

Data Boot Camp  
Lesson 14.1



# The Big Picture





## **Quick Tip for Success:**

Falling behind? Find some extra time to work on past-due assignments or sign up for tutoring services.

Module 14

# This Week: Tableau

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By the end of this week, you'll know how to:

01

Import data into Tableau

02

Create and style worksheets, dashboards, and stories in Tableau

03

Use Tableau worksheets to display data in a professional manner

04

Portray data accurately using Tableau dashboards



## **This Week's Challenge**

Using the skills learned throughout the week, the students will create visualizations to show the differences in bike checkout times throughout the day.



## **Career Connection**

How will you use this module's content in your career?

## Module 14

# How to Succeed This Week





## **Quick Tip for Success:**

Tableau can be really intuitive. Get creative with the way you use it, and don't be afraid to experiment!

Module 14

# Today's Agenda

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By completing today's activities, you'll learn the following skills:

01

Import data into Tableau

02

Create and customize basic visualizations

03

Create custom calculations



**Make sure you've downloaded  
any relevant class files!**

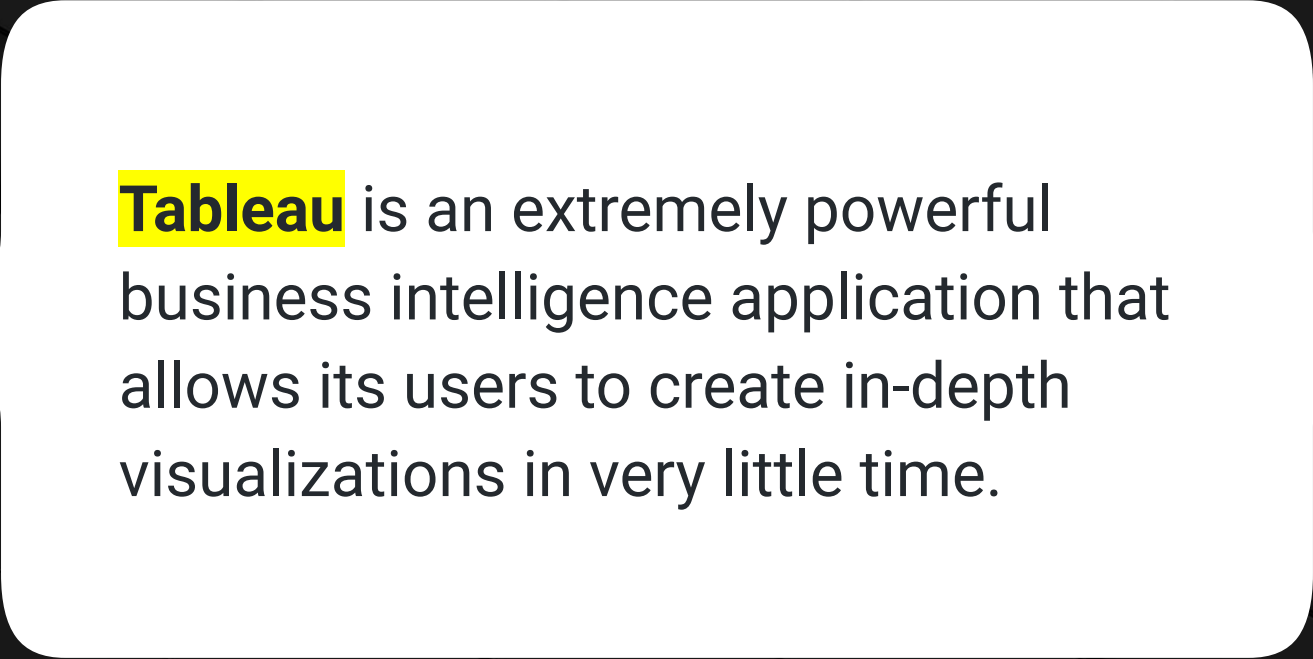
## FIST TO FIVE:

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How comfortable do you feel with this topic?



# Introduction to +tableau<sup>+</sup><sub>+</sub>public



**Tableau** is an extremely powerful business intelligence application that allows its users to create in-depth visualizations in very little time.

# Tableau

Like Excel, Tableau focuses extensively on allowing users to manipulate tables of data and create visualizations without any additional programming.

