

Cloudera Data Visualization Quickstart

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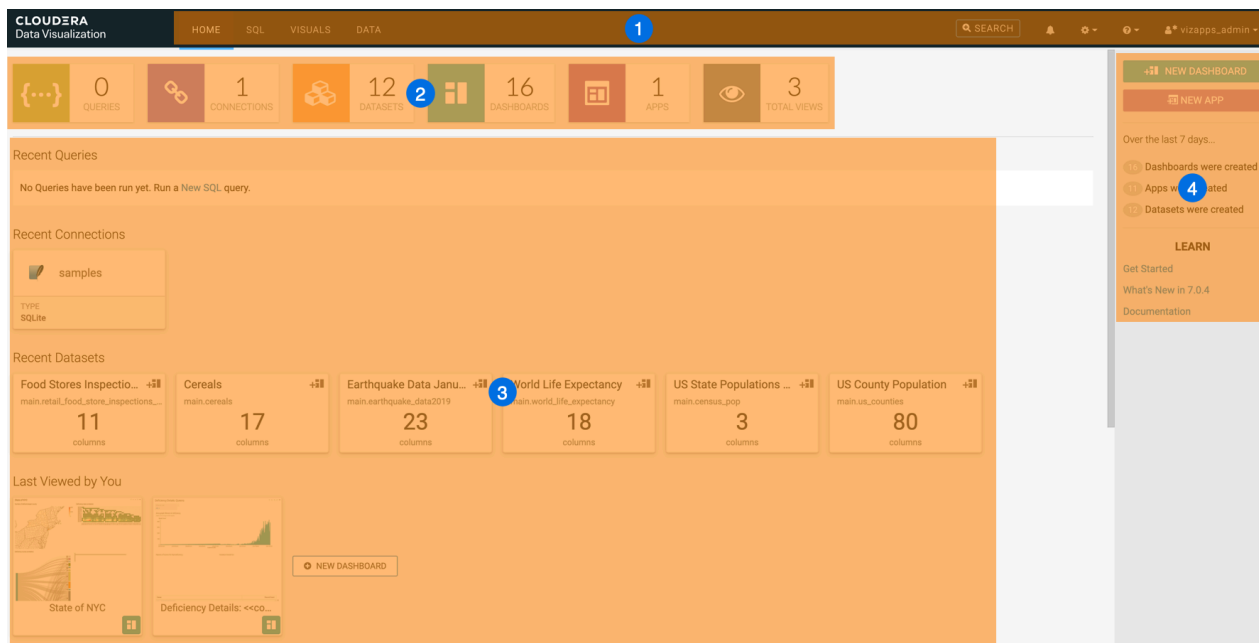
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Understand the Cloudera Data Visualization user interface

Cloudera Data Visualization enables you to explore data and communicate insights across the whole data lifecycle by using visual objects. The web-based user interface provides user-friendly, clear and intuitive navigation in Cloudera Data Visualization.

The default Cloudera Data Visualization homepage contains the following main items:



1. The main navigation bar offers you direct access to the following interfaces and actions:
 - Home
 - SQL
 - Visuals
 - Data
 - Search
 - Notifications center
 - Settings
 - Help
 - User management
2. The statistics banner shows the number of queries, connections, datasets, dashboards, apps, and total views in your Cloudera Data Visualization instance.
3. The preview area provides quick access to the following items:
 - Recent queries
 - Recent connections
 - Recent datasets
 - Favorites
 - Items you last viewed
 - Items you recently created
 - Overall most popular items
 - Sample dashboards

4. The homepage side menu bar offers you access to the following functions:

- NEW SQL takes you to the Data Connection interface, where you can compose a SQL query.
- NEW DASHBOARD takes you to the Dashboard Designer interface, where you can create new dashboards and visuals.
- NEW APP takes you to the App Designer interface, where you can build and style custom applications from existing dashboards and visuals.
- Over the last 7 days... shows statistics on how many dashboards, apps, and datasets were created.
- In the LEARN section, you can find the following information:
 - Get Started points to help content embedded in the tool.
 - What's New in opens a modal window showcasing new features.
 - Documentation opens this product documentation library.

If you need more information about the UI, see *Cloudera Data Visualization homepage*.

Related Information

[Cloudera Data Visualization homepage](#)

Set up your data

Cloudera Data Visualization supports a large number of data connections.

Related Information

[Data connections in Cloudera Data Visualization](#)

Create a data connection

You must connect to your data before you can start using Cloudera Data Visualization for modeling and visualizing the data. You can define connections to various source systems. Learn how to create a simple data connection.

About this task

In Cloudera Data Warehouse, the connection to the database catalog is automatically set up when you enable Cloudera Data Visualization in a Virtual Data Warehouse.



Note: You can create your own connections to other data warehouses, but it is not supported.

Database catalogs and virtual data warehouses automatically inherit the same security restrictions that are applicable to your Cloudera environment. There is no need to specify the security setup again for each database catalog or virtual warehouse. If you cannot see the data in the connected database catalog after you log in, check and adjust data access permissions or your environment and data warehouse user permissions.

In Cloudera Machine Learning, you can set up several connection types. For example, you can connect Cloudera Data Visualization to an Impala or Hive data warehouse. For more information on connection types, see *Data connections in Cloudera Data Visualization*.

