



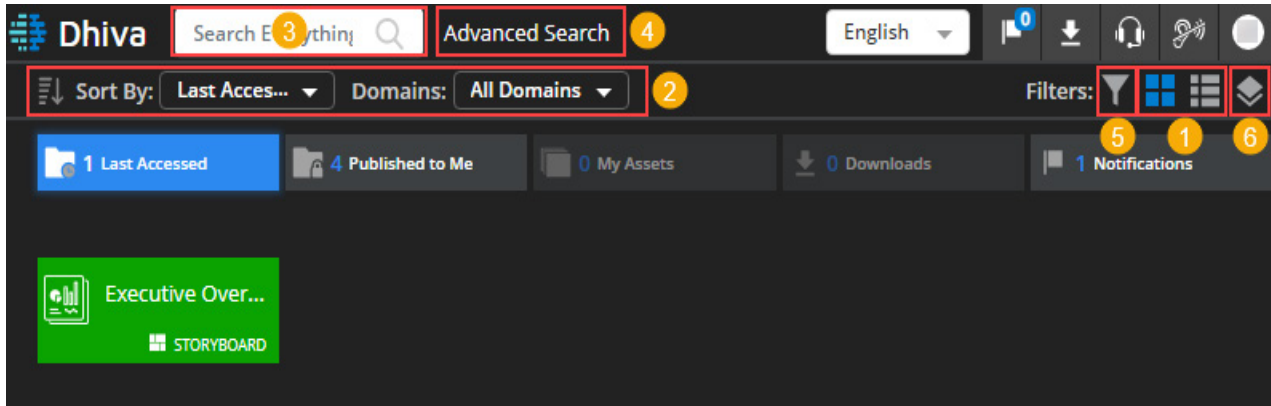
# Dhiva - Comprehensive Quick Start Guide






## Table of Contents

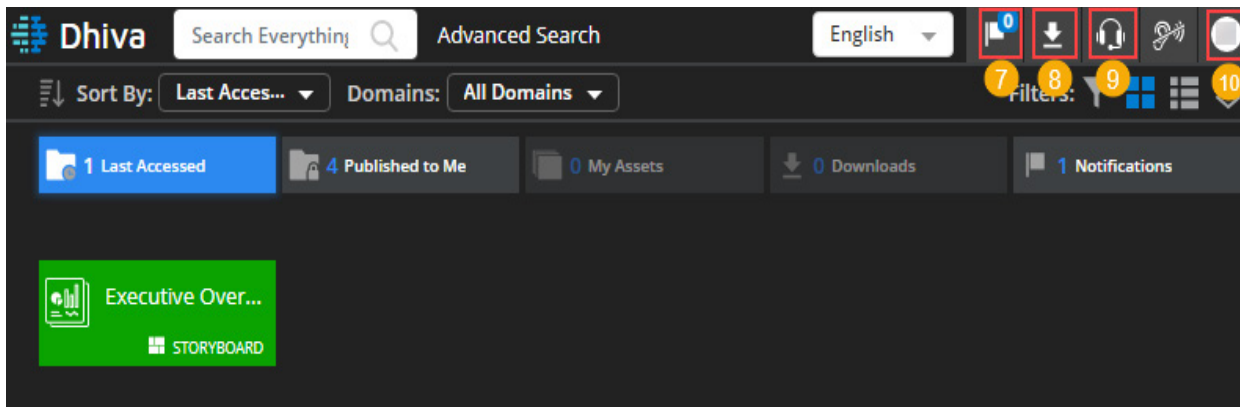
- [Home Page Walkthrough](#) ..... 3
- [Report Screen Walkthrough](#) ..... 5
- [Create Report](#) ..... 7
- [Create Hierarchy](#) ..... 8
  - [Replacement Hierarchy](#)
  - [Nested Hierarchy](#)
  - [Stacked Hierarchy](#)
- [Apply User Filters](#) ..... 12
  - [Creating a User Filter](#)
  - [User Filters for Measures](#)
- [Stubs](#) ..... 16
  - [Create New Stub](#)
    - [Create Stub to use on Report](#)
    - [Create Stub to use as a User Filter](#)
  - [Copy, Editing Names, and Deleting Stubs](#)
  - [Stubs vs Stacks Review](#)
    - [Limitations of Stubs](#)
- [Manage Lists](#) ..... 23
  - [Create List](#)
  - [Import List](#)
  - [Dynamic List](#)
  - [Copy/Edit/Delete List](#)
- [Manage Conditional Lists](#) ..... 31
  - [Create Conditional List](#)
  - [Add Conditional List to Report](#)
  - [Copy/Edit/Delete Conditional List](#)
  - [Grouping within a Conditional List](#)
    - [Creating the Multi-Statement Conditional List with Grouping](#)





• <a href="#">Manage Groups</a>	40
• <a href="#">Create New Group</a>	
• <a href="#">Create Group with No Sub Group</a>	
• <a href="#">Create Group with Sub Groups</a>	
• <a href="#">Copy Group/Edit Group Name/Delete Group</a>	
• <a href="#">Manage Dynamic Groups</a>	46
• <a href="#">Group Containing a Single List - Aggregate</a>	
• <a href="#">Group Containing Multiple Lists - Aggregates</a>	
• <a href="#">Group Containing a Single List - List Values</a>	
• <a href="#">Chart Screen Walkthrough</a>	52
• <a href="#">Create Chart</a>	53
• <a href="#">Storyboard Screen Walkthrough</a>	54
• <a href="#">Create Storyboard</a>	55
• <a href="#">Offline Viewer</a>	56
• <a href="#">Introduction</a>	
• <a href="#">Key Features of the Offline Viewer Module</a>	
• <a href="#">Accessing the Offline Viewer</a>	
• <a href="#">Downloading Assets</a>	
• <a href="#">Exporting Assets</a>	
• <a href="#">Enabling Content for the Offline Viewer</a>	
• <a href="#">Special Attribute</a>	
• <a href="#">Assumptions and Limitations of the Offline Viewer</a>	

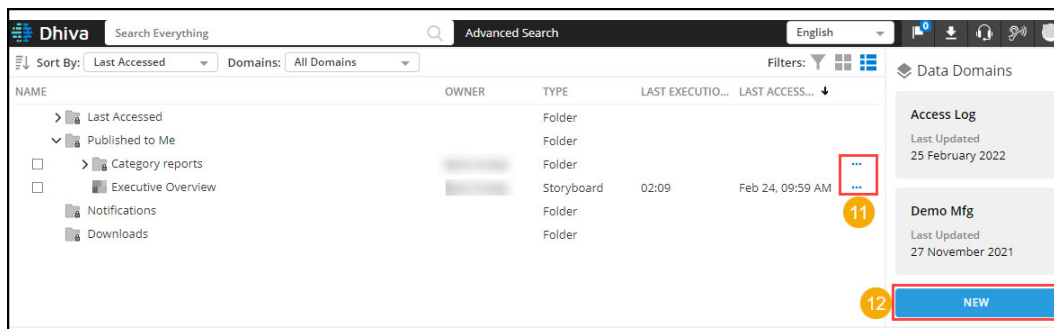
# Home Page Walkthrough




- 1. Tile View and List View** - Use the  and  icons to toggle between the Tile view and the List view respectively. When users switch from the Tile view to the List view, the screen displays only the 'Last Accessed' assets. Click the **All Assets** link if you want to view all available assets.
- 2. Sort** - At a broad level, you can sort assets based on **Domains**. In addition, you can also sort these assets based on Name, Owner, Type and Last Accessed Date using the **Sort By** drop-down list. Lastly, you can use the  icon to sort assets in the **Ascending** or **Descending** order.
- 3. Search** - Type a keyword or phrase in the **Search** textbox to limit assets displayed.
- 4. Advanced Search** - It allows you to search for assets based on additional search criteria such as "Published by Me", "Published to Me", "Scheduled by Me" and "Scheduled to Me".
- 5. Filters** - Use the  icon to locate the desired assets based on specified criteria such as Starred, Storyboards, Reports, Custom Reports, and Merged Reports.
- 6. Data Domains** - It is visible at the right side of the screen in the **List** view. In the Tile view, click the  icon to view and select the desired data domain. You can click on the data domain to create a new report.

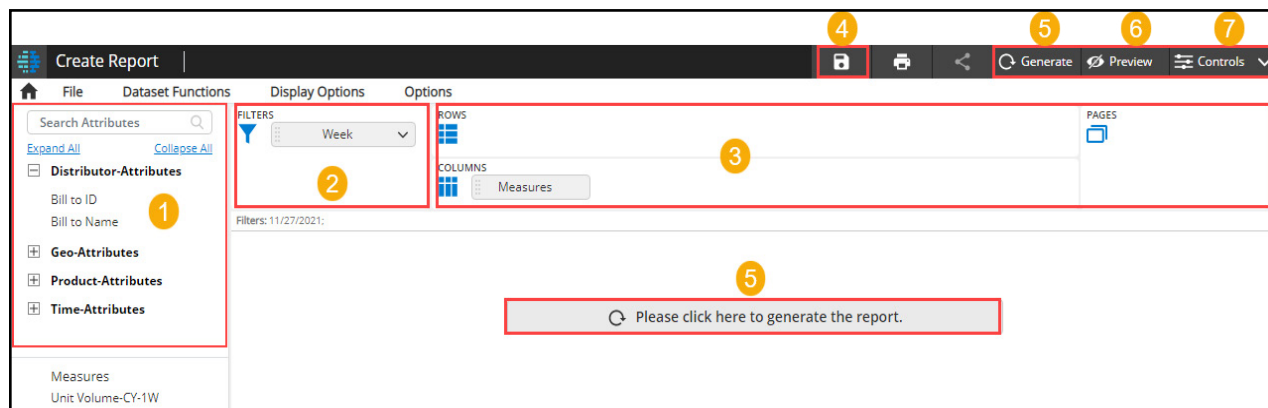


7. **Notifications** - Click the  icon to view the system-generated notifications. As an alternate, you can also view notifications by opening the Notifications folder.
8. **Downloads** - Click the  icon to access completed exports. As an alternate, you can also view your downloads by opening the Downloads folder.
9. **Support** - Click the  icon to get the contact details of the MSA Product Support Helpdesk.
10. **User Preferences** - Click your Username  initial placed at the extreme right top corner of the screen to define user preferences, change user password, set mobile accessibility and to logout from the application.

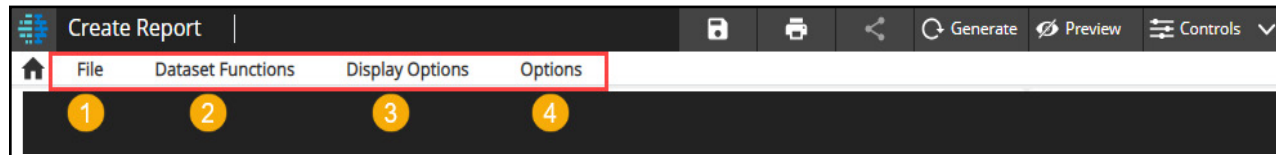


11. **Right-click / Ellipsis options** - Click the  icon placed at the right of any desired asset to open the menu and select from the list of most frequently performed tasks such as Rename, Export, Publish, Delete, Schedule etc. Some menu options are available to the asset owners only.
12. **New** - Use this button to create new Folders, Reports (Databooks), or Storyboards.

# Report Screen Walkthrough

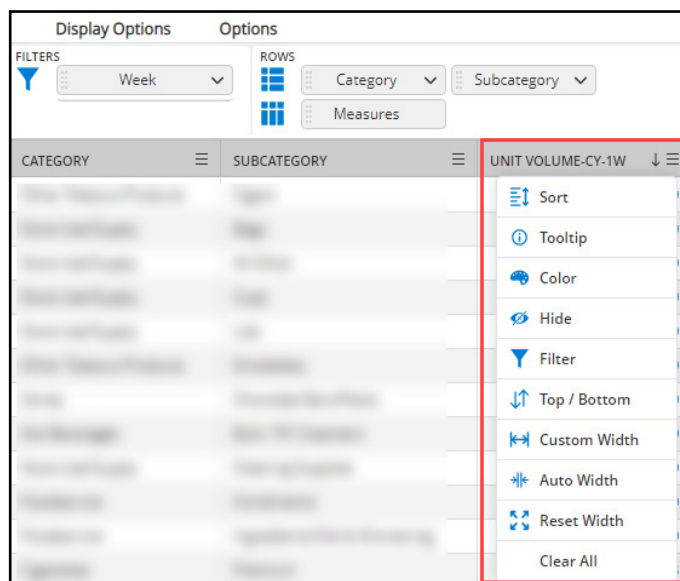



- Attribute Panel** - Placed on the left, this panel contains available attributes organized in folders. Folders and the attributes within are listed alphabetically.
- Report Filters** - Select any attribute as a report filter which will be applicable to the entire report.
- Report Rows, Columns, and Pages** - These are the report dimensions on a report and they serve as locations for dragging the attributes and measures.
- Save** - Use the Save button to save a report.
- Generate** - There are two Generate buttons on the screen. Use either of them to generate a report after specifying the report dimensions. Users can use the generate button placed at the top of the screen or the generate button placed at the center of the screen.
- Preview** - You may use the Preview button to view the report in a non-edit mode prior to publishing it.
- Controls** - Use the Controls menu to navigate pages and to apply user filters in a report/chart.



- 1. File Menu** - This menu contains option to save, publish, export, etc. Some menu options are greyed out until you save a copy of the report. Also note that some menu options are only available to the asset owner.
- 2. Dataset Functions Menu**- This menu helps to enhance the report data using the post-report generation functions mentioned below:
  - **Alerts and Color Conditions** to apply color conditions to data in the extracted report.
  - **Filter Conditions** to include or exclude certain data values based on conditions.
  - **New Attribute Value** to create custom values for attributes.
  - **New Measure Value** to create new measures.
- 3. Display Options Menu** - This menu provides a variety options to manage various report elements such as filter attribute, user filter attribute, footer, report specifications, hide attribute values, and control wrapping.
- 4. Report Options Menu** - Use this menu option to create report links, set publishing locks or apply row and columns functions such as sum, mean, and so on.

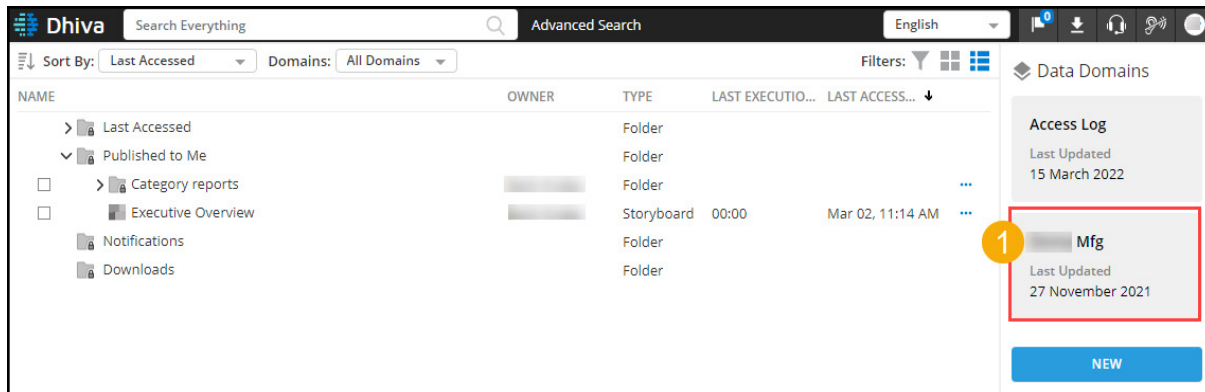
## Grid Column Options



After a user generates a report, click on  in any desired report column to open the column options dropdown menu. The menu options differ for attributes vs. metrics. This menu provides a variety of options to organize data in a desired manner. Some of the options available are: Sort, Filter, Top/Bottom, Color, Hide, and so on.

