense total YTD
0	4.004779e+06	168696729.2	4.004779e+06	168696729.2

The following code returns the query items that are in the Account query subject:

```
M In [24]: accounts = CADataConnector.read_data(path=".public_folders/jmdatasets/GO data warehouse (query)",
accounts.columns,
query_subject=[exp['Query Subject'][1]])
```

```
Out[24]: Index(['Account name (level 1)', 'Account name (level 2)',
'Account name (level 3)', 'Account name (level 4)',
'Account name (level 5)', 'Account name (level 6)',
'Account name (level 7)', 'Account name (level 8)',
'Account name (level 9)', 'Account name (level 10)',
'Account name (level 11)', 'Account name (level 12)',
'Account name (level 13)', 'Account name (level 14)',
'Account name (level 15)', 'Account name (level 16)', 'Account name',
'Account level', 'Account parent', 'Debit or credit',
'Account code (level 1)', 'Account code (level 2)',
'Account code (level 3)', 'Account code (level 4)',
'Account code (level 5)', 'Account code (level 6)',
'Account code (level 7)', 'Account code (level 8)',
'Account code (level 9)', 'Account code (level 10)',
'Account code (level 11)', 'Account code (level 12)',
'Account code (level 13)', 'Account code (level 14)',
'Account code (level 15)', 'Account code (level 16)', 'Account key',
'Account code', 'Account type code', 'Account class code'],
dtype='object')
```

The following code selects the first two query subjects in the Employee expense folder. **Expense total** is returned from the first query subject (**Employee expense fact**) and **Account code** is returned from the second query subject (**Account**).

```
M In [25]: exp_by_account = expfacts = CADataConnector.read_data(path=".public_folders/jmdatasets/GO data warehouse (query)",
query_subject=[exp['Query Subject'][0], exp['Query Subject'][1]],
usecols=['Expense total', 'Account code'])
```

```
In [26]: exp_by_account
```

```
Out[26]:
```

	Expense total	Account code
0	95723630.59	601100
1	39938062.73	601500
2	4008748.74	601600
3	10555741.81	605050
4	14514144.54	605500
5	3958400.79	605800

## Reading the metadata for OLAP data in a Framework Manager package

The following code shows the **metadata** parameter set to true, which returns the query subjects in the package:

```
In [5]: data = CADATAConnector.read_data(
        path=".public_folders/PowerCubePackage",
        query_subject="[PowerCube].[Products].[Products]",
        metadata=True
    )
    display(data)
```

	Name	Query Subject
0	Products	[PowerCube].[Products].[Products].[Products]
1	Product line	[PowerCube].[Products].[Products].[Product line]
2	Product type	[PowerCube].[Products].[Products].[Product type]
3	Product	[PowerCube].[Products].[Products].[Product]

```
In [ ]:
```

## R notebook examples

Here are some examples that demonstrate how to work with Cognos Analytics data sources in a notebook using the R programming language.

**Tip:** To switch your notebook's programming mode from **Python** to **R**, from the **Kernel** menu, select **Change kernel > R**.

### A basic read

The following example reads a file called `SampleFile_GOSales.xls` and displays the first six rows of it.

```
In [3]: data <- CADATAConnector$read_data(path=".public_folders/jimdatasets/SampleFile_GOSales.xls")
        head(data)
```

Retailer country	Province or State	City	Postal code	Short postal code	Order method type	Retailer type	Retailer	Product line	Product type	...	Planned revenue
United Kingdom	West Midlands	Birmingham	B29 5DW	B2	Web	Outdoors Shop	Seamate Chandlers	Camping Equipment	Cooking Gear		12310.12
Canada	Saskatchewan	Regina	S1J 3C5	S1J	Web	Sports Store	Ultra Sports	Camping Equipment	Cooking Gear		24112.81
United States	Florida	Miami	33176	33176	Web	Sports Store	Island Sports	Camping Equipment	Cooking Gear		8026.62
United Kingdom	West Midlands	Birmingham	B20 3BA	B2	Web	Department Store	Leisure Land	Camping Equipment	Cooking Gear		10794.42
United Kingdom	West Midlands	Birmingham	B20 3BA	B2	Web	Department Store	Leisure Land	Camping Equipment	Cooking Gear		8665.85
United Kingdom	Greater London	London	E15 3JR	E1	Sales visit	Outdoors Shop	Jensen Mountaineering	Camping Equipment	Cooking Gear		19967.70

### Reading a file

The following example reads a file called `SampleFile_GOSales.xls` and specifies the **nrows** and **usecols** parameters to output the **City** and **Quantity** columns for the first two rows of data in the file.

```
In [1]: data <- CADataConnector$read_data(
  path=".public_folders/jimdatasets/SampleFile_GOSales.xls",
  usecols=list('City', 'Quantity'),
  nrows=2
)
data
```

City	Quantity
Birmingham	1868
Regina	3659

## Reading part of a file

Specify **iterator** and **chunksize** to work with chunks of data, rather than the whole data source all at once. The following example reads 20,000 rows at a time from the SampleFile\_GOSales.xls file. As the file is read, the number of rows in the chunk is displayed.

```
In [8]: iter <- CADataConnector$read_data(
  path=".public_folders/jimdatasets/SampleFile_GOSales.xls",
  chunksize=20000
)
```

```
⌘ In [9]: chunk <- iter$get_chunk()
while(nrow(chunk) > 0) {
  print(nrow(chunk))
  chunk <- iter$get_chunk()
}
```

```
[1] 20000
[1] 20000
[1] 20000
[1] 5535
```

## Writing to a file

The following example writes the contents of a DataFrame table of data in to a file called regions sales, which is then stored in **My content**.

```
In [1]: newData <- data.frame("Regions" = c("Americas", "Europe", "Asia"), "Sales" = c(300, 400, 500))
```

```
In [2]: newData
```

Regions	Sales
Americas	300
Europe	400
Asia	500

```
In [5]: CADataConnector$write_data(newData, path=".my_folders/region sales", mode="w")
```

## Reading a data module

A data module has relationships, aggregations, calculated columns, and so on, defined on its data. The `read_data()` method defines a section of data from a data module by selecting columns from the tables in the module. The data that is returned includes the relationships, aggregations, calculated columns, and so on, defined in the data module.

Specifying the `read_data()` method without the **table\_name** parameter returns a DataFrame that contains the names of all the tables defined in the data module, as shown in the following example:

```
In [6]: data <- CADataConnector$read_data(  
        path=".public_folders/Samples/Data/Coffee sales and marketing"  
        )  
data
```

Name	Table Name	Type
Sales Receipts	i201904_sales_reciepts	Data
Pastry Inventory	pastry_inventory	Data
Sales Targets	sales_targets	Data
Customer	customer	Data
Dates	Dates	Data
Product	product	Data
Sales Outlet	sales_outlet	Data
Staff	staff	Data
Generation	generations	Data
Spoilage_Expense	N/A	Calculation
beverages_sale	N/A	Calculation
beverages_sale_1	N/A	Calculation
beverages_sale_2	N/A	Calculation
beverages_sale_3	N/A	Calculation
beverages_sale_4	N/A	Calculation

In the following example, the `pastry_inventory` table in the `Coffee sales and marketing` data module is read and the columns **Date** and **Quantity Sold** are returned.



```
In [8]: data <- CADataConnector$read_data(
  path=".public_folders/Samples/Data/Coffee sales and marketing",
  table_name='pastry_inventory',
  usecols=list("Date", "Quantity Sold")
)
data|
```

Date	Quantity Sold
2019-04-04	48
2019-04-05	0
2019-04-11	127
2019-04-12	133
2019-04-13	123
2019-04-17	149
2019-04-19	159
2019-04-20	163
2019-04-21	161
2019-04-22	102
2019-04-23	93
2019-04-26	102
2019-04-01	46
2019-04-02	46
2019-04-03	41
2019-04-06	70
2019-04-07	104
2019-04-08	118
2019-04-09	91
2019-04-10	110
2019-04-14	167
2019-04-15	149
2019-04-16	144
2019-04-18	117
2019-04-24	105
2019-04-25	109
2019-04-27	77

## Reading a package

Like a data module, a package has relationships, aggregations, calculated columns, and so on, defined on its data. In addition, a package logically groups data into query subjects and folders. You can use the `read_data()` method to navigate through the structure of a package by using the **query\_subject** and **folder\_name** parameters.

The following code reads the Go data warehouse package:

```
In [3]: toplevel <- CADataConnector$read_data(  
  path=".public_folders/Samples_DQ_10.2.2_DB2/Models/GO Data Warehouse (query)")  
  toplevel
```

Name	Query Subject	Type
HR (query)	N/A	Folder
Sales and Marketing (query)	N/A	Folder
Finance (query)	N/A	Folder
Filters	N/A	Folder

Specifying the **folder\_name** parameter returns the contents of all folders with that name in the package. If you want to return only the content of one specific folder, for example folder c, that's inside folder b, that's inside folder a, put a list of the folder names in the **folder\_name** parameter. The following example uses the **folder\_name** parameter to get all of the query subjects in the Employee expense folder:



```
In [4]: hr <- CADataConnector$read_data(
  path=".public_folders/Samples_DQ_10.2.2_DB2/Models/GO Data Warehouse (query)",
  folder_name=toplevel[1,1]
)
hr
```

Name	Query Subject	Type
Employee expense (query)	N/A	Folder
Employee expense plan (query)	N/A	Folder
Employee position summary (query)	N/A	Folder
Employee ranking (query)	N/A	Folder
Employee recruitment (query)	N/A	Folder
Employee succession (query)	N/A	Folder
Employee summary (query)	N/A	Folder
Employee survey (query)	N/A	Folder
Employee survey target (query)	N/A	Folder
Employee training (query)	N/A	Folder

```
In [5]: exp <- CADataConnector$read_data(
  path=".public_folders/Samples_DQ_10.2.2_DB2/Models/GO Data Warehouse (query)",
  folder_name=hr[1,1]
)
exp
```

Name	Query Subject	Type
Employee expense fact	[Employee expense (query)].[Employee expense fact]	Data
Account	[Employee expense (query)].[Account]	Data
Employee by manager	[Employee expense (query)].[Employee by manager]	Data
Employee by region	[Employee expense (query)].[Employee by region]	Data
Employee expense	[Employee expense (query)].[Employee expense]	Data
Organization	[Employee expense (query)].[Organization]	Data
Organization (consolidated)	[Employee expense (query)].[Organization (consolidated)]	Data
Position-department	[Employee expense (query)].[Position-department]	Data
Time	[Employee expense (query)].[Time]	Data
YTD Time	[Employee expense (query)].[YTD Time]	Data

The following code returns the query items that are in the **Employee expense fact** query subject:

```
In [10]: expfacts <- CADataConnector$read_data(
  path=".public_folders/Samples_DQ_10.2.2_DB2/Models/GO Data Warehouse (query)",
  query_subject=list(exp[1,2])
)
expfacts
```

Expense unit quantity	Expense total	Expense unit quantity YTD	Expense total YTD
4004779	168696729	4004779	168696729

The following code returns the query items that are in the **Account** query subject:

```
In [14]: accounts <- CADataConnector$read_data(
  path=".public_folders/Samples_DQ_10.2.2_DB2/Models/GO Data Warehouse (query)",
  query_subject=list(exp[2,2])
)
accounts[0,]
```

Account name (level 1)	Account name (level 2)	Account name (level 3)	Account name (level 4)	Account name (level 5)	Account name (level 6)	Account name (level 7)	Account name (level 8)	na	Debit or credit
------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	----	-----------------------

## Reading the metadata for OLAP data in a Framework Manager package

The following code shows the **metadata** parameter set to true, which returns the query subjects in the package:

```
In [5]: data <- CADataConnector$read_data(
  path=".public_folders/powercube",
  query_subject="[powercube].[Products].[Products]",
  metadata=TRUE
)
data
```

Name	Query Subject
Products	[powercube].[Products].[Products].[Products]
Product line	[powercube].[Products].[Products].[Product line]
Product type	[powercube].[Products].[Products].[Product type]
Product	[powercube].[Products].[Products].[Product]

## Uploading external notebooks

You can upload Jupyter Notebooks (.ipynb or .zip extension) that were created in a Jupyter environment outside of IBM Cognos Analytics.