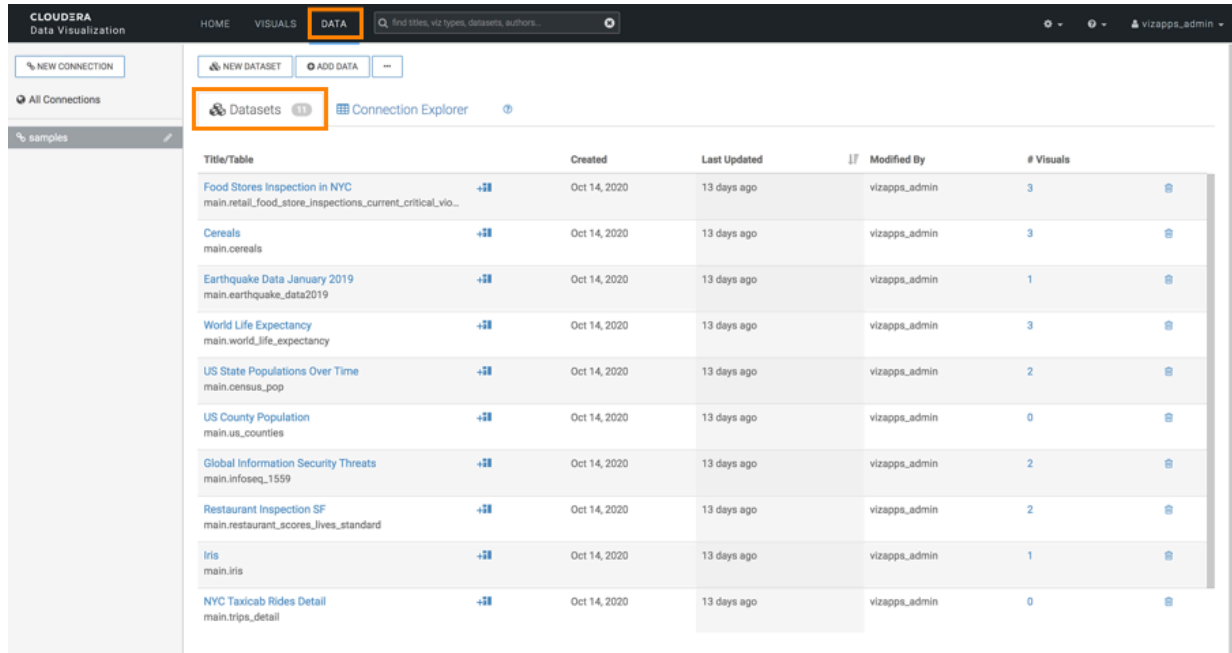


Important: Only users with Manage data connections privilege can create and manage connections in Cloudera Data Visualization. If you create a connection, you automatically have the privileges to create and manage datasets on this connection, and also build dashboards and visuals in these datasets. For more information on user privileges, see *RBAC permissions*.

Procedure

1. On the main navigation bar, click DATA.

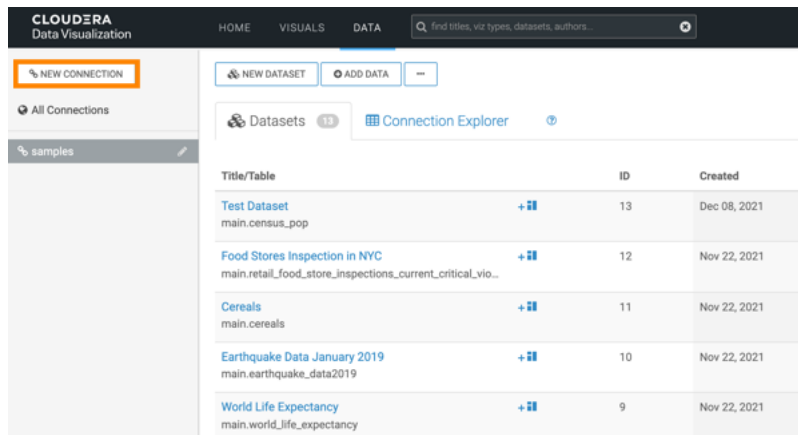
You get to the DATA interface, open on the Datasets tab.



The screenshot shows the Cloudera Data Visualization interface. The top navigation bar has tabs for HOME, VISUALS, and DATA (which is selected). Below the navigation bar, there are buttons for NEW CONNECTION, NEW DATASET, and ADD DATA. The left sidebar shows a list of connections, with 'samples' selected. The main content area displays the 'Datasets' tab, which lists various datasets with columns for Title/Table, Created, Last Updated, Modified By, and # Visuals.

Title/Table	Created	Last Updated	Modified By	# Visuals
Food Stores Inspection in NYC main.retail_food_store_inspections_current_critical_vio...	Oct 14, 2020	13 days ago	vizapps_admin	3
Cereals main.cereals	Oct 14, 2020	13 days ago	vizapps_admin	3
Earthquake Data January 2019 main.earthquake_data2019	Oct 14, 2020	13 days ago	vizapps_admin	1
World Life Expectancy main.world_life_expectancy	Oct 14, 2020	13 days ago	vizapps_admin	3
US State Populations Over Time main.census_pop	Oct 14, 2020	13 days ago	vizapps_admin	2
US County Population main.us_counties	Oct 14, 2020	13 days ago	vizapps_admin	0
Global Information Security Threats main.infoseq_1559	Oct 14, 2020	13 days ago	vizapps_admin	2
Restaurant Inspection SF main.restaurant_scores_lives_standard	Oct 14, 2020	13 days ago	vizapps_admin	2
Iris main.iris	Oct 14, 2020	13 days ago	vizapps_admin	1
NYC Taxicab Rides Detail main.trips_detail	Oct 14, 2020	13 days ago	vizapps_admin	0

2. In the side menu bar, click NEW CONNECTION.



The screenshot shows the Cloudera Data Visualization interface with the 'NEW CONNECTION' button highlighted in the left sidebar. The main content area displays the 'Datasets' tab, which lists various datasets with columns for Title/Table, ID, and Created.

Title/Table	ID	Created
Test Dataset main.census_pop	13	Dec 08, 2021
Food Stores Inspection in NYC main.retail_food_store_inspections_current_critical_vio...	12	Nov 22, 2021
Cereals main.cereals	11	Nov 22, 2021
Earthquake Data January 2019 main.earthquake_data2019	10	Nov 22, 2021
World Life Expectancy main.world_life_expectancy	9	Nov 22, 2021

The Create New Data Connection modal window appears.

3. Specify the details of the new connection.

Create New Data Connection

Connection type

Select an Option ▼

Connection name

Basic

Cache

Hostname or IP address

Enter IP address of the server where your data resides
(example: prod_db.yourcompany.com or 10.0.1.20)

Port #

0

Database

Credentials

Username

Password

TEST

CANCEL

CONNECT

4. Click TEST.

If the connection is valid, the system returns a Connection Verified message.

5. Click CONNECT.

Results

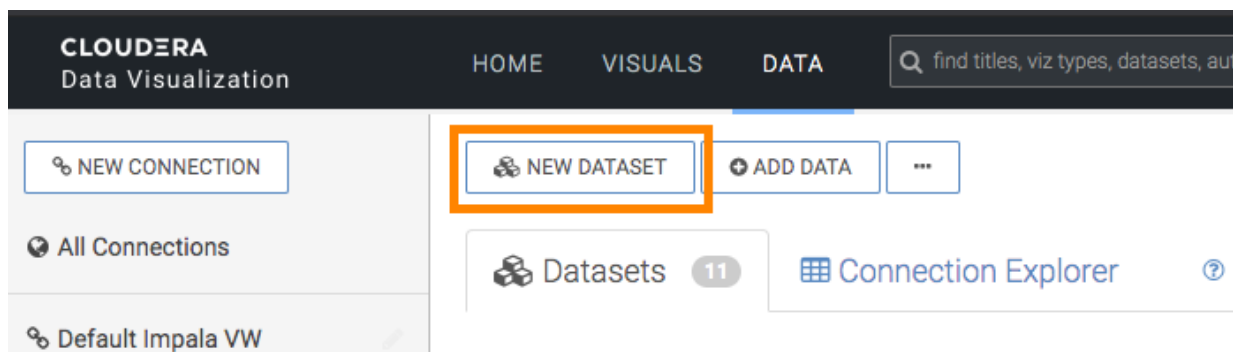
If this operation succeeds, the name of the new connection appears on the side menu bar.

