IBM Cognos Analytics
Version 11.1.0

Getting Started User Guide
### Contents

#### Chapter 1. Getting started in Cognos Analytics................................. 1
  - Signing in........................................................................................................ 3
  - Search and find content................................................................................ 4
  - Navigation tips................................................................................................ 5
  - Upload files and launch components at the same time............................... 5
  - Get started video tutorials and samples..................................................... 6

#### Chapter 2. Access permissions............................................................... 7
  - Simple and granular access permissions..................................................... 7
  - Setting permissions for content.................................................................. 8
  - Viewing your permissions for content........................................................ 9
  - Viewing your permissions for functions and features............................. 9

#### Chapter 3. Sources of data..................................................................... 11
  - Data modules................................................................................................. 11
  - Packages....................................................................................................... 11
  - Data sets....................................................................................................... 12
    - Creating data sets...................................................................................... 12
  - Uploaded files............................................................................................... 13
    - Uploading files......................................................................................... 15
    - Updating data in uploaded files.............................................................. 15

#### Chapter 4. Explorations......................................................................... 17
  - Starting an exploration from an existing dashboard or story..................... 17
  - Starting a new exploration from the New menu......................................... 17
  - Starting a new exploration from a data asset on the welcome page........... 17
  - Adding a data source.................................................................................... 18

#### Chapter 5. Reports.................................................................................. 19
  - Viewing and interacting with reports......................................................... 19
  - Run variations of reports with report views................................................. 20
  - Report versions............................................................................................. 20
  - Subscribing to reports.................................................................................. 21

#### Chapter 6. Dashboards and stories.......................................................... 23

#### Chapter 7. Notebooks.............................................................................. 25
  - Creating a notebook...................................................................................... 26
  - Notebook actions........................................................................................ 26
  - Reading data from a data source................................................................. 27
  - Writing data to a data source...................................................................... 30
  - File paths that contain a forward slash...................................................... 30
  - Finding the ID of a file................................................................................ 31
  - Notebook examples..................................................................................... 31
  - Uploading external notebooks.................................................................... 34
  - Best practices for displaying notebook visualizations in dashboards........ 35

#### Chapter 8. Managing content................................................................. 37
  - Copying or moving entries......................................................................... 37
Chapter 1. Getting started in Cognos Analytics

IBM® Cognos® Analytics integrates reporting, modeling, analysis, dashboards, stories, and event management so that you can understand your organization's data, and make effective business decisions. With multiple Cognos Analytics offerings available, it's important to understand which features, components, and documentation are supported in your particular version. The following table provides an overview of the functionality available between products.

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Cognos Analytics on Cloud</th>
<th>Cognos Analytics on Cloud Dedicated</th>
<th>Cognos Analytics on Premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dashboards and stories</td>
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<td>Assistant and insights</td>
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<td>Data modules</td>
<td>✓</td>
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<td>Explorations</td>
<td></td>
<td>Plus, Premium</td>
<td></td>
</tr>
<tr>
<td>Reporting and scheduling</td>
<td></td>
<td>Premium</td>
<td></td>
</tr>
<tr>
<td>Cognos for Microsoft Office</td>
<td></td>
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<tr>
<td>Framework Manager</td>
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<td>Cognos SDK</td>
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<td>Transformer</td>
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<td>✓</td>
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<td></td>
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<td></td>
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<td>Jupyter notebooks</td>
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<td></td>
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<td></td>
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<tr>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>PowerPlay® Studio</td>
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<td>Administration</td>
<td>Limited</td>
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Cognos Analytics on Cloud is available in three tiers (Standard, Plus, and Premium). For more details on supported functionality across all offerings, see the following community blog: https://community.ibm.com/community/user/businessanalytics/blogs/david-cushing/2018/12/13/1

After the software is installed and configured, administrators set up security and manage data sources. You can get started yourself by uploading local files and applying visualizations in dashboards or stories. For enterprise-level data, modelers are next in the workflow. After data modules and packages are available, report authors can then create reports for business users and analysts. Administrators maintain the system on an ongoing basis.

Whether you're an analyst, report author, data modeler, or an administrator, you start by signing in to the Welcome portal from your desktop or mobile device. There are coach marks in the user interface to help you discover what's where.

For links to videos, getting started resources, expert blogs, events, and more, you can visit the IBM Cognos Analytics community (www.ibm.com/communities/analytics/cognos-analytics/).

If you want to start with video tutorials and sample data, see “Get started video tutorials and samples” on page 6.

Depending on the work you do, you use different areas of the user interface. IBM Cognos Analytics capabilities control access to the different areas of the interface, and you see only those interfaces that you work with.

**Welcome portal**
- Search for content in **Team content, My content**, or **Recent** lists; open reports, dashboards, stories and other items; upload files, check your notifications, set your preferences and home page, and review your schedules and subscriptions.
- Delete, copy, move, edit or run entries such as reports.
- Create report views for reports without opening the Reporting component.
- Create shortcuts to reports, dashboards, stories, or data modules.
- Set access permissions.

Start creating new content such as reports, dashboards, or stories by tapping [New].

**Reporting**
- Create and edit a wide range of professional reports. Use templates or customize your reports with prompts, bursting, advanced charts and visualizations.
- You enter the IBM Cognos Analytics - Reporting user interface from the Cognos Analytics portal by opening an existing report from **Team content** or **My content**, or by tapping [New], and then tapping **Report**.
- For more information, see the **Cognos Analytics Reporting Guide**.

**Dashboards and stories**
- View, monitor, and communicate data insights and analysis with dashboards or stories. You can assemble a view that contains visualizations such as graphs, charts, plots, tables, maps, or any other visual representation of data. Enrich dashboards and stories with web pages and other content.
- You enter the IBM Cognos Analytics dashboards or stories user interface from the Cognos Analytics portal by opening an existing dashboard from **Team content** or **My content**, or by tapping [New], and then tapping **Dashboard** or **Story**.
- For more information, see the **Cognos Analytics Dashboards and Stories User Guide**.

**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.
You enter the IBM Cognos Analytics Exploration user interface from the Cognos Analytics portal by opening an existing Exploration from **Team content** or **My content**, or by tapping **New**, and then tapping **Exploration**.

For more information, see the *Cognos Analytics Explorations User Guide*.

**Data modeling**

Modelers and administrators create data modules and packages and make them available to users for use with reports, dashboards, and stories. You can use the IBM Cognos Analytics web modeling tool to quickly create data modules from various sources, such as data servers, uploaded files, and previously saved data modules. The tool is intent-driven and generates a base module by using keywords that you define.

You enter the IBM Cognos Analytics web modeling user interface from the Cognos Analytics portal by opening an existing data module from **Team content** or **My content**, or by tapping **New**, and then tapping **Data module**.

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

**Manage and administer**

Create and manage accounts (users, groups, and roles), schedules, or data server connections. Perform configuration tasks, and customize the product experience and user interface.

You enter the IBM Cognos Analytics administration user interface from the Cognos Analytics portal by tapping **Manage**, and then selecting the tabs that represent the different administration areas, such as **Data server connections** or **Configuration**. To access the legacy administration tool for more options, tap **Administration console**.

Changes that you make in either the **Manage** interface or the **Administration console** affect both interfaces.

For more information, see *Cognos Analytics Managing Guide* and the *Cognos Analytics Administration and Security Guide*.