# Create Report

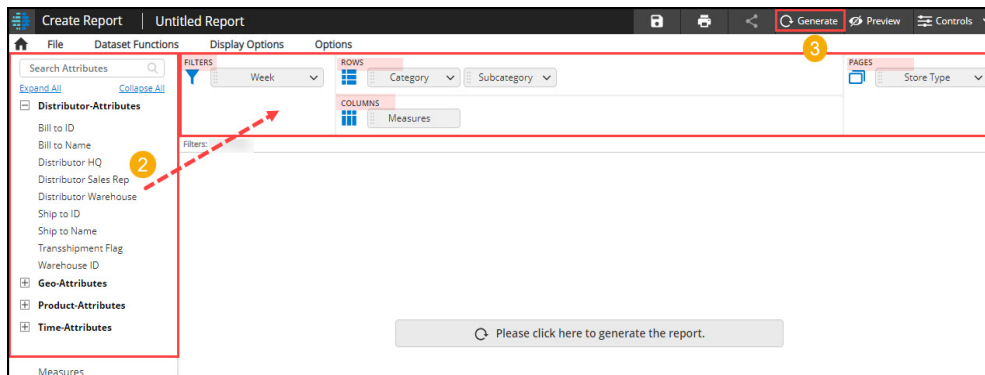
Step 1: On the Home page, select the desired **Data Domain**.



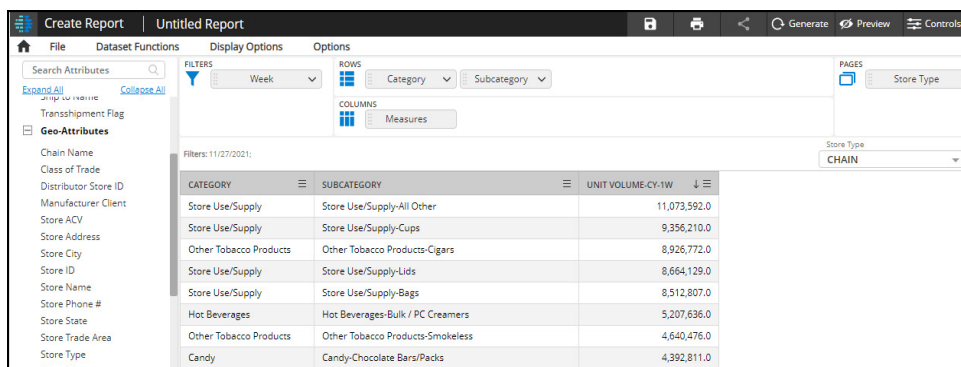
Step 2: Drag the desired attributes from the left panel onto the **Rows, Columns, Pages, and Filters** areas.

**Note:** At least one measure must be placed on one of the report dimensions.

Step 3: Click **Generate**.



Step 4: The system will process the request and generate a report.



The screenshot shows the generated report with a table of data. The table has columns for 'CATEGORY', 'SUBCATEGORY', and 'UNIT VOLUME-CY-1W'. The data is filtered for '11/27/2021' and 'Store Type: CHAIN'.

CATEGORY	SUBCATEGORY	UNIT VOLUME-CY-1W
Store Use/Supply	Store Use/Supply-All Other	11,073,592.0
Store Use/Supply	Store Use/Supply-Cups	9,356,210.0
Other Tobacco Products	Other Tobacco Products-Cigars	8,926,772.0
Store Use/Supply	Store Use/Supply-Lids	8,664,129.0
Store Use/Supply	Store Use/Supply-Bags	8,512,807.0
Hot Beverages	Hot Beverages-Bulk / PC Creamers	5,207,636.0
Other Tobacco Products	Other Tobacco Products-Smokeless	4,640,476.0
Candy	Candy-Chocolate Bars/Packs	4,392,811.0

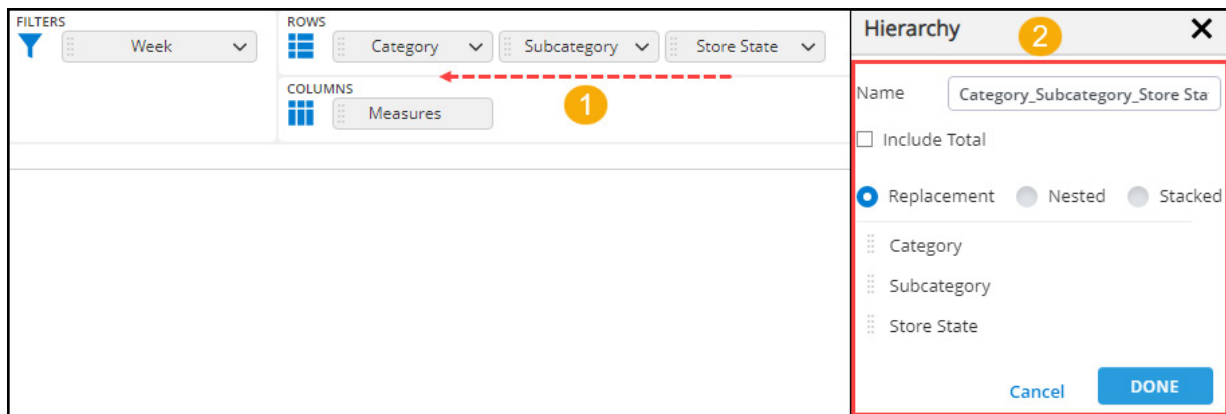
# Create Hierarchy

Adding a hierarchy to a report allows the information to be presented in a condensed format and provides the ability to drill to the additional levels of details as needed or to stack and view all requested items without drilling. Hierarchies can

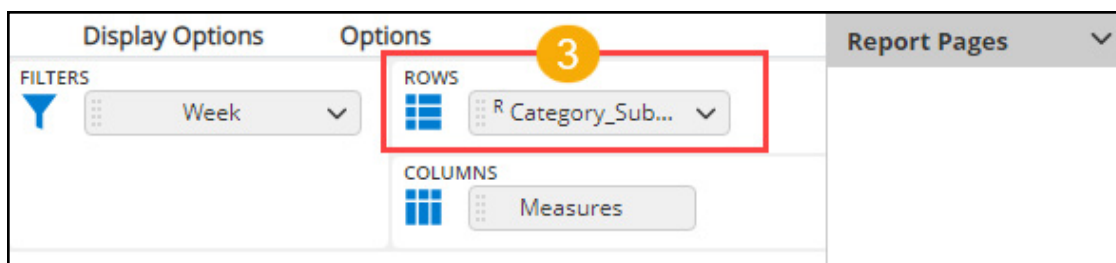
Step 1: Drag the attribute that will be the second level (Child level) of the hierarchy (for example, **Sub Category**) on top of the attribute that will be the top level (Parent level) of the hierarchy (for example, **Category**) in the report dimension section.

Step 2: In the **Hierarchy** dialog box, enter the new name and select the appropriate type for the hierarchy.

Step 3: Click **Done**.



The selected type of hierarchy (Replacement, Nested, or Stacked) is indicated with its new name in the report dimension section.



Users can choose from three types of hierarchies:

- [Replacement Hierarchy](#)
- [Nested Hierarchy](#)
- [Stacked Hierarchy](#)



## Replacement Hierarchy

The **Replacement** hierarchy is the default hierarchy selection and enables a drill-down to the child level, displaying only the child level of the drilled item. In the below example, if you click the plus sign of the **Other Tobacco Products** category, the system will navigate you to the **Subcategories** of the **Other Tobacco Products** category in the table. Use the **Category** link (indicated with a dotted arrow in the right-side screenshot) to navigate back to the parent level.

CATEGORY	UNIT VOLUME-CY-1W
+ Store Use/Supply	81,827,532.0
+ Other Tobacco Products	38,367,312.0
+ Foodservice	26,959,646.0
+ Candy	24,947,321.0
+ Packaged Beverages	9,969,287.0
+ Salty Snacks	7,221,548.0
+ Alternative Snacks	6,851,992.0
+ Packaged Sweet Snacks	6,773,228.0
+ Cigarettes	6,354,899.7
+ Hot Beverages	5,212,341.0
+ Health & Beauty	2,959,844.0

SUBCATEGORY	UNIT VOLUME-CY-1W
Other Tobacco Products-Cigars	22,823,228.0
Other Tobacco Products-Smokeless	10,376,682.0
Other Tobacco Products-Papers	1,657,266.0
Other Tobacco Products-Pipes	1,585,878.0
Other Tobacco Products-Vaping	1,227,103.0
Other Tobacco Products-E-Cigarettes	429,528.0
Other Tobacco Products-Pipe/Cigarette Tobacco	249,813.0
Other Tobacco Products-Miscellaneous Other Tobacco	17,914.0
Other Tobacco Products-All Other	-100.0

## Nested Hierarchy

The Nested hierarchy provides the drill ability on the report and displays the parent and the child totals simultaneously. In the example below, if a user clicks the **Other Tobacco Products** category, the system will display the **subcategories** related to the **Other Tobacco Products** in the same table along with their totals.

CATEGORY_SUBCATEGORY	UNIT VOLUME-CY-1W
+ Store Use/Supply	81,827,532.0
+ Other Tobacco Products	38,367,312.0
+ Foodservice	26,959,646.0
+ Candy	24,947,321.0
+ Packaged Beverages	9,969,287.0
+ Salty Snacks	7,221,548.0
+ Alternative Snacks	6,851,992.0
+ Packaged Sweet Snacks	6,773,228.0
+ Cigarettes	6,354,899.7
+ Hot Beverages	5,212,341.0
+ Health & Beauty	2,959,844.0
+ General Merchandise	2,233,260.0

CATEGORY_SUBCATEGORY	UNIT VOLUME-CY-1W
+ Store Use/Supply	81,827,532.0
- Other Tobacco Products	38,367,312.0
Other Tobacco Products-Cigars	22,823,228.0
Other Tobacco Products-Smokeless	10,376,682.0
Other Tobacco Products-Papers	1,657,266.0
Other Tobacco Products-Pipes	1,585,878.0
Other Tobacco Products-Vaping	1,227,103.0
Other Tobacco Products-E-Cigarettes	429,528.0
Other Tobacco Products-Pipe/Cigarette Tobacco	249,813.0
Other Tobacco Products-Miscellaneous Other Tobacco	17,914.0
Other Tobacco Products-All Other	-100.0
+ Foodservice	26,959,646.0
+ Candy	24,947,321.0
+ Packaged Beverages	9,969,287.0

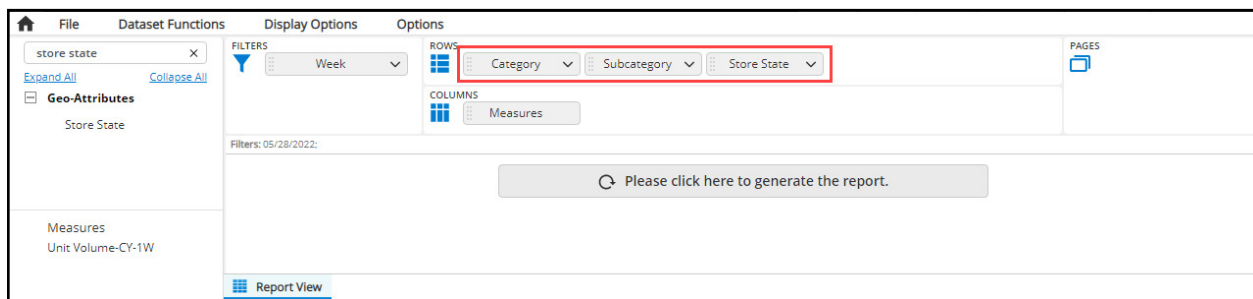
**Note:** Clicking on the +1 control (placed at the left corner above the table) would expand all parents to display their corresponding child levels in a single click.

## Stacked Hierarchy

The Stacked hierarchy is a type of hierarchy that enables users to view all selections without drilling. Stacking will display the attributes/groups in the selected order and will sort the items within each attribute/group. An example of a report generated applying the stacked hierarchy is demonstrated below wherein the attributes such as **Category**, **Sub Category**, and **Store State** are arranged in a stacked hierarchy and the report is filtered using the **Category** attribute with **Measures** in the **Columns** area.

**Note:** In a Stacked Hierarchy, there is no Parent-Child relationship between the attributes.

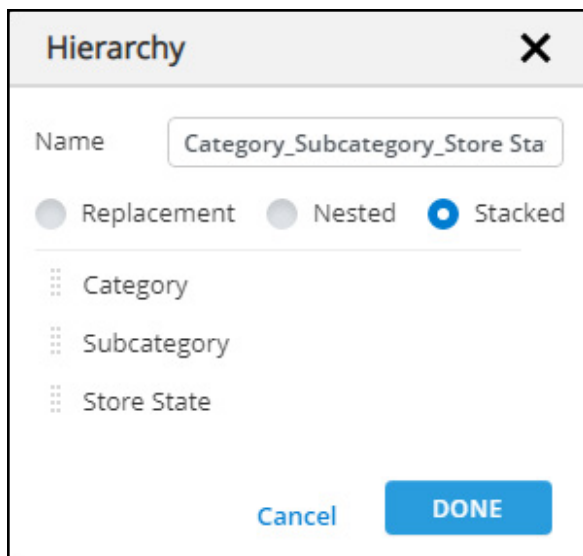
Step 1: On the **New Report Template** screen, search for the **Category**, **Sub Category**, and **Store State** attributes in the left-hand panel and drag them to the **Rows** area.



Step 2: To create a hierarchy, drag **Sub Category** on top of **Category** and then add **Store State** on top of the two.

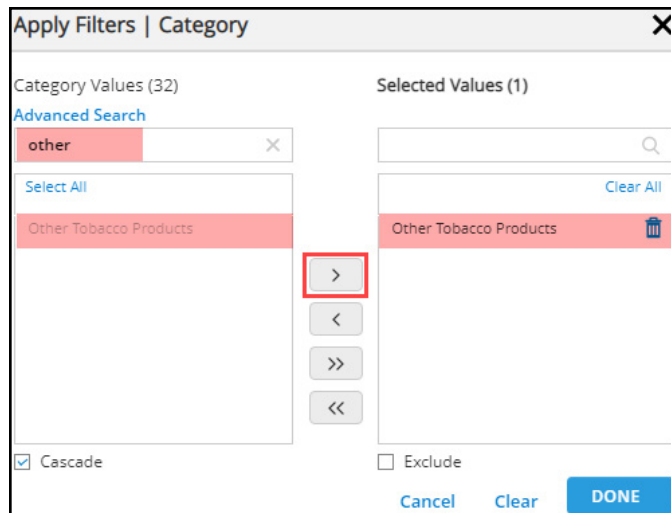
Step 3: In the **Hierarchy** dialog box, drag and drop the selected attributes to arrange them in the desired order (for example, **Category - Sub Category - Store State**) and edit the **Hierarchy Name** to reflect the order.

Step 4: Select the **Stacked** option and click **Done** to return to the previous screen.



Step 5: Add **Category** as a report filter by dragging it from the left-hand panel and dropping to the **Filters** area. The system opens the **Apply Filters** dialog box.

Step 6: Select the **Other Tobacco Products** item from the left panel and click the right-pointing arrow to send it to the right panel.



Step 7: Add **Category** as a report filter by dragging it from the left-hand panel and dropping to the **Filters** area.

Step 8: Click the **Generate** button to generate the desired report as per the specified report parameters.

The system will generate a report which will display all items in a selected **Category** (for example, **Other Tobacco Products**) at the top followed by all the Subcategories, then States, with the values within each of these attribute sorted in the descending order as shown in the below screenshot.

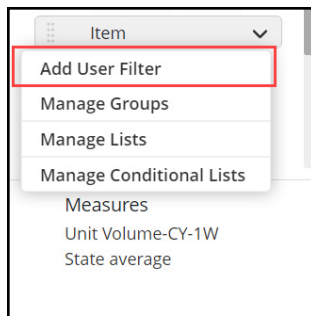
CATEGORY_SUBCATEGORY_STORE STATE	UNIT VOLUME-CY-1W
Other Tobacco Products	38,367,312.0
Other Tobacco Products-Cigars	22,823,228.0
Other Tobacco Products-Smokeless	10,376,682.0
Other Tobacco Products-Papers	1,657,266.0
Other Tobacco Products-Pipes	1,585,878.0
Other Tobacco Products-Vaping	1,227,103.0
Other Tobacco Products-E-Cigarettes	429,528.0
Other Tobacco Products-Pipe/Cigarette Tobacco	249,813.0
Other Tobacco Products-Miscellaneous Other Tobacco	17,914.0
Other Tobacco Products-All Other	-100.0
OH	5,710,515.0
PA	2,961,970.0

# Apply User Filters

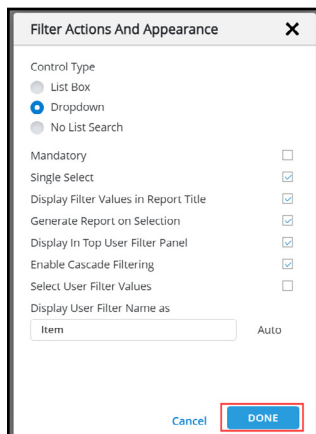
## Creating a User Filter

User Filters can be applied on a Report or Storyboard, enabling users to easily slice and dice the data for a custom view. User Filters can be applied at any point while creating/running a report.