The screenshot shows the Tableau Public website homepage. The background is a dark grid of various data visualizations, including line charts, bar charts, maps, and heatmaps. At the top left is the 'tableau public' logo. To the right are navigation links: GALLERY, AUTHORS, BLOG, RESOURCES, ACTIVITY, ABOUT, a SIGN UP button, and a SIGN IN button. A search icon is also present. In the center, the main headline reads 'Your data has a story. Share it with the world.' followed by the subtext 'Visualize and publish data on topics you care about. Explore and be inspired by creations from like-minded data enthusiasts.' Below this is a white input field with the placeholder text 'Enter your email address' and an orange button labeled 'DOWNLOAD THE APP'. At the bottom of the input field area, it says 'Available for Windows and Mac | Privacy Policy'.

tableau public

GALLERY AUTHORS BLOG RESOURCES ACTIVITY ABOUT SIGN UP SIGN IN

## Your data has a story. Share it with the world.

Visualize and publish data on topics you care about. Explore and be inspired by creations from like-minded data enthusiasts.

Enter your email address DOWNLOAD THE APP

Available for Windows and Mac | Privacy Policy

# Tableau

Tableau also utilizes a drag-and-drop-style interface so that users can easily create tables and charts, and perform analysis without much difficulty.

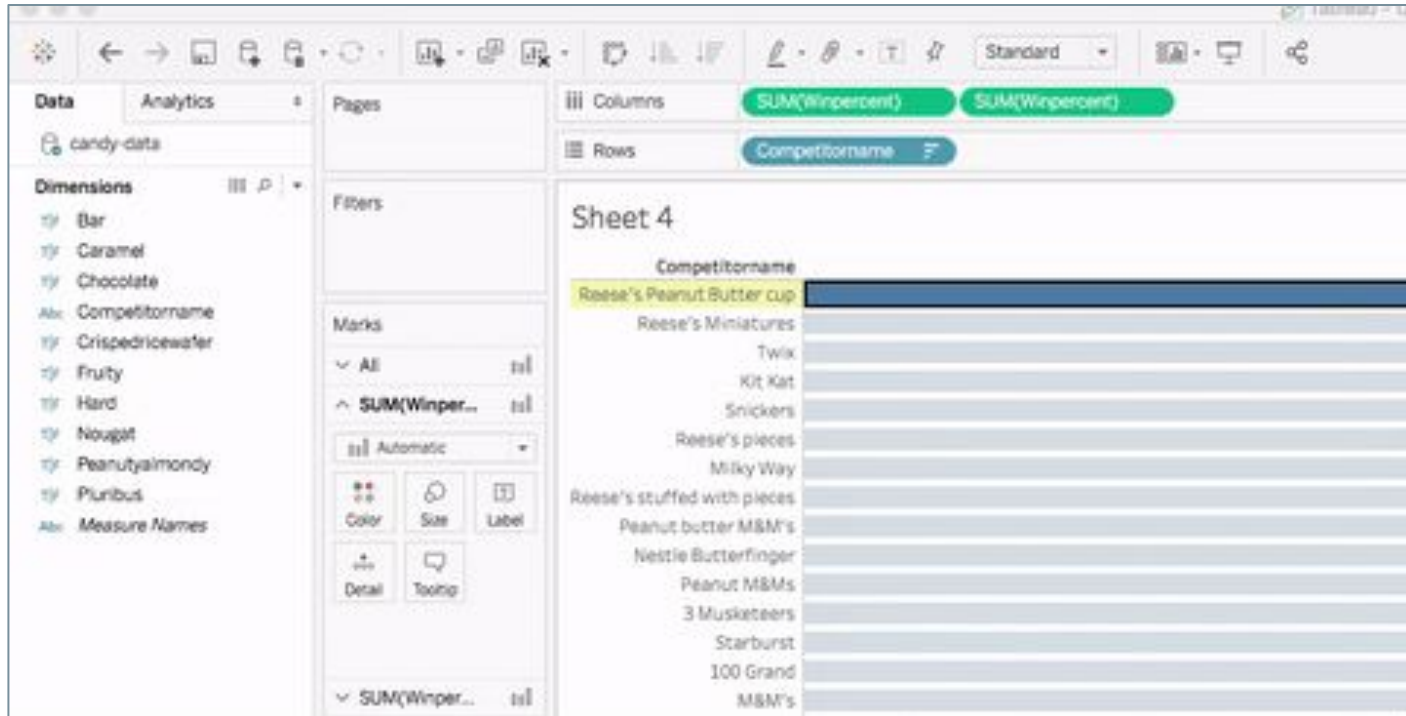




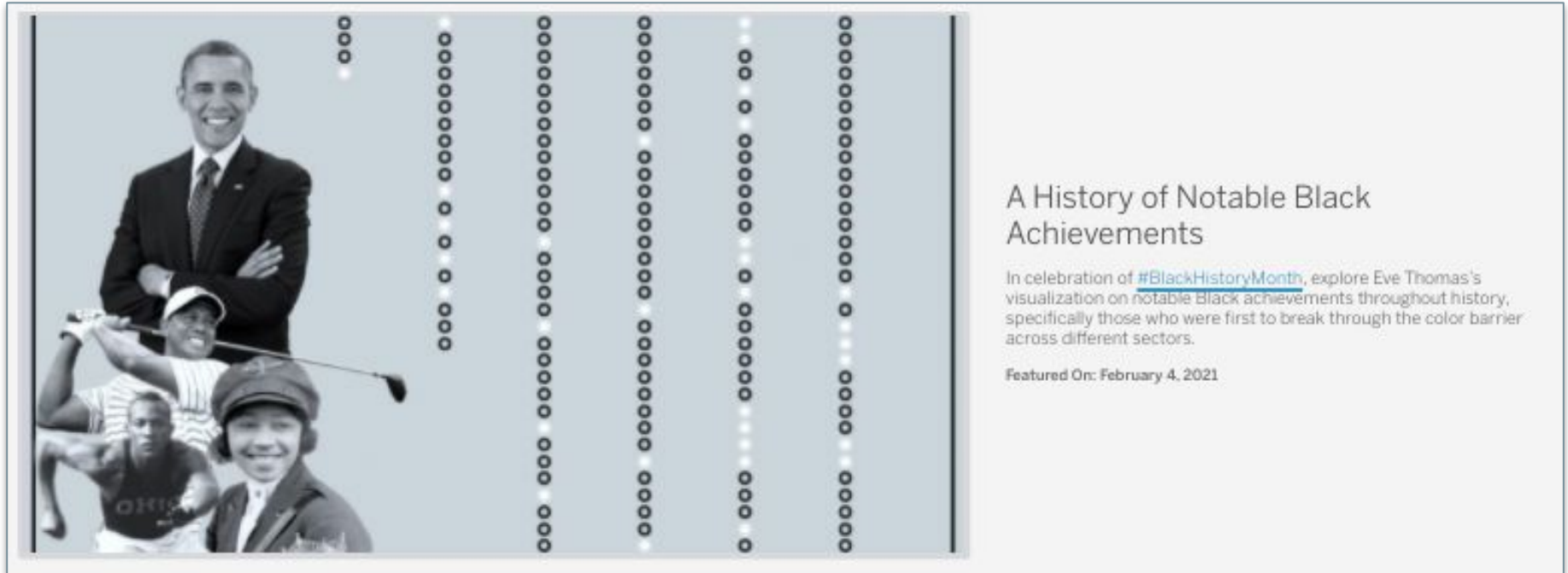


Tableau Public is a **completely free** version of the Tableau software that includes the majority of features included within Tableau Desktop.

