Before you begin: Access Library in the Education sandbox

The Education sandbox is a shared, cloud-based environment to help you learn about and experiment with MicroStrategy Web and Library.

Use the Education sandbox to complete various report and dossier exercises. Complete the steps below to access the sandbox.

Access Library in the Education sandbox

1. In your browser, navigate to **education.microstrategy.com/MicroStrategy/servlet/mstrWeb**.
2. Log in to the sandbox with your **MicroStrategy Account** credentials.

Open the Tutorial project

3. The MicroStrategy landing page opens. Click the **MicroStrategy Tutorial** project.

   The MicroStrategy Tutorial home page opens.

4. Click **Go to MicroStrategy Library**.
5. If prompted, enter your **MicroStrategy Account** credentials, and then click **Log in with Identity**.

   Your Library home page displays.

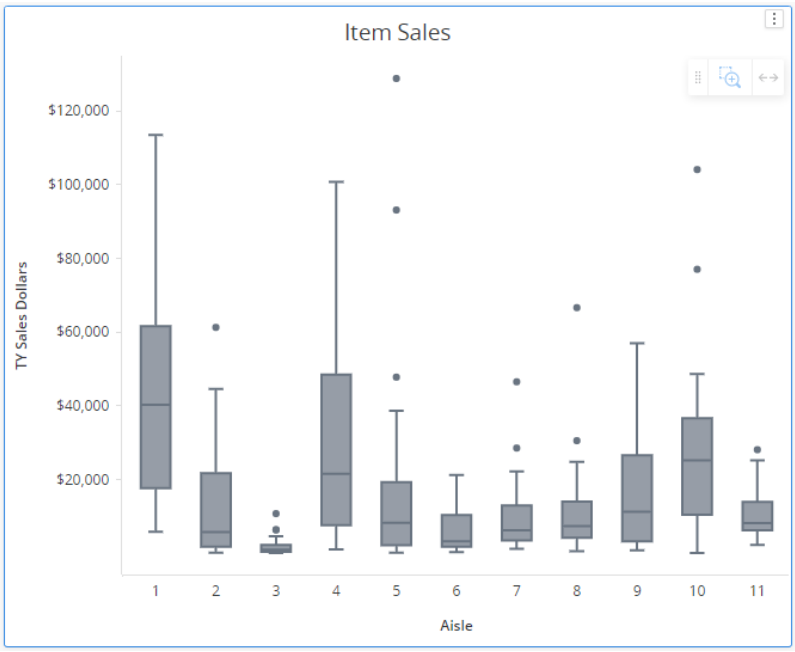
Exercise: Create a box plot

As a store manager, you want to understand how much this year's sales amount varies by item and compare this information across aisles.

Using the box plots to explore the distribution of items' sales across aisles could inform decisions about rearranging items. For example, you might further analyze aisles with high-selling outliers, to see which items the outliers represent. Placing the high-selling items near low-selling items might help increase sales on the low-selling items by drawing customer attention to them.

Create a box plot visualization to complete this distribution analysis. Your completed box visualization looks like the image below.

Sample box plot visualization

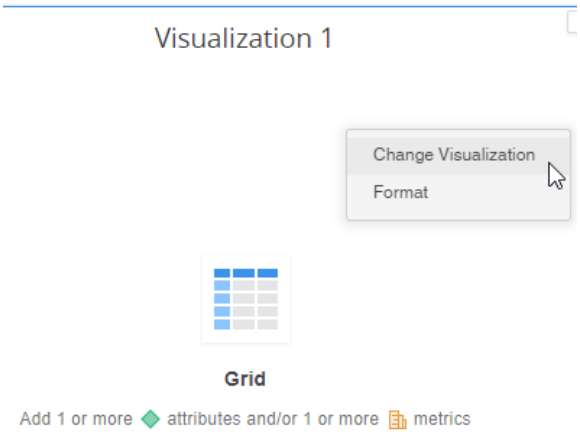


Create a box plot visualization

1. In the Education sandbox Library, open the **Visualization Types** dossier in Edit mode, if not already there. For a reminder on how to do this, see *Exercise: Access Library in the Education sandbox*, and *Exercise: Add the Visualization Types dossier to MicroStrategy Library*.

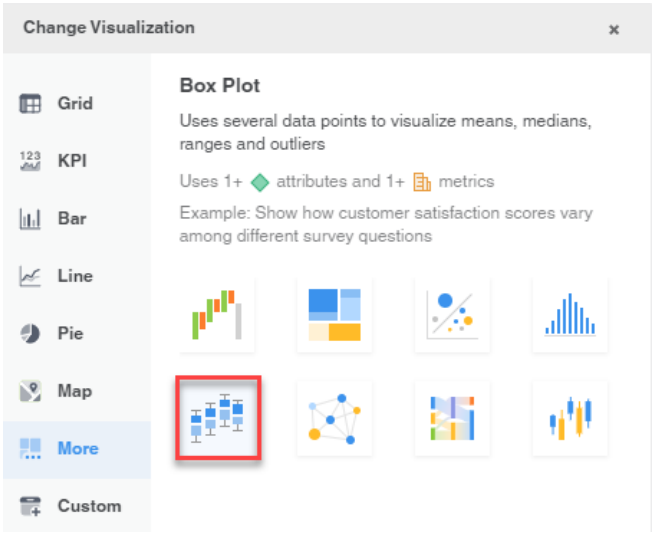
2. In the Contents panel on the left, in the **Data Distribution** chapter, click the **Box Plot** page.

