

## Working with Dimension Hierarchies

Date published: 2020-10-30

Date modified: 2024-10-30

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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 first item, 'World Life Expectancy' (main.world\_life\_expectancy), is highlighted with an orange box. The 'Created' column shows 'Aug 19, 2021'.

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

- In the Dataset Detail menu, select Fields.

The screenshot shows the 'Dataset Detail' page for 'World Life Expectancy'. The left sidebar contains a menu with 'Fields' highlighted in an orange box. The main content area displays the following details:

- Dataset: World Life Expectancy
- Table: main.world\_life\_expectancy
- Connection Type: SQLite
- Data Connection: samples
- Description: (empty)
- Tags: (empty)
- Join Elimination: Enabled
- Result Cache: From Connection

Metadata information is listed below:

- 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

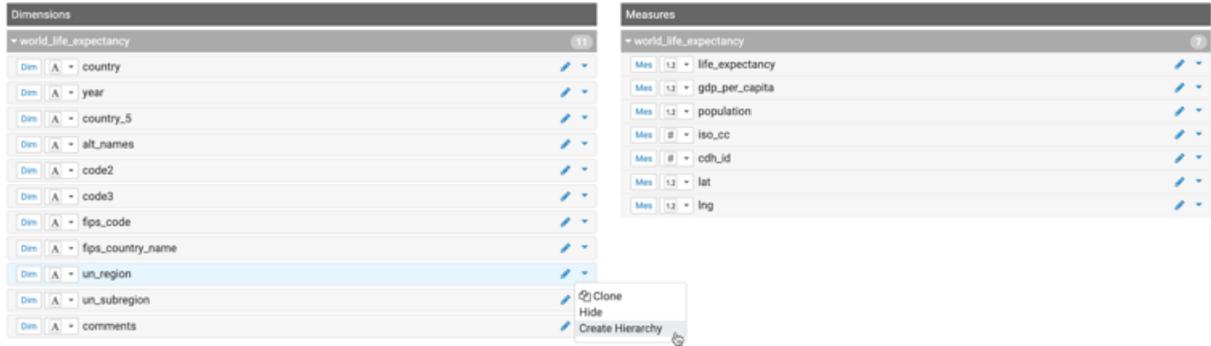
- In the Fields interface, select Edit fields.

The screenshot shows the 'Fields' interface for 'World Life Expectancy'. The 'EDIT FIELDS' button is highlighted in an orange box. The interface is divided into two columns: 'Dimensions' and 'Measures'.

Dimensions	Measures
<ul style="list-style-type: none"><li>world_life_expectancy</li><li>country</li><li>year</li><li>country_5</li><li>alt_names</li><li>code2</li><li>code3</li><li>fips_code</li><li>fips_country_name</li><li>un_region</li><li>un_subregion</li><li>comments</li></ul>	<ul style="list-style-type: none"><li>world_life_expectancy</li><li>life_expectancy</li><li>gdp_per_capita</li><li>population</li><li>iso_cc</li><li>cdh_id</li><li>lat</li><li>lng</li></ul>

- 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.

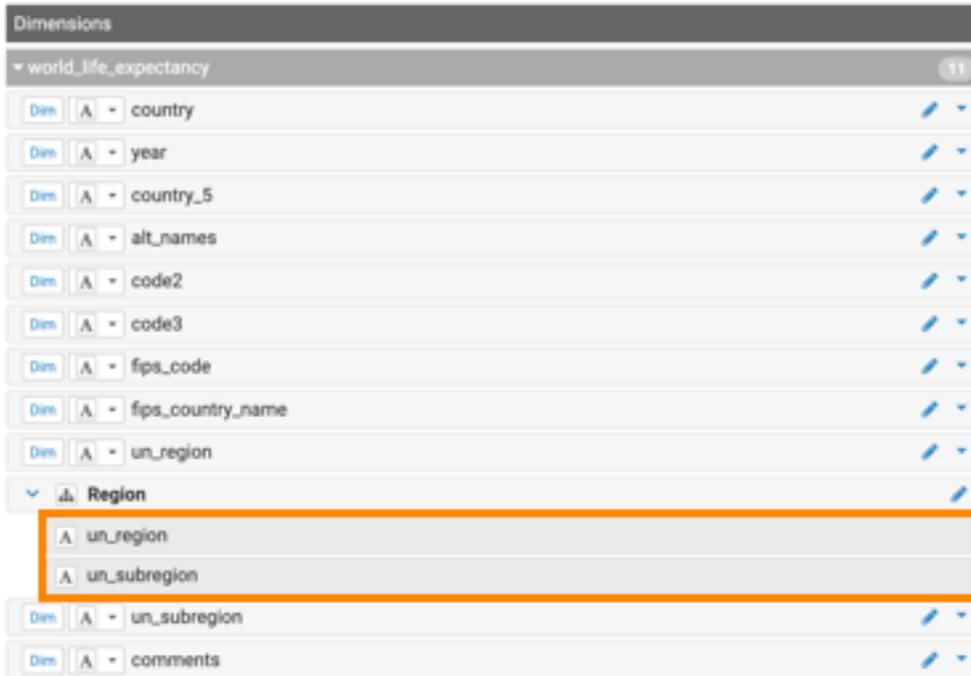
The 'Create Hierarchy' modal window is shown. It has a title bar with a close button. Below the title, there are two input fields: 'Hierarchy Name' with the value 'Region' and 'Hierarchy Comment' with the value 'Geographical Granularity'. Below the input fields, there are three buttons: 'CANCEL', 'DELETE HIERARCHY', and 'CREATE'. 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.