### Signing in

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

To sign in, you must provide your credentials, such as user ID and password, as required by your organization. Anonymous users do not sign in.

If multiple namespaces are configured for your Cognos Analytics environment, you can sign 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 sign in to.
2. Type your user ID and password, and tap **Sign in**.
   
   Your session starts.

3. To sign in to a different namespace in the same session, from the personal menu in the application toolbar, tap **Sign in** again.

#### What to do next

You sign out to end your session. Even if you used multiple namespaces in the session, you sign out only once. To sign out, from the personal menu in the application toolbar, tap **Sign out**. If you close your web browser without signing out, your session ends.
Search and find content

You can find IBM Cognos Analytics reports, dashboards, stories, files, folders, packages, and other items by opening your My content or Team content folders or by checking your Recent folder. But Search is a quick, easy way to find your items.

To find items, type keywords and tap the Enter key. You can also search for text including 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.

Narrow your search with filters

If your search returns too many results, you can tap the filter icon and select the options you want. The filter option is only available after you do an initial search.

Save searches

After you search and the results are listed, you can save your search. The save option is only available after you search.

Team content

Your organization content is in the Team content folder. This is where you find reports, packages, dashboards, stories, data modules, and more. Items in Team content are organized in folders so searching with keywords is an easy way to find what you're looking for.

Tip: Items listed in Team content may have different menu options when compared to the same items found during a search. For example, right-clicking a report in Team content displays a Copy or move option, which is not available for the same report when found during a search.

My content

This folder is your private area, and only you can see the content that's stored there.

Recent

This folder contains items that you viewed recently. Use the List View and the Tile View icons to switch between the views.
View report output versions and archived versions

For a report in a list, tap and then tap the View versions icon.

Navigation tips

Tapping around in the IBM Cognos Analytics user interface helps you discover how things work. Here are a few navigation tips to speed your discovery.

Run a report from the My content or Team content list
Tap the name of a report or tap the context menu icon for the Run as option.

Select entries in lists
Tap the entry icon or tap the space beside the entry name.

Add a folder to My content or Team content
Open My content or Team content, and tap the new folder icon in the toolbar.

Navigate between different views
You can have multiple entries, such as folders, reports, dashboards, that are opened. The welcome menu in the application bar provides a convenient way to navigate between the different, open views.

Upload files and launch components at the same time
Use Quick launch to upload files to IBM Cognos Analytics 11.1.0 and simultaneously start a data module, exploration, dashboard, or notebook.

Drag files onto the welcome page to activate the Quick launch functionality. When Quick launch 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 your My content.
For more information about uploaded files, see “Uploaded files” on page 13.

**Get started video tutorials and samples**

If your administrator installs and configures the samples that are available with IBM Cognos Analytics, you can experiment with sample data, metrics, and report templates.

If you’re a beginning user, as part of the base samples, there are Get started tutorials with samples (including data), videos, and written procedures to guide you through creating your first reports, active reports, dashboards and stories.

These **Get started** samples and the sample data are in **Team content**, in the **Get started** folder. The **Data** folder includes Microsoft Excel files that were uploaded and saved for you to use with the **Get started** tutorials. The **Version 11.0.x base samples** report is added only to inform you about the version of IBM Cognos Analytics that these samples are included with. To complete the tutorials, open the samples to see the finished product, then click the link beside this icon [] to watch the tutorial video. (For the dashboard samples, the video link is embedded).

For more information, see the **IBM Cognos Analytics Samples Guide**.
Chapter 2. 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 9.

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 59.

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 7.

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, tap Properties.

2. On the Permissions tab, select the check box Override parent permissions, and tap 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. Tap 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, tap the set access icon, and change the permission.

6. Tap on the permission name to view the granular permissions that this permission is comprised of. To change the granular permissions, tap 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. Tap 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 7.

Procedure

1. For an entry in a list, tap the context menu and then tap Properties.
2. On the General tab, tap Advanced.

Viewing your permissions for functions and features

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. To see what groups and roles and what capabilities are available with your sign-in credentials, follow these steps:

Procedure

1. Tap your personal menu, then tap My preferences > Personal > Advanced.
2. Tap View details for either Groups and roles or My capabilities.
Chapter 3. 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, then 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 Modeling 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, TM1 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.
Data sets

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

Data sets can be created from packages or data modules. You can use data sets to create dashboards or stories.

You also can start with a data set and extend it by creating a data module from it. For example, you can add calculations and multiple additional data sources. For more information, see the IBM Cognos Analytics Data Modeling Guide.

Creating data sets

Create a data set to group a customized collection of data items that you use frequently.

Data sets can be created from packages or data modules.

Procedure

1. Navigate to a package or data module in Team content or My content.
2. From the package or data module context menu, tap Create data set.
3. Drag the data items from the Insertable objects pane to the data set editor pane. The items appear as columnar data in a similar fashion to a list report.
4. For relational data or for data modules, select the Summarize detailed values, suppressing duplicates, for relational data sources check box.

If you aren’t sure if this check box should be selected, clear it and then select it again to see how the data is aggregated. Condensed data that is set into 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. To preview data in the data set, select the Preview check box.

For large data sets, you might want to clear this check box to avoid unnecessary use of resources every time data is retrieved, and select it only when updating the data set.
6. For data with prompts, tap Reprompt to choose values or enter different values.
7. To add filters to the columns or individual items of the data set, tap the item and then tap . You can add a customized filter or use one of the preset options.
8. After you are done adding columns, tap the save icon .

- To save the data set for the first time or to save changes to the data set, from the drop-down list tap Save. This option saves the metadata, but does not load the data. Depending on the data set, loading data may take some time.
- To save an updated data set to a new data set, from the drop-down list tap Save as. This option saves the metadata, but does not load the data. Depending on the data set, loading data may take some time.
- To save the data set and load the data, from the drop-down list tap Save and load data. In addition to saving new or changed metadata, this option loads data. This data is immediately available when you use it in the creation of a dashboard or story.
9. Optional: To create a data set while building a dashboard, perform the following steps:

   a) Create a new dashboard, choose a template, and tap OK.

   b) Tap to add some data.
c) Navigate to a package by tapping **Team content**, and then tap **Open**.

d) The **Create data set** window appears. You can create a new data set and after you save it, you can continue to build your dashboard.

If you need to modify the data set, you can also do that from within the dashboard by expanding the data sources.

**What to do next**

If a data set is based on a package with multiple 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 connection or signon that you want, 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 this information and its subsequent refreshes use the same information.

**Uploaded files**

If you want to do some quick analysis and visualizations with data files, you can upload the files to IBM Cognos Analytics by yourself. Your data files must meet size and structure requirements.

The data in the files must be in a simple columnar format. Pivot tables or crosstabs aren’t supported.

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.

**Tip:** 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)**.

You can upload Microsoft Excel workbook files, delimiter-separated values files, Jupyter notebook (.ipynb) files, and compressed (.zip) files.

**Microsoft Excel workbook files**

You can upload Microsoft Excel .xls and .xlsx workbook files.

The file formats .xlsb and .xlsm aren’t supported for upload.

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 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.
- 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 values files**

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 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

**Jupiter Notebook files (.ipynb)**

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

For more information, see “Uploading external notebooks” on page 34.

**Compressed (.zip) files**

You can compress one or multiple files of supported types into a .zip file for a faster, one-step upload. Files of different, supported types can be included in the same .zip file.
Uploading files

You can upload supported file types that are stored in 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 be compressed into a .zip file for a quick upload.