Creating a dataset

You can define datasets as a semantic layer on top of your data tables and views in the data store. You need to create a dataset before you can create dashboards or apps. Learn how to create a dataset in Cloudera Data Visualization.

Procedure

1. On the main navigation bar, click DATA.
2. Select a connection from the side menu bar.
3. Click NEW DATASET near the top of the screen.



The New Dataset modal window appears.

4. Specify the details of the new dataset.

A screenshot of the 'New Dataset' modal window. The title is 'New Dataset'. Below the title is a text box with the instruction: 'Create a dataset from data on this connection. You need to create a dataset before you can create dashboards or apps.' The form contains three main sections: 'Dataset title' with a text input field and a red asterisk indicating it is required; 'Dataset Source' with a dropdown menu currently set to 'From Table'; and 'Select Database' with a dropdown menu currently set to 'main'. Below these is a 'Select Table' section with a dropdown menu currently set to 'Select an Option'. At the bottom right of the modal are two buttons: 'CANCEL' and 'CREATE'.

5. Click CREATE.

Results

You can see the newly created dataset under the Datasets tab in the DATA interface.



Tip: To find the dataset in the future, you can scroll through the list of datasets on the connection, or use Search at the top of the page.

What to do next

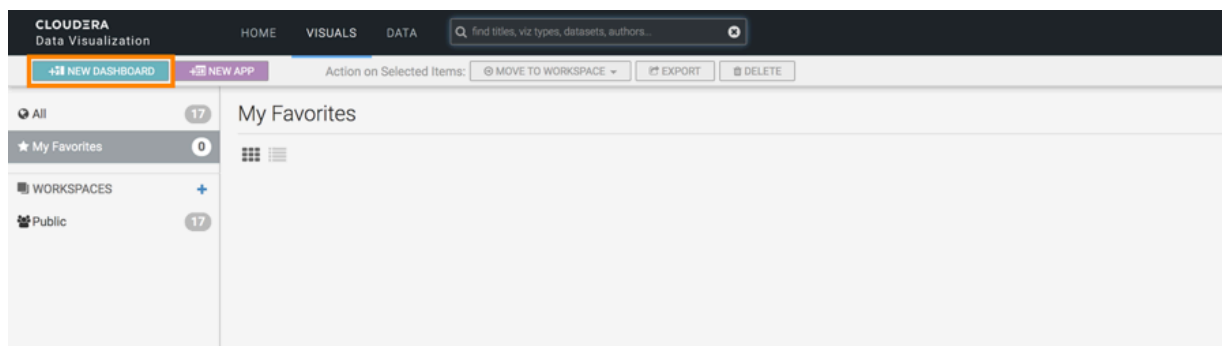
You can now start creating visualizations and organize your visual artifacts into dashboards and applications.

Create a visual

Learn how you can create a visual in Cloudera Data Visualization.

Procedure

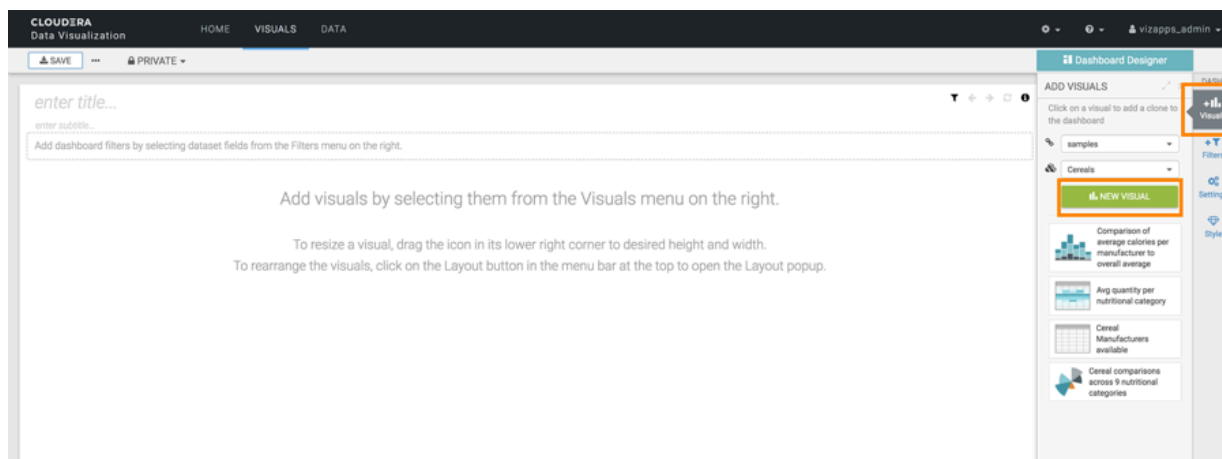
1. On the main navigation bar, click VISUALS.
2. Click NEW DASHBOARD to open a new dashboard in Edit mode.



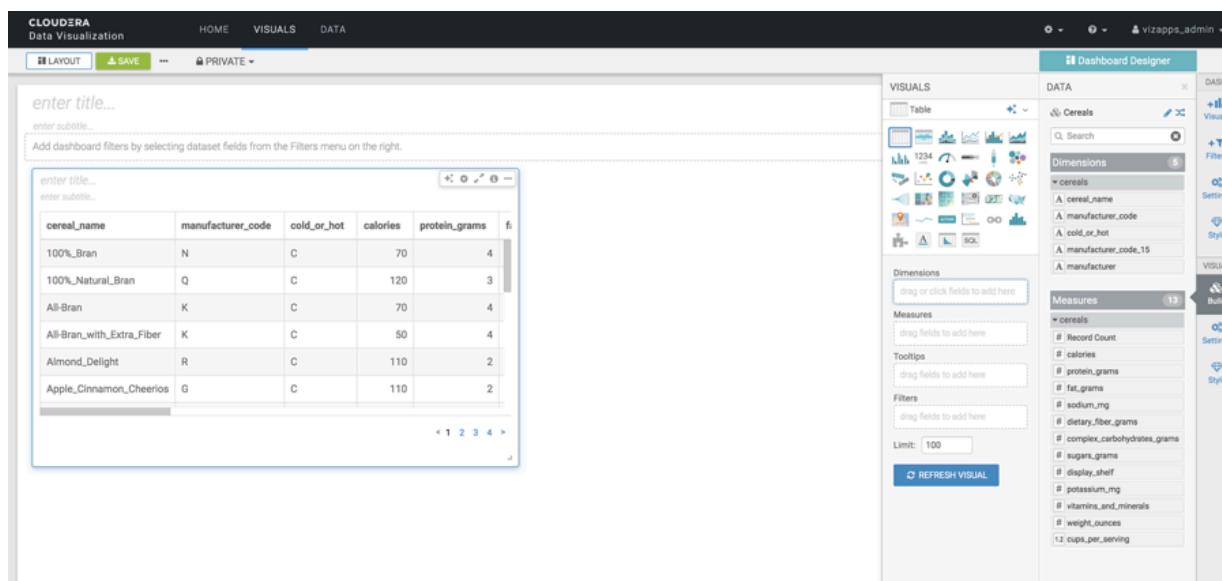
Alternatively, click an existing dashboard, and then click Edit to make changes to it.

