# Using a Highlight Table to Show Specific Values



You've created a text table that shows all the sales values in your data set. But there's too much data there for you to quickly identify which products sold well or which sold poorly, which are questions you want to answer.

Turn your text table into a highlight table, which allows you to show all the data while making patterns, such as increasing or decreasing sales values, easier to see. A highlight table uses color on a gradient, weighted by a measure, to emphasize values all along the range in your data set. With the right color palette, trends and specific values will stand out, helping you in your analysis and decision making.

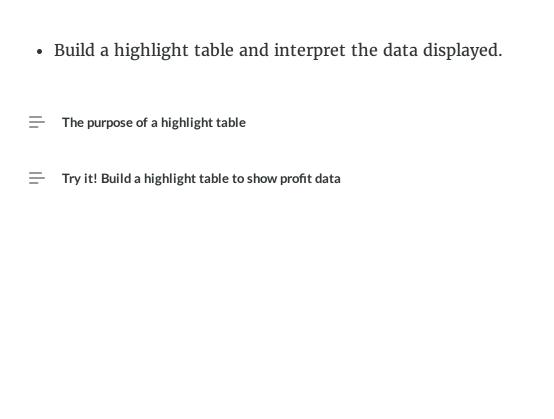
In this module, you'll discover the benefits of using a highlight table, and you'll learn how to turn a text table into a highlight table that shows patterns and outliers, using diverging color palettes to make your highlight table easy to interpret.

Note: The content in this module applies to authoring in Tableau Desktop, Tableau Online, and Tableau Server. You can complete the activities in your choice of environment.

## **Objectives**

At the end of this module, you will be able to:

• Describe a highlight table and how it helps identify patterns and high and low values in the data.



## The purpose of a highlight table

Sometimes, we need to represent the specific values in our data alongside our visualizations. A **highlight table** is useful for showing data values while also revealing key values—such as the highest or lowest—which may also reveal patterns in the data.

### Do I need a highlight table?

When you are deciding whether a highlight table is a good chart type for your data source and the analysis you want to do, consider the following questions:

- Do you need to present specific values that are in your data?
- Are you interested in identifying patterns or outliers within the context of your entire data set?
- Is the use of color to identify patterns or outliers in your data set sufficient to achieve your visualization goals?

A highlight table enables you to apply color to a text table when you need to show every value but also want to show patterns or extreme values.

For example, the text table below is great for its wealth of data about academic grades, displaying percentage points on exams and homework for a group of students. All of the information is right there in the table.

But it's not that easy to interpret, is it? Even with all the data present, it's hard to quickly glean anything from it when it's presented like this.

#### Grades

Name	Exam 1	Exam 2	Exam 3	Homework 1	Homework 2	Homework 3	Homework 4
Aaron Torres	81.0	86.0	82.0	83.0	80.0	81.0	76.0
Adam Cox	90.0	90.0	83.0	90.0	94.0	72.0	74.0
Alfredo Patton	67.0	61.0	65.0	68.0	90.0	78.0	58.0
Ann James	83.0	91.0	92.0	81.0	80.0	83.0	88.0
Anna White	61.0	75.0	81.0	83.0	0.0	88.0	79.0
Arielle Matthew	81.0	85.0	78.0	82.0	75.0	84.0	76.0
Arnoldo Charles	92.0	76.0	84.0	77.0	0.0	84.0	70.0
Barry Salazar	97.0	100.0	77.0	66.0	93.0	98.0	90.0
Ben Shaw	90.0	89.0	91.0	91.0	89.0	82.0	76.0
Beverly Gonzalez	82.0	85.0	83.0	76.0	78.0	76.0	80.0
Bobby Ramos	96.0	95.0	95.0	90.0	98.0	93.0	86.0
Bonnie Taylor	84.0	86.0	87.0	84.0	73.0	84.0	0.0
Brad Long	98.0	97.0	98.0	97.0	93.0	99.0	93.0

A text table shows all of the values in the data but does not distinguish patterns.

Now try the following experiment: Examine the data in the text table above for five seconds. Then answer the following question: Which student scored in the 60s on all three exams and the first homework assignment listed?

### Could you answer?

You could answer the question more easily if you were able to see the same information presented in a different format.

Try the experiment again, this time with the same data shown in the highlight table below, where all scores below 75% are represented in shades of orange and all scores above 75% are in shades of blue. Look at the table for five seconds, then try again to answer the question: Which student scored in the 60s on all three exams and the first homework assignment?

#### Grades

Name	Exam 1	Exam 2	Exam 3	Homework 1	Homework 2	Homework 3	Homework 4
Aaron Torres	81.0	86.0	82.0	83.0	80.0	81.0	76.0
Adam Cox	90.0	90.0	83.0	90.0	94.0	72.0	74.0
Alfredo Patton	67.0	61.0	65.0	68.0	90.0	78.0	58.0
Ann James	83.0	91.0	92.0	81.0	80.0	83.0	88.0
Anna White	61.0	75.0	81.0	83.0	0.0	88.0	79.0
Arielle Matthew	81.0	85.0	78.0	82.0	75.0	84.0	76.0
Arnoldo Charles	92.0	76.0	84.0	77.0	0.0	84.0	70.0
Barry Salazar	97.0	100.0	77.0	66.0	93.0	98.0	90.0
Ben Shaw	90.0	89.0	91.0	91.0	89.0	82.0	76.0
Beverly Gonzalez	82.0	85.0	83.0	76.0	78.0	76.0	80.0
Bobby Ramos	96.0	95.0	95.0	90.0	98.0	93.0	86.0
Bonnie Taylor	84.0	86.0	87.0	84.0	73.0	84.0	0.0
Brad Long	98.0	97.0	98.0	97.0	93.0	99.0	93.0

A highlight table uses color to call out patterns in the data, and to show unusually high and low values.