Procedure

1. Use the following methods to upload files:
   - In the vertical application toolbar, tap New, and then tap Upload files. Locate the files 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 files from your local drive onto the welcome page to activate the Quick launch functionality. When Quick launch appears, drop the files into the appropriate box to immediately start building a data module, exploration, dashboard, or a notebook.
   - In the welcome page, tap the Browse link at the bottom of the page. Locate the files on your local drive, and select one or multiple files to upload them.
   - From a folder in Team content or My content, click the New icon, and select Upload files. 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 are shown for single-file uploads and consolidated, progress messages for multi-file uploads.

2. Optional: 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” on page 15.

Results

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

What to do next

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

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

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

Updating data in uploaded files

You can replace or append data in an uploaded file with data from a different file. The column names and data types, and the order of columns must be identical in both files.

An empty file, which is a file that contains a header but no data, cannot be used for the update.

Procedure

1. In Team content or My content, locate the uploaded file that you want to update.

2. From the file context menu, choose one of the following options:
   - Replace file
     This option replaces all rows of data in your uploaded file with rows of data from the file that you select.
• **Append file**

  This option appends new rows of data to your uploaded file from the file that you select.

  **Tip:** While the file is being updated, progress and error messages are displayed.
Chapter 4. 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 explorations
Use one of several methods to start explorations.

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 Explorations icon in the toolbar.
4. Select New exploration or Add to existing.

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

Procedure
1. Click New + and then click Exploration.
2. 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 on the welcome page
You can select the Action menu on a recently used data asset on the welcome page.

Procedure
1. On the welcome page, if the data asset you want to use is displayed as a tile in the Recent area, click the Action menu icon.
2. 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 5. 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 8, “Managing content,” on page 37.

Viewing and interacting with reports

You search and find an IBM Cognos Analytics report in the Team content or My content folder, and then you can open it or run it.

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.** Delivers reports with your prompt values and options.
- **Save as report view.** Saves your prompt values and options in a view.
- **Set as home.**
- **Edit.** Opens Reporting.
- **Run as.** Choose the output format.
- **Save** and **Save as.**

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, and by viewing the Recent items list. 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 More icon and then click Share or Embed.
• 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 versions and 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 report output, but you can also view saved and archived versions for reports in your content lists.

Save a report version

In the application bar, when you view a report, tap either or . The location of the save option depends on the type of report you view.

You also have the Save as option of saving the report version under a different name or in a different location.
View report versions and archived versions

For a report in a content list, tap and then tap View versions.

Set the maximum number of report versions that you can save

For a report in a content list, tap > Properties > Report > Advanced, and in the Report output versions field, enter a number to represent the maximum number of report versions that you can save.

Delete saved outputs for report versions

For a report in a content list, tap . Tap View versions, tap an entry in the list, and then tap the delete icon. Deleting removes all saved output formats for the version.

Versions

<table>
<thead>
<tr>
<th>Versions</th>
<th>Archives</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Date Icon] Jun 14, 2016 2:47 PM</td>
<td>![Folder Icon]</td>
</tr>
<tr>
<td>![Language Icon] EN-US</td>
<td>![Export Icon]</td>
</tr>
</tbody>
</table>

Figure 2. Delete saved output for a 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, tap the Edit button until it is not selected.

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 button in the application bar. The number in the red circle indicates the number of notifications that you have not yet viewed. Tap the Notifications button 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 the Subscribe icon.
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 57.
Chapter 6. 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 8, “Managing content,” on page 37.

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 8, “Managing content,” on page 37.
Chapter 7. 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.

Cognos 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 **New** icon.
- Upload notebooks that were created outside of Cognos Analytics. For more information, see “Uploading external notebooks” on page 34.

### 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.
- For more information, see “Reading data from a data source” on page 27 and “Writing data to a data source” on page 30.

### 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, Cognos 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. Click **New**  and then click **Notebook**.

   **Tip:** If you don't see the **Notebook** selection, then 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 specific date and time. For more information, see “Scheduling an entry” on page 53.

**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” on page 55.

**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” on page 7.

**Copy or move**

Copy or move the notebook. For more information, see “Copying or moving entries” on page 37.

**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.

**Remove from recent**

Remove the notebook from the welcome page. It still exists in **My content** or **Team content**.

**Delete**

Delete the notebook from Cognos Analytics.
Tip: You can also access these actions from My content or Team content by clicking the More icon for a notebook.

Note: A subset of these actions is available if you do not have the edit notebook capability.

Reading data from a data source

Use the CADataConnector.read_data() method to read Cognos Analytics data in a notebook.

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

To quickly insert the CADataConnector.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:

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

One of the following items is returned from the method:

- **pandas.DataFrame**
  - Returned by default.
- **List of pandas.DataFrame**
  - Returned when the sheet_name parameter is specified and multiple sheets are requested.
- **Iterator of pandas.DataFrame**
  - Returned when the chunksize or iterator parameter is specified.

Parameters common to all data sources

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required or optional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>path</td>
<td>Specify one of path or id</td>
<td>Path to the data source. If the data source is in My content, specify .my_folders at the start of the path. If the data source is in Team content, specify .public_folders at the start of the path. For example, to specify a file called sales-notebook that is stored in My content, specify</td>
</tr>
<tr>
<td>id</td>
<td></td>
<td>The ID of the file. For information about how to get the ID of a file, see “Finding the ID of a file” on page 31. For example:</td>
</tr>
<tr>
<td>Parameter</td>
<td>Required or optional</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>usecols</td>
<td>optional</td>
<td>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 <em>City</em> and <em>Quantity</em>, specify <code>usecols=[&quot;City&quot;,&quot;Quantity&quot;]</code> If not specified, then all columns are returned. <strong>Note:</strong> This parameter is not applicable for OLAP data in a Framework Manager package.</td>
</tr>
<tr>
<td>chunksize</td>
<td>optional</td>
<td>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 <code>chunksize=3</code> If both chunksize and iterator are not specified, then a DataFrame is returned.</td>
</tr>
<tr>
<td>iterator</td>
<td>optional</td>
<td>If specified, the method returns an iterator. Specifying <code>iterator=True</code> without chunksize specified returns one row each time the method is invoked. Specifying iterator=True with chunksize specified, returns chunksize rows each time the method is invoked. Reset the iterator using the <code>iterator.reset()</code> method.</td>
</tr>
<tr>
<td>nrows</td>
<td>optional</td>
<td>The maximum number of rows returned. Specify an integer. If omitted, the maximum number of rows returned is 10,000. If <code>nrows=0</code> is specified, then the column headings are returned.</td>
</tr>
</tbody>
</table>

**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:

```
sheet_name=["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 parameter applies only to data modules:

**table_name**

Optional. 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).

If you omit `table_name`, the `read_data()` method returns a pandas.DataFrame that contains the names of the tables defined in the data module. Example:

