

LOCATING DATE PARTS AND DATE VALUES

The screenshot shows the 'Filter...' menu for the 'YEAR(Order Date)' field. The menu is divided into three sections:

- DATE PART (DISCRETE) BLUE PILL**: This section is highlighted with a blue box. It includes options for Year, Quarter, Month, Day, and More. The example data provided is: Year (2015), Quarter (Q2), Month (May), Day (8).
- DATE VALUE (CONTINUOUS) GREEN PILL**: This section is highlighted with a green box. It includes options for Year, Quarter, Month, Week Number, Day, and More. The example data provided is: Year (2015), Quarter (Q2 2015), Month (May 2015), Week Number (Week 5, 2015), Day (May 8, 2015).
- DO NOT USE THESE TO SWITCH BETWEEN DISCRETE DATE & CONTINUOUS DATE**: This section is highlighted with a red box. It includes options for Discrete and Continuous.

The top group of dates (shown inside blue box) is the **Date Part (Discrete)**, and this can be confirmed by the example data provided next to each option e.g.: May for **Month**.

The bottom group of dates (shown inside green box) is the **Date Value (Continuous)**, and this can be confirmed by the example data provided next to each option e.g.: May 2015 for **Month**.

WARNING: DO NOT USE the **Discrete** and **Continuous** options (shown inside red box) at the bottom of this menu to switch back and forth between a discrete date and a continuous date. It does not provide the same functionality and will work differently.

BASICS OF DATE PARTS



Discrete dates use **date parts**.

Date parts are literally the parts or components that make up a date.

Consider the date of September 30, 2021.

The “Month” date part is September (or 09).

The “Day” date part is 30

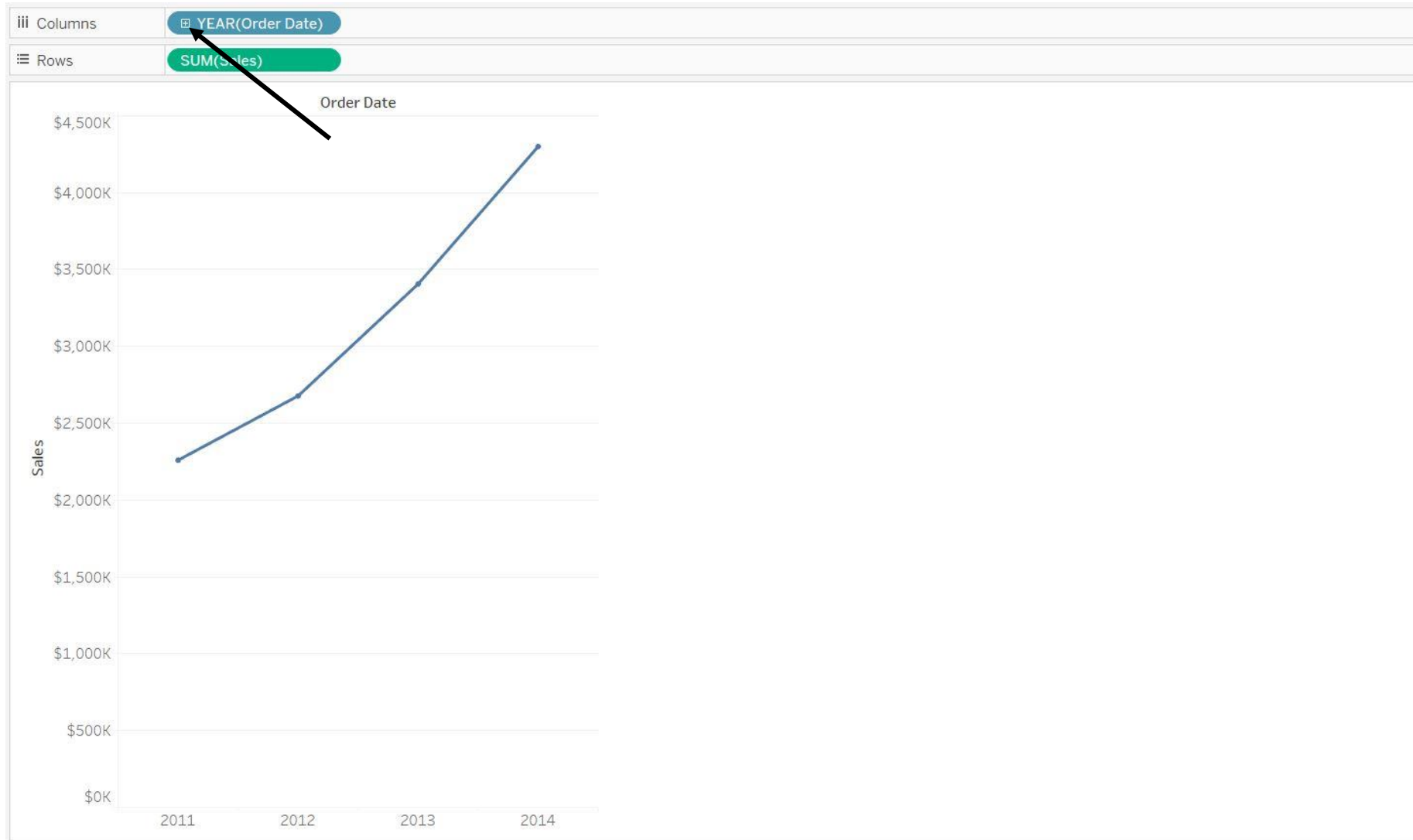
The “Year” date part is 2021.