Step 1: Click the desired attribute from the left panel and select the **Add User Filter** option from the drop-down list.



Step 2: Select the desired **User Filter Display** options and click **Done**.



Step 3: The User Filter attribute (indicated as **UF**) appears in the **Filter area** with a dropdown menu on the right hand side of the page that can be used to modify User Filters currently applied to the report. Users may also modify or delete the User Filter by clicking the down arrow and selecting the corresponding option from the dropdown menu.



## User Filters for Measures

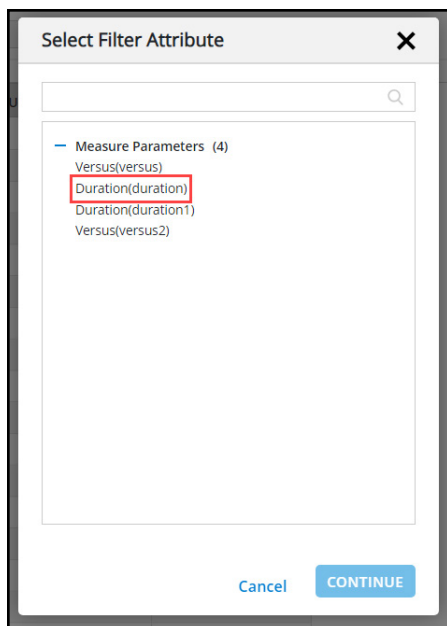
Users also have the ability to add a User Filter for Measure Durations and Versus Periods. This enables users to select the duration and/or versus period across the measures on a report.

Step 1: Click the **Measures** drop-down list in the lower left corner of the page.

Step 2: Select **Add User Filter** from the drop down list.



Step 3: Click the + symbol to expand the list of **Measure Parameters**. Select the option **Duration(duration)**.



Step 4: Select the desired Measures for the report.

• **Best Practices recommendation:** Measures should all be defined with the same duration when adding a Duration User Filter. Upon selecting a Duration from the User Filter, all metrics will refresh and populate with the selected Duration applied.

UNIT VOLUME-CY-1W	UNIT VOLUME-PY-1W	\$ VOLUME-CY-1W
226,341,234.3	236,048,220.2	\$621,085,006.78

Step 5: Select the **13W** option from the Duration User Filter drop down menu.

UNIT VOLUME-CY-13W	UNIT VOLUME-PY-13W	\$ VOLUME-CY-13W
2,958,975,009.8	3,096,404,727.8	\$8,484,256,836.62

**Note:** Users can also create a Measure **Versus** User Filter to change the lookbacks of all the measures on the report. The process of adding it to the report would be identical, but the user would instead select a **Versus** option. In addition, this User Filter would function like the **Duration** User Filter in the example above.

UNIT VOLUME-CY-13W	\$ VOLUME-CY-13W	ITEM COUNT-CY-13W
2,782,637,378.4	\$7,912,137,165.97	98,189

The screenshot shows a software interface with a table of data. The table has three columns: UNIT VOLUME-CHG VS PY-13W, \$ VOLUME-CHG VS PY-13W, and ITEM COUNT-CHG VS PY-13W. The values in the table are -126,455,790.6, -\$239,266,709.97, and -2,952 respectively. The interface includes a search bar, expand/collapse buttons, and various filter and display options.

UNIT VOLUME-CHG VS PY-13W	\$ VOLUME-CHG VS PY-13W	ITEM COUNT-CHG VS PY-13W
-126,455,790.6	-\$239,266,709.97	-2,952

After selecting from the User Filter drop down menu, the selection will be reflected in the Filters line as shown above.

# Stubs

Stubs in Dhiva are made up of a combination of Attributes and static/dynamic objects (Lists, Group, Conditional lists). They are structured and function similarly to a Stacked Hierarchies. Stubs are notated with an "ST" prefix and is listed in the Stubs section at the top of the attribute panel. A Stub can be used in any report on Pages, Columns, Rows, or as a User Filter.

**Note:** Stubs cannot be used directly as a Filter.

Producer users can create Stubs. A Stub can be personal/private or can be made global by an admin. Unlike stacked hierarchies, Stubs are not report specific and can be used in any report in that domain.

Stubs can be used anywhere on the report layout but cannot be used as a report filter. In addition to being placed on rows/columns/pages, Stubs can be used as User Filters. Using Stubs as User Filters enables the user to change the focus of the report.

Under the Manage Stubs option, users can perform the following tasks:

- [Create New Stub](#)
- [Copy, Edit Name, Delete](#)

## Create New Stub

The following are two scenarios for Stub creation and examples of how to create them:

- [Create Stub to use on Report](#)
- [Create Stub to use as a User Filter](#)

### Create Stub to use on Report

Adding multiple objects to a Stub stacks all the selected values into one column, allowing similar functionality to a Stacked Hierarchy. An advantage Stubs have over Stacked Hierarchies is that they are located in the left-hand panel, making them reusable in other reports (similar to Groups).

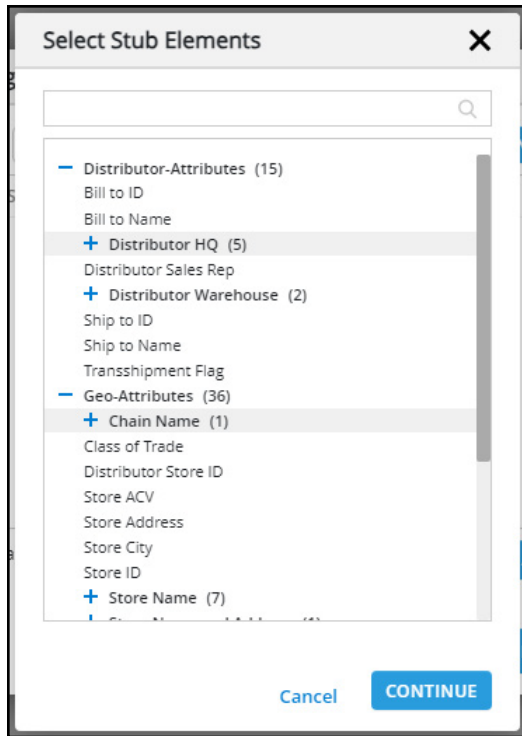
Step 1: From the left panel, click on **Stubs** dropdown and Select **Manage Stubs**.

Step 2: If a user hasn't created a Stub before, a popup will prompt them to name the first one they create. Otherwise, select Options > New.

Step 3: Provide an appropriate name for the Stub (for example "Dist HQ-Chain-Mfr)

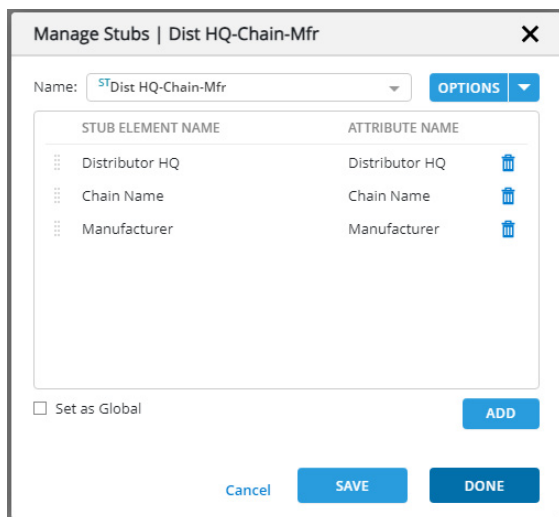
Step 4: By using text search or by navigating the folder structure of available Attributes, Lists, and Groups, find and select the following attributes to add to this Stub: **Distributor HQ**, **Chain Name**, and **Manufacturer**.





**Note:** In addition to Attributes, Stubs can also contain Groups, Lists, and Conditional Lists.

Step 5: Click **Continue**.



**Note:** In this window, users can also rearrange and delete attributes. Using the **Add** button, additional attributes/lists/groups can be added to the Stub.

Step 6: Click **Save**. Now this Stub will be available under the **Stubs Attribute**.

Step 7: Expand the **Stubs** section in the lefthand panel, locate the new Stub **Dist HQ-Chain-Mfr**, then drag it into the **Rows** section.

Step 8: After clicking **Generate**, users will see that all values for Distributor HQ, Chain Name, and Manufacturer are displayed in one column, like they would be when placed in a Stacked Hierarchy.

ST DIST HQ-CHAIN-MFR	UNIT VOLUME-CY-1W
Distributor Headquarters	45,420,357.1
	9,208,938.4
	5,080,075.0
	3,815,615.6
	2,081,756.4
	1,097,765.8
	853,999.7
	263,212.0
Chain Names	38,486,069.7
	28,076,915.3
	1,126,924.0
	98,450.0
	19,227.0
	11,979.0
	2,122.0
	33.0
Manufacturers	4,686,040.0
	4,544,411.0
	4,252,938.8
	3,288,189.0
	2,499,962.0
	2,358,341.0
	2,168,320.0

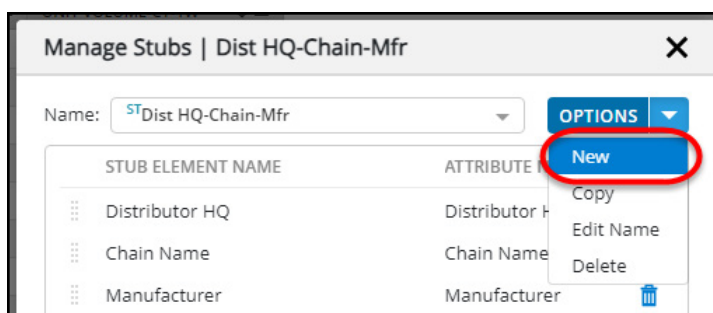
**Note:** Any Filters/User Filters added to the report will be respected in the stub as well.

## Create Stub to use as a User Filter

To use Stubs as a User Filter, at least one Stub must be added to the report to get the **Add User Filter** option to appear in the Stubs section. Then in the popup window, the user must select the **Select User Filter Values** to customize the list of Stubs in the User Filter dropdown menu.

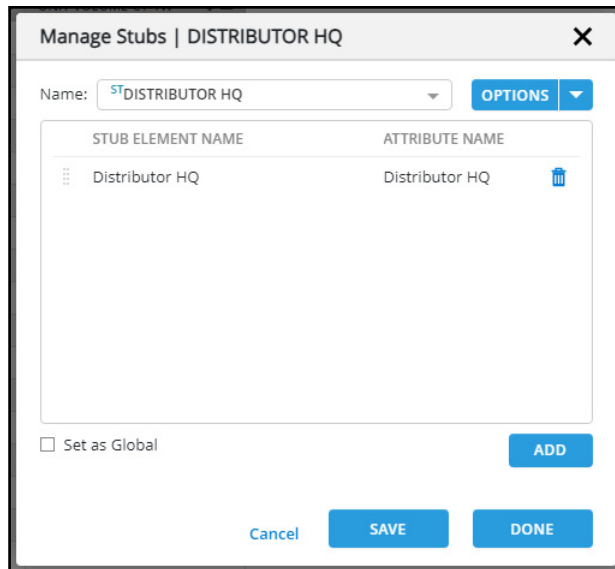
Step 1: From the left panel click on **Stubs** and **Select Manage Stub**.

Step 2: In the popup window, select **Options -> New** to create a new Stub.



Step 3: Provide appropriate name for the Stub (for example "DISTRIBUTOR HQ"), as this Stub will contain the Distributor HQ attribute.

Step 4: Locate the attribute **Distributor HQ**, select it, then click **Continue**.

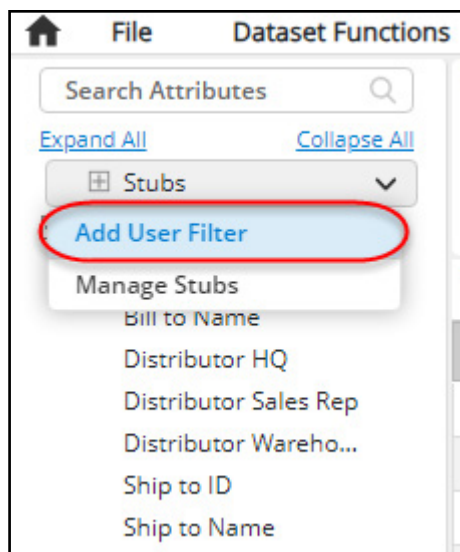


Step 5: Save this Stub. After saving the newly created Stub it will become available under the **Stubs Attribute** in the lefthand panel.

Step 6: Create another Stub by clicking on **Options > New**.

Step 7: Repeat steps 3-5 to create Stubs for **Chain** (with the name "CHAIN" provided in this example) and **Manufacturer** (with the name "MFR" provided in this example) as well.

Step 8: Expand the Stubs section in the lefthand panel, locate the Stub **CHAIN**, then drag it into the **Rows section**.



Step 9: Once a Stub has been placed onto the report, a new option will appear in the Stubs dropdown menu. Click **Add User Filter**. Here, users can select Filter Actions and Appearance settings, such as whether a selection is mandatory, generation settings, etc.

- Select the option **Select User Filter Values**. This will allow the user to hand pick the Stubs to include in this UF dropdown in the report. Without selecting this option, all available Stubs (personal and global) will be listed in the UF dropdown.

The screenshot shows a dialog box titled "Filter Actions And Appearance" with a close button (X) in the top right corner. It contains several settings:

- Control Type:** Radio buttons for "List Box", "Dropdown" (selected), and "No List Search".
- Mandatory:** A checkbox that is unchecked.
- Single Select:** A checked checkbox.
- Display Filter Values in Report Title:** A checked checkbox.
- Generate Report on Selection:** An unchecked checkbox.
- Display In Top User Filter Panel:** A checked checkbox.
- Select User Filter Values:** A checked checkbox, which is highlighted with a red circle.

At the bottom of the dialog, there are "Cancel" and "CONTINUE" buttons.

Step 10: Click **Continue**.

Step 11: In the next window, select the three Stubs that were created in this example (**CHAIN**, **DISTRIBUTOR HQ**, **MFR**), then use the right arrow to add them to the **Selected Values List**, as pictured below.

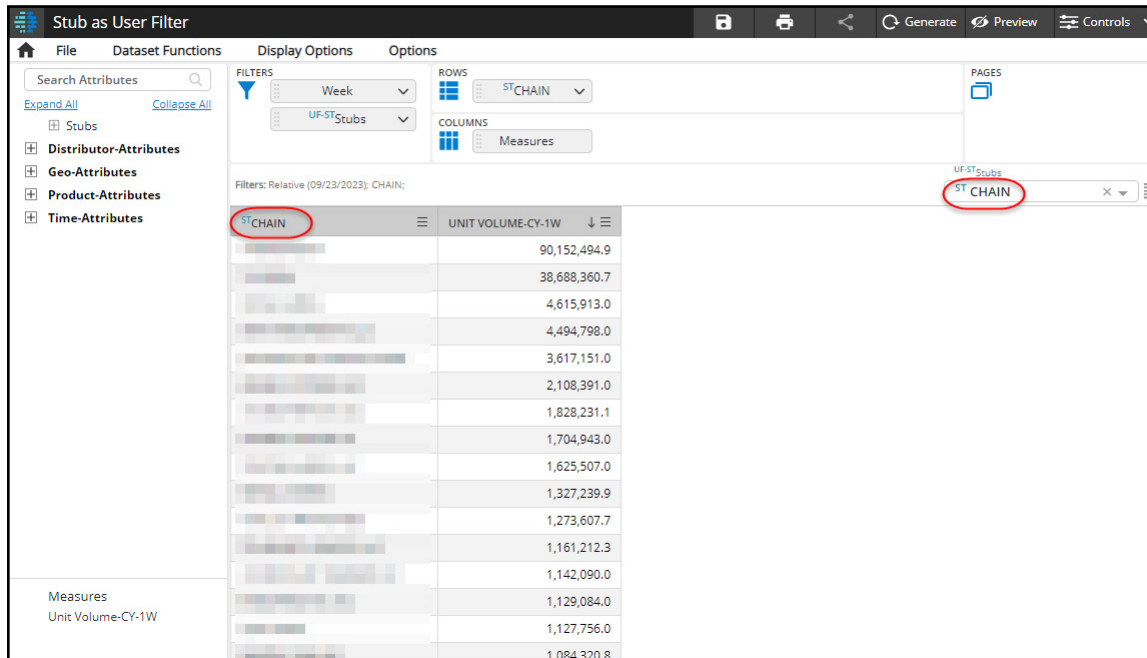
The screenshot shows a dialog box titled "Choose Filters | Stubs" with a close button (X) in the top right corner. It is divided into two main sections:

- ST Stubs Values (8):** A list of available stubs with an "Advanced Search" field and a "Select All" link. The list includes:
  - GSTChain List - by State global
  - GSTChains - AZ
  - GSTChains - PA
  - STCategory (Test Stub)
  - STCHAIN
  - STDist HQ-Chain-Mfr
  - STDISTRIBUTOR.HQ
  - STMFR
- Selected Values (3):** A list of selected stubs with a "Clear All" link. The list includes:
  - STCHAIN
  - STDISTRIBUTOR.HQ
  - STMFR

Navigation arrows (>, <, >>, <<) are positioned between the two lists. An "Exclude" checkbox is located below the "Selected Values" list. At the bottom, there are "Cancel", "Clear", and "DONE" buttons.