The uploaded notebooks are matched against the following JSON schemas:

- <https://github.com/jupyter/nbformat/blob/master/nbformat/v3/nbformat.v3.schema.json> (version 3 (v3) notebooks)
- <https://github.com/jupyter/nbformat/blob/master/nbformat/v4/nbformat.v4.schema.json> (version 4 (v4) notebooks)

If a notebook doesn't conform to either of these schemas, the upload is rejected.


Jupyter Server creates all new notebooks using the v4 schema.

### About this task

The process of uploading notebook files is similar to the process of uploading spreadsheets and text files that are used as data sources in Cognos Analytics. For example, the notebook files have the same size limitations as other uploaded file types. For more information, see [Upload data files](#).

### Procedure

Use the following methods to upload the notebooks:

- From the **Open menu**  , click **Upload data**. Locate the notebook files (.ipynb or .zip) on your local drive or on the LAN, and select one or multiple files to upload them.
- In the welcome page, drag one or multiple .ipynb or .zip files from your local drive onto the welcome page to activate the **Quick upload** functionality. When **Quick upload** appears, drop the files into the **Notebook** box.
- From **Team content** or **My content**, click **Upload data**. Locate the notebook files on your local drive or on the LAN, and select one or multiple files to upload them. The files are saved to the folder from which you initiated the upload.

## Results

A notebook is created for each uploaded .ipynb file in **My content**. However, when the upload was initiated from a specific folder, the notebooks are created in that folder.

## What to do next

You can seamlessly open an uploaded v4 notebook in the edit mode. To open a v3 notebook in the edit mode, the Jupyter server temporarily converts it to the v4 format. If you save the notebook, it is saved in the v4 format.

**Tip:** Older versions of Jupyter might not read the v4 format. To preserve the original notebook version, close it without saving.

You can view both v3 and v4 notebooks in the view-only mode. Because you can't interact with notebooks in this mode, there is no need to convert v3 notebooks to v4.

You can import uploaded v3 and v4 notebooks into a Cognos Analytics dashboard. The **Notebook** widget in the dashboards conforms to the v4 JSON schema so the visualizations in v4 notebooks display seamlessly in the dashboard. To ensure that the v3 notebook visualizations display properly in the dashboard, you must open and save the v3 notebooks in the edit mode before you import them into the dashboard.

## Importing Watson Studio notebooks to Cognos Analytics


---

If you are using Cognos Analytics on Cloud, you may have been given access to a Watson Studio environment that is external to your Cognos Analytics environment. If so, you can import notebooks that were authored in the Watson Studio environment. You can then select a content cell from an imported notebook and add it to a report or dashboard.

### Before you begin

Confirm that you have been given access to an external Watson Studio environment.

### Procedure

1. Click the Open menu icon  and select **Content**.
2. Select the **External content** tab.
3. Navigate to a Watson Studio notebook and click its name.
4. In the **Save as** window, enter a name for the notebook that you're importing.
5. Navigate to a location in **My content** or **Team content**.
6. Click **Save**.

## Results

You or a colleague can now select a content cell from the imported notebook and add it to a report or a dashboard. For more information, see "Adding a Notebook widget" or "Including output from a notebook" in the *Cognos Analytics Notebook Guide*.

## Connecting Watson Studio notebooks to Cognos Analytics

---

If you are running Cognos Analytics on Cloud or Cognos Analytics on Cloud Pak for Data, you can configure Watson Studio notebooks to connect to Cognos Analytics.

Once it is configured, your Watson Studio notebook can

- read data assets from Cognos Analytics
- write data to Cognos Analytics

### If you are using Cognos Analytics on Cloud

To connect your notebook to Cognos Analytics, add these two lines to the notebook:

```
from ca_data_connector import CADATAConnector

CADATAConnector.connect({'url': 'CA_on_Cloud_URL'});
```

where *CA\_on\_Cloud\_URL* is the URL that you use to connect to Cognos Analytics on Cloud.

### If you are using Cognos Analytics on Cloud Pak for Data

To connect your notebook to Cognos Analytics, add this line to the notebook:

```
CADATAConnector.connect({'url': 'CA_URL_in_Cloud_Pak_for_Data'});
```

where *CA\_URL\_in\_Cloud\_Pak\_for\_Data* is the URL that you use to connect to your Cognos Analytics instance on Cloud Pak for Data.

**Note:** You don't need to include your credentials in the line above. Cloud Pak for Data will use the credentials from your current Notebook session.

## Best practices for displaying notebook visualizations in dashboards

---

As a notebook author, you can use some coding best practices to ensure that notebook visualizations are properly displayed when they are rendered in dashboards.

### Resizing a Bokeh visualization

For the dashboard to properly resize any Bokeh visualization, don't hardcode the visualization width and height elements in the notebook. Also, when creating any figure, plot, or column, use the parameter `sizing_mode='scale_width'`.

Here is an example of the correct coding practice:

```
...
from bokeh.plotting import figure, show

x = [1, 2, 3]
y = [1, 2, 3]

p = figure(sizing_mode='scale_width')
p.line(x, y)
```

```
show(p)
'''
```

The visualizations that are coded this way scale properly in the dashboard, maintaining their aspect ratio.

## Reloading a Bokeh visualization after a browser refresh

For a dashboard to properly reload a Bokeh visualization after a browser refresh, include the Bokeh initialization statement `output_notebook()` in the applicable notebook output cells.

Here is an example of the correct coding practice:

```
'''
# Notebook cell 1
from bokeh.plotting import figure, show

x = [1, 2, 3]
y = [1, 2, 3]

p = figure(sizing_mode='scale_width')
p.line(x, y)

# Notebook cell 2
output_notebook()
show(p)
'''
```



---

## Chapter 9. Managing content

The IBM Cognos Analytics content includes reports, report views, dashboards, stories, packages, uploaded files, folders, URLs, shortcuts, and so on.

**Tip:** To simplify the documentation process, the content items are often referred to as entries.

To organize and manage the content, you can create a folder hierarchy for entries. You can move, copy, disable, or delete the entries. You can also hide an entry to prevent it from unnecessary use, share the entry with other users, or embed it in a custom website.

By default, folders appear at the top of the list above other entries. However, you can select your own flexible sorting and filtering options. These settings are persisted in your browser, giving you many ways to narrow down what you are looking at.

---


### Creating folders

Group related items into folders to manage content more easily.

For example, you can have folders for your dashboards, reports, or different types of items that you want to keep together.

After the folder is created, you can move or copy items to this folder. You can also secure the folder so that only users to whom you give permissions can access the content in the folder.

#### Procedure

1. In the **Content** view, open **My content**, **Team content**, or other folders.
2. From the actions toolbar, click the **Add folder** icon .

---

### Copying or moving entries

When you create a copy of an entry, you create a replica of that entry in another location in the portal. When you move an entry, you remove it from the current folder and place it in another folder.

The IDs and links of the copied or moved entry are either maintained or overwritten.

#### Before you begin

You must have read permissions for the entry that you are attempting to copy or move. You must also have traverse permissions for the current folder, and write and traverse permissions for the target folder.

#### About this task

If you copy or move a report from one folder to another, the report retains its ID and any links, including the link to the associated package. However, when you overwrite an existing entry, the link behavior depends on whether you copy or move the entry.

- If you copy and overwrite an existing entry, the copied entry ID and links replace those of the existing entry. In this case, you might need to update links, such as links to job schedules for reports.
- If you move and overwrite an existing entry, the existing entry ID and links are maintained. In this case, references to the moved entry are broken.

**Tip:** When moving entries between the **Team content** and **My content** folders, remember that some entries must be stored together to function properly. For example, a data module and an uploaded file that the data module is based on must both be stored in **Team content** if you want other users to be able to access reports, dashboards, or explorations that reference the data in the file.

## Procedure

1. Locate the entry in **Team content**, **My content**, or a different folder, and select the entry checkbox.
2. From the entry **Action menu**, or from the **More** option in the action toolbar, click **Copy or move to**.
3. Locate the target folder, and click **Copy** or **Move**.

## Copying and pasting assets

You can reuse an asset by copying and pasting it between a dashboard, report, exploration, or story. Some examples of objects that you can copy and paste are visualizations, tables, text, and more.

The following table shows how you can copy and paste assets.

From (Source)	To (Target)
Dashboard	Dashboard, report, exploration, story
Exploration	Exploration, dashboard, report, story
Story	Story, dashboard, report, exploration
Report	Report

The pasted asset might lose properties because dashboards, reports, explorations, and stories do not support the same properties. For example, some properties apply to reports, but not to dashboards. A message informs you about the properties that are not supported.

If you copy and paste assets between instances of Cognos Analytics, the instances must have the same version.

### Before you begin

Ensure that the reports, dashboards, explorations, or stories that you are copying from (source ) and pasting to (target ) are in edit mode.

### About this task

In a dashboard, exploration, and story, you can copy and paste objects only on the same tab of the same browser. Only in reports you can copy and paste from one tab to another tab of the same browser.

Some combinations of data sources that are supported by dashboards, explorations, and stories are not supported by reports. For example, Reporting does not support a combination of data modules and packages, or multiple packages in the compatible query mode (CQM). The following warning is displayed when packages are mixed: **A report can reference multiple packages that use the dynamic query mode, or one package that uses the compatible query mode.** Also, Reporting does not support data modules that are based on dimensional data sources except for IBM Planning Analytics cubes.

When you copy from a dashboard, exploration, and story to paste in a report, the original widget size is kept only if the size is specified in pixels. If the widget size is specified in percentages, Reporting applies its default size format.

You can paste multiple times in the same or different target dashboard, report, exploration, or story.

You cannot paste the following widgets and assets from a dashboard to a report:

- Text
- Image
- Media
- Web page
- Shape



- Data player
- Driver analysis
- Decision tree
- Sunburst
- Spiral

For more information, see "Copying and pasting report objects" in the *IBM Cognos Analytics Reporting Guide*.

**Note:** Some attributes, such as custom titles, named colors, data sets, stand-alone spreadsheets, and border colors can't be carried over when you paste an asset. Make sure that you review the messages that appear after pasting, and if necessary update the asset in its new location.