Were you able to quickly see amid all the data that the student with those scores was **Alfredo Patton**?

Highlight tables are a good option for when you need to present your entire data set and you also need to point out patterns and distinguish specific values. In the above highlight table, the lower a score is, the deeper its shade of orange, all the way down to burnt red for zero, whereas the higher a score is, the deeper its shade of blue. This use of color brings into bright relief the series of low scores for Alfredo Patton. We were able to get this result by showing the grade values in color.

Also, as we noted above, the table reflects a split in color at a certain point in the range of values: 75%. How did we achieve that? Let's find out in the following video, where we start with a text table and finish up with a highlight table.

# Click **Play** to watch the video below.

How to build a highlight table

## **Knowledge check**

Which three areas of the **Marks** card do you use to build a highlight table?

- Color, Text and Detail
- Color, Text and Mark type
- Color, Mark type and Size
- Size, Detail and Text

SUBMIT

# Try it! Build a highlight table to show profit data

We've explored using a highlight table to reveal and analyze patterns in a data set. Here's your opportunity to apply your knowledge by building a highlight table to analyze sales data.

# Hands-on activity

You will need Tableau Desktop, Tableau Online or Tableau Server for this hands-on activity.

If you do not already have Tableau Desktop or Tableau Online installed, you may purchase or download free trial versions of either one from the following locations:

- Tableau Desktop
- Tableau Online

Note: The free trial is available for a limited number of days.

#### **Scenario**

You've been asked to create a view for colleagues to show them the highest and lowest profit sub-categories of products across different markets and regions. Build a highlight table that shows specific profit values in your data set, so that the patterns and extreme highs and lows

in the data are easy to spot, helping your team make actionable business decisions about the company's products.

As a bonus, include totals in the highlight table to show which sub-categories were the most and least profitable overall.

Good luck!

## Download the file below to use with this activity.



## Follow the steps below to complete this activity.

- The **Expected result** shows the view at the end of the step.
- The **Hint** provides additional guidance to complete the step.

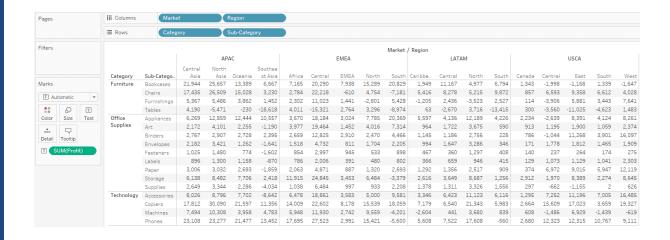
1 Open the starter file in Tableau.

For instructions on how to open a .twbx file in Tableau Desktop or Tableau Online, see the <u>Tableau eLearning User FAQs</u>.

Create a text table that shows market and regional profits by **Category** and **Subcategory**.

### **Expected result**

You should see the following after completing this step.



Hint \_

- 1. From the **Data** pane, drag **Market** and **Region** to **Columns**, with **Region** to the right of **Market**.
- 2. From the **Data** pane, drag **Category** and **Sub-Category** to **Rows**, with **Sub-category** to the right of **Category**.
- 3. From the **Data** pane, drag **Profit** to the view, and drop it when the area showing **Abc** text is highlighted in black and **Show Me** appears.

3

To reveal patterns or outliers in the profit data, create a highlight table that shows **Profit** by color.

### **Expected result**

You should see the following after completing this step.



Hint \_\_

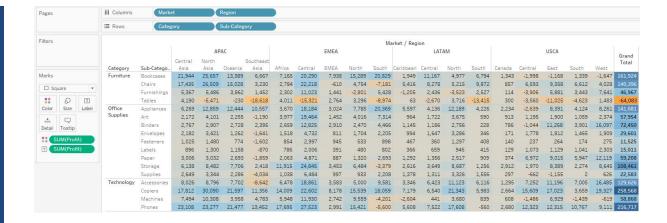
- 1. On the **Marks** card, use **Ctrl**+drag (**Command**+drag on a Mac) to drag a copy of **SUM(Profit)** on **Text** to **Color**.
- 2. On the **Marks** card, change the mark type to **Square**.

Note that changing the mark type to **Square** also changed **Text** to **Label**.

Add row totals to see which sub-categories were the most and least profitable overall.

### **Expected result**

You should see the following after completing this step.



Hint \_

- 1. On the **Analysis** menu, point to **Totals**, and click **Show Row Grand Totals**.
- 2. On the **Marks** card, click **Color**, and then click **Edit Colors**.
- 3. In the **Edit Colors** dialog box, select **Include Totals**. To save the changes and close the dialog box, click **OK** in Tableau Desktop or, in web authoring, click the X.

Note that adding color to the **Totals** column dilutes all of the other colors in the highlight table.

To complete this section, use the table you just created to answer the following question about this data.

**Knowledge check** 

Fasteners and Labels
Labels and Tables
Fasteners and Tables
Supplies and Fasteners

Nice job! You've created a highlight table that uses a diverging color palette to show your colleagues the highest and lowest profits by **Sub-category**, broken out by **Market** and **Region**. This enables them to identify the areas of data they're looking for. To give them an additional detail, you displayed the total profits overall by product sub-category.

Download the **file** below to view the solution to this activity.



## **Summary**

Congratulations! Now you know how to create a highlight table that uses color to make the patterns and high and low values in your data stand out. Using highlight tables is a great way to make important data easier to find.

You've completed this module.
Click **Exit** to receive credit.