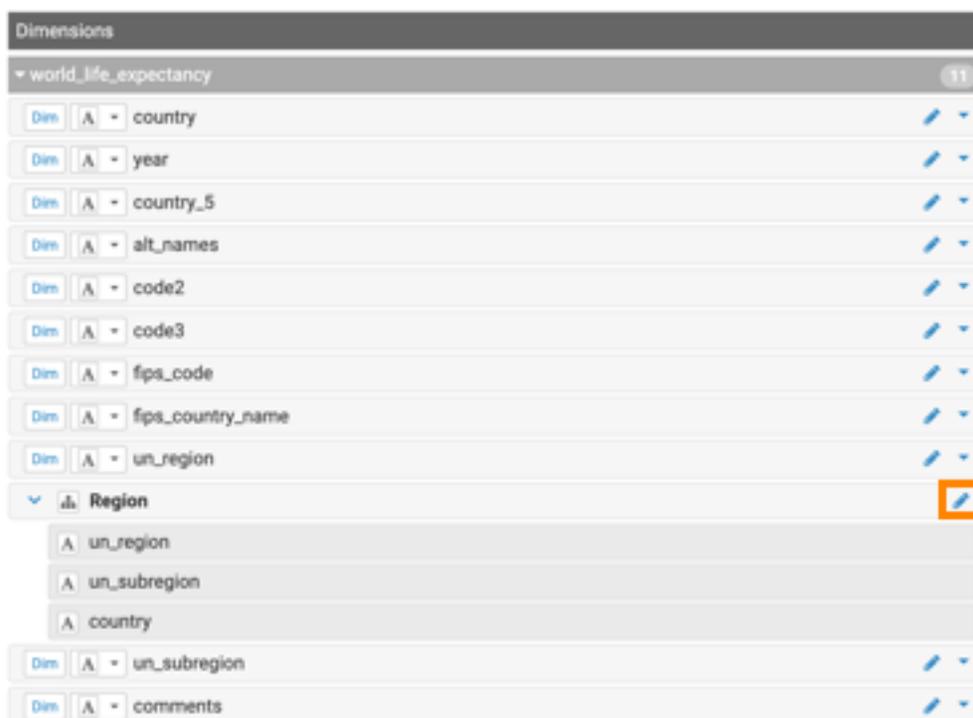
## Results

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

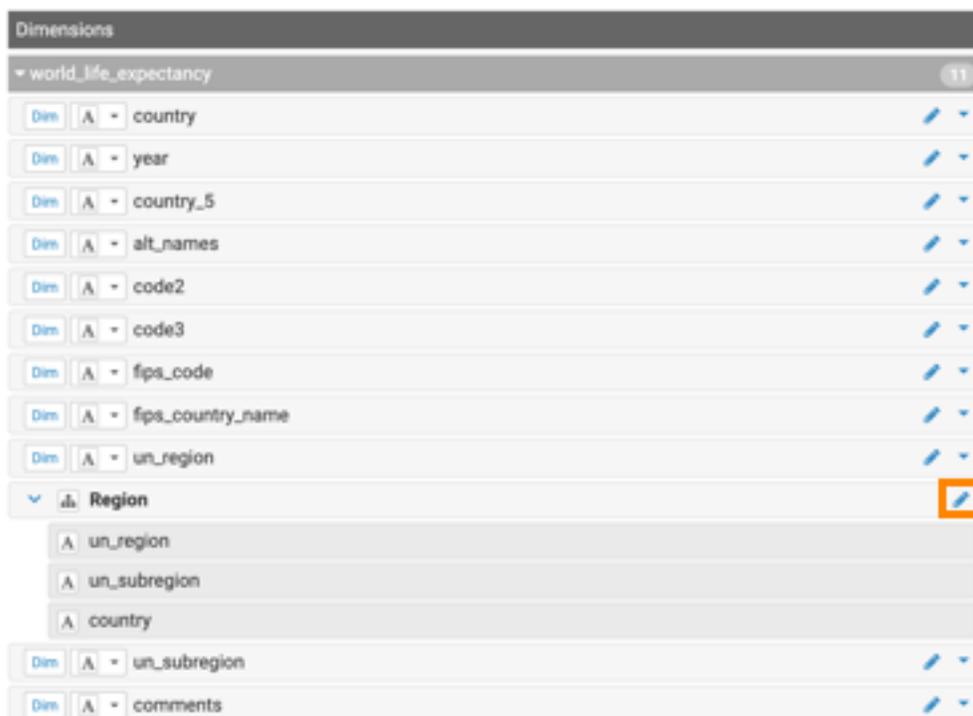
To delete the hierarchy, you must make changes in the dataset Fields interface.

### Procedure

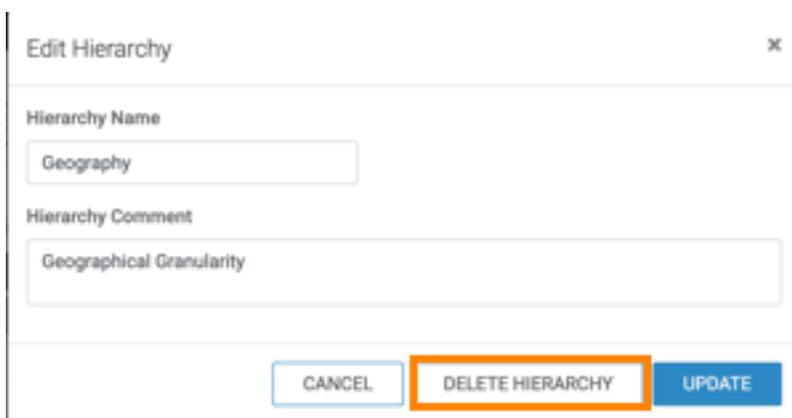
1. Click Edit Fields.

- 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.