Consider that we make use of only one of these **date parts** in our Viz e.g.: **Month**, then we would be looking at an aggregated month values without considering the other data parts like Year, Quarter etc.

If the data set includes data from 2011 to 2014, then all those **Januaries would be aggregated into that discrete column for January**

DATE PARTS EXPANSION

When we expand **Date Parts** hierarchy, we get multiple blue pills
Click on the + icon on the right-side of **YEAR(Order Date)** blue pill

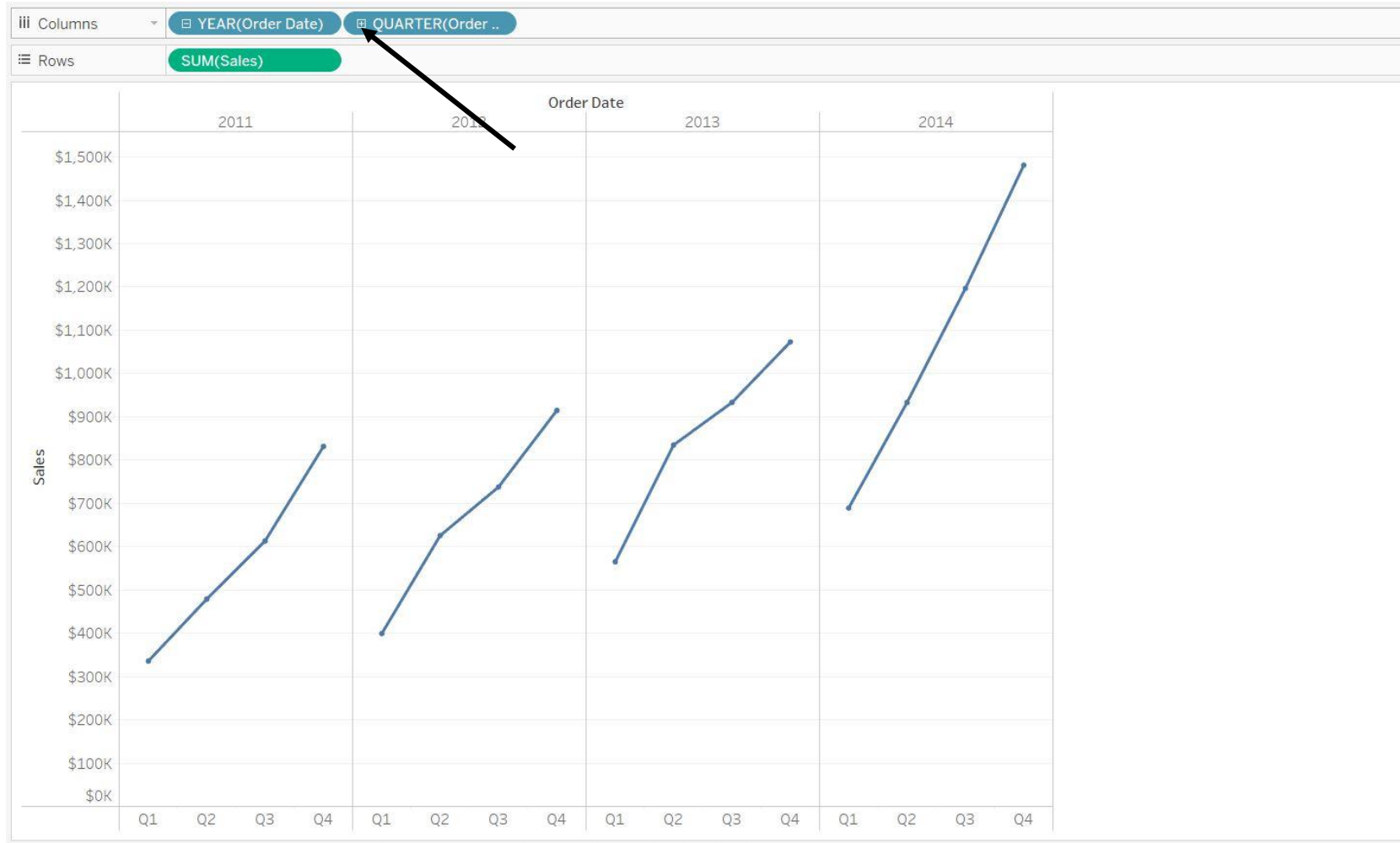


DATE PARTS EXPANSION

We see both **YEAR(Order Date)** and **QUARTER(Order Date)** blue pills

Click on the + on the right-side of **QUARTER(Order Date)** blue pill

NOTE: The label for YEAR(Order Date) moves UP and the label for QUARTER(Order Date) moves DOWN