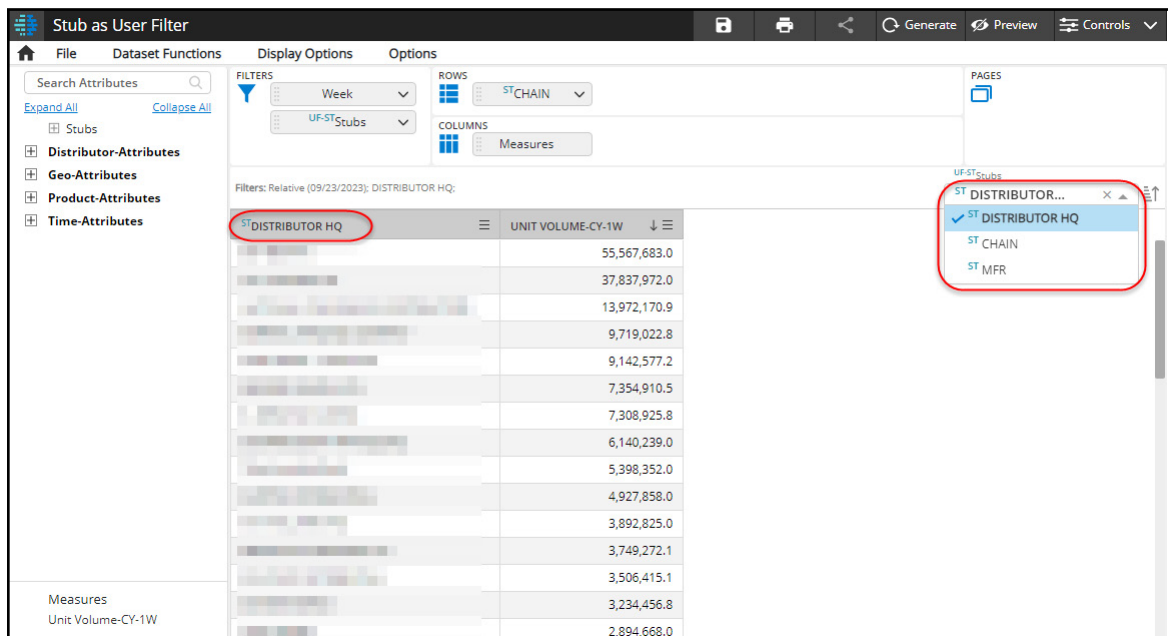
Step 12: Click **Done**. A User Filter selection box will appear in the top right of the report. Notice that only the three Stubs we selected are shown in this list.

Step 13: Select **CHAIN** in the User Filter dropdown. Then click **Generate**.



Step 14: In the Stub User Filter dropdown, select **DISTRIBUTOR HQ**. Then click **Generate**.

- Now the values for CHAIN are swapped out for those of DISTRIBUTOR HQ.



## Copy, Editing Names, and Deleting Stubs

Users can make a copy of a Stub, edit a Stub name, or delete a saved Stub by using the following procedure:

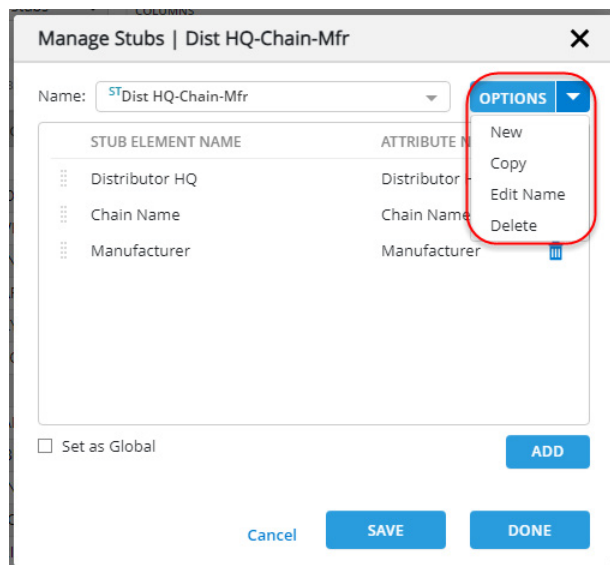
Step 1: Select the desired **Stub attribute** in the attribute panel OR click on the Stubs drop down menu.

Step 2: Click the down arrow and select the **Manage Stub** option.

Step 3: Select the appropriate Stub name from the name dropdown list.

Step 4: Click the **Options** dropdown menu and select the **Copy**, **Edit Name**, or **Delete** option.

**Note:** These options will vary if the user is not the owner of a Stub.



## Stacks vs Stubs Review

Though Stacked hierarchies and Stubs are similar in that both can be used to combine multiple attributes, there are a few key differences. One main difference is that Stubs are reusable and can be made Global to share with other users. Furthermore, Stubs are treated as objects in terms of usability on reports--rows, columns, and pages. Also, Stubs can be used in User Filters, whereas a stacked hierarchy cannot.

### Limitations of Stubs

- Similar to Stacks by default, Stubs can only contain a maximum of 4 objects (attributes, groups, lists).
- A report has the limit of one Stub to be used in rows, columns, or pages.
- A report can have up to:
  - o 4 Stacks OR
  - o 3 Stacks + 1 Stub

# Manage Lists

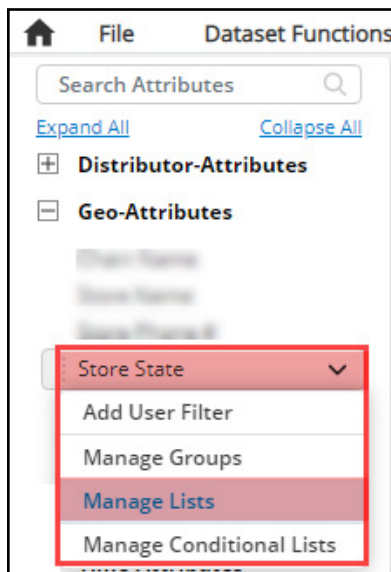
A List is a preset of values within an attribute that can be used as a Filter. Users can manually select, dynamically filter, or import a file with a list of items. Under the Manage Lists option, you can perform the following tasks:

## Create List

Users can select multiple items in an attribute and create a List. For example, for the Store State attribute, you may create a list of your favorite states, such as Arizona, California, and Florida and use it as a report Filter. The same example is demonstrated below:

Step 1: On the **Create Report** screen, select the desired attribute (for example, **Store State** in the **Geo Attributes** section) in the attribute panel.

Step 2: Click the down arrow and select the **Manage Lists** option.



Step 3: Enter an appropriate List Name (for example, "Tri State Area") in the **Enter New List Name** dialog box and click **Done**.



Step 4: Select the desired items (for example, **AZ**, **CA** and **FL**) from the left side of the **Selection Panel** and click the right-pointing arrow to move them to the right side of the panel.

**Note:** Press the **Shift** key to select multiple adjacent items in an attribute, while press the **Ctrl** key to select multiple non-adjacent items in the attribute. Use the left-pointing arrow to remove selections from the list. Select the **Exclude** checkbox to include all but the selected item(s).

Step 5: Click **Save**. The system will display the message **List created successfully**.

Step 6: Click **Done**.

While generating a new report, users can use this list in filters, rows, or columns as needed as demonstrated further.

Step 7: On the **Create Report** screen, drag the list attribute from the left panel onto the **Filter** area.

Step 8: In the **Apply Filters** dialog box, choose the desired list (for example, Tri State Area) from the **Select List** dropdown box and click **Done**.



Step 9: Drag the desired attributes onto the **Rows**, **Columns**, and **Pages** as needed and then click the **Generate Report** button.

Running a report with an attribute List (for example, **Tri State Area**) will provide the results for the items that match the selected criteria as shown in the below screenshot.

SUBCATEGORY	UNIT VOLUME-CY-1W		
	AZ	CA	FL
Store Use/Supply-All Other	30,452.0	55,196.0	642,044.0
Store Use/Supply-Bags	29,306.0	29,325.0	552,807.0
Store Use/Supply-Papers	16,483.0	1,321.0	91,171.0
Store Use/Supply-Cleaning Supplies	16,423.0	61,503.0	102,048.0
Store Use/Supply-Lids	12,240.0	17,813.0	403,152.0
Store Use/Supply-Cups	12,065.0	26,486.0	544,557.0
Foodservice-Hot Dogs/Roller Grill	5,309.0	8,010.0	136,583.0
Foodservice-Condiments	4,452.0	27,761.0	183,385.0
Other Tobacco Products-Smokeless	3,900.0	16,518.0	154,546.0
Other Tobacco Products-Pipes	3,740.0	4,400.0	27,567.0
Candy-Chocolate Bars/Packs	2,948.0	26,087.0	236,469.0
Foodservice-Sandwiches/Wraps - IW and RTE	2,930.0	7,647.0	64,617.0
Other Tobacco Products-Cigars	2,927.0	12,713.0	600,899.0
Candy-Non-chocolate Bars/Packs	2,900.0	13,519.0	123,028.0

## Import List

Instead of creating a list, you can also import a list into Dhiva by using a template. An example to import a list of your favorite Store States is demonstrated below:

Step 1: On the **Create Report** screen, select the desired attribute (for example, **Store State** in the **Geo Attributes** section) in the attribute panel.

Step 2: Click the down arrow and select the **Manage Lists** option.

Step 3: Enter an appropriate List Name (for example, Favorite States) in the **Enter New List Name** dialog box and click **Done**.

Step 4: In the **Manage List** dialog box, select the **Import** option.

Step 5: Select the **By Using ID** or **By Using Name** options from the template dropdown menu depending on how you would like to enter values into the template.

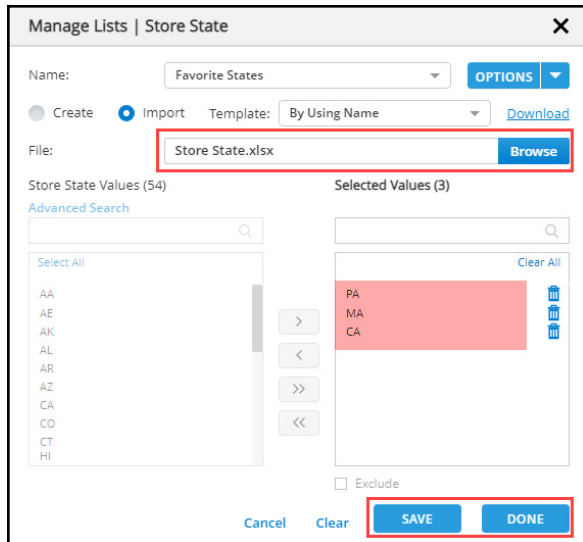
Step 6: Click the **Download** link to download the corresponding template. In this example, users should download the **Store State.xlsx** file onto their desktop.

Step 7: Open the file and click the **Enable Editing** button to enter the relevant data (for example, frequently visited store states) in the desired column.

	A	B	C	D	E	F	G	H	I	J
1	storestate_desc									
2	PA									
3	MA									
4	CA									
5										

Step 8: Once done, save the import file in Excel and close the file.

Step 9: In the **Manage List** dialog box, click the **Browse** button to navigate to the import file location and click the **Open** button to load the file.



Step 10: Click the **Save** button to save the list.

Step 11: Click the **Done** button to close the **Manage Lists** dialog box.

While generating a report using the list you just created, choose the appropriate List Name from the **Apply Filter** dialog box as mentioned in the “Create a List” procedure steps 7 to 9.

Running a report with an attribute List (for example, Favorite Area) will provide the results for the items that match the selected criteria as shown in the screenshot below.

		UNIT VOLUME-CY-1W		
HARD DRINKS		CA	MA	PA
All Others		573,838.9	3,374,261.4	11,748,966.8
Wine&Beverages		30.0	348.0	2,123.0
Liquor&Beer		1.0	431.0	114.0

## Dynamic List

Dynamic Lists allows users to save and apply criteria defined through the advanced search features in the manage lists window to create dynamic lists which will update when data is refreshed.

Step 1: On the **Create Report** screen, select the desired attribute (for example, **Store ID** in the **Geo Attributes** section) in the attribute panel.

Step 2: Click the down arrow and select the **Manage List** option.

Step 3: Create a new list and enter an appropriate **List Name** (for example, "Stores in my chain").

Step 4: In the **Manage List** dialogue box, select the **Advanced Search** option.

Step 5: Select the desired Attribute to filter (for example, **Chain Name**) and select the desired **Chain Name**. This will filter Store IDs down to the selected Chain.

Step 6: Select **Save and Apply Criteria** then click **Done**. This will create a dynamic list of the Store IDs in the selected Chain, which will update each time the data is refreshed.

The screenshot shows the 'Advanced Search' dialog box with the following elements:

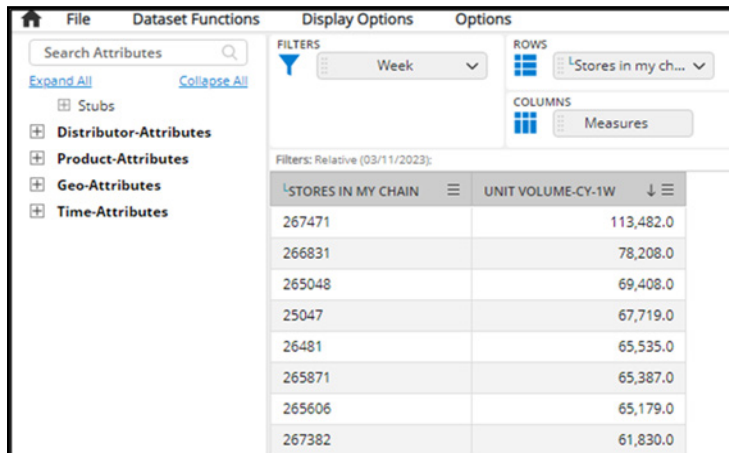
- Buttons: **Filters** (selected), **Wild Card**
- Toggle: **Show Filtered Attributes** (off)
- Search: **Search Attributes** (input field)
- Attributes:
  - Bill to ID: Select Bill to ID
  - Bill to Name: Select Bill to Name
  - Chain Name: [Selected Chain Name]** (highlighted in red)
  - Class of Trade: Select Class of Trade
  - Distributor Sales Rep: Select Distributor Sales Rep
  - Ship to ID: Select Ship to ID
  - Ship to Name: Select Ship to Name
- Toggle: **Save And Apply Criteria** (on, highlighted in red)
- Buttons: **Cancel**, **Clear**, **DONE**

Step 7: Users can now use Lists and Conditional Lists as attributes on a report. Drag the list that was just created on Store ID onto rows.

The screenshot shows a report configuration interface with the following elements:

- Menu: **File**, **Dataset Functions**, **Display Options**, **Options**
- Search: **Stores** (input field)
- Buttons: **Expand All**, **Collapse All**
- Attributes:
  - Geo-Attributes**
    - Store ID
    - Stores in my chain** (highlighted in red)
    - Store Name
    - Store State
- FILTERS: **Week** (dropdown)
- ROWS: **Stores in my ch...** (dropdown, highlighted with a red dashed arrow)
- COLUMNS: **Measures** (input field)
- Filters: **Relative (03/11/2023)**

Generating the report with the newly created list on rows will output a list of Store IDs that will dynamically update as data is refreshed, if a new store is added, or an existing store is removed from the chain.