# Tableau Public Examples

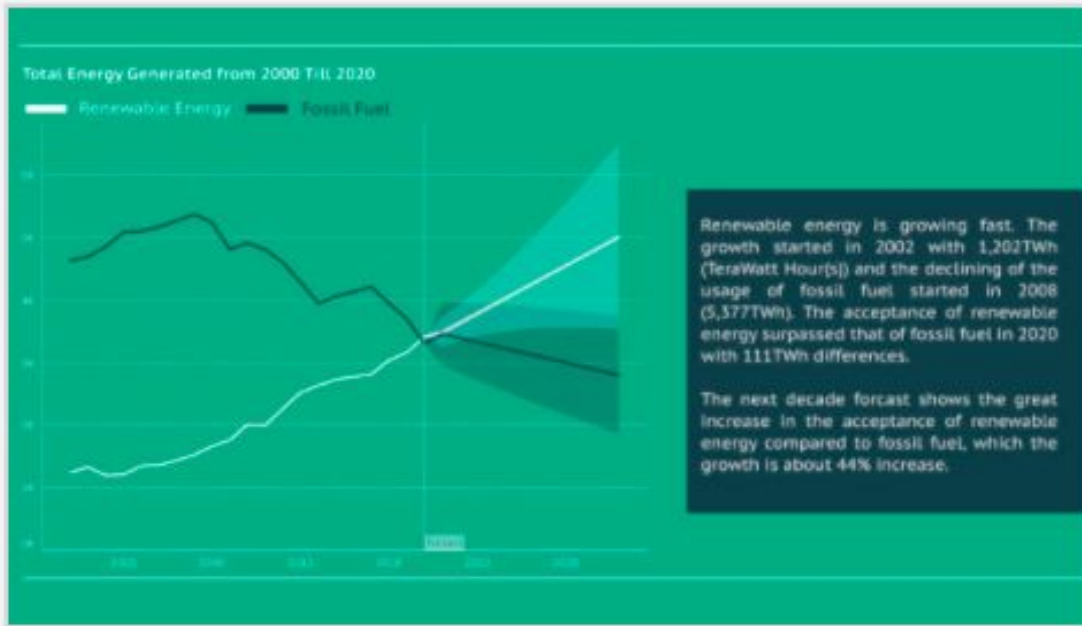
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One Tableau feature is the ability to share projects and visualizations with your community.



# Tableau Public Examples

Not only can visualizations be shared on the Tableau site, they can also be embedded on webpages.



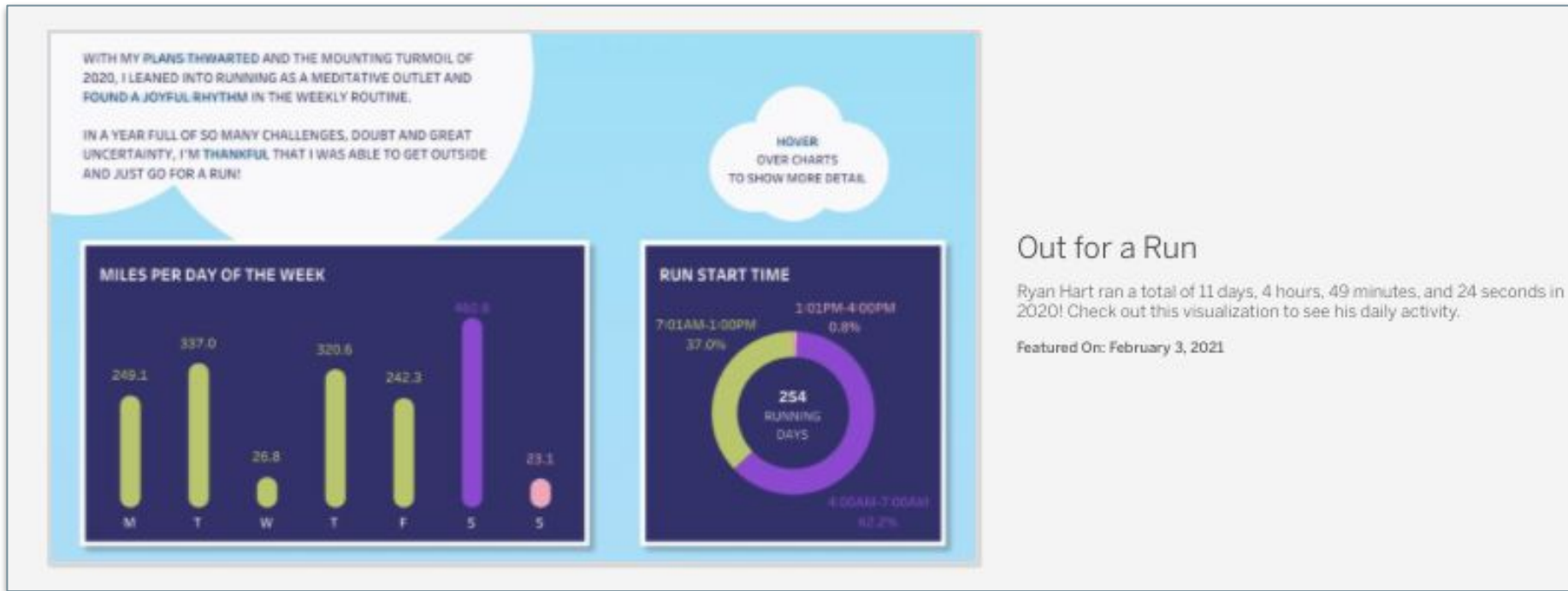
## Renewable Energy and Fossil Fuel Usage in Europe