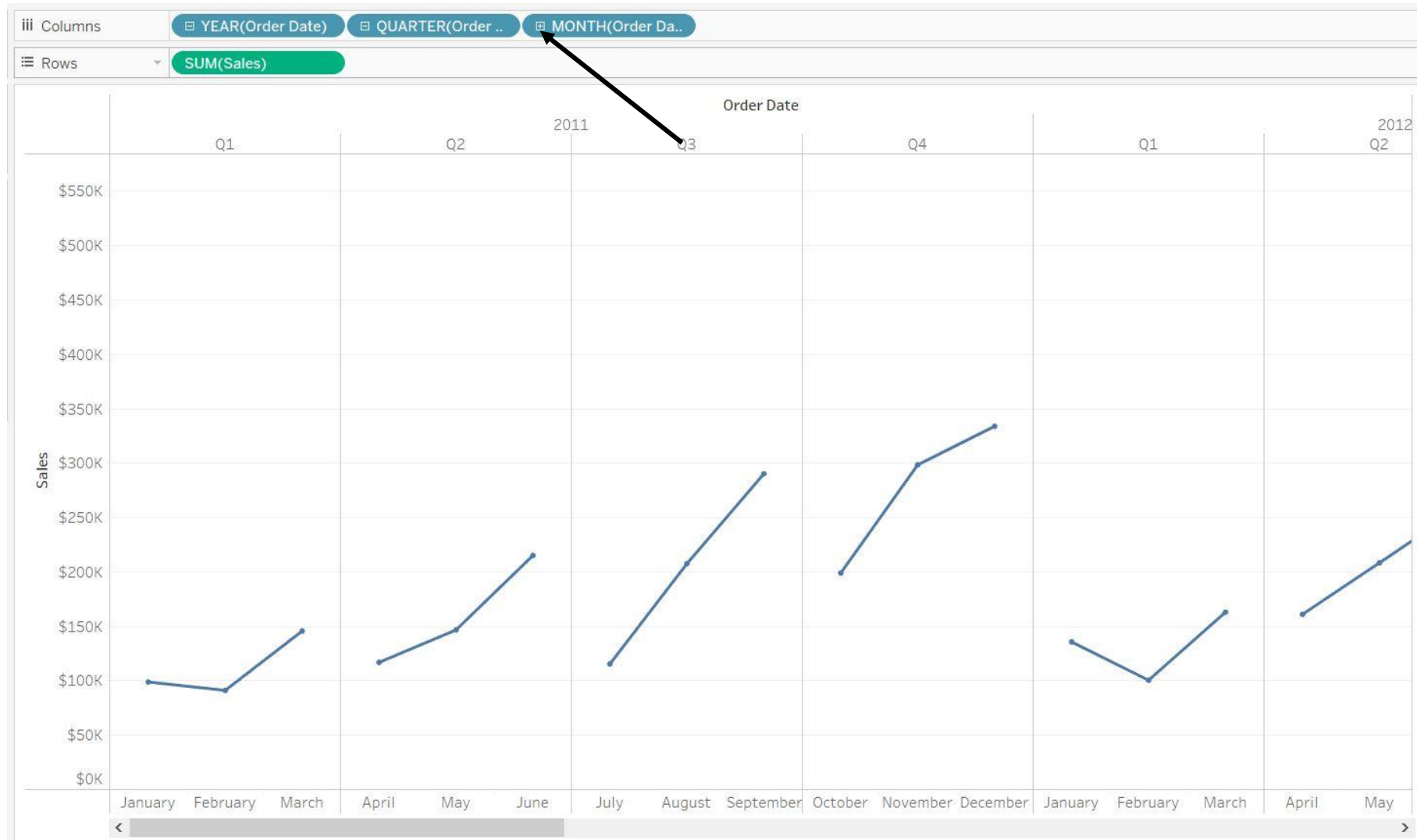


DATE PARTS EXPANSION

We see **YEAR(Order Date)**, **QUARTER(Order Date)** & **MONTH(Order Date)** blue pills