## Procedure

1. Select one or more assets.
2. Use the keyboard shortcut for your operating system to copy.  
A message is displayed that assets are copied.
3. In the dashboard, report, exploration, or story that you pasting to, use the keyboard shortcut for your operating system to paste.

## Sharing content

If an administrator connects Cognos Analytics to Slack or Microsoft Teams, or enables email sharing, you can send Cognos Analytics report and dashboard content to other users. You can also share your Cognos Analytics content via URL links and embedded html in web pages. For Dashboards only, you can save your content as an exported PDF document.

You can share content from two locations:

- your [Cognos Analytics canvas](#)
- the [Team content folder](#)

## Sharing content from the canvas

You can send Cognos Analytics content that you are currently viewing in a report or dashboard to your colleagues via Email, Microsoft Teams, or Slack. You can also share visualizations from the Assistant panel that were generated by the Assistant.

For more information, see "Sharing visualizations from the Assistant" in the *IBM Cognos Analytics Dashboards and Stories Guide*.



## Before you begin

Your administrator must configure a mail server and/or a collaboration platform before you can use this feature.

## Procedure

1. While viewing your Cognos Analytics content in a report, dashboard, or the Assistant panel, click the

**Share** icon .

**Tip:** A different **Share** icon  appears in a context menu, after you click the More icon \*\*\* for a content folder or on the **Welcome** page. However, the **Share** panel that you invoke from a context menu only allows you to share saved report outputs or dashboards. To share an image of an asset that is open and that you are currently viewing, you must click the **Share** icon  in the application bar.

The **Share** panel appears.

2. In the **Share** panel, do one of the following to choose your sharing platform:

- Click **Email**. Then click **Send**, and go to step “3” on page 70.

**Tip:** If **Email** does not appear as a platform, your administrator did not enable content sharing by email.

- Click **Microsoft\_Teams\_platform\_name**. Then click **Send**, and go to step “4” on page 70.

**Tip:** If a **Microsoft Teams** platform appears grayed out, your administrator has disabled the platform. If you are not part of a team in Microsoft Teams, you can join it through the pop-up window and then click on the *Microsoft\_Teams\_platform\_name* again in Cognos Analytics to continue sharing your content.

If a **Microsoft Teams** platform doesn't appear, and your administrator had enabled it, your administrator may also need to [update an advanced setting](#).

- Click **Slack\_platform\_name**. Then click **Send**, and go to step “5” on page 71.

**Tip:** If a **Slack** platform appears grayed out, your administrator has disabled the platform. If you are not part of a slack workspace, you can join it through the pop-up window and then click on the workspace again in Cognos Analytics to continue sharing your content.


3. If you selected **Email**, in the **Share with email** panel, perform these steps:


- a) Search for a recipient name, group, role, distribution list, or contact and then click **Search directory**. Repeat this step as necessary.


**Tips:**

- For external email accounts, enter the full email address, and then press Enter.
- If you start typing someone's name that you emailed recently, the full name quickly appears and you can select it.
- You can narrow the search results and speed up retrieval time by typing more characters in the recipient fields.
- Search results appear for all namespaces that you are logged into. You may need to scroll to see results for a different namespace.
- You can also browse for a recipient, by clicking **Directory > namespace**.

To quickly find an entry:

- Type text in the  **Find** field.

You can click the Search Method icon  to find entries that either contain, start with, or are an exact match with the text that you type.

- Click the filter  icon to narrow the view of entries.

- b) Enter the email subject.

- c) Enter the message that you want to send.

**Tip:** To format your message, use the **Styles** and **Format** buttons.

4. If you selected a Microsoft Teams platform in the **Share** panel, perform these steps:

- a) Enter and select up to 10 channels, group chats, or recipient names.

**Tips:**

- For each recipient, start typing either a Teams channel name (starting with the hashtag symbol (#) or a Teams user name if you want to send a Direct Message in Teams. As you type, the list of possible choices is filtered, until you can select the one you want.
- If you entered multiple recipients, each one will receive the content in an individual Direct Message.

- b) Enter the message that you want to send.  
**Tip:** You must include some text in your message.
5. If you selected a Slack platform in the **Share** panel, perform these steps:
  - a) Enter a channel or recipient name.  
**Tip:** Start typing either a Slack channel name (starting with the hashtag symbol (#) or a Slack user name if you want to send a Direct Message in Slack. As you type, the list of possible choices is filtered, until you can select the one you want.
  - b) Enter the message that you want to send.  
**Tip:** You must include some text in your message.
6. Select **Include link** if you want your recipient to click a link to your content.  
**Tip:** **Include link** appears only if your content is located in the **Team content** folder. Other users cannot link to content located in **My content**.
7. Select **Include image** if you want to attach an image of your content to your Email or Slack message.
8. If you selected the **Include image** option, you can edit the image before you send it: it. At the bottom of the **Share with platform\_name** window, click the image before you send it.
  - a) At the bottom of the **Share with platform\_name** window, click the image.
  - b) Follow the steps to [edit the image before you share it](#).
9. Click **Send**.

## Results

Your message (and your image, if applicable) is sent to your selected recipients via email, Microsoft Teams, or Slack. You are then notified that the selected recipients received your message successfully. You are also notified of any recipients who do not receive the message.







## Editing canvas content for sharing


You can annotate a screen shot image of your Cognos Analytics content before you share it via email, Microsoft Teams, or Slack.

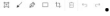
## Before you begin

Follow steps [“1” on page 69](#) to [“8.a” on page 71](#) in [Sharing content from the canvas](#).





## Procedure

1. To add text, an arrow, or a freehand line to your image, follow these steps:
  - a) Go to the toolbar  of the **Modify your image (optional)** pane and click one of these icons:
    - The Textbox icon 
    - The Arrow icon 
    - The Pen icon 
  - b) Select a color.
  - c) Type your text or draw an arrow or line.
  - d) Click **Done**.
2. To add a rectangle to your image, follow these steps:
  - a) Go to the toolbar of the **Modify your image (optional)** pane and click the Rectangle icon .
  - b) Click the Border icon , and then select the border color.  
**Tip:** If you previously selected a border color, the Border icon appears in that color.

- c) Click the Fill icon , and then select the fill color.
 

**Tip:** If you previously selected a fill color, the Fill icon appears in that color.
- d) Hover over the image and click, drag, and then release to draw a rectangle.
- e) Click **Done**.
3. To edit any text, arrow, freehand line, or rectangle that you added, follow these steps:
  - a) Ensure that you selected **Done** in the previous steps so that the Modify your image toolbar appears .
  - b) Click on the image.
  - c) To select an object, click on it.
 

A rectangle with drag handles appears around the object.

**Tip:** You can also press **Tab** successively to select each object that you created in the order that you created them. For more information, see [“Keyboard commands to edit canvas content”](#) on page 72.
  - d) To move a selected object, move your cursor over the selected object so that the cursor changes to the Move cursor icon  and then drag the object to the position you want.
  - e) To resize a selected object, select and drag one of its handles.
  - f) To delete one or more selected objects, click the Delete icon .
  - g) To delete every object that you added to the image, from the Modify your image toolbar , click **Clear**.
4. To crop your image, follow these steps:
  - a) Go to the toolbar of the **Modify your image (optional)** pane and click the Crop icon .
  - b) On the image, click, drag, and then release to draw a highlighted rectangle over the area that you want to crop.
  - c) Click **Done**.
5. If necessary, complete any remaining steps to send a message [via email, Microsoft Teams, or Slack](#).

## Results

Your message and edited Cognos Analytics content are shared with the recipients via your selected collaboration platform.

## Keyboard commands to edit canvas content

You can use keyboard shortcuts as an alternative way to invoke a command by pressing a combination of keyboard keys.

The following tables list keyboard shortcuts to edit an image on your canvas that you plan to share with your colleagues.

PC keyboard command	Macintosh keyboard command	Description
t	t	Activate the Textbox Tool
a	a	Activate the Arrow Tool
p	p	Activate the Pen Tool
r	r	Activate the Rectangle Tool
c	c	Activate the Crop Tool
q	q	Rotate object(s) clockwise 10 degrees

PC keyboard command	Macintosh keyboard command	Description
Shift + Q	Shift + Q	Rotate object(s) counter-clockwise 10 degrees
Delete/Backspace	Delete	Delete object(s)
[	[	If the active select object is a textbox, shrink the word-wrapped area horizontally by 5 px.
Shift + {	Shift + {	If the active select object is a textbox, shrink the word-wrapped area horizontally by 50 px.
]	]	If the active select object is a textbox, expand the word wrapped area horizontally by 5 px.
Shift + }	Shift + }	If the active select object is a textbox, expand the word wrapped area horizontally by 50 px.
Ctrl + z	Ctrl + z / Command + z	Undo Previous Action
Ctrl + y	Ctrl + y / Command + y /	Redo Previous Action
Escape	Escape	Close Entire Panel

PC keyboard command	Macintosh keyboard command	Description
Tab	Tab	Move the tool selection on the toolbar from Left to Right one at a time. If you press Tab on the final tool (for example, Clear/ Done) the focus moves from the toolbar to the image.
Shift + Tab	Shift + Tab	Move the tool selection on the toolbar from Right to Left one at a time. Pressing Shift + Tab on the First tool moves the focus from the toolbar to the parent element.
Enter	Enter/Return	Activate the selected tool/color

PC keyboard command	Macintosh keyboard command	Description
Up Arrow	Up Arrow	Scroll the image up (If applicable)
Down Arrow	Down Arrow	Scroll the image down (If applicable)
Left Arrow	Left Arrow	Scroll the image left (If applicable)

<b>PC keyboard command</b>	<b>Macintosh keyboard command</b>	<b>Description</b>
Right Arrow	Right Arrow	Scroll the image right (If applicable)
Up Arrow	Up Arrow	Move the selected Object(s) up by 5 px.
Down Arrow	Down Arrow	Move the selected Object(s) down by 5 px.
Left Arrow	Left Arrow	Move the selected Object(s) left by 5 px.
Right Arrow	Right Arrow	Move the selected Object(s) right by 5 px.
Shift + Up Arrow	Shift + Up Arrow	Move the selected Object(s) up by 50 px.
Shift + Down Arrow	Shift + Down Arrow	Move the selected Object(s) down by 50 px.
Shift + Left Arrow	Shift + Left Arrow	Move the selected Object(s) left by 50 px.
Shift + Right Arrow	Shift + Right Arrow	Move the selected Object(s) right by 50 px.
Shift + Alt + Up Arrow	Alt + Up Arrow	Scale the selected Object(s) up by 5 px. Bottom Right Corner is selected for scaling.
Shift + Alt + Down Arrow	Alt + Down Arrow	Scale the selected Object(s) down by 5 px. Bottom Right Corner is selected for scaling.
Shift + Alt + Left Arrow	Alt + Left Arrow	Scale the selected Object(s) left by 5 px. Bottom Right Corner is selected for scaling.
Shift + Alt + Right Arrow	Alt + Right Arrow	Scale the selected Object(s) right by 5 px. Bottom Right Corner is selected for scaling.
Shift + Alt + Up Arrow	Shift + Alt + Up Arrow	Scale the selected Object(s) up by 50 px. Bottom Right Corner is selected for scaling.
Shift + Alt + Down Arrow	Shift + Alt + Down Arrow	Scale the selected Object(s) down by 50 px. Bottom Right Corner is selected for scaling.
Shift + Alt + Left Arrow	Shift + Alt + Left Arrow	Scale the selected Object(s) left by 50 px. Bottom Right Corner is selected for scaling.
Shift + Alt + Right Arrow	Shift + Alt + Right Arrow	Scale the selected Object(s) right by 50 px. Bottom Right Corner is selected for scaling.
Tab	Tab	Press successively to select each object that you created in the order that you created them.