The acceptance of renewable energy in Europe is expected to increase by about 44% in the next decade. Explore this [#MakeoverMonday](#) visualization by Idris Akilapa to see how these countries are handling the transition from fossil-based systems of energy production to renewable energy sources.

Featured On: February 4, 2021

# Tableau Public Examples

Notice how varied and interesting many of these projects are.



# Tableau Public vs. Desktop

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The main difference between the two versions:

## Public

Allows you to work with multiple file types, such as .xlsx, .csv, .txt, PDFs, JSON, and others.

## Desktop

Allows you to work with the same files as Tableau Public, but you can also connect to a multitude of servers, like MySQL, Oracle, Amazon Redshift, Google Sheets, and more.



All assignments in this unit can be  
completed with the free version of

+tableau<sup>+</sup><sub>+</sub>public



## **Instructor Demonstration**

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# Loading and Exploring Data

# Questions?







## Instructor Demonstration

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# Building Basic Visuals



# Time to Code

## Explore Data

Suggested Time:

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15 minutes



## **Activity:** No-Show Tableau Visualization

In this activity, you will spend some time creating a series of visualizations about what kinds of people are more/less likely to show up to doctor appointments.

**Suggested Time:**  
15 minutes





**Let's Review**

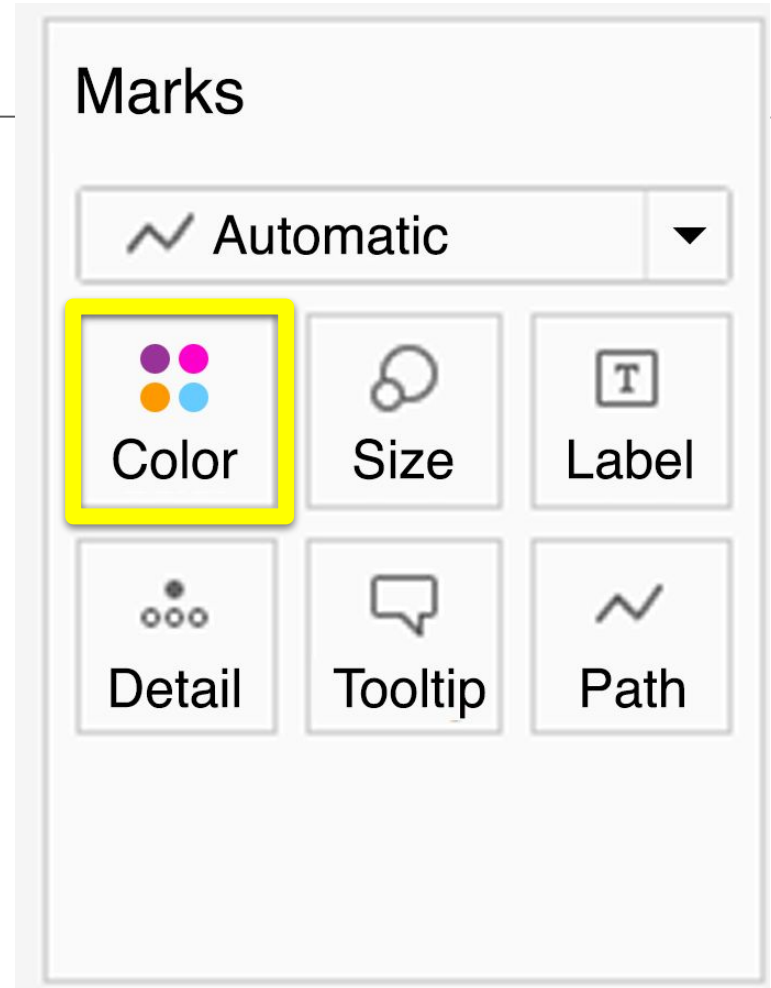
# Questions?



