

Working with Dimension Hierarchies

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Creating new dimension hierarchies

About this task

You may find it useful to define a hierarchy of dimensions, to enable visuals with variable levels of granularity over the same range of data.



Note:

This feature is available only to users with administrative privileges.

The following steps demonstrate how to define such a hierarchy on the dataset World Life Expectancy [data source samples.world_life_expectancy]. In this example the dimensions un_region, un_subregion, and country are used to define a dimensional hierarchy called Region.

Procedure

1. On the main navigation bar, click DATA.

The Data view appears open on the Datasets tab.

2. In the left navigation menu, click samples.
3. In the Datasets area, select World Life Expectancy (samples.world_life_expectancy).

The screenshot shows the Cloudera Data Visualization interface. The top navigation bar includes 'HOME', 'VISUALS', and 'DATA' (which is active). A search bar contains 'World Life Expectancy'. The left sidebar shows a navigation menu with 'All Connections', 'Postgres', and 'samples' (selected). The main content area displays a 'Datasets' list with 15 items. The 'World Life Expectancy' dataset is highlighted with an orange box. The table below shows the dataset details:

Title/Table	Created
World Life Expectancy main.world_life_expectancy	Aug 19, 2021

- In the Dataset Detail menu, select Fields.

CLOUDERA
Data Visualization

HOME SQL VISUALS DATA

find titles, viz types, datasets, authors...

Dataset: World Life Expectancy

Detail

Dataset: **World Life Expectancy**

Table: **main.world_life_expectancy**

Connection Type: **SQLite**

Data Connection: **samples**

Description:

Tags:

Join Elimination: **Enabled**

Result Cache: **From Connection**

ID: **9**

Created on: **Jan 26, 2023 11:29 AM**

Created by: **vizapps_admin**

Last updated: **Jan 26, 2023 11:29 AM**

Last updated by: **vizapps_admin**

- In the Fields interface, select Edit fields.

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Data Visualization

HOME SQL VISUALS DATA

Dataset: World Life Expectancy

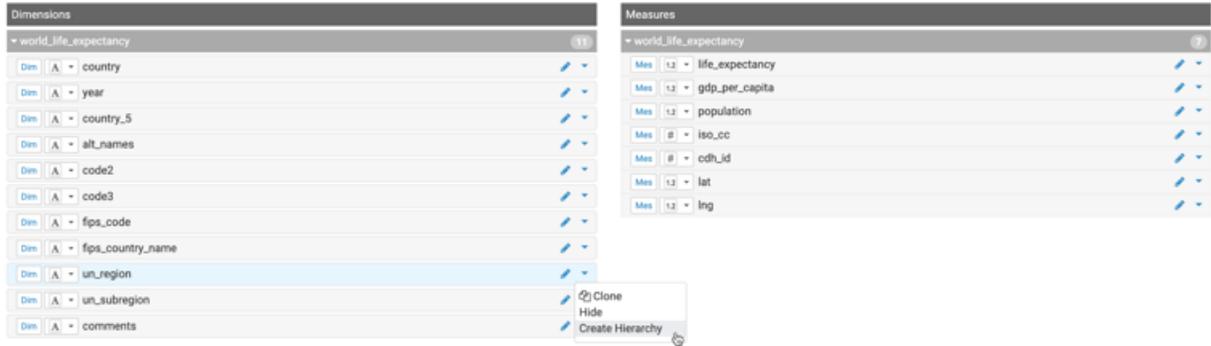
Fields **EDIT FIELDS** Hide Comments

NEW DASHBOARD

Dimensions	Measures
world_life_expectancy (11)	world_life_expectancy (7)
country	life_expectancy
year	gdp_per_capita
country_5	population
alt_names	iso_cc
code2	cdh_id
code3	lat
fips_code	lng
fips_country_name	
un_region	
un_subregion	
comments	

- In the editable Fields interface, under Dimensions, find the field un_region.

- Click Down icon on the un_region line, and select Create Hierarchy.



- In the Create Hierarchy modal window, enter the values for Hierarchy Name and Hierarchy Comment, and click CREATE.

The example shows a hierarchy named Region, described as Geographical Granularity.