STORES IN MY CHAIN	UNIT VOLUME-CY-1W
267471	113,482.0
266831	78,208.0
265048	69,408.0
25047	67,719.0
26481	65,535.0
265871	65,387.0
265606	65,179.0
267382	61,830.0

## Copy/Edit/Delete List

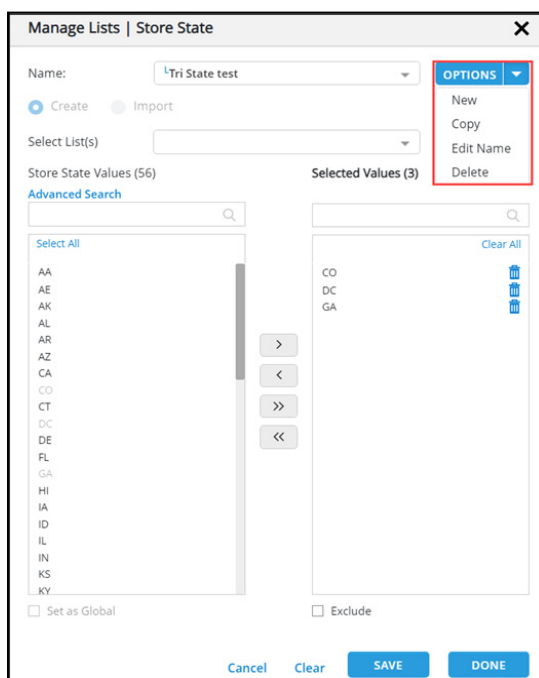
Once you save a List you have created or imported, you will also see the options to copy, edit name, and delete a list. These options are available for any saved Lists. The procedure is mentioned below:

Step 1: Select the desired attribute in the attribute panel.

Step 2: Click the down arrow and select the **Manage Lists** option.

Step 3: In the **Manage Lists** dialog box, select the appropriate List Name from the dropdown list.

Step 4: Click the **Options** dropdown menu and select the **Copy**, **Edit Name** or **Delete** option to perform the corresponding actions.



Manage Lists | Store State

Name: Tri State test

Options: New, Copy, Edit Name, Delete

Create (selected) Import

Select List(s):

Store State Values (56)

Advanced Search

Select All

AA  
AE  
AK  
AL  
AR  
AZ  
CA  
CO  
CT  
DC  
DE  
FL  
GA  
HI  
IA  
ID  
IL  
IN  
KS  
KY

Selected Values (3)

CO  
DC  
GA

Exclude

Cancel Clear SAVE DONE

# Manage Conditional Lists

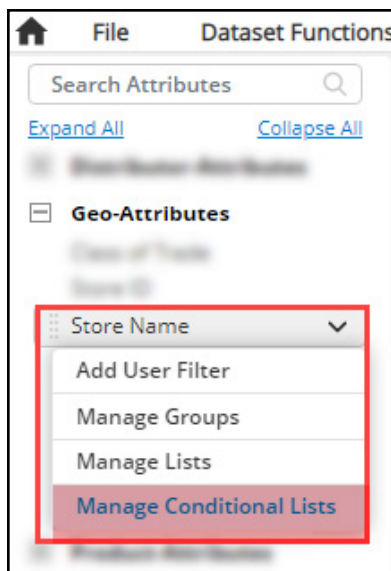
A Conditional List is a dynamic list of attribute items that meet the criteria of the expression statement(s). It is similar to an IF THEN statement in programming languages. The list of items included in a Conditional List is updated with each data refresh.

## Create Conditional List

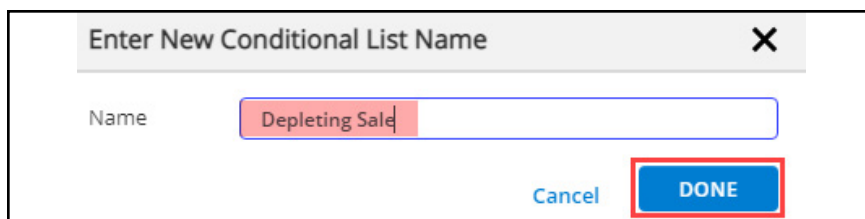
For a Conditional List, first users create a list and then specify conditions. When a Conditional List is selected, the system generates a report with the data fulfilling the condition(s). For example, you may wish to generate a store names report where the sale of a particular product is declining. The same example is demonstrated below:

Step 1: On the **Create Report** screen, select the desired attribute (for example, **Store Name** in the **Geo Attributes** section) in the attribute panel.

Step 2: Click the down arrow and select the **Manage Conditional Lists** option.



Step 3: Enter an appropriate name (for example, "Depleting Sale") in the **Enter New Conditional List Name** dialog box and click **Done**.



Step 4: In the **Manage Conditional Lists** dialog box, click the **Apply Filters** link.

Manage Conditional Lists | Store Name

Name: Depleting Sale

OPTIONS EXPRESSION GENERATE

FILTERS SELECTION MEASURE SELECTION OPERATOR COMPARE TO VALUE AND/OR

Apply Filters Choose Metric = Value 0

Cancel SAVE DONE

Step 5: In the **Select Filter Values To Apply** dialog box, select the desired attribute (for example, **Category**) from the dropdown menu.

Step 6: Optional - You may use the textbox to search for the desired item by text string or use the **Advanced Search** to limit the available list based on attribute values. (For example, **Salty Snacks**).

Select Filter Values To Apply

Select Attribute Category

Category Values (31) Selected Values (1)

Advanced Search

Select All

Salty Snacks

Category= Salty Snacks;

Cancel Reset DONE

Step 7: Select the desired item (for example, **Salty Snacks**) from the left side of the **Selection Panel** and click the right-pointing arrow to move it to the right side of the panel.

**Note:** Press the **Shift** key to select multiple adjacent items in an attribute, while press the **Ctrl** key to select multiple non-adjacent items in the attribute.

Step 8: Select another attribute (for example, **Week**) from the **Select Attribute** dropdown box.



Step 9: Select and add the desired item (for example, **Current Relative Week**) to the right side of the panel as shown below:

**Note:** Select the **Relative** checkbox in order to select the current relative week.

Step 10: Click **Done**.

Step 11: In the **Manage Conditional List** dialog box, click the **Choose Metric** link to define measures.

Step 12: Select the appropriate option (for example, **Unit Volume**) from the **Metric** dropdown list.

Step 13: Select the appropriate values (for example, **CY** and **13W**) from the **Versus** and **Duration** dropdown lists respectively, then click **Done**.

METRIC	NAME	VERSUS	DURATION
Unit Volume	Unit Volume-CY-13W	CY	13W

Step 14: Select **<** from the **Operator** dropdown list.

Step 15: In the **Compare To** dropdown list, select **Condition**. This will create the second condition.

FILTERS SELECTION	MEASURE SELECTION	OPERATOR	COMPARE TO	VALUE	AND/OR
Category->(Salty Snacks)Week->(...	Unit Volume-CY-13W	<	Condition		

Step 16: Click the **Apply Filters** link.

Step 17: Repeat steps 5, 6, and 7 to select **Salty Snacks** as a **Category**.

Step 18: Repeat steps 8, 9, and 10 to add **Week** attribute.

Step 19: Click the **Choose Metric** link to define the measure for the second clause.

Step 20: In the **Define Measures** dialog box, click the plus sign to duplicate the first measure.

Step 21: On the second measure, select appropriate values (for example, **PY** and **13W**) from the **Versus** and **Duration** dropdown lists respectively, then click **Done**.

METRIC	NAME	VERSUS	DURATION
Unit Volume	Unit Volume-CY-13W	CY	13W
Unit Volume	Unit Volume-PY-13W	PY	13W

Step 22: On the **Manage Conditional Lists** dialog box, click the **Expression** button to review the conditional expression.

FILTERS SELECTION	MEASURE SELECTION	OPERATOR	COMPARE TO	VALUE	AND/OR
<input type="checkbox"/> Category->(Salty Snacks),Week->(...	Unit Volume-CY-13W	<	Condition		
<input type="checkbox"/> Category->(Salty Snacks),Week->(...	Unit Volume-PY-13W				

Condition: ((Unit Volume-CY-13W) Filters: (Salty Snacks, 05/28/2022) < (Unit Volume-PY-13W) Filters: (Salty Snacks, 05/28/2022))

Step 23: Click **Done** to return to the **Manage Conditional Lists** dialog box.

Step 24: Click **Save** to save the conditional list, then click **Done** to close the dialog box.

System will send a message, "Conditional List saved successfully."

## Add Conditional List to Report

On the **New Report Template** screen, there will be some default attributes appearing in the **Filters** and **Columns** area such as **Relative Week** in **Filters** and **Measures** in **Columns**. Users may add more attributes to generate a desired report. For example, you can generate a report to get the store names where the sale of salty snacks is declining for 13 weeks in the current year as compared to sales in the previous year for the same period (13 weeks). In this example, users will add attributes such as **Category**, **Store Names**, **Conditional List**, and **Measures** to the Filters, Rows, and Columns areas as demonstrated below:

Step 1: Drag the **Category** attribute from the left panel to the **Filters** area and select **Salty Snacks** from the list.

Step 2: Drag the **Store Name** attribute to the **Filters** area and select "**Depleting Sales**" from the **Select List** dropdown menu.

Step 3: Add the **Store Name** attribute in the **Rows** area.

Step 4: Click **Measures** to add the second measure and select the desired **Versus** and **Duration** (for example, **PY** and **13W**), then click **Done**.

METRIC	NAME	VERSUS	DURATION
<input type="checkbox"/> Unit Volume	Unit Volume-CY-13W	CY	13W
<input checked="" type="checkbox"/> Unit Volume	Unit Volume-PY-13W	PY	13W

Step 5: Click the **Generate Report** button.

The report will reflect the names of the stores where the sale of salty snacks is dropping in the current year compared to the previous year.

Filters: 05/28/2022: Salty Snacks; Depleting Sales:

STORE NAME	UNIT VOLUME-CY-13W	UNIT VOLUME-PY-13W
	121,181.0	214,683.0
	100,612.0	138,209.0
	77,896.0	126,745.0
	76,820.0	106,767.0
	71,999.0	81,028.0
	71,047.0	91,246.0
	62,601.0	91,752.0
	62,150.0	81,559.0
	53,333.0	74,210.0
	47,745.0	60,379.0
	47,709.0	66,331.0

## Copy/Edit/Delete Conditional List

Users can make a copy of a Conditional List, edit a Conditional List name or delete a saved Conditional List by following the procedure mentioned below:

Step 1: Select the desired attribute in the attribute panel.

Step 2: Click the down arrow and select the **Manage Conditional Lists** option.

Step 3: Select the appropriate List name from the dropdown list.

Step 4: Click the **Options** dropdown menu and select the **Copy**, **Edit Name**, or **Delete** option.

Manage Conditional Lists | Store Name

Name: Depleting Sale

OPTIONS

- New
- Copy
- Edit Name
- Delete

EXPRESSION GENERATE

FILTERS SELECTION MEASURE SELECTION

Category->(Salty Snacks) Unit Volume

OPERATOR COMPARE TO VALUE AND/OR

> Value 100


Cancel SAVE DONE

## Grouping within a Conditional List

Within a Conditional List, users have the option to include multiple expression statements connected by either **AND** or **OR** operators. Evaluation of the statements follows the standard rules for order of operations.

When a Conditional List contains 3 or more statements, it is recommended to apply grouping to ensure expected results. Grouping places parentheses around statements while compiling the query, resulting in that group of statements being evaluated first. When multiple groupings are present, they are evaluated from the innermost grouping and then expands outward to the outermost grouping.

Note: Grouping is not necessary when all statements are joined by the same logical conjunction (such as all “AND”s or all “OR”s), as the order of operations does not impact the results in such instances. However, when using a combination of logical conjunctions, grouping is recommended.

In order to create a group of statements, users need to select the checkbox next to the statements they want to be included in the group. When the checkboxes are checked for 2 or more consecutive statements, the Group icon (  ) will be enabled, allowing users to group the statements.

As shown in the screenshot below, if a grouping needs to be undone, users can ungroup the statements by clicking the **Group** icon for the relevant grouping.



### Create the Multi-Statement Conditional List with Grouping

When a Conditional List is selected, the system generates a report with the data fulfilling the condition(s). For example, a user might want to produce a report listing stores that are selling products from their manufacturer within both Category A and Category B. However, consider that they want to identify stores that haven't sold any items from their top brand families within those categories (Brand B in the Beer category and Brand W in the Wine category) during the past 13 weeks. This example is demonstrated below:

**Note:** We are using the Store Name attribute in the demo database in this example. We recommend using a store number attribute if available, to create a unique list of stores.

Step 1: On the Create Report screen, select the desired attribute (for example, **Store Name** in the **Geo Attributes** section) in the attribute panel.

Step 2: Click the down arrow and select the **Manage Conditional Lists** option.

Step 3: Enter an appropriate name (for example, "Not Selling My Top BFs") in the Enter New Conditional List Name dialog box or select New from the Options dropdown menu and then click Done.

Step 4: Create the required statements in a logical sequence. In order to group statements, they must be consecutive or sequential.

Manage Conditional Lists | Store Name

Name:  **OPTIONS** **EXPRESSION** **GENERATE**

FILTERS SELECTION	MEASURE SELECTION	OPERATOR	COMPARE TO	VALUE	AND/OR
<input type="checkbox"/> Category->(Beer),Relative Week->(06... Stores Selling Item-CY-13W		=	Value	1	AND
<input type="checkbox"/> Category->(Beer),Relative Week->(06... Stores Selling Item-CY-13W		=	Value	0	OR
<input type="checkbox"/> Category->(Wine),Relative Week->(06... Stores Selling Item-CY-13W		=	Value	1	AND
<input type="checkbox"/> Category->(Wine),Relative Week->(06... Stores Selling Item-CY-13W		=	Value	0	

Set as Global

**Cancel** **SAVE** **DONE**

Expression | Not Selling My Top BFs

Condition: (Measure: Stores Selling Item-CY-13W = 1) Filters: (Category: Beer; Relative Week: 06/24/2023; Manufacturer: My Manufacturer )

AND

Condition: (Measure: Stores Selling Item-CY-13W = 0) Filters: (Category: Beer; Relative Week: 06/24/2023; Manufacturer: My Manufacturer ; Brand Family: BF B )

OR

Condition: (Measure: Stores Selling Item-CY-13W = 1) Filters: (Category: Wine; Relative Week: 06/24/2023; Manufacturer: My Manufacturer )

AND

Condition: (Measure: Stores Selling Item-CY-13W = 0) Filters: (Category: Wine; Relative Week: 06/24/2023; Manufacturer: My Manufacturer ; Brand Family: BF W )

**DONE**

Step 5: Once all statements are finished, users can start grouping them as shown below. Notice the Grouping button (📁) is grey until a user selects multiple consecutive statements.

To do this, select the checkboxes next to the first two statements and then click the **Grouping** button located above them. This action will result in the addition of a blue shading beside those statements.

	FILTERS SELECTION	MEASURE SELECTION	OPERATOR	COMPARE TO	VALUE	AND/OR
<input checked="" type="checkbox"/>	Category->(Beer),Relative Week->(06...	Stores Selling Item-CY-13W	=	Value	1	AND
<input checked="" type="checkbox"/>	Category->(Beer),Relative Week->(06...	Stores Selling Item-CY-13W	=	Value	0	OR
<input type="checkbox"/>	Category->(Wine),Relative Week->(06...	Stores Selling Item-CY-13W	=	Value	1	AND
<input type="checkbox"/>	Category->(Wine),Relative Week->(06...	Stores Selling Item-CY-13W	=	Value	0	

Step 6: Select the checkbox for the third and fourth statements then click the **Group** button. Blue shading will be added to the left side of the statements and users should see something like this.

Manage Conditional Lists | Store Name

Name:  OPTIONS EXPRESSION GENERATE

	FILTERS SELECTION	MEASURE SELECTION	OPERATOR	COMPARE TO	VALUE	AND/OR
<input type="checkbox"/>	Category->(Beer),Relative Week->(0...	Stores Selling Item-CY-13W	=	Value	1	AND
<input type="checkbox"/>	Category->(Beer),Relative Week->(0...	Stores Selling Item-CY-13W	=	Value	0	OR
<input checked="" type="checkbox"/>	Category->(Wine),Relative Week->(0...	Stores Selling Item-CY-13W	=	Value	1	AND
<input checked="" type="checkbox"/>	Category->(Wine),Relative Week->(0...	Stores Selling Item-CY-13W	=	Value	0	

Set as Global

Cancel SAVE DONE

Dhiva will evaluate the first two statements, followed by the last two, and conclude by combining them using the **OR** operator. We can better visualize this by viewing the **Expression**.