PC keyboard command	Macintosh keyboard command	Description
		If the final object is already selected, hitting Tab will move focus from the image to the Share Panel.
Shift + Tab	Shift + Tab	Press successively to select each object that you created in the order that you created them. If the first object is already selected, hitting Shift + Tab will move the focus from the image to the toolbar.
Enter	Enter/Return	Enter Textbox Editing Mode if the active select object is a textbox.
Escape	Escape	Deselect any active object. If the selected object is a textbox and is currently in Textbox Editing Mode, it exits Textbox Editing Mode.
Escape	Escape	Deselect the active object and stop drawing. If the active select object is a textbox, exit Textbox Editing Mode
Enter	Enter/Return	Begin drawing an object with the virtual cursor by simulating a mouse down event.
Enter	Enter/Return	End drawing an object with the virtual cursor by simulating a mouse
Up Arrow	Up Arrow	Move the Virtual Cursor up by 5 px.
Down Arrow	Down Arrow	Move the Virtual Cursor down by 5 px.
Left Arrow	Left Arrow	Move the Virtual Cursor left by 5 px.
Right Arrow	Right Arrow	Move the Virtual Cursor right by 5 px.
Shift + Up Arrow	Shift + Up Arrow	Move the Virtual Cursor up by 50 px.
Shift + Down Arrow	Shift + Down Arrow	Move the Virtual Cursor down by 50 px.
Shift + Left Arrow	Shift + Left Arrow	Move the Virtual Cursor left by 50 px.
Shift + Right Arrow	Shift + Right Arrow	Move the Virtual Cursor right by 50 px.

## Exporting dashboard content to PDF


You can export your dashboard content to a PDF that you can print or share electronically.



### About this task

When you export a PDF from the **Share** panel, the same process is used to create the PDF as when you click the more icon in an open dashboard.

For tips on preparing your content for export and to understand browser differences, see *Exporting a dashboard to PDF*.

### Procedure

1. Open your Cognos Analytics dashboard and navigate to the view that you want to send to a co-worker.
2. Click the **Share** icon  in the application bar.

**Tip:** Although the **Share** icon  also appears when you click the context menu icon  in a content folder or on the **Welcome** page, you are limited to sharing links or embedded html. You cannot save the image as a PDF because the content does not appear in your window.

3. Click the **Export** tab.
4. Select the settings you want from the **Page size** and **Orientation** menus.
5. To apply filters, select the **Include filters** check box.
6. Click **Export**.

The print window for the browser opens.

7. You can now save your PDF. For browser-specific details, see *Exporting a dashboard to PDF*.

### What to do next

You can view the PDF or send it by email. If your administrator has configured a collaboration platform, such as Microsoft Teams or Slack, you can drag the exported PDF file from your desktop into the Message box of a channel or direct message.

## Sharing assets from the Team content folder

You can share with your colleagues report outputs or dashboards that are located in the **Team content** folder.


### Sharing assets from Team content via email



You can share Cognos Analytics report outputs or dashboards in the **Team content** folder by Email.

### Before you begin

Your administrator must configure a mail server before you can use this feature.

### About this task

Cognos Analytics allows you to select  **Share** in an asset's context menu from several access points:

- the **Team content** folder
- the **Home**  page, in the list of recently opened assets
- the **Search results**  pane


**Note:** The following task describes accessing the context menu from the **Team content** folder. However, you can use any of the access points listed above.





## Procedure


1. Save your dashboard or report output in the **Team content** folder.


**Tip:** Other users are not authorized to open content in your **My content** folder.

2. Navigate to the saved asset in the **Team content** folder.
3. Click the More icon  for the asset and then, in the context menu, click **Share**.

**Tip:** A different **Share** icon  appears in the application bar at the top of your window when you are viewing content on your canvas:

- If you are editing a new report or dashboard on your canvas and you click the **Share** icon  in the application bar, the **Share** panel only allows you to share the content from your current view.

Previously saved report output cannot be shared by clicking the **Share** icon  in the application bar.

- If you are viewing a saved report output PDF and you click the **Share** icon  in the application bar, the **Share** panel only allows you to share the saved PDF version as a link or an attachment.

4. In the **Share** panel, click the **Send** tab.

**Tip:** If the **Send** tab does not appear, the administrator did not configure a mail server and did not configure a collaboration platform.

5. Click **Email**.

**Tip:** If **Email** does not appear as a platform, your administrator did not enable content sharing by email.


The **Share with email** panel appears.


6. Search for a recipient name, group, role, distribution list, or contact and then click **Directory**. Repeat this step as necessary.


### Tips:

- To add an external email address, enter the full address and then press Enter.
- If you start typing someone's name that you emailed recently, the full name quickly appears and you can select it.
- You can narrow the search results and speed up retrieval time by typing more characters in the recipient fields.
- Search results appear for all namespaces that you are logged into. You may need to scroll to see results for a different namespace.
- You can also browse for a recipient, by clicking **Directory** > *namespace*.

To quickly find an entry:

- Type text in the  **Find** field.

You can click the Search Method icon  to find entries that either contain, start with, or are an exact match with the text that you type.

- Click the filter  icon to narrow the view of entries.

7. Keep the default subject or enter a new one.
8. Enter the message that you want to send.

**Tip:** To format your message, use the **Styles** and **Format** buttons.

9. Select **Include link** if you want your recipient to click a link to your content.

**Tip:** **Include link** appears only if your content is located in the **Team content** folder. Other users cannot link to content located in **My content**.

10. If report output exists in a valid attachment format, you can attach one or more outputs to your email.

**Tip:** For more information, see [“Valid report output formats for email attachments” on page 78.](#)

a) Select **Attach report output**.

b) Click **Add**.

The **Pick report output** panel appears. Each output option appears only if it already exists as a saved report output. However, [HTML format cannot be attached to an email.](#)

c) Select a report version.

d) Select a burst key, if the field appears in the panel.

e) Select a format.

f) Select a language.

g) Click **Add**.

h) If there are additional version outputs that you want to attach, repeat steps [“10.b” on page 78](#) to [“10.g” on page 78.](#)

i) Click **Done**.

11. Click **Send**.

## Results

Your message is sent to your selected recipients via email.

### ***Valid report output formats for email attachments***

Most formats of saved report outputs can be attached to an email that you send to your colleagues.

You can attach report output versions that were saved in the following formats:

- Excel
- Excel Data
- PDF
- CSV
- XML

**Note:** A report output saved in HTML format cannot be attached to an email. Although HTML output can be viewed in Cognos Analytics, it is not compatible as an email attachment.


## Sharing assets from Team content via Microsoft Teams or Slack





In Cognos Analytics, you can send Cognos Analytics report outputs or dashboards in the **Team content** folder via Microsoft Teams or Slack.

### **Before you begin**

Your administrator must configure a collaboration platform before you can use this feature.

### **About this task**

Cognos Analytics allows you to select  **Share** in an asset's context menu from several access points:


- the **Team content**  folder
- the **Home**  page, in the list of recently opened assets
- the **Search results**  pane
- the **Recent**  pane


**Note:** The following task describes accessing the context menu from the **Team content** folder. However, you can use any of the access points listed above.


## Procedure


1. Save your Cognos Analytics dashboard or report output in the **Team content** folder.


**Tip:** Other users are not authorized to open content in your **My content** folder.

2. Navigate to the saved asset in the **Team content** folder.
3. Click the More icon  for the asset and then, in the context menu, click **Share**.

**Tip:** A different **Share** icon  appears in the application bar at the top of your window when you are viewing content on your canvas:

- If you are editing a new report or dashboard on your canvas and you click the **Share** icon  in the application bar, the **Share** panel only allows you to share the content from your current view.

Previously saved report output cannot be shared by clicking the **Share** icon  in the application bar.

- If you are viewing a saved report output PDF and you click the **Share** icon  in the application bar, the **Share** panel only allows you to share the saved PDF version as a link or an attachment.

The **Share** panel appears.

4. In the **Share** panel, do one of the following to choose your sharing platform:

- Click **Email**. Then click **Send**, and go to step [“5” on page 79](#).

**Tip:** If **Email** does not appear as a platform, your administrator did not enable content sharing by email.

- Click **Microsoft Teams\_platform\_name**. Then click **Send**, and go to step [“6” on page 80](#).

**Tip:** If a **Microsoft Teams** platform appears grayed out, your administrator has disabled the platform. If you are not part of a team in Microsoft Teams, you can join it through the pop-up window and then click on the *Microsoft Teams\_platform\_name* again in Cognos Analytics to continue sharing your content.

If a **Microsoft Teams** platform doesn't appear, and your administrator had enabled it, your administrator may also need to [update an advanced setting](#).

- Click **Slack\_platform\_name**. Then click **Send**, and go to step [“7” on page 80](#).

**Tip:** If a **Slack** platform appears grayed out, your administrator has disabled the platform. If you are not part of a slack workspace, you can join it through the pop-up window and then click on the workspace again in Cognos Analytics to continue sharing your content.


5. If you selected **Email**, in the **Share with email** panel, perform these steps:


- a) Search for a recipient name, group, role, distribution list, or contact and then click **Search directory**. Repeat this step as necessary.


### Tips:

- For external email accounts, enter the full email address, and then press Enter.
- If you start typing someone's name that you emailed recently, the full name quickly appears and you can select it.
- You can narrow the search results and speed up retrieval time by typing more characters in the recipient fields.
- Search results appear for all namespaces that you are logged into. You may need to scroll to see results for a different namespace.
- You can also browse for a recipient, by clicking **Directory** > *namespace*.

To quickly find an entry:

Type text in the  **Find** field.

You can click the Search Method icon  to find entries that either contain, start with, or are an exact match with the text that you type.

Click the filter  icon to narrow the view of entries.

- b) Enter the email subject.
- c) Enter the message that you want to send.

**Tip:** To format your message, use the **Styles** and **Format** buttons.

6. If you selected a Microsoft Teams platform in the **Share** panel, perform these steps:

- a) Enter a channel or recipient name.

**Tip:** Start typing either a Slack channel name (starting with the hashtag symbol (#) or a Slack user name if you want to send a Direct Message in Slack. As you type, the list of possible choices is filtered, until you can select the one you want.

- b) Enter the message that you want to send.

**Tip:** You must include some text in your message.

7. If you selected a Slack platform in the **Share** panel, perform these steps:

- a) Enter a channel or recipient name.

**Tip:** Start typing either a Slack channel name (starting with the hashtag symbol (#) or a Slack user name if you want to send a Direct Message in Slack. As you type, the list of possible choices is filtered, until you can select the one you want.

- b) Enter the message that you want to send.