3. In the Dashboard Designer menu, click the Visuals icon to open the ADD VISUALS interface.

4. Click NEW VISUAL.



The visual designer interface opens with a default table representation of the dataset you want to visualize.



- Choose a visual type from the VISUALS catalog, which shows the standard visual types. You can switch between visual types by selecting a different type in the catalog.



Tip:

When creating a new visual for a dataset, you can get visualization suggestions for your data. For details, see *Exploring visual options*.

If Explore Options Visual Types is not available on the UI when creating a new visual, enable it in the Site Settings interface. For details, see *Enabling exploring visual options*.

6. Populate the shelves from the available Dimensions and Measure fields.

The shelves of a visual specify the fields and segments that provide the data for visualization. Different visual types require specific information, and have somewhat different shelves.

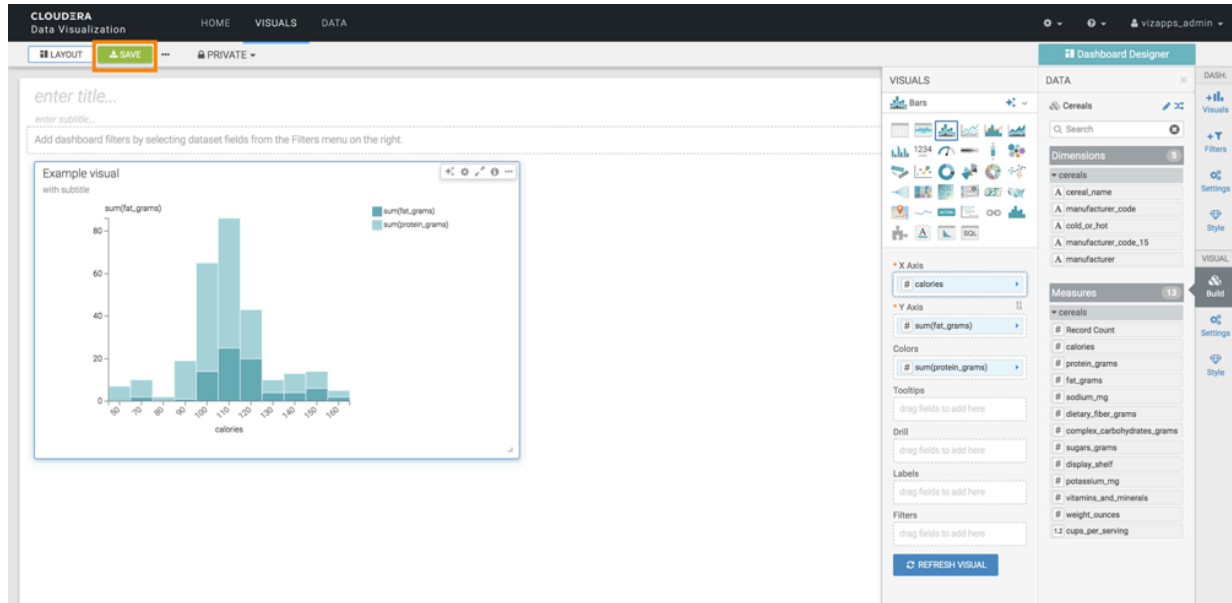
The screenshot displays the Cloudera Data Visualization Dashboard Designer interface. At the top, there's a header with a settings icon, a help icon, and a user profile labeled 'vizapps_admin'. The main workspace is divided into three panels:

- VISUALS Panel (Left):**
 - Top: A 'Table' visual is selected, indicated by a blue border and a plus icon.
 - Below: A grid of various visualization icons (bar charts, line charts, pie charts, maps, etc.).
 - Below the grid: Five shelves for configuring the visual:
 - Dimensions:** A dashed box with the text 'drag or click fields to add here'.
 - Measures:** A dashed box with the text 'drag fields to add here'.
 - Tooltips:** A dashed box with the text 'drag fields to add here'.
 - Filters:** A dashed box with the text 'drag fields to add here'.
 - Limit:** A text input field with the value '100'.
 - Bottom: A blue button labeled 'REFRESH VISUAL'.
- DATA Panel (Center):**
 - Top: A title bar for the dataset 'Food Stores Inspection...' with edit and delete icons.
 - Below: A search bar.
 - Dimensions Shelf:** A header 'Dimensions' with a count of '10'. Below it, a list of dimension fields: county, inspection_date, owner_name, trade_name, street, city, state, deficiency_code, deficiency_description, and location_1.
 - Measures Shelf:** A header 'Measures' with a count of '2'. Below it, a list of measure fields: Record Count and zip_code.
- DASH. Panel (Right):**
 - A vertical toolbar with icons for:
 - Visuals (+ icon)
 - Filters (+ icon)
 - Settings (gear icon)
 - Style (diamond icon)
 - Build** (highlighted by a mouse cursor)
 - Settings (gear icon)
 - Style (diamond icon)

7. Click REFRESH VISUAL.

8. Add a title for the visual by clicking into the enter title... field to edit it.

9. [Optional] Add a brief description of the visual by clicking into the enter subtitle... field under the title of the visual.
10. At the top left corner of the visual designer, click SAVE.