```
table_name=["table1","table2"]
```

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:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required or optional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>query_subject</td>
<td>Optional</td>
<td>String or list of strings. Restrict the scope of the request to the specific query subject(s) in the package. Specify the query subject(s) by query subject name(s). Example:</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>query_subject=&quot;query1&quot;</code></td>
</tr>
<tr>
<td>folder_name</td>
<td>Optional</td>
<td>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 <code>c</code> that's in folder <code>b</code> that's in folder <code>a</code> specify the <code>folder_name</code> parameter as a list:</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>folder_name=[&quot;a&quot;,&quot;b&quot;,&quot;c&quot;]</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>This returns only the folder <code>c</code> in this path, even if there are other folders with the name <code>c</code> in the package.</td>
</tr>
<tr>
<td>metadata</td>
<td>Optional. Applies only to OLAP data in a Framework Manager package.</td>
<td>Value can be True or False. Specifying</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>metadata=True</code> returns the query subjects in the package. Specifying</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>metadata=False</code> returns the data in the package. If not specified, then a default value of False is used.</td>
</tr>
</tbody>
</table>

**Note:** You can use single or double quotation marks in a method.

For examples of how to code the `read_data()` method, see “Notebook examples” on page 31.
Writing data to a data source

Use the CADataConnector.write_data() method to write Cognos Analytics data to a data source.

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:

```python
CADataConnector.write_data(parameters as described in the following table)
```

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required or optional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>data</td>
<td>required</td>
<td>Pandas.DataFrame. Contains the table of data, which is written to the file.</td>
</tr>
<tr>
<td>path, id</td>
<td>Specify one of path or id</td>
<td>Path to the data source. If the data source is in <strong>My content</strong>, specify .my_folders at the start of the path. If the data source is in <strong>Team content</strong>, specify .public_folders at the start of the path. For example, to specify a file called sales-notebook that is stored in <strong>My content</strong>, specify <code>path=&quot;.my_folders/sales-notebook&quot;</code>. The ID of the file. For information about how to get the ID of a file, see “Finding the ID of a file” on page 31. For example: <code>id=&quot;i1F8D76C0FAD34J9CA50118746935D9X7&quot;</code>.</td>
</tr>
<tr>
<td>mode</td>
<td>optional</td>
<td>x: Create the file and write to it. If the file exists, the method fails with an exception. Default value. w: 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. a: 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. Example: <code>mode=&quot;w&quot;</code>.</td>
</tr>
</tbody>
</table>

**Note:** You can use single or double quotation marks in a method.

For examples of how to code the `write_data()` method, see “Notebook examples” on page 31.

File paths that contain a forward slash

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

To enable the CADataConnector 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`.

```python
data = CADataConnector.read_data(path=['my/folder-1', 'my/folder-2', 'my/data.csv'])
```

### Finding the ID of a file

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

**Procedure**

1. Do one of the following things:
   
   a) On the welcome page, click the **Action menu** for a file and select **Properties**.
   
   b) From **My Content** or **Team content**, click the **More icon** for a file and then select **Properties**.

2. In the **General tab**, click **Advanced**. The **ID** field contains the file ID.

### Notebook examples

Here are some examples that demonstrate how to work with Cognos Analytics data sources in a notebook.

#### 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.

```python
In [1]: data = CADataConnector.read_data(path=['public_folders/JLabusers/TemplateFile_GOSales.xls'])
```

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

```
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>City</td>
<td>City</td>
<td>City</td>
<td>City</td>
<td>City</td>
<td>City</td>
<td>City</td>
<td>City</td>
</tr>
<tr>
<td>Quantity</td>
<td>Quantity</td>
<td>Quantity</td>
<td>Quantity</td>
<td>Quantity</td>
<td>Quantity</td>
<td>Quantity</td>
<td>Quantity</td>
</tr>
</tbody>
</table>
```

```python
In [3]: data = CADataConnector.read_data(path=['public_folders/JLabusers/TemplateFile_GOSales.xls'],
                                      nrows=2,
                                      usecols=['City', 'Quantity'])
```

#### 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.

```python
In [6]: data = CADataConnector.read_data(path=['public_folders/JLabusers/TemplateFile_GOSales.xls'],
                                      iterator=True,
                                      chunksize=20000)
```
Writing to a file

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

```python
In [1]: import pandas as pd
In [2]: pd.DataFrame([{'Region': 'Europe', 'Sales': 200}, {'Region': 'America', 'Sales': 300}])
Out[2]:
         Region  Sales
0    Europe    200
1  America    300
```

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 pandas.DataFrame that contains the names of all the tables defined in the data module, as shown in the following example:

```python
In [1]: data = CognosClient.read_data('public_folders/sample data module')
In [2]: data
Out[2]:
Name Table Type
--------------------------
Sample Sales CT
Sample Sales DT
```

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.

```python
In [3]: data = CognosClient.read_data('M1_American_time_use_xlsx', 'year:2006,children:100')
In [4]: data
Out[4]:
Year Children
2006 100
```

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:

```python
In [1]: data = CognosClient.read_data('public_folders/Go data warehouse/Go data warehouse (query)"
In [2]: data
Out[2]:
Name Query Subject Type
------------------------
Go data warehouse Go data warehouse (query) "Employee expense"
```

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

```
In [30]: empl_expense_fct = DataWarehouse.query_subject("public_warehouse","Employee expense fact query subject")
```

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

```
In [31]: accnt = DataWarehouse.query_subject("public_warehouse","Account query subject")
```

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).

```
In [32]: emp_exp_by_name = DataWarehouse.query_subject("public_warehouse","Employee expense by name")
```

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 [33]: metadata = DataWarehouse.query_subject("public_warehouse", metadata=True)
```
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:


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 “Uploaded files” on page 13.

Procedure

Use the following methods to upload the notebooks:

- In the vertical application toolbar, tap New, and then tap Uploaded files. 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 launch functionality. When Quick launch appears, drop the files into the Notebook box.
- In the welcome page, tap the Browse link at the bottom of the page. Locate the files on your local drive, and select one or multiple files to upload them.
• From a folder in **Team content** or **My content**, click the **New** icon, and select **Upload files**. 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.

**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:

```python
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:

```python
...
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)
Chapter 8. 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.

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. When you copy and move entries, the IDs and links are either maintained or overwritten.

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.

About this task

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.

Procedure

1. From the entry context menu, tap Copy or move.
2. Locate the target folder, and tap Copy to.

Copying and pasting assets

You can reuse an asset that you created by copying and pasting it between a dashboard, report, exploration, or story.

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

<table>
<thead>
<tr>
<th>From (Source)</th>
<th>To (Target)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dashboard</td>
<td>Dashboard, report, exploration, story</td>
</tr>
<tr>
<td>Exploration</td>
<td>Exploration, dashboard, report, story</td>
</tr>
<tr>
<td>Story</td>
<td>Story, dashboard, report, exploration</td>
</tr>
<tr>
<td>Report</td>
<td>Report</td>
</tr>
</tbody>
</table>

The pasted asset can lose properties because dashboards, reports, explorations, and stories do not support all properties. For example, some properties apply only to reports and 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**

Before pasting your asset into the target report, select the location, such as a table cell or the page body. In a dashboard, exploration, and story, you can’t copy and paste from one browser tab to another browser tab or copy and paste between tabs in the same browser. Only in a report you can copy and paste from one browser’s tab to another report in another browser’s tab.

For copying and pasting between reports, you can use either the same tab or different tabs of the same browser. However, if the source report is larger (typically more than 5 MB), then use the same browser tab for pasting. The following message is displayed: **Due to the report size the paste can be done in the same tab only.**

When you paste multiple assets in a report, a dialog box is displayed to allow pasting the assets in a new table.