**Tip:** You must include some text in your message.

8. Select **Include link** if you want your recipient to click a link to your content.

**Tip:** **Include link** appears only if your content is located in the **Team content** folder. Other users cannot link to content located in **My content**.

9. Select **Include image** if you want to attach an image of your content to your Email or Slack message.

10. If you selected the **Include image** option, you can edit the image before you send it: it. At the bottom of the **Share with platform\_name** window, click the image before you send it.

- a) At the bottom of the **Share with platform\_name** window, click the image.

- b) Follow the steps to [edit the image before you share it](#).

11. Click **Send**.

## Results

Your message is sent to your selected recipients via Slack.

## Linking to saved content


In Cognos Analytics, you can create a URL for any view in your dashboard or report. You can then send the URL by email or embed the URL in a web page or another dashboard or report.


You can share content objects, such as reports and dashboards, with a URL that opens the content object directly, instead of having to browse to the content object from the Cognos Analytics welcome screen. You can also embed Cognos Analytics content objects (except for data modules) in customized web pages. An embedded content object does not display the application or navigation bars.

## Procedure

1. Save your Cognos Analytics dashboard or report output in the **Team content** folder.

**Tip:** Other users are not authorized to open content in your **My content** folder.


2. Navigate to the view that you want to send to a co-worker.
3. Click the More icon  for the asset and then, in the context menu, click **Share**.

**Tip:** A different **Share** icon  appears in the application bar at the top of your window if you are viewing content on your canvas. However, if you click that icon, the **Share** panel only allows you to share the content from your current view, not previously saved output.

4. In the **Share** panel, click the **Link** tab.

**Tip:** You can modify the URL to perform other actions, such as opening a report for editing instead or running the report, or changing the output format of the report. For more information, see *Creating custom URLs to display and run Cognos Analytics content in IBM Cognos Analytics Getting Started User Guide*.

5. If you want to send the link to a co-worker by email, do the following:

- a) In the **Link** section, click the **Copy** icon .

The URL is copied to your clipboard.

- b) Paste the URL into your email and send the email.

6. If you want to embed the html code for your view in a web page, go to the **Embed code** section, and follow these steps:

- a) If you want to change the height and width of the iframe that will contain the code, adjust the values in the **Width** and **Height** fields.

- b) click the Copy icon .

The URL is copied to your clipboard.

- c) Paste the URL into the html text of your web page.

### ***Authentication sample with embedded content***

The embedded content sample shows how to use the IBM Cognos Analytics REST API to sign in a user and then display embedded content.

### **Procedure**

1. Copy the embedded\_content folder from the `<installation_location>\samples` folder to the `<installation_location>\webcontent` folder.
2. Open the `\webcontent\embedded_content\preLoginSample.html` file in a text editor, and locate the `<select>` element:

```
<select size="1" name="namespace">
  <option value="CognosEx">CognosEx (Example)</option>
  <option value="LDAP">LDAP (Example)</option>
</select>
```

3. For any of the configured namespaces that you want to see as a selection in the login page, define the `<option>` element within the `<select>` element, using the following syntax:

```
<option value="namespace_ID">namespace_name</option>
```

The `namespace_ID` corresponds to the **Namespace ID** property, as defined for the namespace in Cognos Configuration, under **Security > Authentication**. The `namespace_name` can be any word; however, the name defined in Cognos Configuration is preferred.

4. Open the `\webcontent\embedded_content\iFrameSample.html` file, and replace the `iFrame` objects with **Embed iFrame** objects from your Cognos Analytics installation.
5. In a web browser, type `http://<server_name>:<port>/embedded_content/preLoginSample.html`

## Results

A sign-in web page is displayed. After you sign in, the embedded content objects are shown.

## Creating custom URLs to display and run Cognos Analytics content

---

You can create URLs that open or run IBM Cognos Analytics content objects, such as reports, dashboards, stories, or data modules. This feature extends the **Share > Link** command that creates a URL to display Cognos Analytics content objects to provide more control over the actions that are taken when the content object is displayed or run.

When you [link to saved content](#), you create a URL that opens or runs Cognos Analytics content objects. You can create these URLs if you require more control over the actions invoked by them.

The following report types are supported in custom URLs: standard reports, report views, active reports, and their saved outputs.

If the content object is a report that has saved output, the saved output may be displayed, depending on the chosen URL parameters. Otherwise, the content object is run. If the content object is saved output, it is displayed. An error message is displayed if the saved output was deleted.

### Syntax

The syntax of the custom URLs takes one of the following two forms.

- `http://<servername>:<port>/bi/?pathRef=<path>&<option1>=<value1>&<option2>=<value2>...`
- `http://<servername>:<port>/bi/?objRef=<id>&<option1>=<value1>&<option2>=<value2>...`

**pathRef** or **objRef** identify the content object to use.

#### pathRef

Specifies the location of the object. This value does not change if the version of Cognos Analytics is changed or if the object is exported or imported in a deployment.

The easiest way to determine the value of **pathRef** is to create a URL by using the **Share** command. This URL contains the value of **pathRef**.

#### objRef

Specifies the id of the object. This value does not change if the content object is moved to a different location in **My content** or **Team content**.

The value of **objRef** is the **ID** value in the properties pane of the object.

#### perspective

Specifies which perspective to use: classicViewer or authoring. This parameter should normally not be specified, as the system will determine it based on properties of the object referenced by the URL.

The following optional parameters can be appended to the URL.

#### ui\_appbar

Specifies whether to display the global application bar in any perspective in Cognos Analytics. The values are true (default) or false. For example, you can add the parameter `&ui_appbar=false` at the end of any Cognos Analytics URL to hide the application bar.

#### ui\_navbar

Specifies whether to display the vertical navigation bar in any perspective in Cognos Analytics. The values are true (default) or false. For example, you can add the parameter `&ui_navbar=false` at the end of any Cognos Analytics URL to hide the navigation bar.

#### ui\_toolbar

Use this parameter in the Reporting perspective only. The parameter specifies whether to display the toolbar (also referred to as navigation menu) in Reporting when the `ui_appbar` parameter is set to false. The values are true or false (default).

To display the toolbar, add the `ui_toolbar` parameter at the end of a URL in Reporting in the following way: `&ui_appbar=false&ui_toolbar=true`

For information about the report options that are part of the toolbar (navigation menu), including the **Save** and **Run** options, see "The user interface" in Reporting in the *IBM Cognos Analytics Reporting* guide.

The following options can be used if the content object is a report.

**action**

Specifies whether to view saved output, run a report, or author an object. The following values are supported: `viewOutput`, `run`, `edit`. The default value depends on the object type, the object's default action as defined by its properties, and whether it has saved output, current security settings, and users' capabilities. When `viewOutput` is specified and there is no saved output, the object is run.

**a11y**

When running a report, specifies whether to include accessibility features (`true`) or not (`false`). The default value is `false`.

**bidirectional**

When running a report, specifies whether to enable bidirectional support (`true`) or not (`false`). The default value is `false`.

**contentLocale**

Specify the locale in which the report output is created when running or which locale to view when the report output was saved using multiple locales. The default is determined from the user's preferences. Use an ISO country code for the value. For example, for German, specify `contentLocale=de`.

For this parameter to work, you must have a multilingual reporting environment. For more information, see "Setting up a multilingual reporting environment" in the *IBM Cognos Analytics Reporting User Guide*.

**format**

When running a report, specifies the output format. When viewing saved output, specifies which of the available formats to view.

The possible values are: `HTML`, `PDF`, `spreadsheetML`, `xlsxData`, `CSV`, `XML`, `layoutDataXML`, `XLWA`, `rawXML`, `XHTML`, `singleXLS`, and `HTMLFragment`. The default value is determined from the object's properties or the user's preferences.

**productLocale**

Specify the product locale to use. The default is determined from the user's preferences.

**prompt**

When running a report, specifies whether to show the prompt page (`true`) or not (`false`). The default value depends on the report settings.

**p\_<prompt\_name>**

When running a report, specifies the value to use for the parameter named `<prompt_name>`.

**promptParameters**

When running a report, specifies prompt parameters as a JavaScript Object Notation (JSON) object. You can pass more complex parameter values to use when you run a report. For more information, see [promptParameters option syntax](#).

- The easiest way to create a custom URL is to use the **Share** command for the content object that you want to create a custom URL for, and then to modify the options in this URL.
- Custom URLs can be long and your Cognos Analytics server environment might impose a length limit on the query portion of the URL. You can work around this limitation by using the URL fragment identifier (`#`) in the URL. Here are some examples.
  - `http://<servername>:<port>/bi/#pathRef=<path>&<option1>=<value1>&<option2>=<value2>...`
  - `http://<servername>:<port>/bi/?pathRef=<path>&<option1>=<value1>#<option2>=<value2>...`
- If you use a custom URL in an HTML item in a report, replace instances of `&` with `&amp;`.

**Note:** You can either specify a URL or use the HTTP POST method to send the options to the Cognos Analytics server. However, you must specify all parameters using the same method: either URL or HTTP POST.

## Example

The following example uses the HTTP POST method to specify a customized URL.

```
<html>
<body>
<div class="acordion">
  <div class="submit">
    <form method="POST" id="cognosPost" accept-charset="UTF-8"
      action="http://cognos_analytics_IP_address:9300/bi/">
      <input type="hidden" name="pathRef" value=".public_folders/folder1/report1"
        style="display: none">
      <input type="hidden" name="promptParameters" id="promptParameters"
        value="{\"name\":\"p_Line\",\"value\":{\"use\":\"Camping Equipment\"}}\"
        style="display: none">
      <input type="hidden" name="format" value="HTML" style="display: none">
      <input type="hidden" name="Download" value="false" style="display: none">
      <input type="submit" name="btn" value="Run report with Camping Equipment">
    </form>
  </div>
</div>
</body>
</html>
```

## promptParameters option syntax

You can use the **promptParameters** option to pass complex parameter values for use when you run a report. The parameter values are contained in a JavaScript Object Notation (JSON) object.

**Note:** IBM Cognos Analytics adheres to the Internet Engineering Task Force (IETF) Request for Comments (RFC) standards for URIs, as specified [here](https://datatracker.ietf.org/doc/html/rfc3986) (https://datatracker.ietf.org/doc/html/rfc3986). URIs must be encoded using the characters that belong to the US-ASCII character set, which includes letters (A-Z, a-z), digits (0-9), and the following special characters: dash (-), underscore (\_), period (.), and tilde (~).

## Syntax

The syntax of the **promptParameters** option is `promptParameters=[{parameter_1}, {parameter_2}, ...]`. The syntax of each parameter value depends on the type of parameter value and are described as follows.

### Specific values

```
{
  "name": "parameter_name",
  "value": [
    { "use": "use_value1", "display": "display_value_1" },
    { "use": "use_value2" },
    ...
  ]
}
```

*parameter\_name* is the name of the parameter, *use\_value1* is the use value, and *display\_value\_1* is the display value. The display value is optional.

### Bounded range

```
{
  "name": "parameter_name",
  "value": [
    {
      "boundRange": {
        "start": { "use": "use_start_value", "display": "display_start_value" },
        "end": { "use": "use_end_value" }
      }
    }
  ]
}
```



```
]
}
```

*parameter\_name* is the name of the parameter, *use\_start\_value* is the lower use value, *display\_start\_value* is the lower display value, and *use\_end\_value* is the upper use value. The display value is optional.