In other words, it reads:

((Statement 1 AND Statement 2  
OR  
(Statement 3 AND Statement 4))

Expression | Not Selling My Top BFs

```

(
  Condition: (Measure: Stores Selling Item-CY-13W = 1) Filters: (Category: Beer; Relative Week: 06/24/2023; Manufacturer: My Manufacturer)
  AND
  Condition: (Measure: Stores Selling Item-CY-13W = 0) Filters: (Category: Beer; Relative Week: 06/24/2023; Manufacturer: My Manufacturer; Brand Family: BF B)
)
OR
(
  Condition: (Measure: Stores Selling Item-CY-13W = 1) Filters: (Category: Wine; Relative Week: 06/24/2023; Manufacturer: My Manufacturer)
  AND
  Condition: (Measure: Stores Selling Item-CY-13W = 0) Filters: (Category: Wine; Relative Week: 06/24/2023; Manufacturer: My Manufacturer; Brand Family: BF W)
)
  
```

My Manufacturer

DONE

Step 7: Click **Save** and **Done**. This Conditional List is now ready to be added to a report.

# Manage Groups

A Group is a virtual attribute that can include a list and/or aggregates of the members of the selected attribute. It is denoted with a "G" pre-fix in the attribute panel.

Under the Manage Groups option, users can perform the following tasks:

- [Create New Group](#)
- [Copy Group, Edit Group Name, Delete Group](#)

## Create New Group

The following are the two scenarios for Group creation:

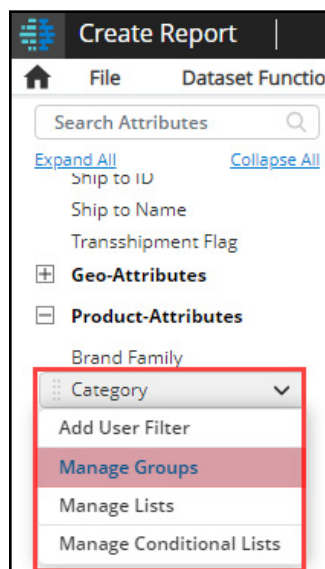
1. [Create Group with No Sub Groups](#)
2. [Create Group with Sub Groups](#)

### Create Group with No Sub Groups

You can place multiple items in an attribute and create a group. For example, in the Category attribute a user may create a group called "Confectionary" and place the items such as Alternate Snacks and Candy under it. This example is demonstrated below:

Step 1: Select the desired attribute (for example, **Category**) in the attribute panel.

Step 2: Click the arrow and select the **Manage Groups** option.





Step 3: Enter an appropriate Group Name (for example, "Confectionary") in the **Enter New Group Name** dialog box and click **Done**.

**Note:** If the selected attribute has saved groups, click the **Options** menu and select the **New** option to display the **Enter New Group Name** dialog box.

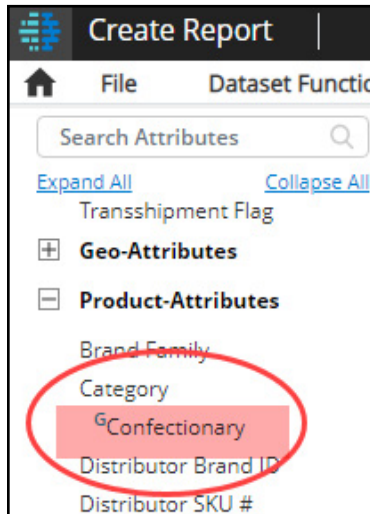
Step 4: Select the desired items (for example, **Alternate Snacks and Candy**) from the left side of the selection panel and click the right-pointing arrow to move them to the right side of the panel.

**Note:** Press the **Shift** key to select multiple adjacent items in an attribute, while press the **Ctrl** key to select multiple non-adjacent items in the attribute. Use the left-pointing arrow to remove selections from the list.

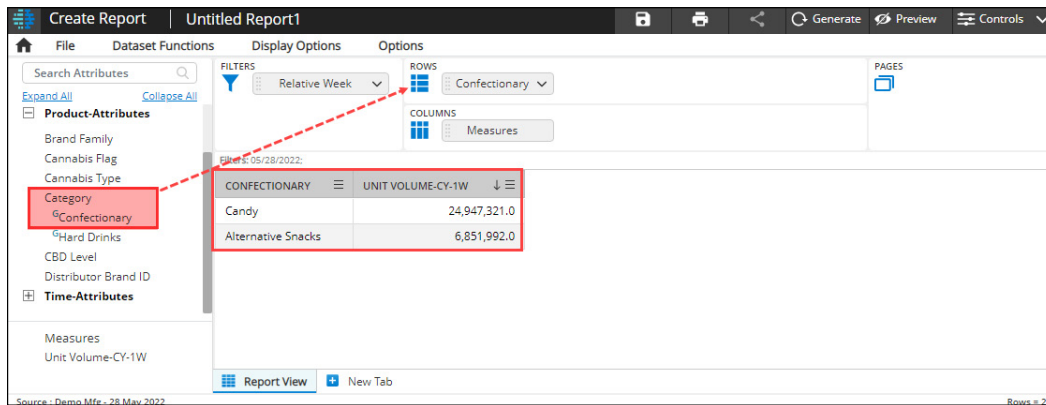
Step 5: Click **Save**. The system displays the message "Group saved successfully."

Step 6: Click **Done**.

Users will find the group denoted with a "G" prefix in the attribute panel as shown in the screenshot.



Running a report with a Grouped variable (for example, **Confectionary**) will provide sum total of each item included in a group as shown in the below screenshot.



## Create Groups with Sub Groups

Users can create multiple sub groups in a group. It is an aggregate of the selected attribute members. For example, the group called "Hard Drinks" can have "Liquor & Beer" and "Wine & Cold Beverages" as sub groups. The same example is demonstrated below:

- Step 1: Select the desired attribute (for example, **Category**) in the attribute panel.
- Step 2: Click the down arrow and select the **Manage Groups** option.
- Step 3: Enter an appropriate Group name (for example, **Hard Drinks**) in the **Enter New Group Name** dialog box and click **Done**.

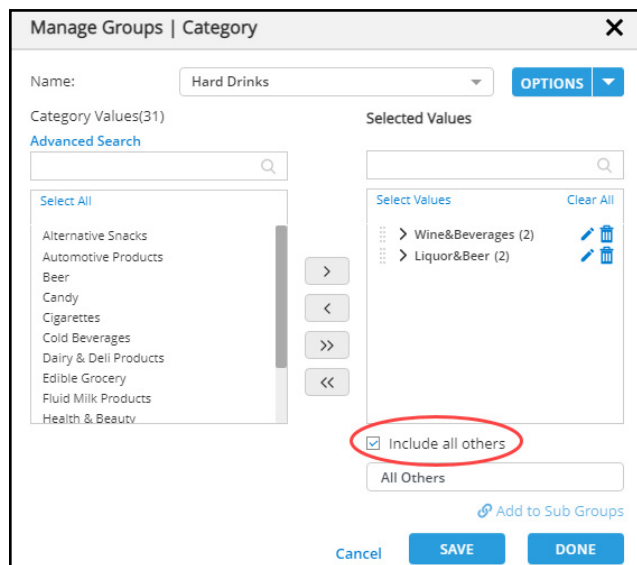
Step 4: Select the desired items from the left side of the selection panel and click the right-pointing arrow to move them to the right side of the panel.

Step 5: To create a sub group within a group, select the desired items from the right side of the panel (for example, **Liquor and Beer**) and click the **Add to Sub Groups** button.

Step 6: Enter the name of the sub group in the **Create Sub Group** dialog box and click **Done**.

Optional: Repeat steps 4 to 6 to create another sub group (for example, "Wine&Beverages") in a similar way.

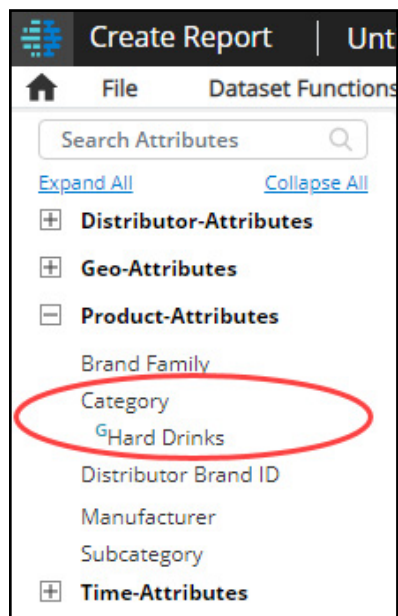
**Note:** You can also create a sub group of the remaining items in the selected attribute by simply selecting the **Include all others** checkbox. It will enable you to compare one sub group against the rest of the items in the attribute. You also have the option to rename this sub-group if desired by clicking and typing in the text field that currently reads "All Others".



Step 7: Click **Save**. The system displays the success message "Groups saved successfully."

Step 8: Click **Done**.

Users will find the group (for example, "Hard Drinks") denoted with a "G" prefix in the attribute panel as shown in the screenshot.



Running a report with a Grouped variable (for example, "Hard Drinks") will provide sum total for each specified sub groups (for example, All Others, Wine&Beverages, Liquor&Beer) separately as shown in the below screenshot.

The screenshot shows a report interface with a table of data. The 'ROWS' section is set to 'Hard Drinks'. The table has two columns: 'HARD DRINKS' and 'UNIT VOLUME-CY-1W'. The data is grouped into three rows: 'All Others' with a value of 216,432,757.4, 'Wine&Beverages' with 115,856.0, and 'Liquor&Beer' with 21,590.0. The 'Options' dropdown is set to 'Report View'.

HARD DRINKS	UNIT VOLUME-CY-1W
All Others	216,432,757.4
Wine&Beverages	115,856.0
Liquor&Beer	21,590.0

## Copy Group/Edit Group Name/Delete Group

Users can make a copy of a Group, edit a Group name, or delete a saved Group by following the below mentioned procedure:

- Step 1: Select the desired **Group attribute** in the attribute panel.
- Step 2: Click the down arrow and select the **Manage Groups** option.
- Step 3: Select the appropriate Group name from the **Name** dropdown list.
- Step 4: Click the **Options** dropdown menu and select the **Copy**, **Edit Name** or **Delete** option.

The 'Manage Groups | Category' dialog box is shown. The 'Name' field is 'Hard Drinks'. The 'Options' dropdown menu is open, showing 'New', 'Copy', 'Edit Name', and 'Delete' options. The 'Selected Values' section shows 'Wine&Beverages (2)' and 'Liquor&Beer (2)'. The 'Include all others' checkbox is checked, and the 'All Others' field is empty. The 'Add to Sub Groups' button is visible at the bottom.

# Manage Dynamic Groups

A Group is a derived attribute created on an existing attribute. It may contain static Lists or Conditional Lists. In addition, it can also be composed of a subset of values or these values may be grouped into subgroups/aggregates. Dynamic groups will be updated with each data refresh, as well as anytime the list/group are resaved.

You can create and manage a dynamic group using two options. When you create a dynamic group, both of these options are selected by default:

- **Link to List** - When selected, it will update the group when the list is updated.
- **Create List Based Subgroups** - When selected, the list(s) will be aggregated as a single value instead of a list of values.

In this Quick Start Guide, you will learn to create dynamic groups pertaining to the following scenarios:

- [Group containing a single list - Aggregate](#)
- [Group containing multiple lists - Aggregates](#)
- [Group containing a single list - List Values](#)

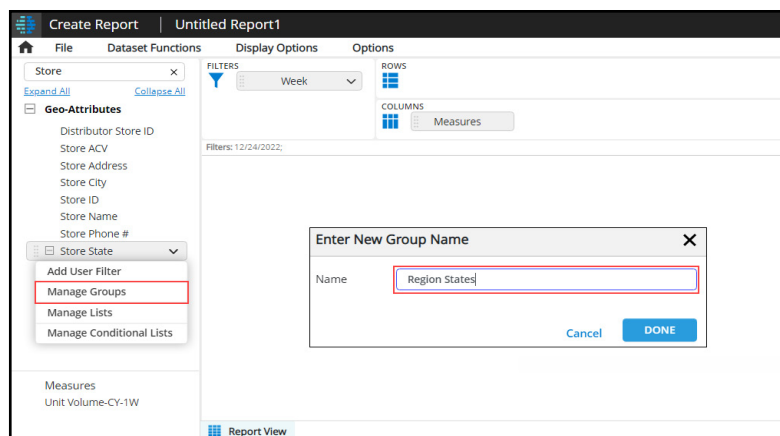
**Note:** List Values are not available for multi-list groups.

## Group Containing a Single List - Aggregate

Step 1: From the **Home Page**, select the desired data domain on the right-hand side of the page to open the **New Report Template** screen.

Step 2: Select a desired attribute in the attribute panel, click on it to select the **Manage Groups** option from the dropdown menu.

Step 3: Enter an appropriate group name in the **Enter New Group Name** dialog box and click **Done**.



In the new group, there will be a section under the group **Name** labeled “Select List(s)”. This area opens a drop-down with all lists created on this attribute if the selected attribute has any. Selecting a list will populate the right panel with all values of that list, as shown below.

Step 4: Select the desired list name from the dropdown menu.

Step 5: Confirm that the **Link to List** and **Create List Based SubGroups** checkboxes are selected. Again, these boxes should be checked by default.

For example, the “West Coast States” created on the right would be an aggregate of all the values of the list titled “West Coast States”.

**Note:** Dynamic groups do not have the option to add an All Others aggregate, so currently, the **Include All Others** checkbox will be greyed out.

Step 6: Click **Save** and then **Done** in the **Manage Groups** window.

Step 7: Drag new group onto Rows in the report grid then, click the **Generate** button.

Step 8: As pictured below, this group yields one dynamic aggregate/subgroup.

REGION STATES	UNIT VOLUME-CY-1W	STORES SELLING ITEM-CY-1W
West Coast States	12,654,807.0	3,306

With **Link to List** selected, the list will be dynamic and will update whenever the related list changes.

If the user unchecks **Link to List**, the list will be static and will not change even if the list is modified. Unselecting **Link to List** can be used as a tool to select all or a subset of the Lists values and/or to create subgroup(s) of all or a subset of values. By unchecking the **Link to List**, the **Include All Others** and **Add to Sub Group** lists will be re-enabled as well.

If more than one list is selected from the drop down, the left panel shows the union of the values of the selected lists.

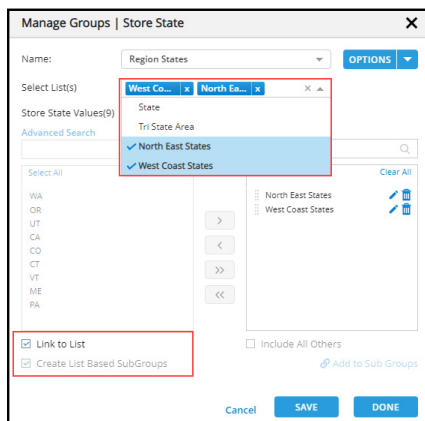
The check box **Create List Based Subgroups** converts each list into a subgroup (aggregate) value. Similarly, the report will output an aggregate for each list in the group.

## Group Containing Multiple Lists - Aggregates

In the example below, a group was created using more than one list. Notice that there are two subgroups in the right panel. When placed in a report, this group yields two subgroups based on the group definition. The values of each list are aggregated and shown in the report.

When more than one list is selected in a group, the **Create List Based Subgroups** option will be selected and greyed out meaning that the user will not be able to change from a dynamic aggregate to a dynamic list of values. This means that List Values are not available for multi-list groups.

**Workaround:** Create one list containing all desired values (i.e. **North East States** and **West Coast States**) as a way to create a group of this type.



FILTERS		ROWS	
Week	Region States		
COLUMNS			
Measures			
Filters: 12/17/2022:			
REGION STATES	UNIT VOLUME-CY-1W	↓	STORES SELLING ITEM-CY-1W
West Coast States	12,676,884.2		3,414
North East States	11,109,742.3		4,612



## Group Containing a Single List - List Values

This last example demonstrates the behavior of not selecting a list-based subgroup in a group containing only one list.

By unchecking the **Create List Based Subgroups** checkbox, the values of the list in the right panel will be listed individually, instead of as an aggregate. The values on the right panel cannot be modified. Again, if **Link to List** is selected, these values will update dynamically as the corresponding lists are modified.

Similar to the example above, see the screenshots below for the behavior when unchecking **Create List Based Subgroups**. Now each value in the **West Coast States** will be displayed separately.

Region States	UNIT VOLUME-CY-1W	STORES SELLING ITEM-CY-1W
WA	7,264,849.7	1,923
OR	4,505,443.7	1,193
CA	517,760.9	172
UT	354,513.9	107
CO	34,316.0	19

Dynamic groups can be used in filters and User filters; they will be treated the same as static groups. If **Create List Based Subgroups** is selected for a group (creating aggregate(s)), the subgroup would be shown as a filter value. For groups with **Create List Based Subgroups** unselected, the user will filter on individual values.