![Table creation dialog box](image)

By default, the table has two columns with the number of rows calculated based on the number of assets that are being pasted. You can override the number of rows and columns. If the table does not have enough cells, then you get the following message: **The table is too small for the number of assets.** If you click **No**, then the table is not created and the assets are pasted one below the other. If you close the dialog box by clicking the x icon, the paste action is canceled.

In reporting, data items that do not match the report visualization slot type are dropped.

A certain mix of data sources that are supported by Dashboard, Exploration, and Story are not supported by Reporting. When this happens a proper warning is shown. For example, Reporting does not support a mix of modules and packages or multiple modules or multiple packages by using classic query mode. The
A report can reference multiple packages that use the dynamic query mode, or one package that uses the compatible query mode.

In addition, Reporting does not support dimensional modules, except for IBM Planning Analytics modules.

When you copy from 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 set in percentage, then it will not be used during paste, instead the Reporting default is used.

When you copy and paste from a report to another report, all the assets that are referenced by the copied asset from the source report are also pasted in the target report. For example, queries referencing other queries.

**Note:** IBM Cognos Analytics might change the name of the source assets to avoid name conflict with assets that are already present in the target report.

When you copy and paste from a report to another report, and you select the page body or a table and perform the copy action, then all their assets will be copied over. For example, you have a table with 10 cells each cell with a list, crosstab, visualization. You do not need to select them one by one. Select the table and perform the copy action. A message will display that one asset is copied. Cognos Analytics copied all assets, 10 in this example. Copying and pasting a page, results in similar behavior.

You cannot paste multiple times in the same or different target Dashboard, report, exploration, or story.

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

**Note:** Some attributes such as custom titles, named colors, data sets, stand-alone spreadsheet data sources, 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 enables email sharing, you can send Cognos Analytics report and dashboard content to other users of the collaboration tool. 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.

For more information, see the Blog post Increased Collaboration with Slack Integration in IBM Cognos Analytics 11.1!

**Sending content using a collaboration tool**

In Cognos Analytics, you can send Cognos Analytics content by **Email** or in **Slack**.

For more information, see the Blog post Increased Collaboration with Slack Integration in IBM Cognos Analytics 11.1!

**Before you begin**

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

**Procedure**

1. In your Cognos Analytics content, click the **Share** icon in the application bar.

   **Tip:** Although the **Share** icon also appears when you click the More icon in a content folder or on the Welcome page, you are limited to sharing links or embedded html. You can only share an image of an asset that is open and that you are currently viewing.

2. 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.

3. Click one of these platforms:

   - **Email** - go to step “4” on page 40.
     
     **Tip:** If **Email** does not appear as a platform, your administrator did not enable content sharing by email.
   
   - **Slack_platform_name** - go to step “5” on page 41.
     
     **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.

4. 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:**

   - 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.

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.

5. If you selected Slack_platform_name, in the Share with Slack: platform_name 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 go to the Modify your image (optional) pane on the left and edit the image before you send it.

9. Click Send.

Results
Your message (and your image, if applicable) is sent to your selected recipients via email or Slack.

Editing content for sharing
You can annotate a screen shot image of your Cognos Analytics content before you share it via email or Slack.

Before you begin
Open a dashboard or report, go to the view that you want to edit, and then begin the steps to send a message.

Procedure
1. Go to the Modify your image (optional) pane on the left.

Tips:
- As you annotate your image, the only way you can lose your changes is to click Cancel in the Share with Slack panel on the right. If you accidentally click the top or left toolbar, the Modify your image (optional) temporarily disappears. However, you can resume your editing where you left off by clicking the Share icon.

- Use the Maximize button to enlarge the Modify your image window and hide the Share with Slack or Share with Email panel. Use the Minimize button to revert to the original view.

2. 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 T
   - The Arrow icon ↦
   - The Pen icon ✏️

b) Select a color.
c) Type your text or draw an arrow or line.
d) Click Done.

3. 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.

4. 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 content for sharing" on page 43.
   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.

5. 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.

6. If necessary, complete any remaining steps before you send your message.

7. Click Send.
Results
Your message and edited Cognos Analytics content are shared with the Slack recipients that you selected.

Keyboard commands to edit content for sharing
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 that you plan to share using your collaboration tool.