### Unbounded start range

```
{
  "name": "parameter_name",
  "value": [
    {
      "unboundedStartRange": {
        "end": { "use": "use_end_value", "display": "display_end_value" }
      }
    }
  ]
}
```

*parameter\_name* is the name of the parameter, *use\_end\_value* is the upper use value, *display\_end\_value* is the upper display value. The display value is optional.

### Unbounded end range

```
{
  "name": "parameter_name",
  "value": [
    {
      "unboundedEndRange": {
        "start": { "use": "use_start_value", "display": "display_start_value" }
      }
    }
  ]
}
```

*parameter\_name* is the name of the parameter, *use\_start\_value* is the lower use value, *display\_start\_value* is the lower display value. The display value is optional.

## Creating shortcuts

You can create shortcuts for entries, such as dashboards, explorations, reports, and folders. The shortcut context menu provides the same options as the target context menu. For example, the **Run as option** is available from both the report and its shortcut context menus.

### Procedure

1. Locate the entry in **Team content**, **My content**, or a different folder, and select the entry checkbox.
2. From the entry **Action menu**, or from the **More** option in the actions toolbar, click **Add shortcut**.
3. Find a location for the shortcut, and click **Create shortcut**.

## Creating URLs to other sites

A URL is a standard way of identifying the location of any external file or website. Create URLs to keep the files and websites you use most frequently at your fingertips. Clicking a URL opens the file or website in the browser.

### About this task


The URL must contain a valid server name that is included in the valid domains list, as specified by your administrator. Otherwise, you cannot create the URL.

Administrators maintain the list of valid domains. For more information, see "Configuring IBM Cognos components to use IBM Cognos Application Firewall" in the *IBM Cognos Analytics Installation and Configuration Guide*.

## Procedure

1. In a subfolder within **Team content**, or in **My content**, ensure that no items are selected.

**Tip:** You can't add a URL directly to a folder, such as **Team content** or **Samples**.

2. In the actions toolbar, click the **Add link** icon .
3. In the **Add a URL** box, type the **URL name**.
4. If you want, specify the **Description**.
5. In the **URL** field, type the URL.

If the URL points to a website address, the protocol must be included. For example, to create a URL for the IBM website, type `http://www.ibm.com`

The URL must use a valid domain, as specified by your administrator. To view a list of acceptable domains, click **View acceptable domains**.

6. Click **Add**.


## Hiding entries

---

To prevent unnecessary use of IBM Cognos Analytics items, such as reports, packages, folders, jobs, or data servers, you have the option of hiding them.

This is especially important for drill-through reports that can waste system resources when they are run unnecessarily.

To hide an entry, open its context menu and click **Properties**. On the **General** tab, open the **Advanced** section, and select the **Hide this entry** checkbox.

To show hidden entries in your content lists, click the **Personal menu** icon  in the application bar, and then click **Profile and settings**. On the **Settings** tab, turn on the **Show hidden entries** toggle switch.

Hidden entries are visible, but faded in the following parts of the user interface:

- Search results.
- Properties panel, **Permissions** tab.
- **Personal** tabs.
- Job steps that refer to hidden entries already in a job.
- Agent tasks that refer to hidden entries already in an agent.
- Details in a report run history.

The following rules apply to hidden entries:


- A hidden report is accessible as a drill-through target. Drill-through targets include parameter values to avoid resource-intensive query operations. However, users still require appropriate permissions to use this target report in a drill-through activity.
- A hidden drill-through definition is not displayed in the **Go To** page if the user interface does not show hidden entries.
- A visible shortcut can point to a hidden entry. If the shortcut points to a hidden folder, any hidden entries in the folder are not visible.


## Setting properties for entries

---

You can control the way entries appear and behave in IBM Cognos Analytics by modifying their properties.

You can view and set general and advanced properties for reports, folders, dashboards, stories, uploaded files, data modules, and other entries. When you open the properties panel, you see the **General** tab and the **Permissions** tab for all entries, and the tabs that are appropriate for the entry you're viewing, such as **Report** and **Schedule** for reports.

To open the properties panel for an entry, from its context menu \*\*\*, click **Properties**. You can also click the properties icon  in the application bar.

**Tip:** To specify **Team content** properties, in the actions toolbar, click the **Details** icon . In the **Details** pane that opens, click **Properties**.



---

## Chapter 10. Managing schedules and subscriptions

You can schedule entries to run at a time that is convenient for you or when demands on the system are low. Or you may want to run them at a regular weekly or monthly interval. Similarly, you can subscribe to reports that were made public by other people.

To use scheduling, you must have permissions for the **Scheduling** capability. For more information, see the *IBM Cognos Analytics Manage Guide*.

For information about creating schedules or subscriptions, see [“Scheduling an entry” on page 89](#) or [“Subscribing to reports” on page 39](#).

---

### Scheduling an entry

You schedule an entry, such as a report, report view, or a notebook, to run it later or at a recurring date and time.

#### About this task

Only one schedule can be associated with each entry. If you require multiple schedules for a report, you can create report views, and then create a schedule for each view.


You can schedule entries individually, or use jobs to schedule multiple entries at once. Jobs have their own schedules independent from the individual entries schedules. For more information, see [“Creating a job to schedule multiple entries” on page 91](#).

To schedule an entry, you need the permissions that are required to run the entry. For example, to schedule a report or report view, you must have read, write, execute, and traverse permissions for it. To schedule a child report view, you must have execute permissions for the parent report. You also need the required access permissions for any data sources that the entry relies on.

The scheduling options that are available to you depend on your permissions for the **Scheduling** capability.

For more information, see the *IBM Cognos Analytics Managing Guide*.

#### Procedure

1. Click the entry context menu , and then click **Properties**.
2. In the **Properties** pane, click the **Schedule** tab, and then click **New**.
3. In the **Create schedule** pane, specify the schedule options.
4. To access additional scheduling options, click **Classic View**. Specify your options, and click **OK**. When you return to the previous view, click **Create**.

The schedule entry appears in the **Create schedule** page.

#### What to do next



After you create a schedule, the entry or job runs at the time and date specified. You can then view the schedules and manage them. For more information, see [“My schedules and subscriptions” on page 95](#).

If you no longer need a schedule, you can delete it. You can also disable schedules without losing any of the scheduling details. The schedules can be enabled later.

## Differences between a schedule and a subscription

In IBM Cognos Analytics, you can create and maintain both schedules and subscriptions. Although they share some similar characteristics, there are also key differences.

The following table shows the main differences between schedules and subscriptions.

Schedule	Subscription
Only the report owner can create the schedule.	Many people can create a subscription from the same report.
The scheduler must have Read, Write, and Execute permissions for the report.	A subscriber requires only Read and Execute permissions for the report. If you have an Analytics Viewer license, you can subscribe to reports, but not schedule them. For more information, see "License roles" in <i>Managing IBM Cognos Analytics</i> .
There can only be one schedule per report.	There can be up to 32 subscriptions for the same report.
Created by tapping the More button  for the report's list entry.	Created by running a report and, in view mode, tapping the More button  in the application bar.
Anyone with read access can view the schedule.	Only the subscriber can view their subscription.
The owner controls the maximum number of saved report versions.	Only the most recent saved report output is available.
You can specify that an email be sent to many people.	If you specify email delivery, it can be sent only to you.
The report can be run daily, weekly, monthly, yearly, or in response to a trigger that is set by the administrator, such as a database refresh.	The report can be run daily or weekly.


## Deleting a subscription

You can delete one or more subscriptions that you created.


### Before you begin



After you [subscribe to a report](#), you can view a list of your [schedules and subscriptions](#). If you want to delete one of your subscriptions, follow the steps below.

### Procedure

1. Click the **Personal menu** icon  in the application bar, and then click the **Profile and settings** link below your user name.
2. On the **Settings** tab, turn on the **Show hidden entries** toggle switch.
3. Click **My content**, and then click the **Subscriptions** folder.

**Tip:** The **Subscriptions** folder is gray, as it is a hidden folder that is now enabled to be shown.

Your subscriptions appear as a list of report views .

4. Click the More button  next to the subscription that you want to delete.
5. Click **Delete** .

## Results

The subscription is removed from the **My schedules and subscriptions** list.

## Creating a job to schedule multiple entries

---

You can set the same schedule for multiple entries by creating a job. A job identifies a collection of reports, report views, and other jobs that are scheduled together and share the same schedule settings. When a scheduled job runs, all the entries in the job run.

If a job item is unavailable, you can select a different link by clicking **Link to an entry**.

Jobs contain steps, which are references to individual reports, jobs, and report views. You can specify whether to run the steps all at once or in sequence.

- When steps are run all at once, all the steps are submitted at the same time. The job is successful when all the steps run successfully. If a step fails, the other steps in the job are unaffected and still run, but the job has a **Failed** status.
- When the steps are run in sequence, you can specify the order in which the steps run. A step is submitted only after the preceding step runs successfully. You can choose to have the job stop or have the other steps continue if a step fails.


You can schedule a job to run at a specific time, on a recurring basis, or based on a trigger, such as a database refresh or an email. For more information about trigger-based entry scheduling, see the *Administration and Security Guide*.

The individual reports, jobs, and report views in steps can also have individual schedules. Run options for individual step entries override run options set for the job. You can set run options for the job that serve as the default for step entries that do not have their own run options.


You can run reports to produce outputs based on the options that you define, such as format, language, and accessibility.

Permissions required to include an entry as part of a job vary depending on the type of entry. The permissions are the same as for scheduling an entry. For more information on scheduling an entry, see [“Scheduling an entry” on page 89](#)

## Procedure

1. From the **Open menu** menu  in the application bar, click **New**, and select **Job**.

The **Steps** page appears.

2. Click the **Add job step** icon .
3. Select reports to be included in the job.
  - a) Navigate to a folder containing reports you want.
  - b) Select check boxes for one or more reports.

### Tips:



- Ctrl-click to select multiple check boxes.
  - Use the **Select all in folder** and **Deselect all in folder** links followed by Ctrl-clicking check boxes to quickly finish your selections in a folder.
  - Click **Add job steps**.
- c) Repeat steps [“3.a” on page 91](#) and [“3.b” on page 91](#) to select reports in other folders.


The **Steps** window lists the steps defined for your job. Each step listing shows:

- the name of a report that you selected

**Tip:** Hover over the report name to see the navigation path to the report location.


- whether the step options are defined by the report or are customized

4. To change the current step options for any step in your job:
  - a) Click the Edit options icon  for the step that you want to modify.
  - b) Edit the **Format**, **Accessibility**, **Bursting**, **Delivery**, **Languages**, or **Prompt** options.
  - c) Click **Close**.
5. To change the default run options for future steps:
  - a) Select **Change default step options**.
  - b) Edit the **Format**, **Accessibility**, **Bursting**, **Delivery**, prompts, or **Languages** options.
  - c) Click **Close**.
6. To remove a step, hover over the step and then click the Remove job step icon .
7. Under **Run order**, select whether the steps should **Run all at once** or **Run in sequence**.
  - If you select **Run in sequence**, the steps are executed in the order they appear in the **Steps** list.
  - If the **Run all at once** option is grayed out, your administrator has disabled it.  
  