Related Information

[Exploring visual options](#)


[Enabling exploring visual options](#)

Create a dashboard

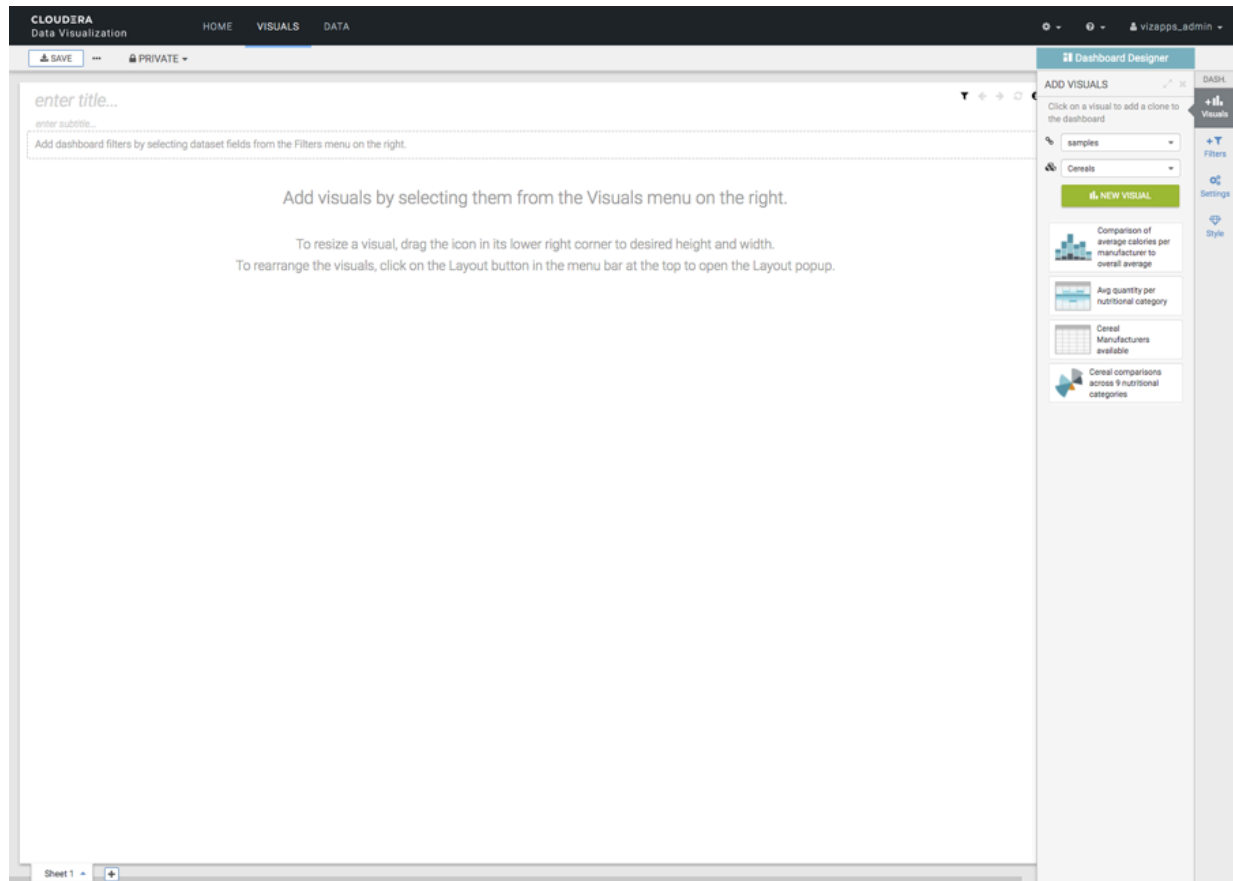
Learn how you can create a dashboard in Cloudera Data Visualization.

Procedure

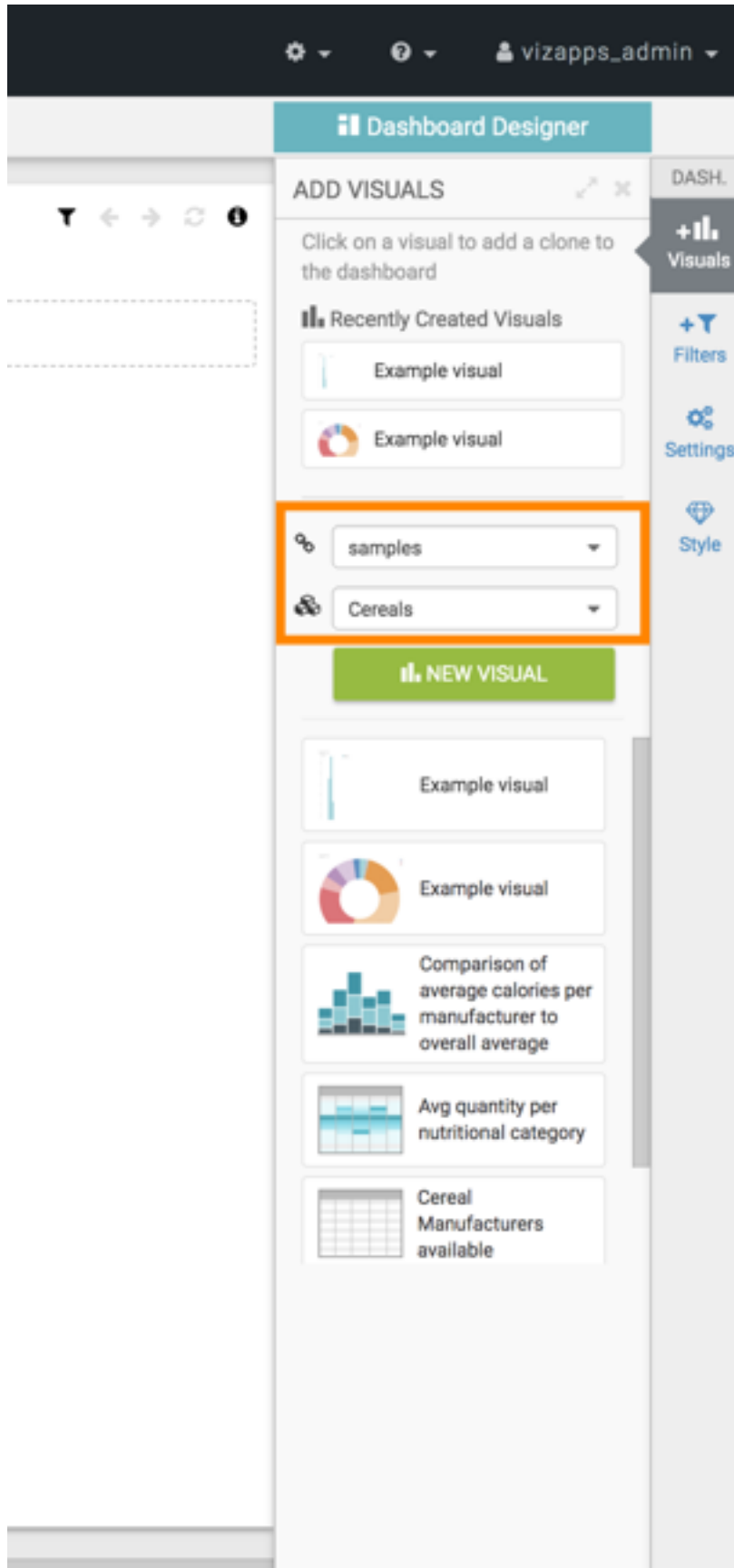
1. There are several possible starting points for creating new dashboards:

- Click NEW DASHBOARD on the main HOME interface, in the top right corner.
- Click Create New Dashboard in the top right corner.
- On the DATA interface, click the  icon next to the name of a particular dataset.
- On the Dataset Detail view for a particular dataset, click NEW DASHBOARD in the top right corner.