<table>
<thead>
<tr>
<th>PC keyboard command</th>
<th>Macintosh keyboard command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>t</td>
<td>Activate the Textbox Tool</td>
</tr>
<tr>
<td>a</td>
<td>a</td>
<td>Activate the Arrow Tool</td>
</tr>
<tr>
<td>p</td>
<td>p</td>
<td>Activate the Pen Tool</td>
</tr>
<tr>
<td>r</td>
<td>r</td>
<td>Activate the Rectangle Tool</td>
</tr>
<tr>
<td>c</td>
<td>c</td>
<td>Activate the Crop Tool</td>
</tr>
<tr>
<td>q</td>
<td>q</td>
<td>Rotate object(s) clockwise 10 degrees</td>
</tr>
<tr>
<td>Shift + Q</td>
<td>Shift + Q</td>
<td>Rotate object(s) counterclockwise 10 degrees</td>
</tr>
<tr>
<td>Delete/Backspace</td>
<td>Delete</td>
<td>Delete object(s)</td>
</tr>
<tr>
<td>[</td>
<td>[</td>
<td>If the active select object is a textbox, shrink the word-wrapped area horizontally by 5 px.</td>
</tr>
<tr>
<td>Shift + {</td>
<td>Shift + {</td>
<td>If the active select object is a textbox, shrink the word-wrapped area horizontally by 50 px.</td>
</tr>
<tr>
<td>]</td>
<td>]</td>
<td>If the active select object is a textbox, expand the word wrapped area horizontally by 5 px.</td>
</tr>
<tr>
<td>Shift + }</td>
<td>Shift + }</td>
<td>If the active select object is a textbox, expand the word wrapped area horizontally by 50 px.</td>
</tr>
<tr>
<td>Ctrl + z</td>
<td>Ctrl + z / Command + z</td>
<td>Undo Previous Action</td>
</tr>
<tr>
<td>Ctrl + y</td>
<td>Ctrl + y / Command + y /</td>
<td>Redo Previous Action</td>
</tr>
<tr>
<td>Escape</td>
<td>Escape</td>
<td>Close Entire Panel</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PC keyboard command</th>
<th>Macintosh keyboard command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Tab</td>
<td>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)</td>
</tr>
<tr>
<td>PC keyboard command</td>
<td>Macintosh keyboard command</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Shift + Tab</td>
<td>Shift + Tab</td>
<td>the focus moves from the toolbar to the image.</td>
</tr>
<tr>
<td>Enter</td>
<td>Enter/Return</td>
<td>Activate the selected tool/color</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PC keyboard command</th>
<th>Macintosh keyboard command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up Arrow</td>
<td>Up Arrow</td>
<td>Scroll the image up (If applicable)</td>
</tr>
<tr>
<td>Down Arrow</td>
<td>Down Arrow</td>
<td>Scroll the image down (If applicable)</td>
</tr>
<tr>
<td>Left Arrow</td>
<td>Left Arrow</td>
<td>Scroll the image left (If applicable)</td>
</tr>
<tr>
<td>Right Arrow</td>
<td>Right Arrow</td>
<td>Scroll the image right (If applicable)</td>
</tr>
<tr>
<td>Up Arrow</td>
<td>Up Arrow</td>
<td>Move the selected Object(s) up by 5 px.</td>
</tr>
<tr>
<td>Down Arrow</td>
<td>Down Arrow</td>
<td>Move the selected Object(s) down by 5 px.</td>
</tr>
<tr>
<td>Left Arrow</td>
<td>Left Arrow</td>
<td>Move the selected Object(s) left by 5 px.</td>
</tr>
<tr>
<td>Right Arrow</td>
<td>Right Arrow</td>
<td>Move the selected Object(s) right by 5 px.</td>
</tr>
<tr>
<td>Shift + Up Arrow</td>
<td>Shift + Up Arrow</td>
<td>Move the selected Object(s) up by 50 px.</td>
</tr>
<tr>
<td>Shift + Down Arrow</td>
<td>Shift + Down Arrow</td>
<td>Move the selected Object(s) down by 50 px.</td>
</tr>
<tr>
<td>Shift + Left Arrow</td>
<td>Shift + Left Arrow</td>
<td>Move the selected Object(s) left by 50 px.</td>
</tr>
<tr>
<td>Shift + Right Arrow</td>
<td>Shift + Right Arrow</td>
<td>Move the selected Object(s) right by 50 px.</td>
</tr>
<tr>
<td>Shift + Alt + Up Arrow</td>
<td>Alt + Up Arrow</td>
<td>Scale the selected Object(s) up by 5 px. Bottom Right Corner is selected for scaling.</td>
</tr>
<tr>
<td>Shift + Alt + Down Arrow</td>
<td>Alt + Down Arrow</td>
<td>Scale the selected Object(s) down by 5 px. Bottom Right Corner is selected for scaling.</td>
</tr>
<tr>
<td>Shift + Alt + Left Arrow</td>
<td>Alt + Left Arrow</td>
<td>Scale the selected Object(s) left by 5 px. Bottom Right Corner is selected for scaling.</td>
</tr>
<tr>
<td>PC keyboard command</td>
<td>Macintosh keyboard command</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Shift + Alt + Right Arrow</td>
<td>Alt + Right Arrow</td>
<td>Scale the selected Object(s) right by 5 px. Bottom Right Corner is selected for scaling.</td>
</tr>
<tr>
<td>Shift + Alt + Up Arrow</td>
<td>Shift + Alt + Up Arrow</td>
<td>Scale the selected Object(s) up by 50 px. Bottom Right Corner is selected for scaling.</td>
</tr>
<tr>
<td>Shift + Alt + Down Arrow</td>
<td>Shift + Alt + Down Arrow</td>
<td>Scale the selected Object(s) down by 50 px. Bottom Right Corner is selected for scaling.</td>
</tr>
<tr>
<td>Shift + Alt + Left Arrow</td>
<td>Shift + Alt + Left Arrow</td>
<td>Scale the selected Object(s) left by 50 px. Bottom Right Corner is selected for scaling.</td>
</tr>
<tr>
<td>Shift + Alt + Right Arrow</td>
<td>Shift + Alt + Right Arrow</td>
<td>Scale the selected Object(s) right by 50 px. Bottom Right Corner is selected for scaling.</td>
</tr>
<tr>
<td>Tab</td>
<td>Tab</td>
<td>Press successively to select each object that you created in the order that you created them. If the final object is already selected, hitting Tab will move focus from the image to the Share Panel.</td>
</tr>
<tr>
<td>Shift + Tab</td>
<td>Shift + Tab</td>
<td>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.</td>
</tr>
<tr>
<td>Enter</td>
<td>Enter/Return</td>
<td>Enter Textbox Editing Mode if the active select object is a textbox.</td>
</tr>
<tr>
<td>Escape</td>
<td>Escape</td>
<td>Deselect any active object. If the selected object is a textbox and is currently in Textbox Editing Mode, it exits Textbox Editing Mode.</td>
</tr>
<tr>
<td>Escape</td>
<td>Escape</td>
<td>Deselect the active object and stop drawing. If the active select object is a textbox, exit Textbox Editing Mode.</td>
</tr>
<tr>
<td>Enter</td>
<td>Enter/Return</td>
<td>Begin drawing an object with the virtual cursor by simulating a mouse down event.</td>
</tr>
<tr>
<td>Enter</td>
<td>Enter/Return</td>
<td>End drawing an object with the virtual cursor by simulating a mouse.</td>
</tr>
<tr>
<td>Up Arrow</td>
<td>Up Arrow</td>
<td>Move the Virtual Cursor up by 5 px.</td>
</tr>
</tbody>
</table>
### PC keyboard command | Macintosh keyboard command | Description
--- | --- | ---
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.

### Linking to 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 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 **Share** icon in the application bar.
   - **Tip:** You can also access the **Share** icon from:
     - the More button next to an item in **Team content**.
     - the Action menu button next to a dashboard or report in the **Recent** section on the **Welcome** page.
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:

   ```html
   <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:

   ```html
   <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.

**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 More 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 Slack, you can drag the exported PDF file from your desktop into the Message box of a Slack channel or direct message.

---

### 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, and 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 content, you create a URL that opens and 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, data sets, Query Studio reports, Analysis Studio reports, and their saved outputs.

If the content object is a report that has saved output, the saved output is displayed if it exists. Otherwise, the report is run. If the content object is saved output, it is displayed. An error message is displayed if the saved output has been deleted.

Ability to specify login parameters in the URL.

**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.

A number of optional options can be appended to the URL. The following two options can be used in any perspective.

**ui_appbar**

- Specifies whether to display the Application bar (true) or not (false). The default value is true.
ui_navbar
Specifies whether to display the Navigation bar (true) or not (false). The default value is true.

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

action
Specifies run to run a report or edit to author a report. edit can only be used in the authoring perspective. The default value is run.

format
When running a report, specifies the output format. The possible values are HTML and PDF. In the classicviewer perspective, the following values are also supported: xlsxData, CSV, spreadsheetML, layoutDataXML, XLWA, rawXML, XHTML, singleXLS, and HTMLFragment. The default value is HTML.

To use the classicviewer perspective, the option perspective=classicviewer must be included in the URL. For example, http://<servername>:<port>/bi/?perspective=classicviewer&amp;pathRef=<path>&amp;option1=<value1>&amp;option2=<value2>...

a11y
When running a report, specifies whether to include accessibility features (true) or not (false). The default value is false.

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

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

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

promptParameters
When running a report, specifies prompt parameters as a JavaScript Object Notation (JSON) object. You can pass more complex prompts 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>&amp;option1=<value1>&amp;option2=<value2>...
  - http://<servername>:<port>/bi/?
    pathRef=<path>&amp;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
<html>
<body>
  <div class="acordion">
    <div class="submit">
```

promptParameters option syntax

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

Syntax

The syntax of the promptParameters option is promptParameters=[{{prompt_1}},
{{prompt_2}},...]. The syntax of each prompt value depends on the type of prompt value and are described as follows.

Specific values

```
{
    "name": "<prompt_name>",
    "value": [
        {
            "use": "<use_value1>",
            "display": "<display_value_1>",
            ...
        }...
    ]
}
```

<prompt_name> is the name of the prompt, <use_value1> is the use value, and <display_value_1> is the display value. The display value is optional.

Bounded range

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

<prompt_name> is the name of the prompt, <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": "<prompt_name>",
    "value": [
        {
            "unboundedStartRange": {
                "end": {
                    "use": "<use_end_value>",
                    "display": "<display_end_value>",
                }
            }
        }
    ]
}
```

<prompt_name> is the name of the prompt, <use_end_value> is the upper use value, <display_end_value> is the upper display value. The display value is optional.
Unbounded end range

```json
{
    "name": "<prompt_name>",
    "value": [
        {
            "unboundedEndRange": {
                "start": {"use": "<use_start_value>", "display": "<display_start_value>"}
            }
        }
    ]
}
```

<prompt_name> is the name of the prompt, <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, 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. In Team content, My content, or Recent, from the entry context menu, tap Create shortcut.
2. Find a location for the shortcut, and tap 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 the IBM Cognos Analytics Installation and Configuration Guide.