# Sizing, Coloring, and Labels

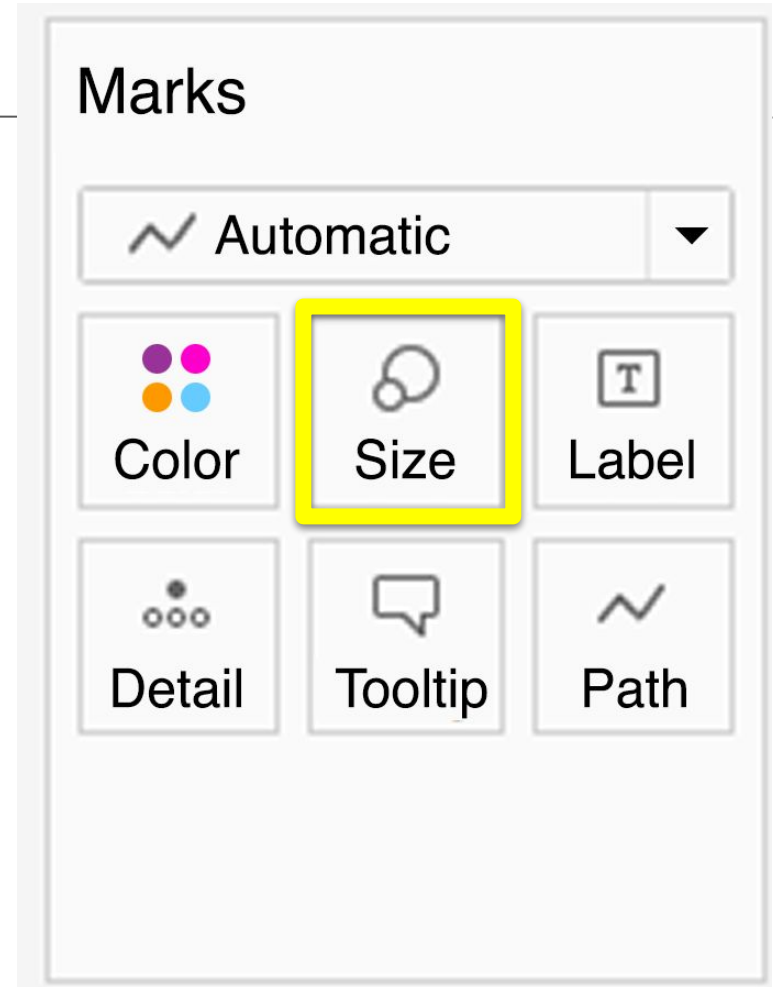
# "Marks" section in Tableau

The **Color** modifies the colors of a chart so that elements are colored according to the values passed.



# "Marks" section in Tableau

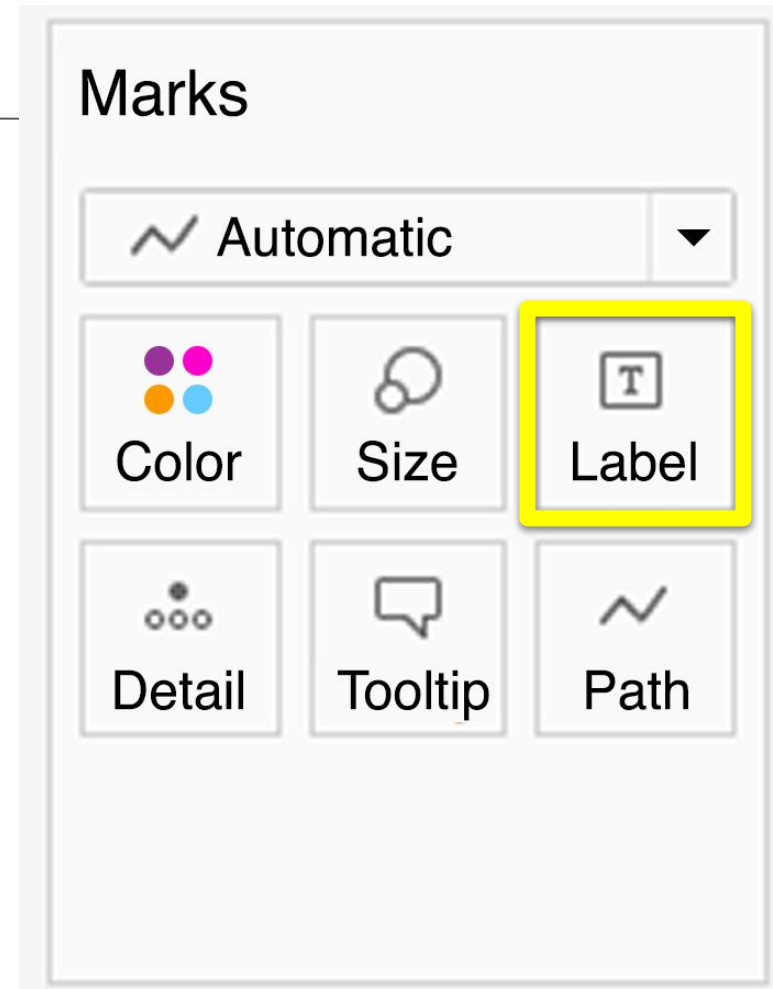
The **Size** modifies the sizing of elements to that they are bigger or smaller depending on the values passed.