The Dashboard Designer opens on an empty dashboard.



2. Check the dataset of the dashboard In the Visuals menu of the Dashboard Designer, and change it if needed.



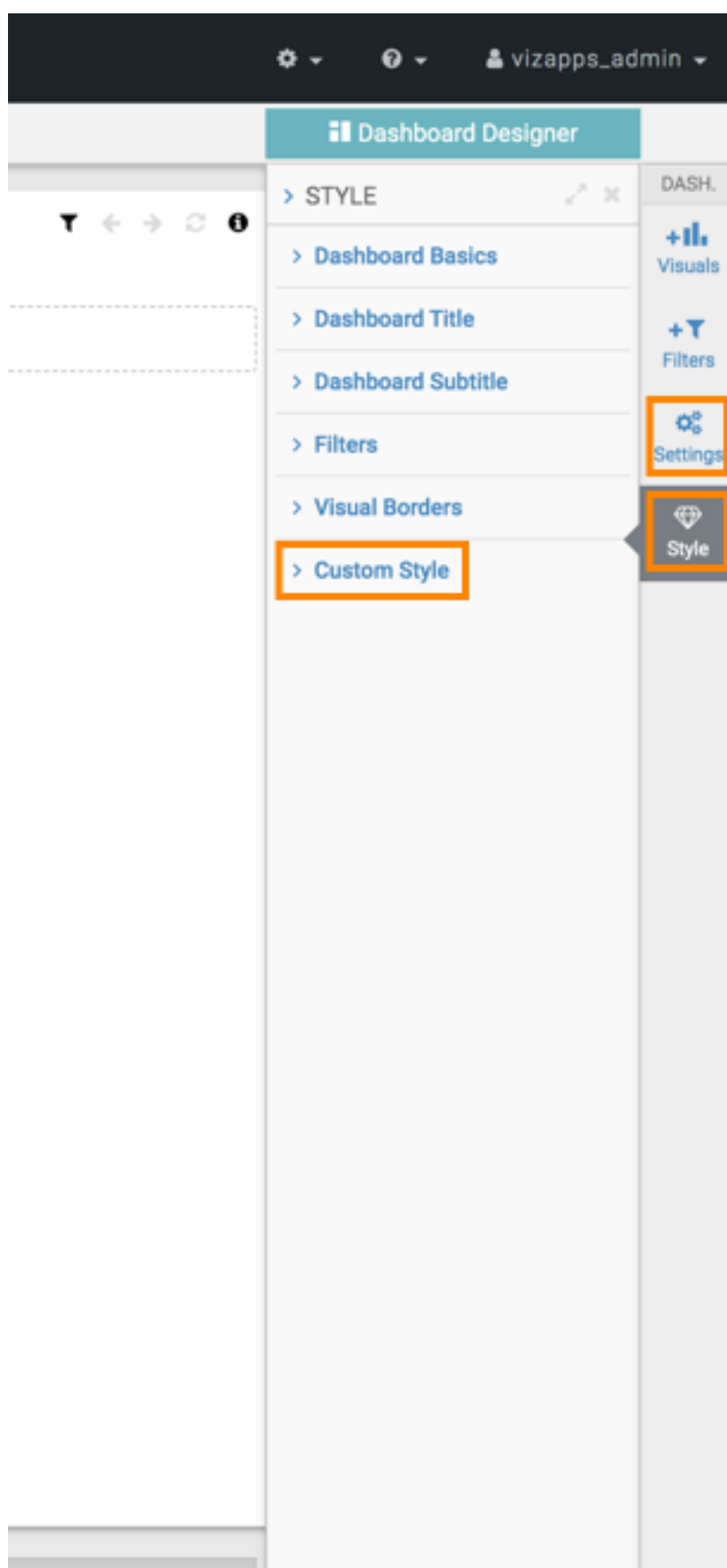
3. In the Visuals menu, click NEW VISUAL to add a new visual to the dashboard.



Important: You cannot save an empty dashboard. You must add at least one visual to a sheet before saving the dashboard.

4. Add a title for the dashboard. Optionally, you can also add a subtitle.

5. [Optional] You can customize Settings, Styles, and Custom Styles for the dashboard in the Dashboard Designer side menu bar.



6. Click SAVE in the top left corner.

Create an app

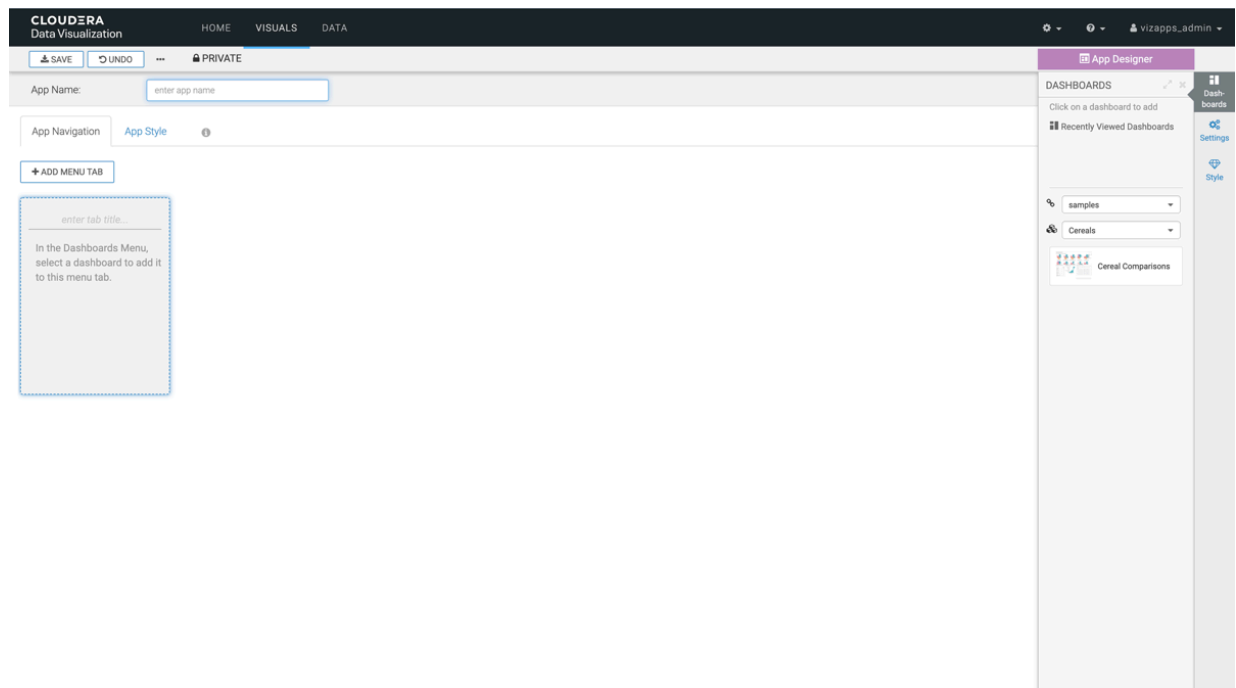
Learn how you can create an app in Cloudera Data Visualization.