Procedure

1. Tap Team content or My content, and tap the New icon.
2. Tap URL.
3. In the Name box, type the name for your new URL.
4. If you want, specify the Description and Screen tip.
5. In the URL box, type the URL location.
   - 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.
5. Tap OK.
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 tap Properties. On the General tab, open the Advanced section, and select the Hide this entry check box.

To show hidden entries in your content lists, tap your user name icon in the application bar, and then tap My preferences. On the General tab, select the Show hidden entries check box.

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 More menu, tap Properties.

Tip: To specify Team content properties, click this folder, and in the slide-out panel that opens, click the properties icon in the toolbar.
Chapter 9. Managing your 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 Managing IBM Cognos Analytics Guide.

For information about creating schedules or subscriptions, see “Scheduling an entry” on page 53 or “Subscribing to reports” on page 21.

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.

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 “Using jobs to schedule multiple entries” on page 55.

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 Managing IBM Cognos Analytics Guide.

Procedure

1. Tap the entry context menu and then tap Properties.
2. In the Properties pane, tap the Schedule tab, and then tap New.
3. In the Create schedule pane, specify the schedule options.
4. To access additional scheduling options, tap Classic View. Specify your options, and tap OK. When you return to the previous view, tap 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 57.

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.

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Subscription</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only the report owner can create the schedule.</td>
<td>Many people can create a subscription from the same report.</td>
</tr>
<tr>
<td>The scheduler must have Read, Write, and Execute permissions for the report.</td>
<td>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 &quot;License roles&quot; in Managing IBM Cognos Analytics.</td>
</tr>
<tr>
<td>There can only be one schedule per report.</td>
<td>There can be up to 32 subscriptions for the same report.</td>
</tr>
<tr>
<td>Created by tapping the More button for the report’s list entry.</td>
<td>Created by running a report and, in view mode, tapping the More button in the application bar.</td>
</tr>
<tr>
<td>Anyone with read access can view the schedule.</td>
<td>Only the subscriber can view their subscription.</td>
</tr>
<tr>
<td>The owner controls the maximum number of saved report versions.</td>
<td>Only the most recent saved report output is available.</td>
</tr>
<tr>
<td>You can specify that an email be sent to many people.</td>
<td>If you specify email delivery, it can be sent only to you.</td>
</tr>
<tr>
<td>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.</td>
<td>The report can be run daily or weekly.</td>
</tr>
</tbody>
</table>

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. Tap your user name, then tap My preferences.
2. Select the Show hidden entries check box.
3. Tap My content and then tap 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. Tap the More button next to the subscription that you want to delete.
5. Tap Delete.
Results
The subscription is removed from the My schedules and subscriptions list.

Using jobs 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 53

Procedure

1. In the IBM Cognos Analytics portal, select New, and then select Job.

   The Steps page appears.

2. Click the Add job step icon.

3. Navigate to a report that you want to include in your job step, select it, and then click Add job steps.

4. If you want to change the default run options for the step, click the pencil icon, and then edit the format, delivery, prompts, languages, or PDF options.

5. Repeat steps “2” on page 55 - “4” on page 55 to include additional steps in your job.

6. To remove a step, hover over the step and then click the Remove job step icon.

7. If you want to revert to the default run options for any future steps that you add, select Change default step options.

8. 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 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.
9. In the application bar, click the Save icon.
10. 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.
11. To run the report immediately, click Run now and click Finish.
12. 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:
Chapter 10. 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, tap the user icon in the application bar. The tool tip on this icon shows your name.

To view notifications about the latest system activities that are applicable to you, tap the notifications icon in the application bar.

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, tap the Edit button until it is not selected.

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 button in the application bar.

For more information, see “Subscribing to reports” on page 21.

My schedules and subscriptions

You can view all your scheduled activities and subscriptions on the My schedules and subscriptions panel.

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. For more information about managing scheduled activities, see 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 54.

Procedure

1. In the application bar, tap your user name icon, and then tap My schedules and subscriptions.
2. To see both a listing and a graph of your schedules and subscriptions for a specific time frame, tap the Type button and then tap Upcoming, Past, or Current.
3. To perform actions on a schedule or subscription in the list, tap the More button next to the list item, and then tap an action.

**My preferences**

You can set up preferences for your IBM Cognos Analytics application.

To set your preferences, tap your user name icon in the application bar, and then tap **My preferences**.

**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. Make your selections in **My preferences**.

To change the language setting, close all your open items first, select the language in **My preferences**, close **My preferences**, and 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 Administration and Security Guide*.

**Turn UI hints on**

When you first sign in to IBM Cognos Analytics, you can see hints that help you navigate the user interface. If you turn the hints off, but want to show them again, select the **Show hints** check box in **My preferences**.

**Setting the default format for report runs**

You can set the default run format for your IBM Cognos Analytics reports.

**Procedure**

1. Tap your user name, then tap **My preferences**.
2. Select the report format that you want.

**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 functions and features” on page 9.
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 sign-in password, update your credentials manually.

About this task
It is important to manually renew your credentials when you change your sign-in password, if your credentials are used to run schedules.

Procedure
1. Tap your Personal menu, then tap My preferences > Personal > Advanced.
2. For Credentials, tap 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. Tap your Personal menu, then tap My preferences > Personal > Advanced.
2. For My credentials, tap Manage.
3. To add a group, user or role, tap +, 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, tap 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 tap Add.
   Your selections are now listed in the My credentials slide-out panel.

Managing your data server credentials
You can view and delete your saved data server credentials in your personal, advanced preferences.

Procedure
1. Tap your Personal menu, then tap My preferences > Personal > Advanced.
2. For Data server credentials, tap Manage.

Setting logging levels

Chapter 10. Personal settings 59
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. Tap your user name icon in the application bar, and then tap **My preferences**.
2. On the **Personal** tab, expand the **Advanced** section.
3. For **Logging**, click **Manage**.
4. Ensure that logging is on.
5. Set the **Logging level** to the level directed by the customer support representative.
6. 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.
7. 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*. 
Chapter 11. Integrating with other Cognos products

IBM Cognos Analytics integrates with supported versions of other IBM Cognos products so your analytics capabilities can grow with your needs.

To access the following applications, they must be installed, and IBM Cognos Analytics must be installed with the custom option which enables other applications. For information on opening companion applications, see “Opening companion apps” on page 63.

**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.

**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*.

**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 IBM 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, but not all of the companion applications, are installed separately.