Summary Examples:

Group containing a single list - Aggregate:

REGION STATES	UNIT VOLUME-CY-1W	STORES SELLING ITEM-CY-1W
West Coast States	12,654,807.0	3,306

List Values:

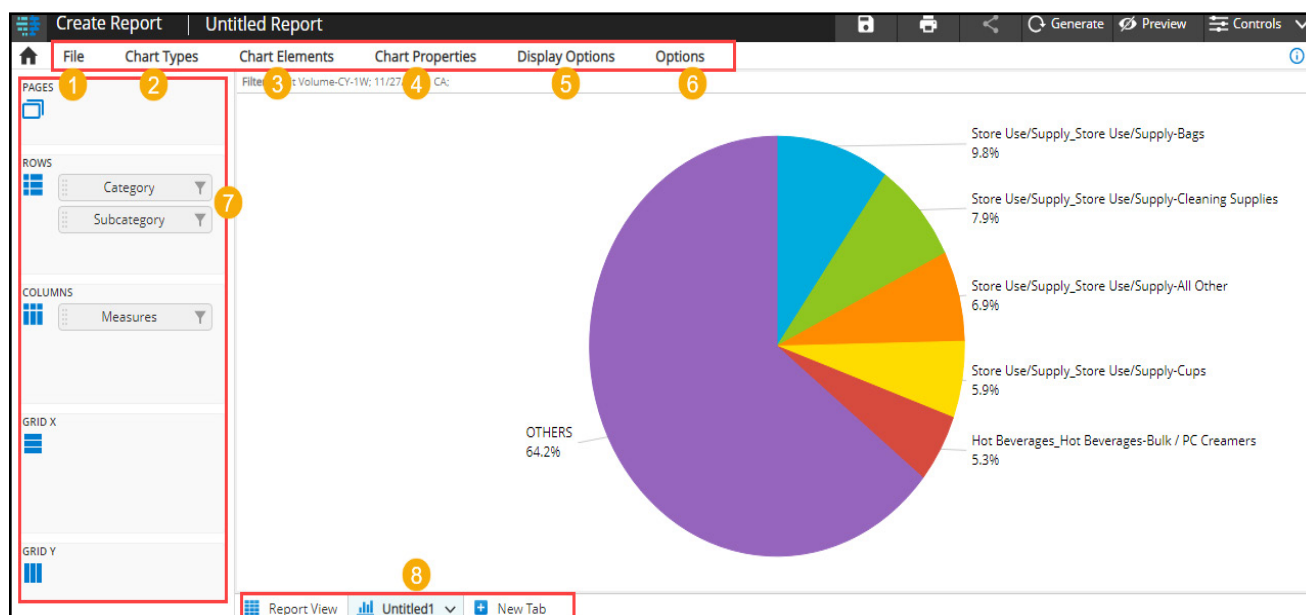
REGION STATES	UNIT VOLUME-CY-1W	STORES SELLING ITEM-CY-1W
WA	7,264,849.7	1,923
OR	4,505,443.7	1,193
CA	517,760.9	172
UT	354,513.9	107
CO	34,316.0	19

Group containing multiple lists - Aggregates:

REGION STATES	UNIT VOLUME-CY-1W	STORES SELLING ITEM-CY-1W
West Coast States	12,676,884.2	3,414
North East States	11,109,742.3	4,612

**Note:** See the Manage Lists and Manage Groups Quick Start Guides for more information.

# Chart Screen Walkthrough

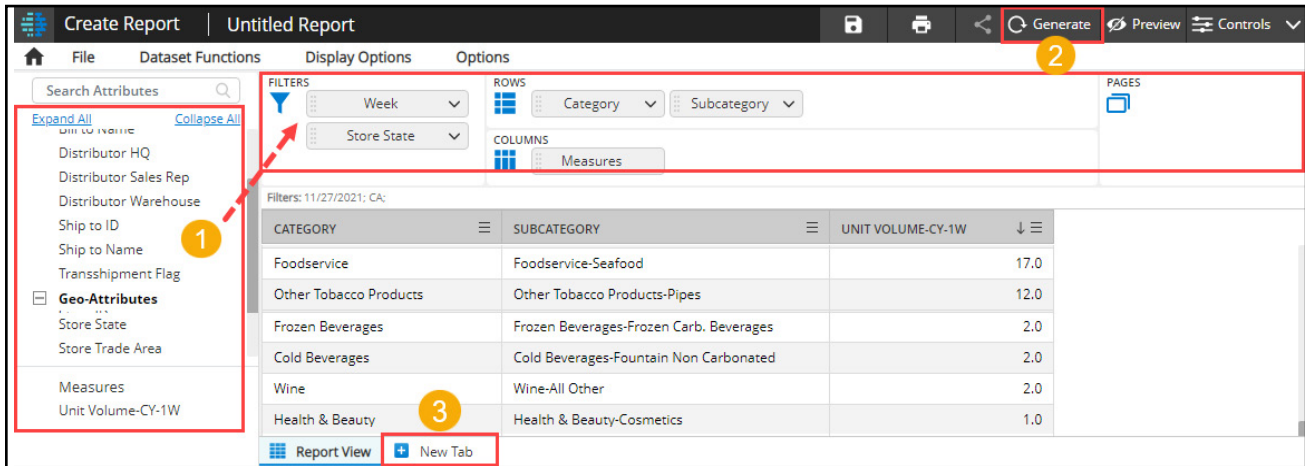


- 1. File** - This menu provides options to save, rename, publish, schedule, and export a chart. Some menu options are available to the asset owner only.
- 2. Chart Types** - This menu provides different types of charts to choose from including bar, column, line, pie, combo, scatter, target, gauge, tree, and so on. Some of them may be grayed out based on the report layout and selections.
- 3. Chart Elements** - Use this menu to specify options common to most chart types such as chart title, hide/show data labels, legends, and background color.
- 4. Chart Properties** - Options inside this menu vary based on chart type and enable customization of the data ranges used in terms of color, line/bar style, and other factors relevant for the type of chart.
- 5. Display Options** - This menu provides options to manage display of report elements in the chart view such as filter and user filter attribute names and selections, footer, report specifications and so on
- 6. Options** - Use this menu option to show/hide data labels, set target values, enable scroll bar and so on.
- 7. Left Panel** - This panel displays the report dimensions used to create the chart. You may move these attributes by interchanging their positions among row, columns, pages, and grid and accordingly, the data representation in the chart changes.
- 8. Tabs at the Bottom** - Click the **Report View** tab to visit/change the data report. Click **New Tab** to add a new chart type to the report. After you add a chart type, you can rename, duplicate or delete it by clicking the down arrow of the tab.

# Create Chart

Step 1: On the **Create Report** screen, drag the desired attributes from the left panel onto the **Row**, **Columns**, **Page**, and **Filters** areas.

Step 2: Click **Generate**.



The screenshot shows the 'Create Report' interface with the following data table:

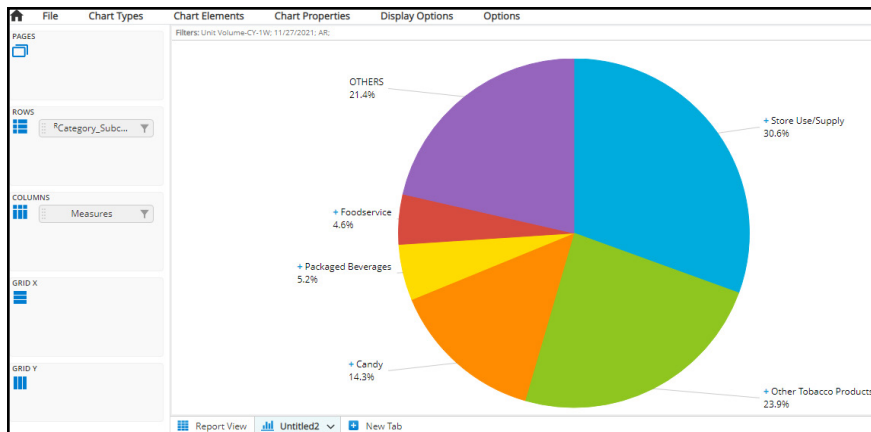
CATEGORY	SUBCATEGORY	UNIT VOLUME-CY-1W
Foodservice	Foodservice-Seafood	17.0
Other Tobacco Products	Other Tobacco Products-Pipes	12.0
Frozen Beverages	Frozen Beverages-Frozen Carb. Beverages	2.0
Cold Beverages	Cold Beverages-Fountain Non Carbonated	2.0
Wine	Wine-All Other	2.0
Health & Beauty	Health & Beauty-Cosmetics	1.0

Annotations in the screenshot: 1 points to the left attribute list; 2 points to the 'Generate' button; 3 points to the 'New Tab' button.

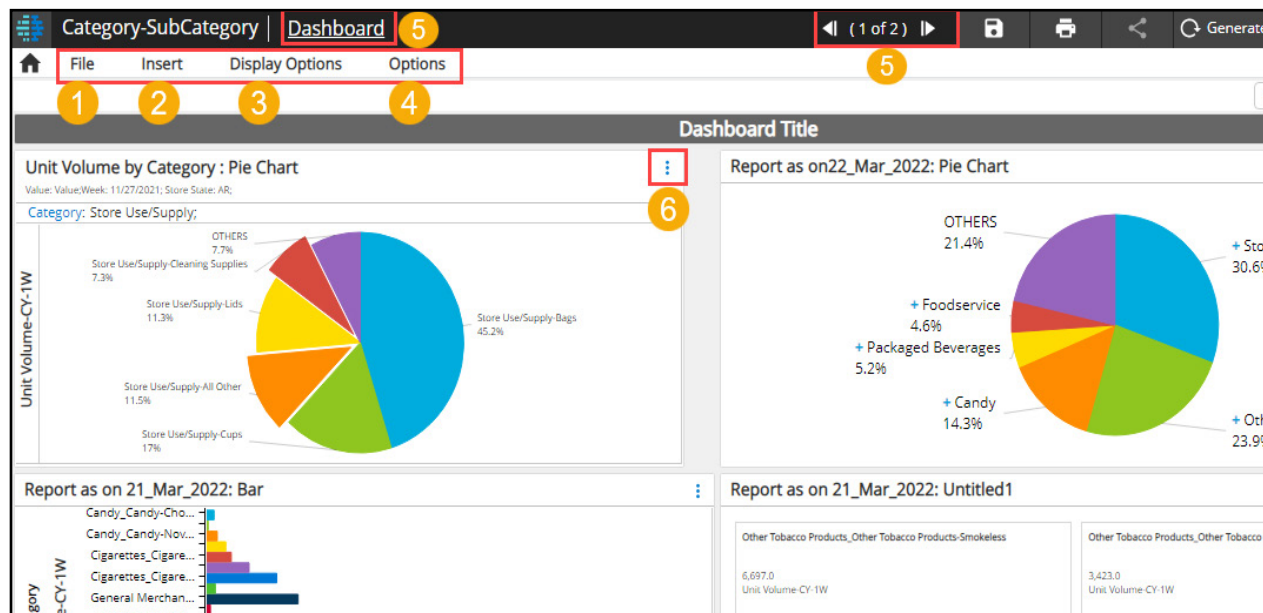
Step 3: After the report is generated, click the **New Tab** placed beside the Report View tab.

Step 4: Select the appropriate **Chart Type** from the menu. Options may be limited based on the data in the report view.

Step 5: The system processes the request and presents the report in the selected chart format.



# Storyboard Screen Walkthrough

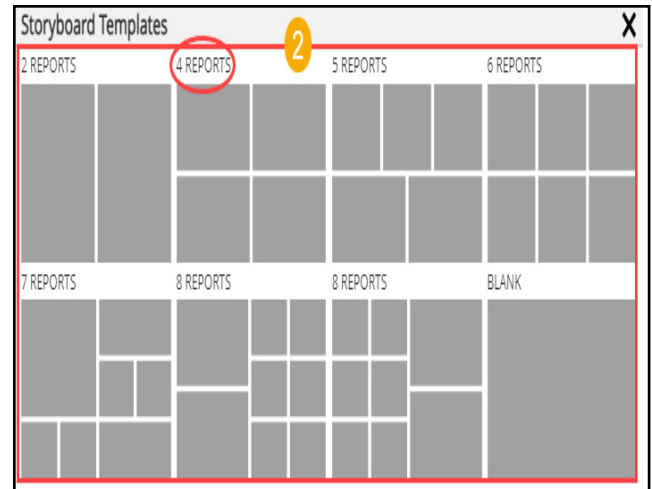
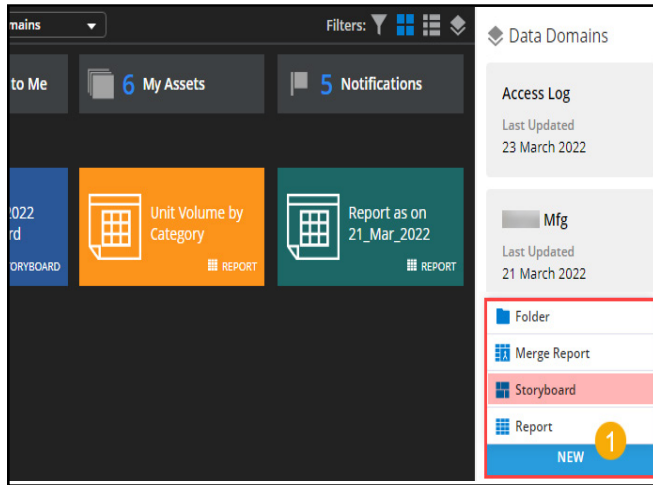


1. **File** - This menu provides options to save, publish, schedule, and export a storyboard. Some menu options are available to the asset owner only.
2. **Insert** - This menu provides options to add a report, static object, Dashboard title, new Dashboard or an existing Dashboard to the Storyboard.
3. **Display Options** - Use this menu to specify the display options with respect to user filters and scroll bar.
4. **Options** - Use this menu to rename Storyboard and/or Dashboards, manage user filters, manage Dashboards, and so on.
5. **Dashboard Navigation** - Click the navigation arrows to walk through multiple Dashboards within a Storyboard. Alternatively, click the Dashboard link to directly navigate to a specific Dashboard in a Storyboard.
6. **Ellipsis** - Click the respective Ellipsis icon to modify the corresponding report widget individually. It enables you to:
  - Open a report widget in full screen to modify.
  - Edit/Format border, title, display filters, display source, and dimensions of a widget.
  - Use the **Change Report** option to replace a report widget with a new report.
  - Specify locks on certain report widgets.
  - Link a report widget to an asset.
  - Link a report widget to an external URL.
  - Delete a report widget.

# Create a Storyboard

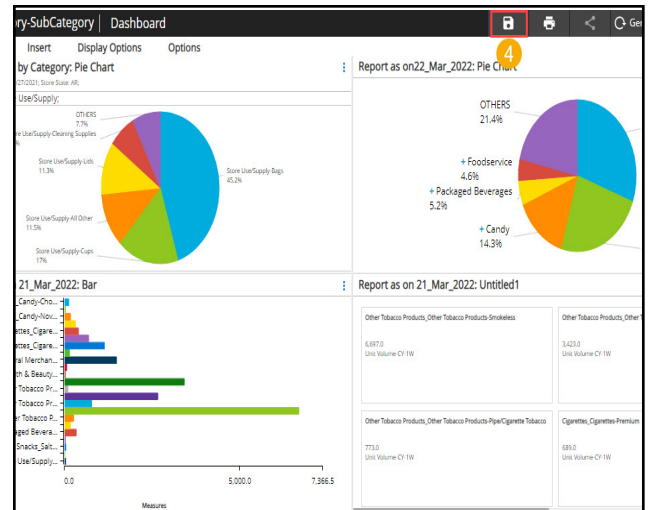
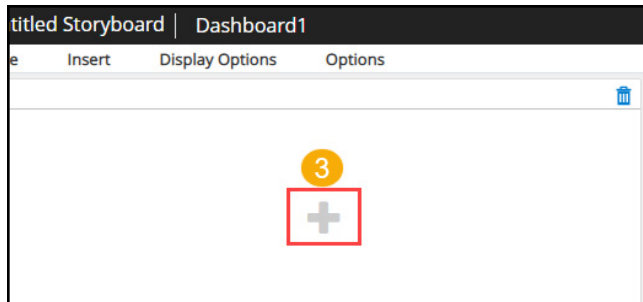
Step 1: On the **Home** screen, click the **New** button and select the **Storyboard** option from the menu.