Procedure

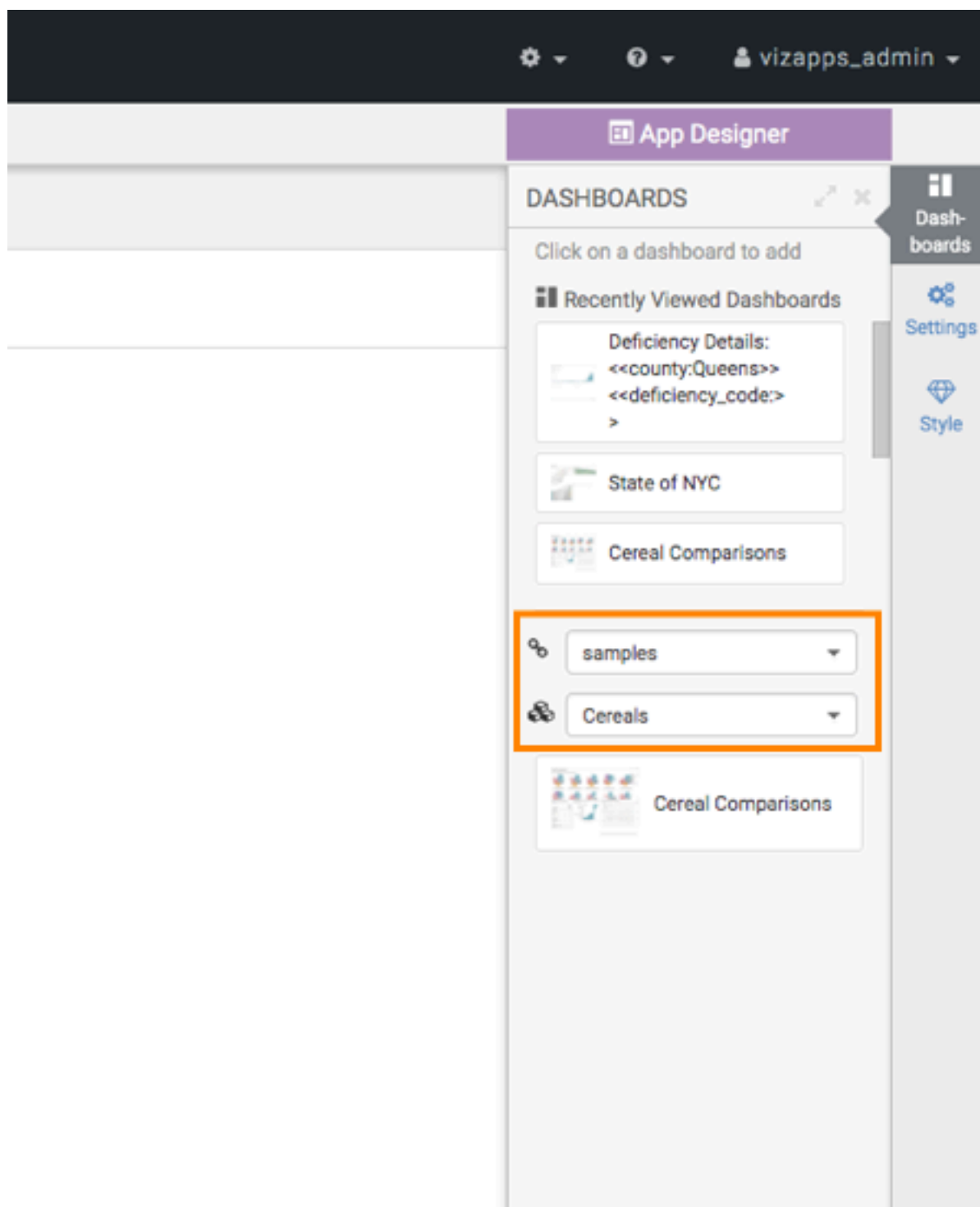
1. Click NEW APP on the HOME interface, in the top right corner on the side panel.

Alternatively, click **Create New App** in the top right corner.

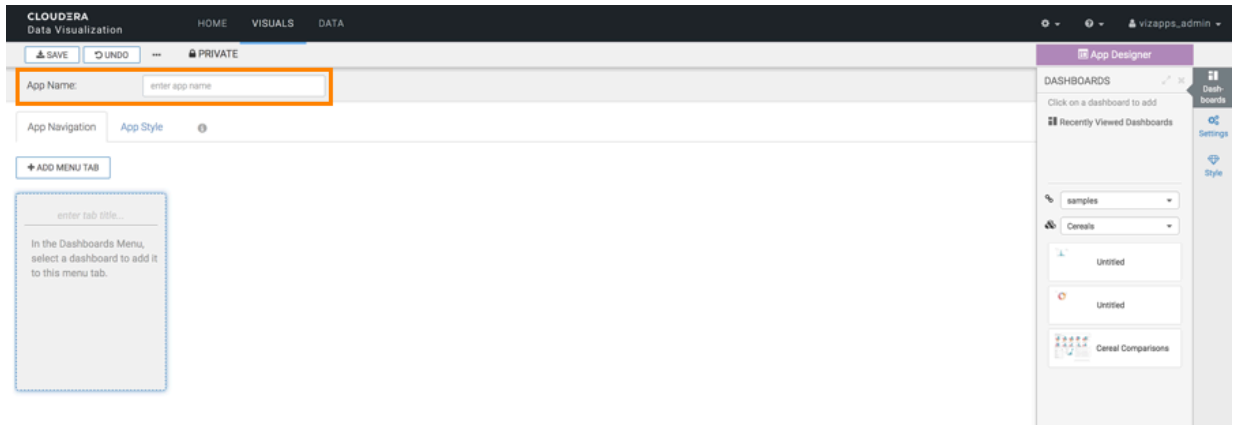
The App Designer interface is displayed. It opens on the App Navigation tab, and it shows a default menu tab tile.