For more information, see "Disabling the Run all at once option in jobs" in the Cognos Analytics Managing Guide
  - If you want the job to continue to run even if one of the steps fails, select the **Continue on error** check box.

**Tip:** To change the order of steps, click a step and drag it to the position that you want.
8. In the application bar, click the Save icon .
9. Navigate to a folder in which to save your job, enter a job name in the **Save as** box, and then click **Save**.  
  
**Run now** and **Schedule** links appear in the **Run Options** section.
10. To run the report immediately, click **Run now** and click **Finish**.
11. To schedule at a recurring time, follow these steps:
  - a) Click **Schedule**.
  - b) Click **New**.
  - c) Enter the details of when you want the job to run.
  - d) Click **Create**.

**Tip:** If this message appears: "Your credentials are required to complete this operation", click **Renew** and then enter your Cognos Analytics userid and password.

## Results

A job, denoted by the job icon , is created in the folder you selected and will run at the next scheduled time.

## What to do next

You can select operations from the following menu after you click the More icon \*\*\* for the job you created:





 Run as

---

 View versions

 Create a new job

 Edit the job

 Copy or move

 Create shortcut

 Delete

---

 Properties




---

## Chapter 11. Personal settings

Use personal settings to customize your IBM Cognos Analytics experience. You can view and edit your personal and regional information, monitor the system activities, set up logging, and so on.

To view or change any of the personal settings, click the Personal menu icon  in the application bar.

To view notifications about the latest system activities that are applicable to you, click the notifications icon  in the application bar.


---

### My schedules and subscriptions

You can view all your scheduled activities and subscriptions on the **My schedules and subscriptions** panel.

#### About this task




You can view a list of your scheduled activities that are current, past, or upcoming on a specific day. You can filter the list so that only the entries that you want appear. A bar chart shows you an overview of daily activities, by hour. If you switch views, you must refresh to see current data. For example, if you switch from **Past Activities** to **Upcoming Activities**, you must refresh to see current data in the panes.

You can see the **My schedules and subscriptions** option in the Personal menu  only if your administrator has granted you access to the Scheduling capability. For more information, see "Assigning capabilities based on license roles" in the *IBM Cognos Analytics Managing Guide*.

You can enable, disable, modify, or delete subscriptions, and view their saved outputs or archived versions. If you view the versions, you can also open the version details panel for information such as the run status, error messages, and run time.

For more information, see ["Differences between a schedule and a subscription"](#) on page 90.


#### Procedure

1. In the application bar, click your user name  icon , and then click **My schedules and subscriptions**.
2. To see both a listing and a graph of your schedules and subscriptions for a specific time frame, click the **Schedule** drop-down menu  , and then click **Upcoming**, **Past**, or **Current**.
3. To perform actions on a schedule or subscription in the list, click the More icon  next to the list item, and then click an action.

---

### Personal profile and application settings

You can set up preferences for your IBM Cognos Analytics application.

To set your preferences, click the **Personal menu** icon  in the application bar, and then click the **Profile and settings** link below your user name.

#### Language settings

You can select the language that you prefer for the IBM Cognos Analytics user interface. If your data and reports are available in multiple languages, you can also select the language that you prefer for the content.

You specify the language settings in the **Personal menu** . Click the **Profile and settings** link below your user name. On the **Settings** tab, select the **Product language** or **Content language**. Refresh your browser. The new language setting takes effect.


There is also support for bidirectional languages such as Hebrew, Arabic, Urdu, and Farsi. Report authors can control the display of native digits and the direction of text, crosstabs, and charts. For more information about support for bidirectional languages in reporting, see *Support for bidirectional languages* in the *Reporting User Guide*.

For general information about language settings, see the *IBM Cognos Analytics Manage Guide*.

## Setting the default format for report runs

You can set the default run format for your IBM Cognos Analytics reports.

### Procedure

1. Click the **Personal menu** icon , and then click the **Profile and settings** link below your user name.
2. On the **Settings** tab, for **Report format**, select one of the available formats.

## Credentials

Your credentials are the user name and password that you use to sign in to IBM Cognos Analytics. Your credentials are associated with groups, roles, capabilities, and permissions that determine what parts of the user interface you can access and how you can interact with content.

If you change the password you use to sign in to Cognos Analytics, be sure to renew your credentials. Your saved credentials are used to run scheduled requests when you're not signed in, for example, overnight. Credentials are automatically renewed once a day, but a schedule run can fail, if it runs after you change your password, but before your credentials are automatically renewed.

If you are prompted for credentials when you connect to a data server, you can save your credentials so you aren't prompted for them every time that you use the same data server. Your saved data server credentials are listed in your advanced, personal preferences. You can view and delete listed entries.


To see what groups and roles and what capabilities are available with your sign-in credentials, see [“Viewing your permissions for capabilities” on page 21](#).

## Renewing your credentials


Your credentials are renewed automatically once a day or at an interval that is determined by your administrator, but if you change your log-in password, update your credentials manually.

### About this task

It is important to manually renew your credentials in the following cases:

- When you change your sign-in password, if your credentials are used to run schedules.
- When you want to change the run permissions on an asset. For example, you want to select the **Run with user's credentials** or **Run with owner capabilities** options, but those options are not available after you select the More icon  and click **Properties > Report tab > Advanced**. The **Run** options will appear after you renew your credentials.

### Procedure

1. Click the **Personal menu** icon , then click **Profile and settings**.
2. On the **Profile** tab, under **Advanced options**, for **Credentials**, click **Renew**.




## Managing your credentials

If you own an entry, you can authorize trusted users to use your credentials when those users lack sufficient access permissions to perform specific tasks. In your personal, advanced preferences, you can view, add to, or delete from the list of groups, users, and roles that are authorized to use your credentials.

### About this task

If you want to add groups, users, or roles from multiple namespaces, you can use the type in method described as a choice in step 3.


### Procedure

1. Click the **Personal menu** icon , then click **Profile and settings**.
2. On the **Profile** tab, under **Advanced options**, locate **My credentials**, and click **Manage**.
3. To add a group, user or role, click , then do one of the following actions:
  - Select a namespace from the Name list. You can then search by keyword or filter by type to find what you want faster.
  - To type the names of entries you want to add, click the **Options** icon  and select **Type in**. Type the names of groups, roles, or users by using the following format, where a semicolon (;) separates each entry:  
`namespace/group_name;namespace/role_name;namespace/user_name;`  
Here is an example:  
`Cognos/Authors;LDAP/scarter;`
4. Select the names that you want and click **Add**.  
Your selections are now listed in the **My credentials** slide-out panel.
5. Click **Apply**.

## Managing your data server credentials

You can view and delete your saved data server credentials in your personal, advanced preferences.

### Procedure

1. Click the **Personal menu** icon , then click **Profile and settings**.
2. On the **Profile** tab, under **Advanced options**, for **Data server credentials**, click **Manage**.


## Creating personal API keys

You can create and manage your own API keys in Cognos Analytics. You can use your API keys to do the following:

- log in to a namespace that requires a secure token, rather than a saved password
- run API commands that require authentication
- connect to a Cloud Object Storage provider

For more information, see [Cognos Analytics REST API \(https://ibm.biz/cognos\\_api\\_docs\)](https://ibm.biz/cognos_api_docs).

### Procedure


1. Click the **Personal menu** icon , then click **Profile and settings**.
2. On the **Profile** tab, next to **My API keys**, click **Manage**.
3. Click **Generate API key**.
4. Enter a name and description for the key and then click **Next**.

The encrypted key appears.

**Important:** The API key is not stored in Cognos Analytics. You must copy and save it.

5. Click **Copy to clipboard** and then paste the key into a text file.
6. Click **Done**.

Your new key appears in the list on the **My API keys** page.

**Tip:** You can right click the Action menu icon  and edit, lock, or delete any key in the list.

## Managing your stored data


You can view a list of all the uploaded files and data sets that you own. These are referred to as your *stored data*.



By default, you can have up to 500 MB of stored data. This maximum value can be [changed by your administrator](#).

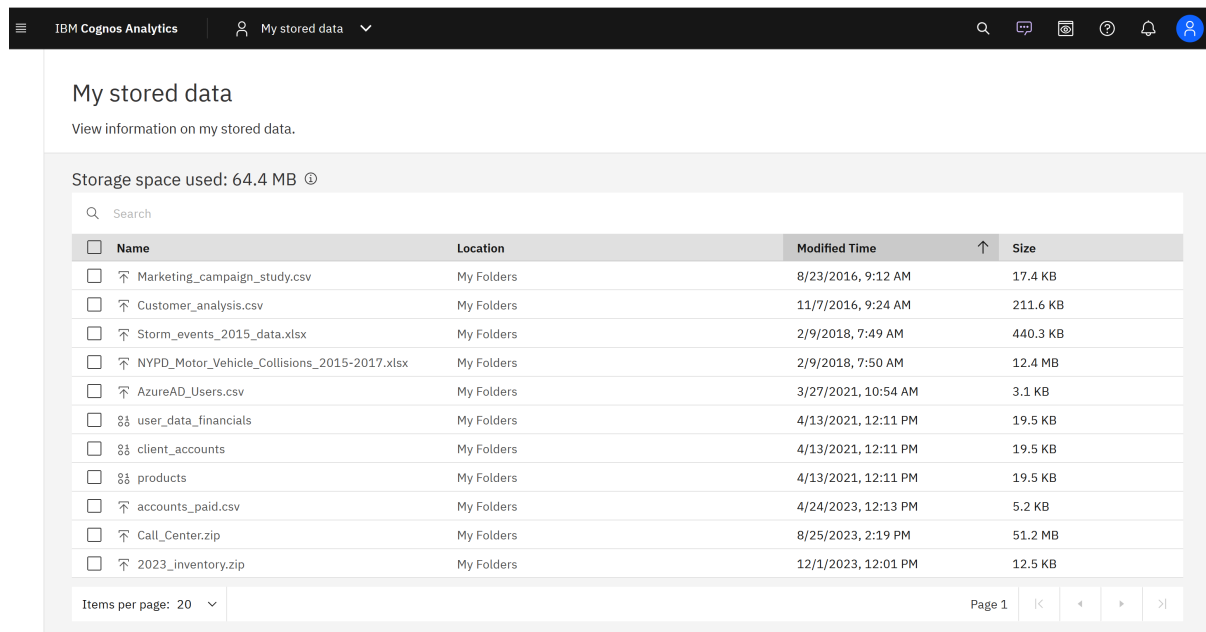
If you exceed your limit and try to upload a file or create a data set, an error message appears. You can view your stored data and delete items that you no longer need. This creates room for you to add a new uploaded file or data set.

For more information, see [“Uploading files” on page 32](#) and [“Creating data sets” on page 24](#).

### Procedure

1. Click the **Personal menu** icon , then click **Profile and settings**.
2. On the **Profile** tab, next to **My stored data**, click **Manage**.

All of your uploaded files  and data sets  appear in a list. The amount of used storage space appears above the list.



IBM Cognos Analytics | My stored data

### My stored data

View information on my stored data.