3 By default, a new page displays a blank grid visualization on the canvas. To change the visualization to a box plot, right-click inside the visualization, and select **Change Visualization**.



The Change Visualization window opens, displaying the Visualization Gallery.

4 In the Visualization Gallery, point to **More**, and then click the **Box Plot** icon.



The dossier canvas displays a blank box plot visualization.

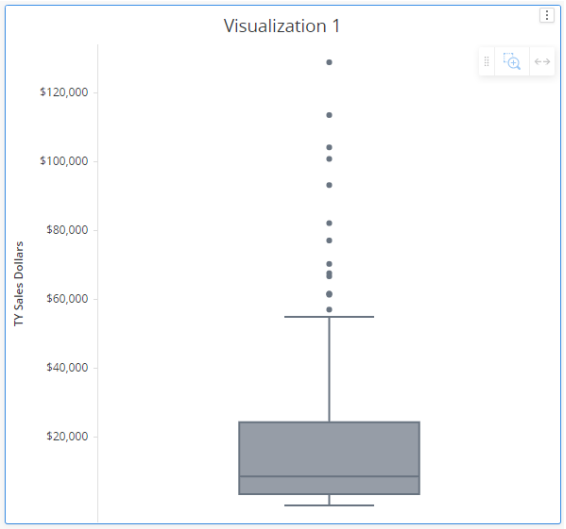
5 The data you need for this analysis is stored in the Store Details dataset. In the Datasets panel, click the arrow icon ▸ to the left of the **Store Details** dataset to expand it, if it isn't already. The dataset's attributes and metrics display.

6 To focus on the objects in the Store Details dataset rather than the other datasets, collapse any other datasets that are expanded by clicking the arrow icon ▾ to the left of the dataset name.

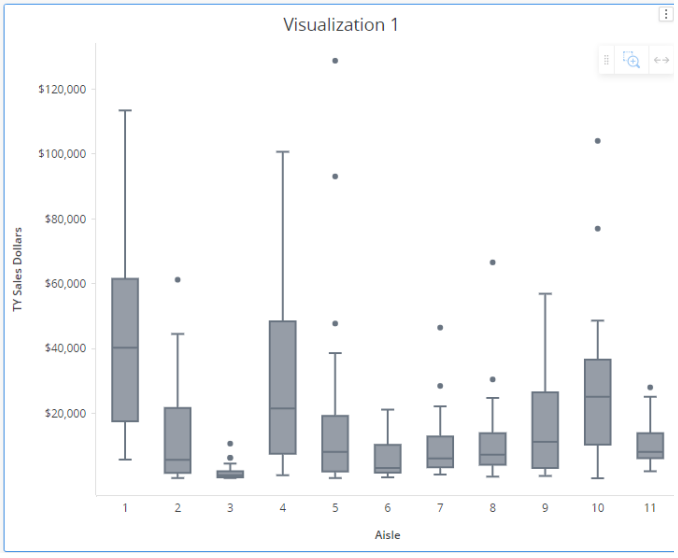
7 Click the **Editor** icon to display the Editor panel, if not already displayed.

8 You want your box plots to show the range of TY (this year) Sales Dollars values. From the **Store Details** dataset, double-click the **TY Sales Dollars** metric to add it to the **Vertical** drop zone in the Editor panel.

9 To analyze the TY Sales Dollars values by item, drag the **Item** attribute from the Store Details dataset to the **Break By** drop zone. A single box plot is displayed, showing the spread of TY Sales Dollars for each item in your store.

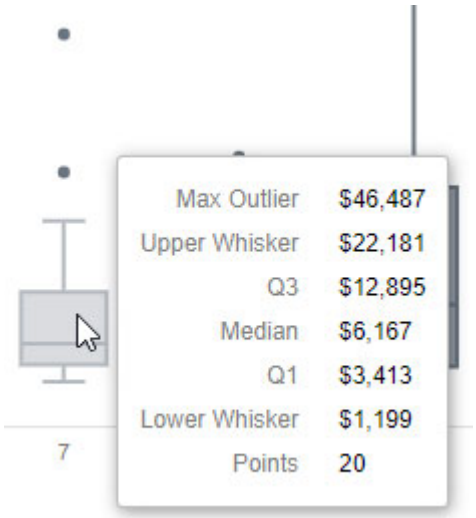


10 To see different box plots for each aisle, drag the **Aisle** attribute from the Store Details dataset to the **Horizontal** drop zone.



Your visualization displays 11 box plots, one for each aisle. The box plots show the spread of TY Sales Dollars for items in each aisle.

11 Hover over a box plot to display a tooltip with detailed data for the corresponding aisle, as shown in the image below.



12 Rename the visualization by double-clicking the **Visualization 1** title and typing **Item Sales**. Your box plot visualization looks like *Sample box plot visualization*.

13 Click **Save** in the upper right of the dossier toolbar.

Analyze the box plot visualization

1 Think through the types of analysis that a box plot visualization is useful for, and how its characteristics might impact the ease of analysis by using it to answer the following questions:

- How quickly can you determine which aisle had the least variability in this year's sales value for each item?

  A box plot with a smaller range indicates less variability in the data. You can see at a glance, that Aisle 3 is the box plot with the smallest range and therefore, with the least variability.

- How quickly can you determine which aisles have outliers?

  Outliers are displayed as a separately plotted point for aisles that contain an outlier.

- What other information can you gather from the box plots, and what further questions does it raise?

- Do you think that adding color to the visualization can help the analysis in any way?