Click on the + on the right-side of **MONTH(Order Date)** blue pill

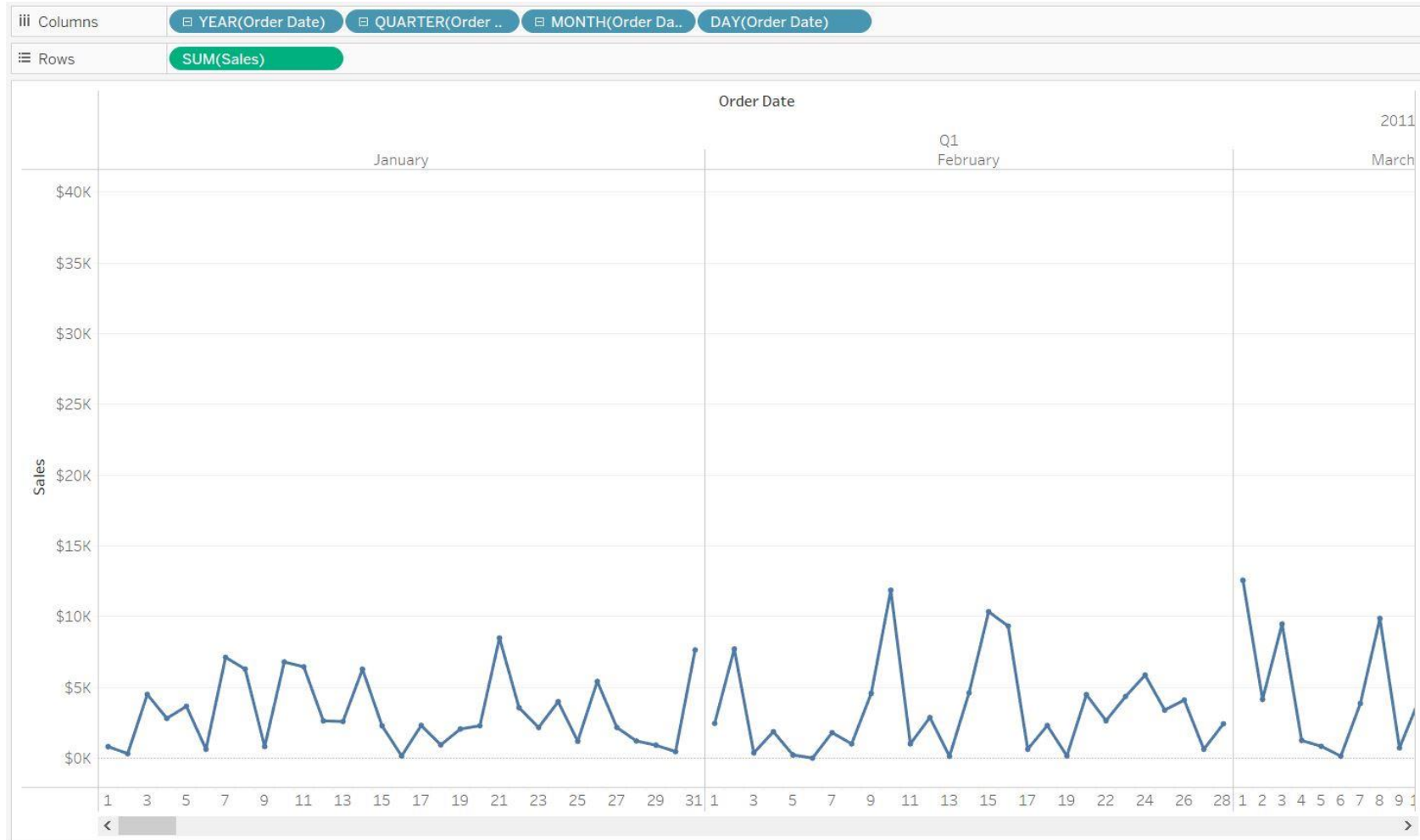
NOTE: The label/header for right most blue pill alone moves down i.e., **MONTH(Order Date)**