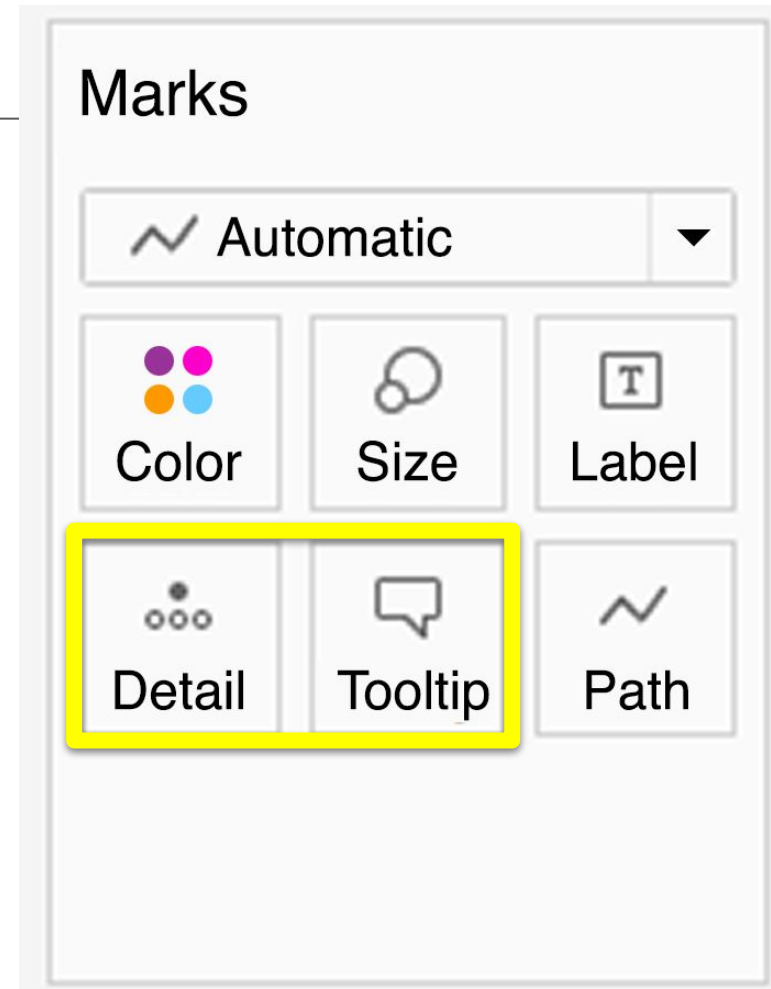
# "Marks" section in Tableau

The **Label** places text next to points on a chart that correspond with the values passed.