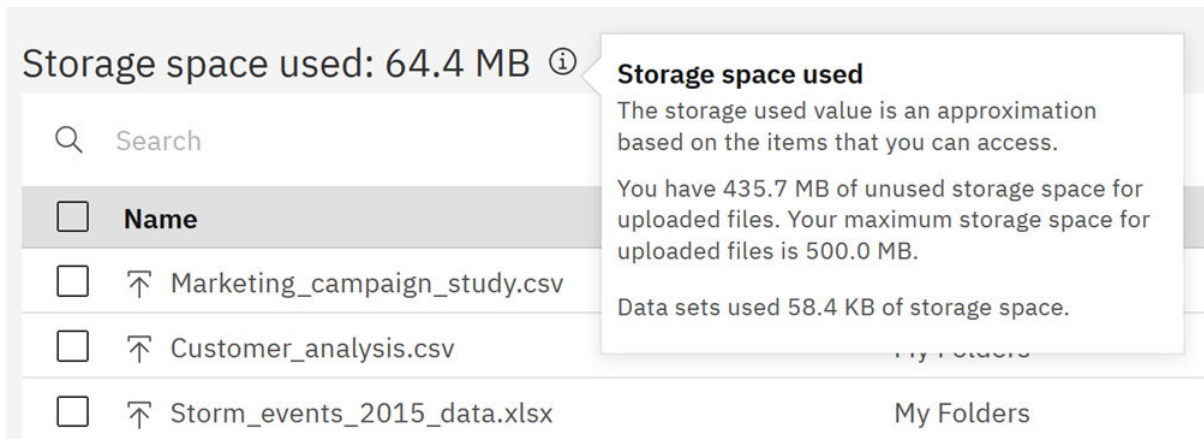
Storage space used: 64.4 MB ⓘ


<input type="checkbox"/>	Name	Location	Modified Time	↑	Size
<input type="checkbox"/>	Marketing_campaign_study.csv	My Folders	8/23/2016, 9:12 AM		17.4 KB
<input type="checkbox"/>	Customer_analysis.csv	My Folders	11/7/2016, 9:24 AM		211.6 KB
<input type="checkbox"/>	Storm_events_2015_data.xlsx	My Folders	2/9/2018, 7:49 AM		440.3 KB
<input type="checkbox"/>	NYPD_Motor_Vehicle_Collisions_2015-2017.xlsx	My Folders	2/9/2018, 7:50 AM		12.4 MB
<input type="checkbox"/>	AzureAD_Users.csv	My Folders	3/27/2021, 10:54 AM		3.1 KB
<input type="checkbox"/>	user_data_financials	My Folders	4/13/2021, 12:11 PM		19.5 KB
<input type="checkbox"/>	client_accounts	My Folders	4/13/2021, 12:11 PM		19.5 KB
<input type="checkbox"/>	products	My Folders	4/13/2021, 12:11 PM		19.5 KB
<input type="checkbox"/>	accounts_paid.csv	My Folders	4/24/2023, 12:13 PM		5.2 KB
<input type="checkbox"/>	Call_Center.zip	My Folders	8/25/2023, 2:19 PM		51.2 MB
<input type="checkbox"/>	2023_inventory.zip	My Folders	12/1/2023, 12:01 PM		12.5 KB

Items per page: 20 | Page 1

3. Click the information icon ⓘ next to the **Storage space used** value.

A tooltip appears, listing your unused storage, your maximum storage, and the amount of storage used by data sets.



4. If you want to free up storage space, click the sort icon  on the **Size** column. You can then quickly locate the largest files that you may want to delete.
5. To delete one or more files, select the check boxes for each file, then click **Delete**.

## Setting logging levels

In addition to the logging capabilities that exist on the IBM Cognos server, you can produce logs and error reports for your own workstation. This type of client-side logging is important for troubleshooting and can cover JavaScript anomalies that are not detectable from the server environment.

### About this task

You can turn logging on or off as well as set the logging level. Under normal circumstances, logging is on, but the level is set to **Error**. In some circumstances, IBM customer support might direct you to increase the logging level. Set it to one of the following levels:

#### Error

Basic level of logging that tracks only major error messages that occur during processing on the client workstation.

#### Warning

The next level of logging that includes all the information from the Error level of logging and includes warnings about situations that might not affect your system function.

#### Information


This level of logging aggregates all previous levels of logging and includes more detail about the regular operation of the user interface. You might notice that performance at this level is slower.

#### Debug

This level of logging contains the most information. Use it if you are testing your own extensions or when you are advised by a member of the software development team or customer support. You can expect that performance at this level is noticeably slower.

Logging levels are stored in the browser cache. If you clear the browser cache, logging levels return to the default setting.

### Procedure

1. Click the **Personal menu** icon , then click **Profile and settings**.
2. On the **Profile** tab, under **Advanced options**, for **Logging**, click **Manage**.
3. Ensure that logging is on.
4. Set the **Logging level** to the level directed by the customer support representative.
5. To retrieve logs from the browser console, press the **F12** key on your keyboard or from the browser menu, click **Developer**, and then click **Web Console**.

**Tip:** For the Firefox web browser, you can use an add-on, such as Firebug to make it easier to retrieve and save log files from the console.

6. After you are done troubleshooting, return to the **Logging** preferences window and ensure that logging is set back to **Error** to prevent logging from slowing down your system while you are working.

### **What to do next**

For more information about troubleshooting your system, see the *IBM Cognos Analytics Troubleshooting Guide*.



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## Chapter 12. Integration with other Cognos products

IBM Cognos Analytics integrates with supported versions of other IBM Cognos products.

The following list includes the IBM Cognos products that work with IBM Cognos Analytics. These products can be installed by using the custom installation of IBM Cognos Analytics.

### **Cognos Planning - Analyst**

For supported versions, you can access published plan data in IBM Cognos Analytics by using the Generate Framework Manager Model wizard. For more information, see the *IBM Cognos Analyst User Guide*.

### **Cognos Planning - Contributor**

For supported versions, you can access unpublished (real-time) Contributor cubes in IBM Cognos Analytics by custom installing the IBM Cognos Analytics - Contributor Data Server component that is included with IBM Cognos Planning - Contributor.

For supported versions, you can access published plan data in IBM Cognos Analytics by using the Generate Framework Manager Model administration extension in Contributor. For more information, see the *IBM Cognos Contributor Administration Guide*.

### **Cognos Finance**

You can access IBM Cognos Finance cubes that are secured against a Series 7 namespace by using the IBM Cognos Finance Network API Service. You can also export data and metadata from IBM Cognos Finance for use in Framework Manager.

### **Cognos Controller**

You can access IBM Cognos Analytics to create IBM Cognos Controller Standard Reports by using a predefined Framework Manager model that is created when IBM Cognos Controller is installed. You can also access published Controller data and structures in Framework Manager for custom reporting and analysis.

### **Cognos Transformer**

You can use IBM Cognos PowerCubes and Transformer models, that were generated by supported Transformer versions, directly in IBM Cognos Analytics. The cubes and models are upwards compatible and require no migration or upgrade tools. You can run reports and analyses in IBM Cognos Analytics against the IBM Cognos PowerCubes.

### **Cognos TM1®**

IBM Cognos TM1 integrates business planning, performance measurement and operational data to enable companies to optimize business effectiveness and customer interaction regardless of geography or structure. Cognos TM1 provides immediate visibility into data, accountability within a collaborative process, and a consistent view of information, allowing managers to quickly stabilize operational fluctuations and take advantage of new opportunities. For more information, see the *IBM Cognos TM1 User Guide*.

### **Cognos PowerPlay**

You use IBM® Cognos® PowerPlay® Studio to create and view reports that are based on PowerCube data sources. For more information, see the *IBM Cognos PowerPlay Studio User Guide*.

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## IBM Cognos Software Development Kit

The IBM Cognos Software Development Kit provides a platform-independent automation interface for working with IBM Cognos Analytics services and components.

Developers in your organization can use IBM Cognos Software Development Kit to create custom reports, manage deployment, and integrate security and portal functionality to suit your needs, locale, and existing software infrastructure. The Software Development Kit uses a collection of cross-platform web services, libraries, and programming interfaces.

You can choose to automate only a specific task, or you can program the entire process from modeling through to reporting, scheduling, and distribution.

The Software Development Kit is included in the Cognos Analytics installer package.  
For more information, see the *IBM Cognos Software Development Kit Developer Guide*.

## Opening companion apps


The companion applications, such as IBM Cognos PowerPlay, are available to users with specific capabilities.

The companion apps include the following products:

- IBM Cognos PowerPlay
- IBM Cognos Planning

These products are installed separately.

### Procedure

1. From the **Open menu** , click **New**, and select **Other applications**.
2. Click the application that you want.

## Functionality mapping from Cognos BI to Cognos Analytics

IBM Cognos Analytics is the next version of IBM Cognos Business Intelligence.

The following table describes where you can find BI functionality in Cognos Analytics. The companion applications are only available in the user interface if they are installed and if legacy applications are enabled in a custom installation of Cognos Analytics. Some of the companion applications are installed separately.

Table 1. BI to Cognos Analytics functionality mapping	
IBM Cognos Business Intelligence	IBM Cognos Analytics
Cognos Connection	Welcome portal.
Cognos Viewer	The viewer is not named. Depending on the item you view, there is different functionality in the viewer.
Report Studio	Reporting component in Cognos Analytics.
No equivalent, new in Cognos Analytics	Data Modules.
Cognos Administration	<b>Manage</b> is the primary administration component in Cognos Analytics. Some of the Cognos Administration functionality is still available and used from the <b>Administration console</b> .
Workspace Advanced	The Reporting component incorporates Workspace Advanced functionality. Page preview in Reporting is similar to Page preview in Workspace Advanced.
Drill-through definitions	Drill-through definitions are supported in Framework Manager packages, but not in data modules.
Event Studio	Cognos Analytics 12.0.0 and earlier versions support Event Studio as one of the companion applications. As of Cognos Analytics 12.0.1, Event Studio is reinstated as a core component, and renamed to Event agent.
My Inbox	<b>My Inbox</b> is supported in coordination with <b>Notifications</b> .

<i>Table 1. BI to Cognos Analytics functionality mapping (continued)</i>	
<b>IBM Cognos Business Intelligence</b>	<b>IBM Cognos Analytics</b>
Framework Manager	Framework Manager

## Comparing Analysis Studio and Query Studio features with Reporting and Dashboards features

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As of version 12.0.0, Query Studio and Analysis Studio are removed from IBM Cognos Analytics.

The PDF document [Comparing Analysis Studio and Query Studio features with Reporting and Dashboards features](http://www.ibm.com/docs/en/SSEP7J_11.2.0/pdf/as_qs_compare.pdf) ([www.ibm.com/docs/en/SSEP7J\\_11.2.0/pdf/as\\_qs\\_compare.pdf](http://www.ibm.com/docs/en/SSEP7J_11.2.0/pdf/as_qs_compare.pdf)) provides information about parallel functionality in Cognos Analytics Reporting and Cognos Analytics Dashboards that you can use instead of Query Studio and Analysis Studio. Read this document if you are still using Query Studio and Analysis Studio in a previous release, but thinking about migration to Cognos Analytics. Please note that the PDF document is available in English only.