<table>
<thead>
<tr>
<th>IBM Cognos Business Intelligence</th>
<th>IBM Cognos Analytics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognos Connection</td>
<td>Welcome portal</td>
</tr>
<tr>
<td>Cognos Viewer</td>
<td>The viewer is not named. Depending on the item you view, there is different functionality in the viewer.</td>
</tr>
<tr>
<td>Report Studio</td>
<td>Reporting: to create a new report, in the Welcome portal, tap +, then tap Report. For a report entry in a content list, if you tap +, then tap Edit, the report opens in Reporting.</td>
</tr>
<tr>
<td>No equivalent, new in Cognos Analytics.</td>
<td>Data modeling: to create a new data module, in the Welcome portal, tap the New + icon, and then tap Data module.</td>
</tr>
<tr>
<td>Cognos Administration</td>
<td>Managing: incorporates part of the administration functionality. Access from the Welcome portal. Link to the full Administration console from the Manage panel.</td>
</tr>
<tr>
<td>Workspace Advanced</td>
<td>Reporting: incorporates Workspace Advanced functionality. Page preview in Reporting is similar to Page preview in Workspace Advanced.</td>
</tr>
<tr>
<td>Drill-through definitions</td>
<td>Companion application: to access Drill-through, in the Welcome portal navigation bar, tap New +, then Other . Drill-through definitions support Framework Manager packages, but not data modules.</td>
</tr>
<tr>
<td>Event Studio</td>
<td>Companion application: to access Event Studio, in the Welcome portal navigation bar, tap New +, then Other .</td>
</tr>
<tr>
<td>My Inbox</td>
<td>Notifications: if you select Save to the system for subscriptions and report output versions, you go to Notifications in the Welcome portal, open the notice and tap a link to the report version. Also, you can access My Inbox from your personal settings.</td>
</tr>
</tbody>
</table>
Table 2. BI to Cognos Analytics functionality mapping (continued)

<table>
<thead>
<tr>
<th>IBM Cognos Business Intelligence</th>
<th>IBM Cognos Analytics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis Studio</td>
<td>Companion application: to access, in the Welcome portal, tap New, then Other.</td>
</tr>
<tr>
<td>Query Studio</td>
<td>Companion application: to access, in the Welcome portal, tap New, then Other.</td>
</tr>
<tr>
<td>Workspace</td>
<td>Dashboarding: incorporates Workspace functionality. However, for some additional functionality, you can access the Workspace companion application if it was installed. In the Welcome portal navigation bar, tap New, then Other.</td>
</tr>
<tr>
<td>Framework Manager</td>
<td>Framework Manager</td>
</tr>
</tbody>
</table>

**Move from quirks to standards mode HTML**

Because of the move from quirks to standards mode HTML in much of the user interface, you might need to make minor changes to existing reports. You might also need to update your web browser settings.

Many IBM Cognos Analytics user interfaces now use standards mode HTML, including the Cognos Analytics portal, Cognos Analytics – Reporting, and HTML viewers and reports. Because reports have moved from quirks to standard HTML, there might be small differences in the look of your reports. These differences do not have an impact on the majority of reports that were created in previous Cognos versions. However, minor changes might be required in a small number of existing reports.

If you use the Microsoft Internet Explorer web browser after you upgrade to Cognos Analytics 11.0, you might need to change your browser settings. Previously, when Cognos 10.2.x was used with the Internet Explorer browser, you either had to enable the Automatically recover from page layout errors with Compatibility Mode option or add websites to the Compatibility View Settings. Because Cognos Analytics 11.0 uses standards mode HTML, you must change settings that enabled compatibility mode to avoid problems with caching. To ease your transition to standards mode HTML, legacy components, such as IBM Cognos Query Studio and IBM Cognos Analysis Studio that still require it now use meta tags to automatically switch into compatibility mode.

For more information, see Cognos Analytics conversion to Standards Mode.

**Opening companion apps**

Companion applications might be accessible in the IBM Cognos Analytics user interface.

**About this task**

You can access the following applications if you have the required capabilities and if the applications are enabled during installation:

- Cognos Analysis Studio
- Cognos Query Studio
- Cognos Event Studio
- Cognos Workspace
- Drill-through definitions
- My Inbox
- My Watch Items
- Create new jobs
The following applications are separately installed. To see them, the custom installation option must be selected when IBM Cognos Analytics is installed, and you must have the appropriate capabilities:

- IBM Cognos PowerPlay
- IBM Cognos Planning

**Procedure**

1. To see My Inbox and My Watch Items, in the **Welcome** portal, tap your user name.

2. To see all other companion applications, in the **Welcome** portal navigation bar, tap [ ], then [ ].

3. Tap the companion application that you want.
About this guide

This document is intended for use with IBM Cognos Analytics. Cognos Analytics integrates reporting, modeling, analysis, dashboards, stories, and event management so you can understand your organization's data, and make effective business decisions.

To find product documentation on the web, including all translated documentation, access IBM Knowledge Center (http://www.ibm.com/support/knowledgecenter).

Accessibility features

Accessibility features help users who have a physical disability, such as restricted mobility or limited vision, to use information technology products successfully. For information on accessibility features in Cognos Analytics, see the Cognos Analytics Accessibility Guide.

Forward-looking statements

This documentation describes the current functionality of the product. References to items that are not currently available may be included. No implication of any future availability should be inferred. Any such references are not a commitment, promise, or legal obligation to deliver any material, code, or functionality. The development, release, and timing of features or functionality remain at the sole discretion of IBM.

Samples disclaimer

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Index

A
add folders 5
agent views 20
Analysis Studio 63
appending data
   uploaded files 15
assets
   copy 37
   paste 37

C
CADataConnector 27, 30
capabilities
   viewing permissions 9
copy or move
effect on links 37
copy paste 37
Credentials
   renewing 59
   Credentials authorize trusted users
   managing 59

D
data modules 11
Data server credentials manage
   view saved credentials 59
data sets
   creating 12
data sources 11

E
entries
   hiding 52
   setting permissions 8
execute permissions 7

F
file ID 27
files
   uploading 13, 15

G
get started overview 1

H
hiding entries 52

I
IBM Cognos Software Development Kit 61
   integrating
   other IBM Cognos products IBM Cognos Analytics 61
   interactive viewer 19

J
jobs
   scheduling 55
   steps 55

L
learn the product 6
links
   copy or move operations 37

M
Manage data server credentials 59
managing
   reports 19
My content 19

N
navigation tips 5
notebook
   actions for 26
   creating 26
   examples 31
   Jupyter 34
   reading data in 27
   uploading 34
   writing data to 30
   notifications 57

O
organizing
   entries in the portal 19

P
packages 11
permissions
   execute 7
   read 7
   set 8
   set policy 7
   traverse 7
   types 8
   viewing 9
   write 7
personal settings
preferences 58
preferences
viewing my capabilities 9
product description 1
prompts
cache data 55
properties
setting for Team content 52

Query Studio 63
quick launch
uploading files 5

read permissions 7
refresh
cache data 55
replacing data
uploaded files 15
report versions
delete saved output 20
save versions 20
saved outputs 20
view archives 20
view versions 20
report views 20
reports
managing 19
personalize 20
scheduling 53

samples 6, 25
schedules
jobs 55
multiple entries 55
scheduling
reports 53
security
groups and roles 9
permissions 7
select entries 5
set default report format 58
set policy permissions 7
shortcuts
creating 51
sources
data modules 11
data sets 12
packages 11
uploaded files 13
subscribe to reports 21
subscriptions 21, 57

Team content
setting properties 52

traverse
permissions 7

uploaded files
appending data 15
notebooks 34
quick launch 5
replacing data 15
uploading files 15

visualizations
copy 37
paste 37

Workspace 63
write permissions 7