Step 2: Select the desired **Storyboard template**.



Step 3: Click the *plus* icon to add a desired report into the Dashboard. Repeat the step until you add reports to all the placeholders. Or, if you select a **Blank** template, click the **Insert -> Report** option to add one report at a time.

Step 4: Click **Save**.



# Offline Viewer

## Introduction

The Dhiva Offline Viewer allows users to download Reports to their browser cache and view them in Dhiva regardless of whether they are connected to the internet. The Offline Viewer is available to all Dhiva users, though users licensed as Offline Users will only have access to the Offline Viewer module.

## Key Features of the Offline Viewer Module

With an internet connection:

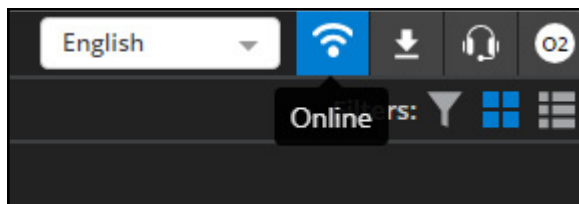
- Download, view, and interact with Reports and Storyboards.
- Change chart types or create temporary charts.
- Export downloaded Reports and Storyboards.
- Download export files scheduled by other users.

Without an internet connection:

- View and interact with Reports and Storyboards that were previously downloaded when connected to the internet.\*

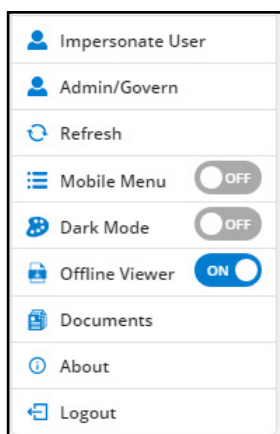
\* Requires use of the same device and browser.

There is an indicator of online/offline status in the application status bar.



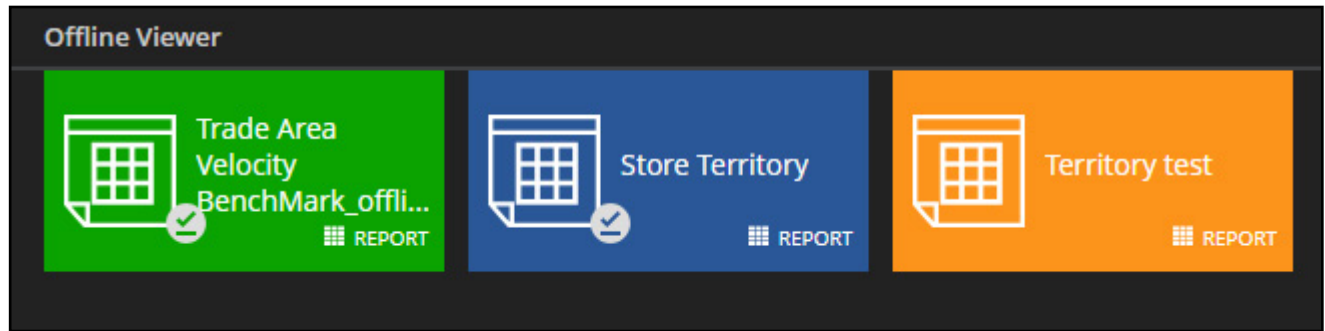
## Accessing the Offline Viewer

Producer and Consumer users can access the Offline Viewer using the menu under their initials in the upper right corner of the page.





Offline Licensed Users (Offline Users) will load the Offline Viewer in Tile View upon logging into Dhiva. This initial screen shows assets that are available to the user. There is text and an icon bottom right corner of the tiles which indicates whether the asset is a Report or a Storyboard. A checkmark on a tile indicates that the asset has been downloaded to the local cache.



The List View provides a more detailed view of the available assets including the data domain, asset owner, presence of a Special Attribute, and last download time. Icons at the right provide the ability to export or download assets, view information, or delete the Report previously downloaded.

Offline Viewer							Filters:	List View
<input type="checkbox"/>	NAME	DOMAIN(S)	SPECIAL ATTRIBUTE	OWNER	TYPE	LAST DOWNLOADED TIME		
<input type="checkbox"/>	Territory test	Sales Metrics		cmmand...	Report			
<input type="checkbox"/>	Store Territory	Sales Metrics		bkrotec...	Report	Nov 22 2023, 10:55 AM		
<input checked="" type="checkbox"/>	Trade Area Velocity BenchMark_offline	Sales Metrics	Store	sbhaya...	Report	Nov 20 2023, 03:36 PM		

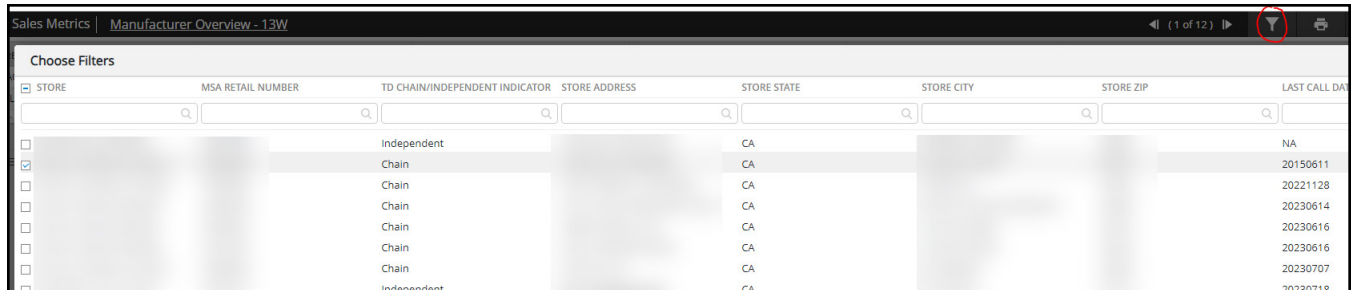
## Downloading Assets

To download a Report or Storyboard, click on the name of the report or the **Download** icon. The assets are downloaded to the local browser cache. Once an asset has been downloaded, it will remain available for use without an internet connection, provided that Dhiva is accessed via the same device and browser used to download the assets and the cache has not been cleared.

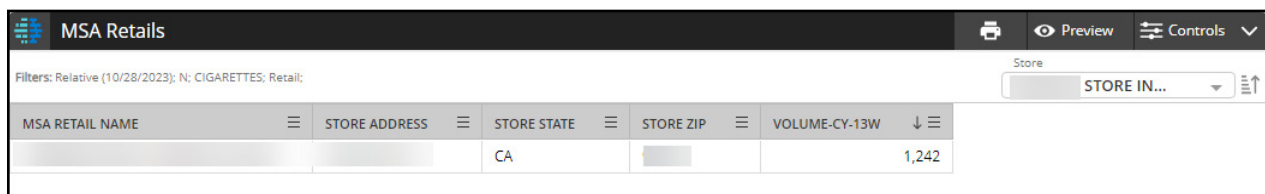
If a Special Attribute is present, an additional screen will prompt users to select members of the Special Attribute to download. Stores acts as a Special Attribute in most scenarios. The search options at the top of each column can be used to filter the list. Up to 10 stores can be selected.

Choose Filters								
<input type="checkbox"/>	STORE	MSA RETAIL NUMBER	TD CHAIN/INDEPENDENT INDICATOR	STORE ADDRESS	STORE STATE	STORE CITY	STORE ZIP	LAST CALL DATE
<input type="checkbox"/>			Chain		CA	PERRIS		20230522
<input type="checkbox"/>			Chain		CA	RANCHO MIRAGE		20230609
<input type="checkbox"/>			Chain		CA	DESERT HOT SPRINGS		20230622
<input type="checkbox"/>			Chain		CA	CHINO		20230726
<input type="checkbox"/>			Independent		CA	FONTANA		20230810
<input type="checkbox"/>			Chain		CA	REDLANDS		20230814
<input type="checkbox"/>			Not a TD Store		CA	REDLANDS		20230814
<input type="checkbox"/>			Independent		CA	FONTANA		20230816
<input type="checkbox"/>			Chain		CA	INDIO		20230831

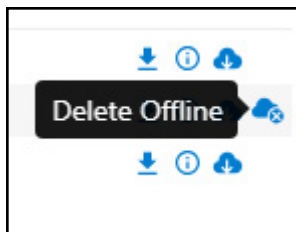
When selecting multiple stores from the download popup window of a Storyboard, use the Funnel icon to select an individual store from those that have been downloaded.



When the Report layout has stores on pages, a dropdown menu in the upper right corner allows users to switch between stores if they have more than one store downloaded.



To delete a downloaded asset from the browser cache, click the **Delete Offline** button in list view.

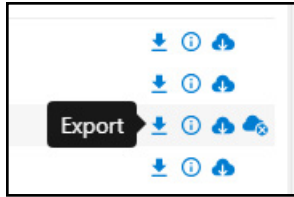


## Exporting Assets

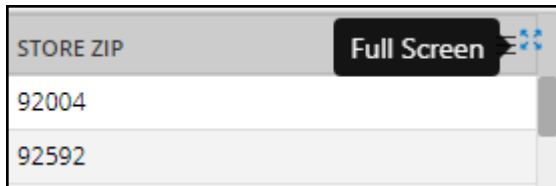
Reports and Storyboards available in Offline Viewer can be exported to other file types. Reports can be exported to Excel, CSV, PDF, or PPT; Storyboards can be exported to PDF or PPT.

There are several methods users have access to in order to export a Report or Storyboard.

- **Right-click** on the asset name in the list view.
- Click on the **Export** icon next to the asset.



- Exit Preview mode, and select **Export** from the File menu.
- If the asset contains a Special Attribute, users will be prompted to select stores to export. This is recommended to avoid failed exports due to file size limitations.
- To export a single Report or chart from a Storyboard, use the full screen icon in the upper right corner of the Report users wish to export, exit preview mode, then choose **Export** from the File menu.

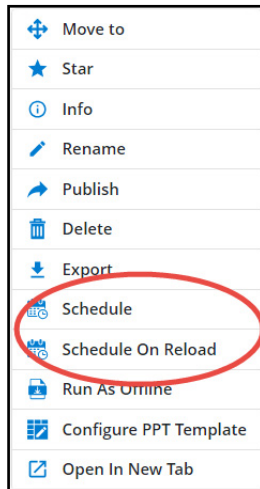


The Download Manager can be used to view the status of assets scheduled for offline use and to download any documents (Excel, PDF, PPT, etc.) scheduled to the account or exported by the user.

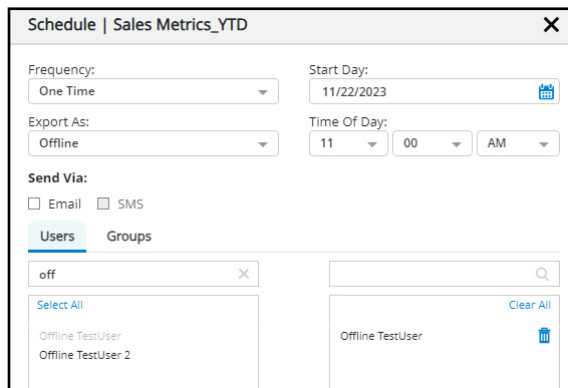
Downloads						
ASSET NAME	TRIGGERED BY U...	EXPORT AS	TRIGGER TYPE	STATUS UPDATED ... ↓	STATUS	
<input type="text"/>	<input type="text"/>	SELECT	SELECT	<input type="text"/>	SELECT	
Sales Metrics_YTD		Offline	Schedule	Nov 22 2023, 10:...	Executing	🔄
Save as from Sai SB		Offline	Schedule	Nov 22 2023, 08:...	Ready	🔄
Manufacturer Overview-store on pages		Offline	Schedule	Nov 21 2023, 10:...	Ready	🔄
Sales Metrics_YTD		PPT	Export	Nov 21 2023, 07:...	Ready	📄

## Enabling Content for the Offline Viewer

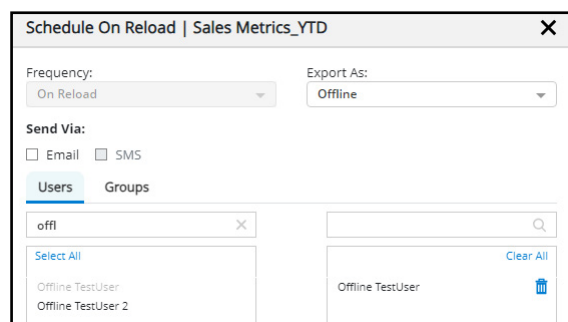
A user must be a Producer user in order to enable a Report or Storyboard for offline use. To enable an asset for offline use, users are able to use either the **Schedule** or **Schedule On Reload** menu option from list view or right click on the asset.



Under the **Schedule** options, choose Export type as **Offline**, then select when and how often the Report will be scheduled to be sent to the Offline Viewer, as well as listing other potential offline recipients.



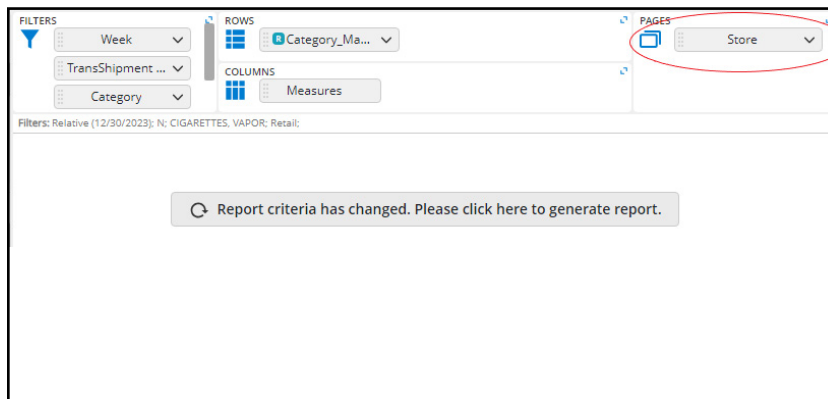
**Note:** To run the Report after each data refresh instead of scheduling it on a set frequency, select **Schedule On Reload**.



## Special Attribute

The Special Attribute is typically a store attribute such as Store Number that has been configured to enable store level reporting. The presence of this attribute on rows, columns, or pages of a Report will prompt the download popup window to appear when a user tries to download an asset with a Special Attribute.

Example of a Report with a **Store Special Attribute** on Pages:



Additional Store Attributes such as Store State, City, Address, Zip, Type, etc, appear in the download screen along with the Special Attribute and can be configured to help narrow the selection of stores available to download.

STORE	MSA RETAIL NUMBER	TD CHAIN/INDEPENDENT INDICATOR	STORE ADDRESS	STORE STATE	STORE CITY	STORE ZIP	LAST CALL DATE
<input type="checkbox"/>		Chain		CA			20230522
<input type="checkbox"/>		Chain		CA			20230609
<input type="checkbox"/>		Chain		CA			20230622
<input type="checkbox"/>		Chain		CA			20230726
<input type="checkbox"/>		Independent		CA			20230810
<input type="checkbox"/>		Chain		CA			20230814
<input type="checkbox"/>		Not a TD Store		CA			20230814

### Notes on Special Attributes:

- The Special Attribute will not prompt the download popup screen to appear when used in a hierarchy.
- A Storyboard may contain Reports with and without the Special Attribute. Only Reports with the Special Attribute will be filtered when the asset is downloaded in the Offline Viewer.
- Consult your MSA client representative for information about using Special attributes in your Dhiva environment.

## Assumptions and Limitations of the Offline Viewer

- User filters will not function in the Offline Viewer. The UF will appear on the Report if enabled but will be grayed out.
- Report links and other links do not work in Offline Mode. The underline that indicates a clickable link will not appear in the Offline Viewer.
- Merged Reports cannot be scheduled for offline use.
- Report data limits apply; Reports with assets exceeding the data limits will fail when scheduled for offline use.
- Offline users cannot refresh Reports on their own. Recommended practice is for the Producer to use the **Schedule On Reload** option so that the latest data is available when using the Offline Viewer.
- Folders are not available in the Offline Viewer.
- If a Special Attribute is present in a hierarchy, it will not prompt the download popup store selection screen to appear.
- Nested, Replacement, and Stacked hierarchies can be used in the Offline Viewer.
- Offline Viewer is not supported on smart phones.
- Offline users can add charts or change chart type while connected to the internet. These changes are temporary and will not be retained after closing the asset or when disconnected from the internet.