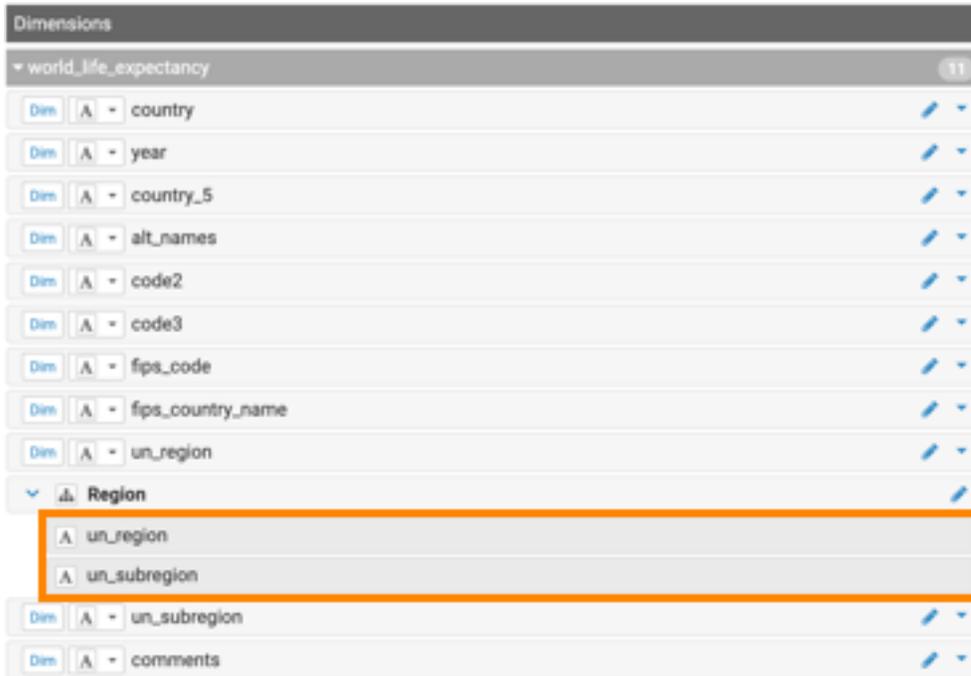
The 'Create Hierarchy' modal window is shown. The 'Hierarchy Name' field contains 'Region' and the 'Hierarchy Comment' field contains 'Geographical Granularity'. The 'CREATE' button is highlighted in blue.

- Note that Measures now contain a hierarchy Region, denoted by the Hierarchy icon. The hierarchy contains a single element, un_region.



- To add more levels to the hierarchy, simply click and drag the relevant dimensions or measures to the newly created hierarchy. Make sure to arrange them in order of scale, from largest to smallest.

Below un_region, un_subregion was added.



Below un_subregion, country was added.



- Click SAVE.

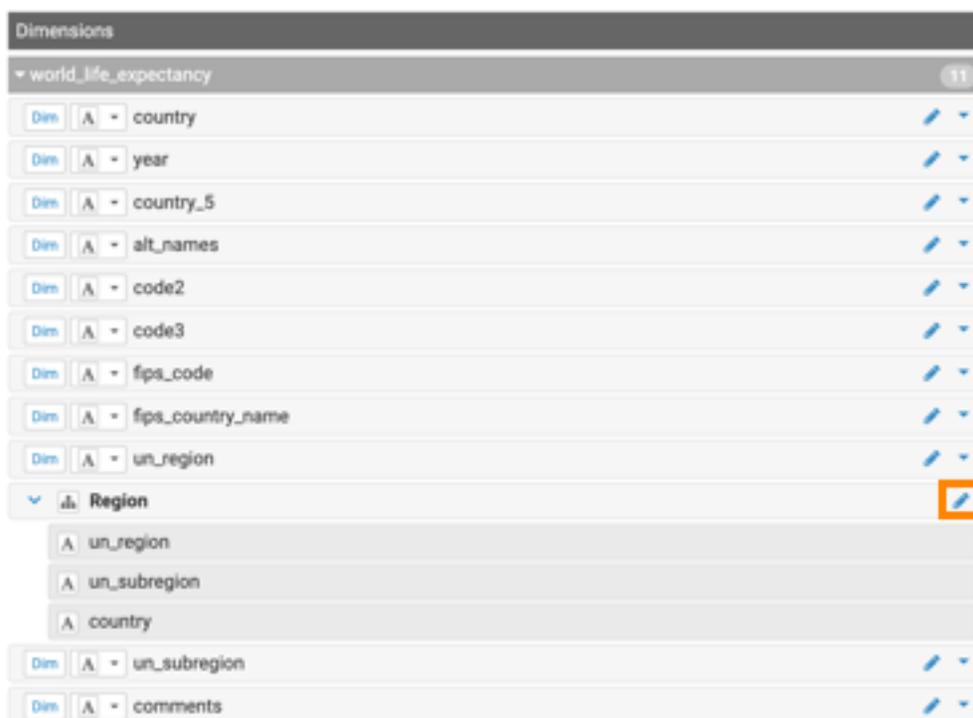
Results

Defined dimension hierarchies, such as Region created here, can be used just as any other dimension field of the dataset.

Changing the name of the hierarchy

Procedure

1. Click Edit Fields.
2. In the list of Dimensions, find the Region hierarchy, and click the Pencil icon next to it.



3. In the Edit Hierarchy modal window, change Hierarchy Name.
4. Click Update.

The hierarchy title Geography now appears in the list of dimensions, instead of Region.