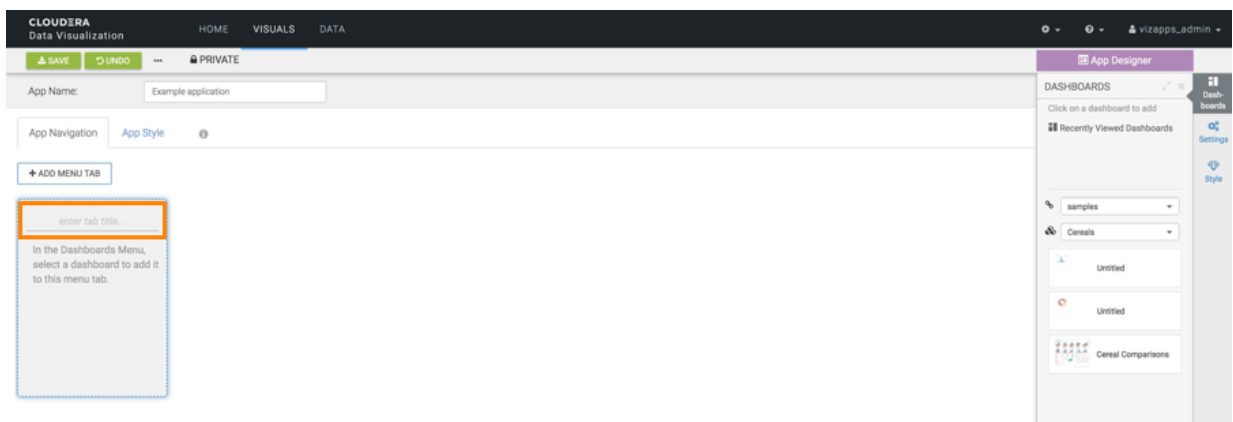
2. In the DASHBOARDS menu of the App Designer, select a dataset.



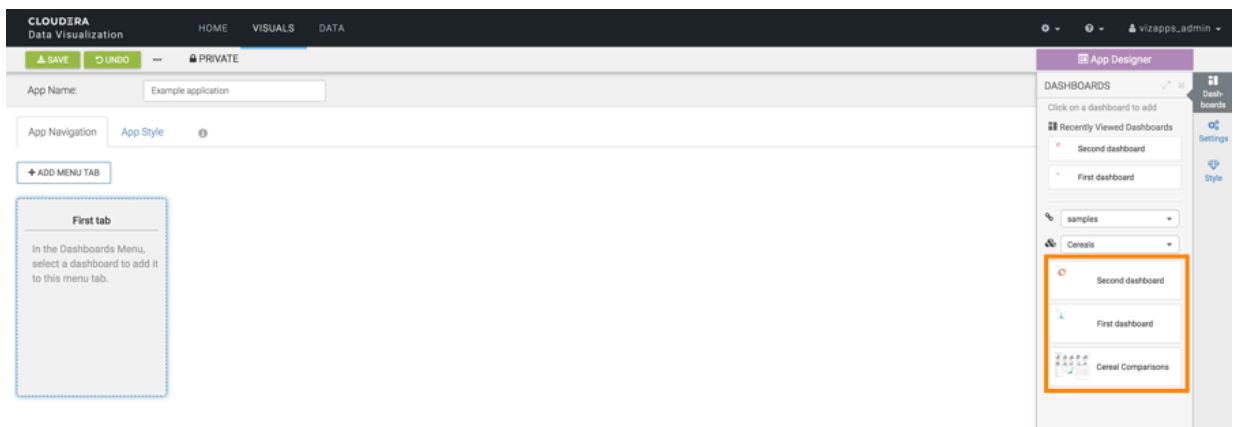
3. Enter a name for your app in the App Name text box.



4. In the highlighted empty tab, enter the tab title.

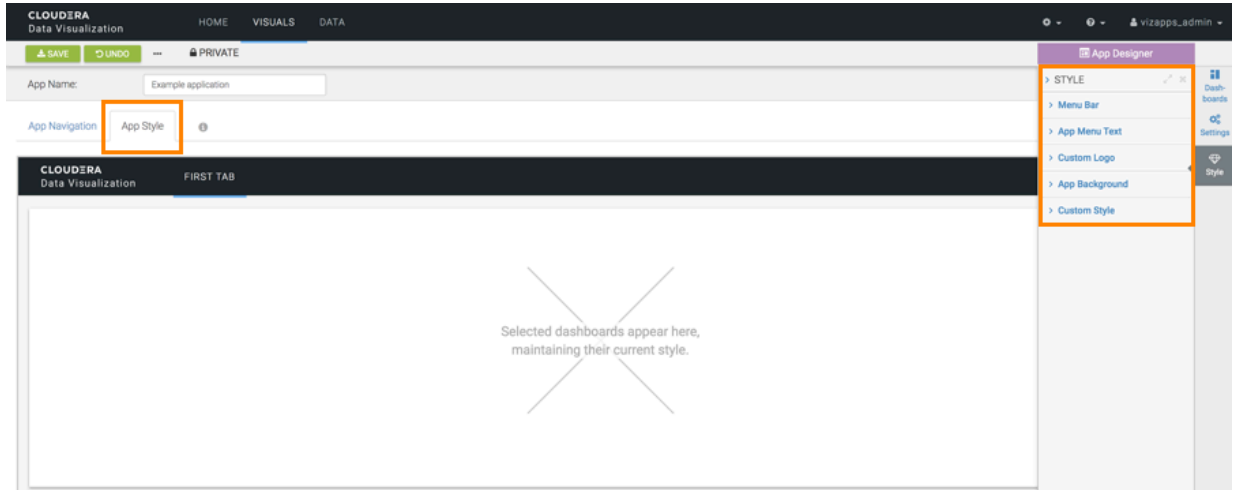


5. In the DASHBOARDS menu, select a dashboard to add it to this tab.



6. Switch to the App Style tab.

7. Design the appearance of your new app using the various style menu options on the side panel.



8. Click SAVE.

Results

You have created a new Cloudera Data Visualization app. To the right of the App Name, you can see the ID of the app, its update time information, and the last user who modified it.