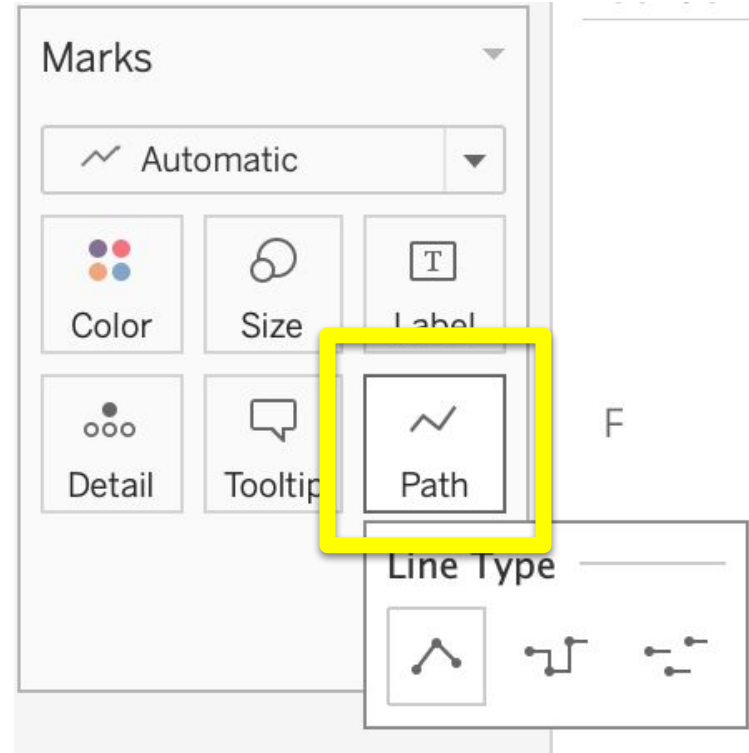
# "Marks" section in Tableau

The **Detail** and **Tooltip** act like labels but only appear when the cursor hovers over the associated point/element on a chart.



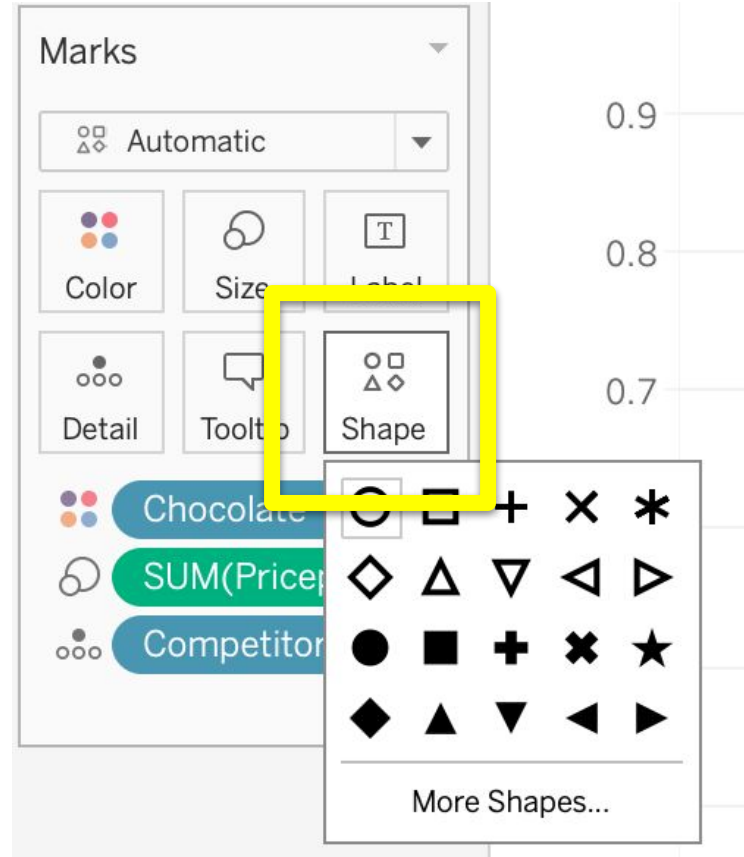
# "Marks" section in Tableau

The **Path** changes the type of line mark, linear, step, or jump of an element/point depending on the values passed. Changing the value of the dropdown will change whether path or shape is displayed.



# "Marks" section in Tableau

The **Shape** changes the shape of the figure based on the values passed. Changing the value of the dropdown will change whether path or shape is displayed.





## **Activity:** The Ultimate Candy

In this activity, you will create charts that compare candies. The charts themselves are quite basic but will be made more complex using marks.

**Suggested Time:**  
15 minutes





**Let's Review**



# Time to Code



## Calculations

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Suggested Time:

20 minutes

# Questions?