5. Click SAVE.

Changing the order of components in the hierarchy

Procedure

1. Click Edit Fields.
2. Click one of the components of the hierarchy, and move it up or down the list.
3. Click Save.

Adding levels to the hierarchy

Procedure

1. Click Edit Fields.
2. Pick a component to add to the hierarchy, such as un_subregion, click it, and drag into the desired position inside the hierarchy area.
3. Click Save.

Removing levels from the hierarchy

Procedure

1. Click Edit Fields.
2. Pick a component of the hierarchy to remove, and click its Remove icon.
3. Click Save.

Deleting dimension hierarchies

About this task

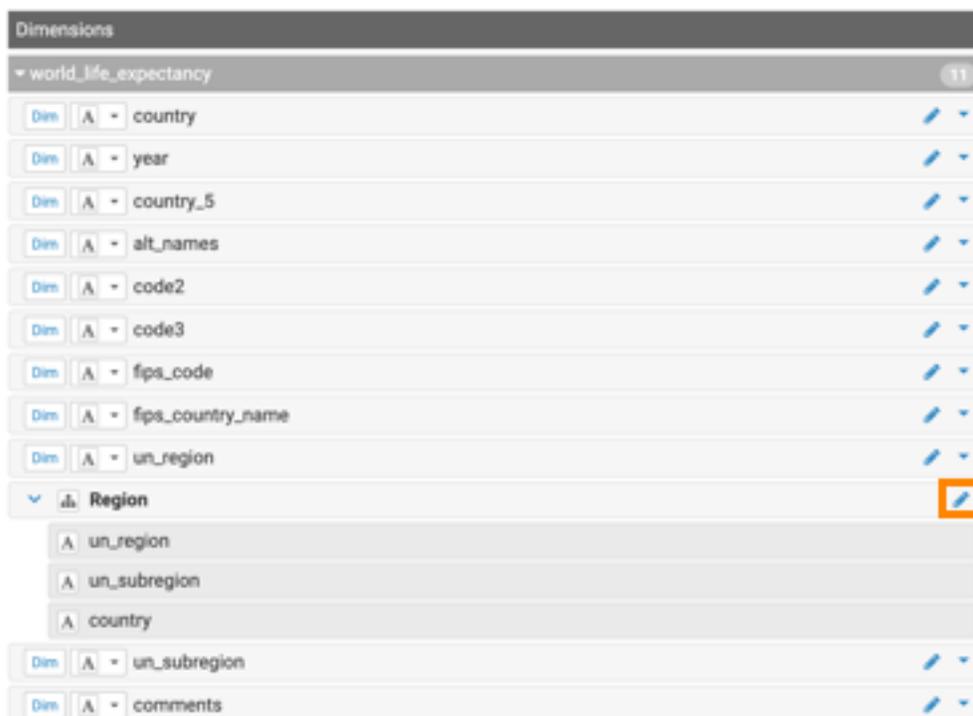
To delete the hierarchy, you must make changes in the dataset Fields interface.

Procedure

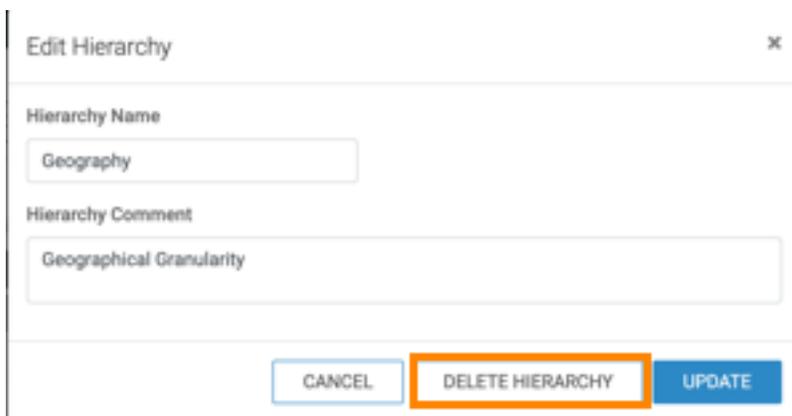
1. Click Edit Fields.

- In the list of Dimensions, find the hierarchy to delete, and click the Pencil icon next to it.

We are deleting the Region hierarchy.



- In the Edit Hierarchy modal window, click Delete Hierarchy.



- Click Save.

The hierarchy no longer appears in the list of dimensions.

Hierarchy drill into support on the color shelf

About this task

You can use the hierarchy drill-down data discovery on the Colors shelf of the Lines, Bars, Areas, Grouped Bars and Scatter visuals. To use the drill-down, click the legend colors.



Note: You must create the hierarchy in advance, on the Dataset Field interface.