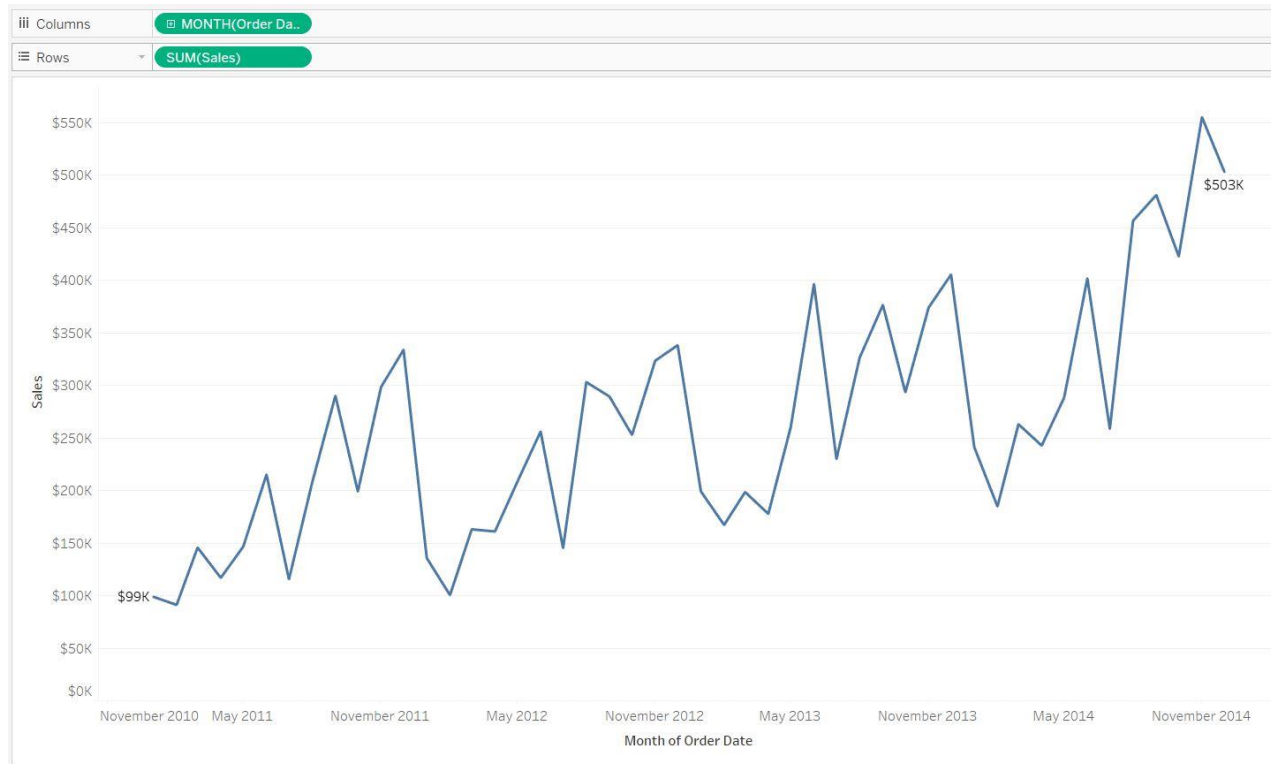
DATE PARTS EXPANSION

We see **YEAR(Order Date)**, **QUARTER(Order Date)**, **MONTH(Order Date)** & **DAY(Order Date)** blue pills

NOTE: The label for right most blue pill alone moves down i.e., **DAY(Order Date)**



BASICS OF DATE VALUES



Date values are used for **continuous dates**. They follow the same structure of date parts (i.e., year, quarter, month, week, day and so on). The difference between date values and date parts is that **date values** imply a level of detail in a timeline (i.e., chronological order). Remember continuous fields do not create headers, they create an axis. In the case of a continuous date, it creates a timeline. **Date values** determine how our timeline is organized

In the viz, notice that **Order Date** on Columns shelf is

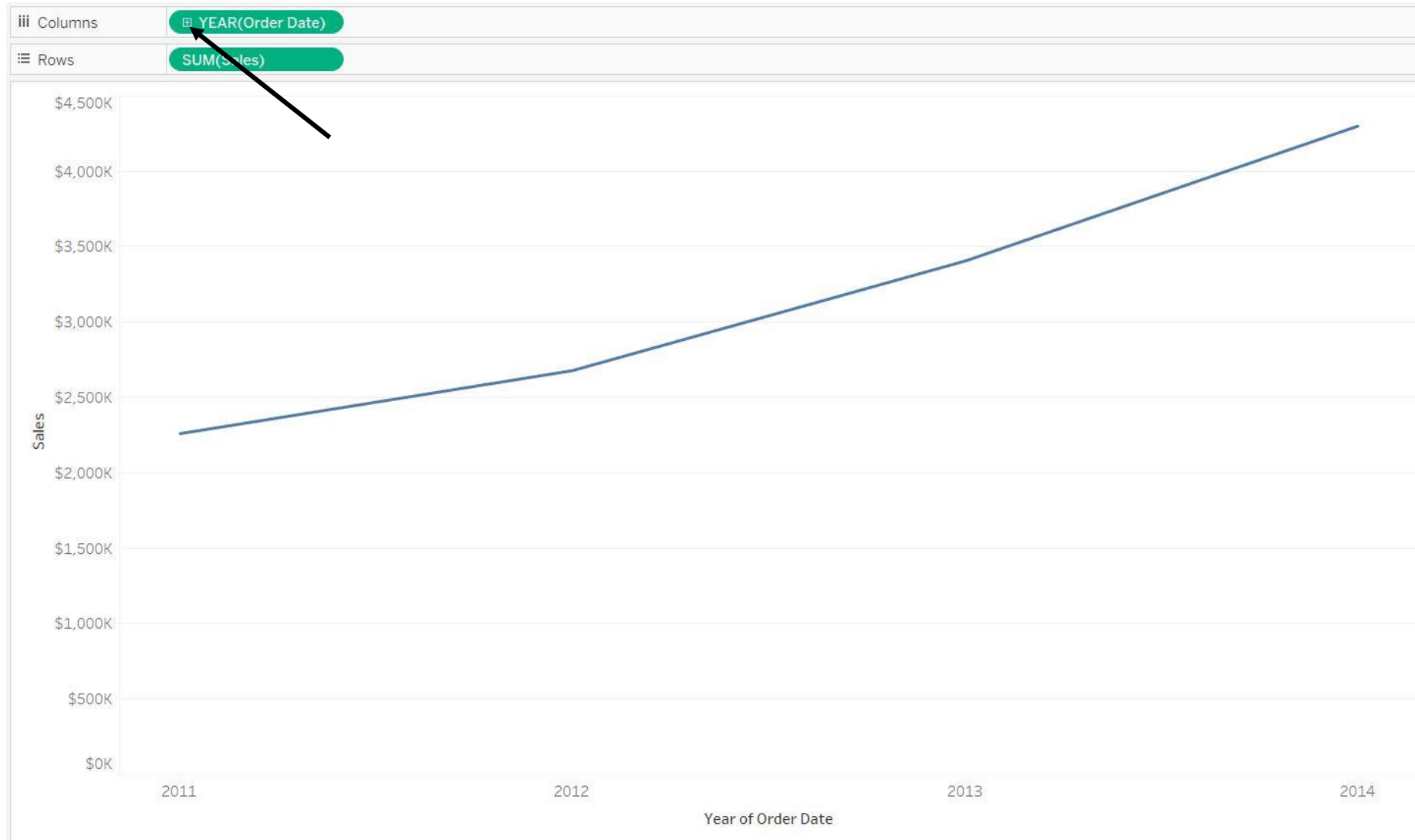
- 1) **Green** which denotes a **continuous field** and
- 2) Set to the **date value** of “**Month.**”

That means in our view we are segregating our data down to the **date level** on our **timeline**.

Rather than looking at all Januarys aggregated together, we are looking at a specific January such as January 2011 or January 2012.

DATE VALUES EXPANSION

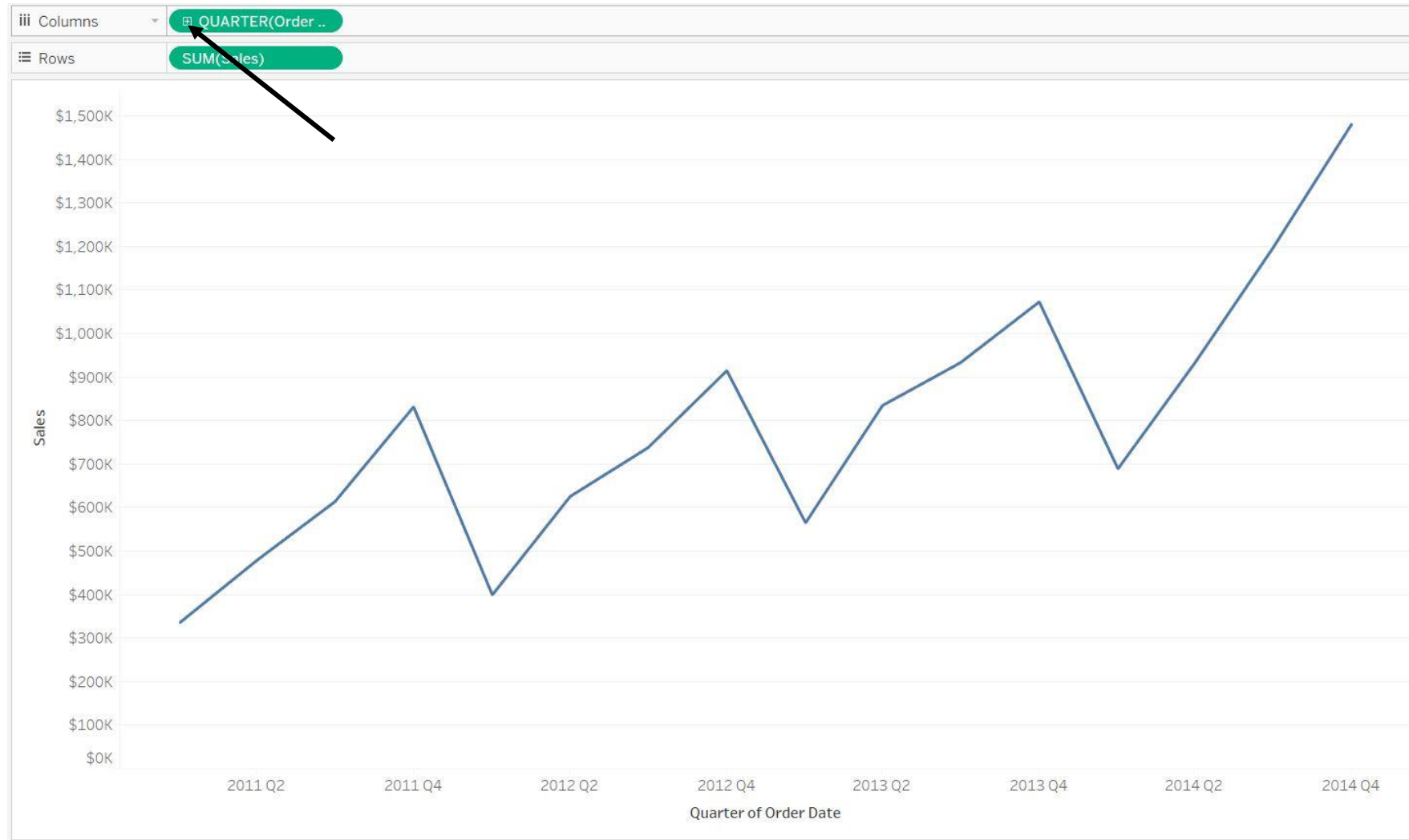
When we expand **Date Values** hierarchy, the existing pill is **transformed** to next level i.e., Quarter
Click on the + icon on the right-side of **YEAR(Order Date)** green pill



DATE VALUES EXPANSION

Now we see only **QUARTER(Order Date)** is present

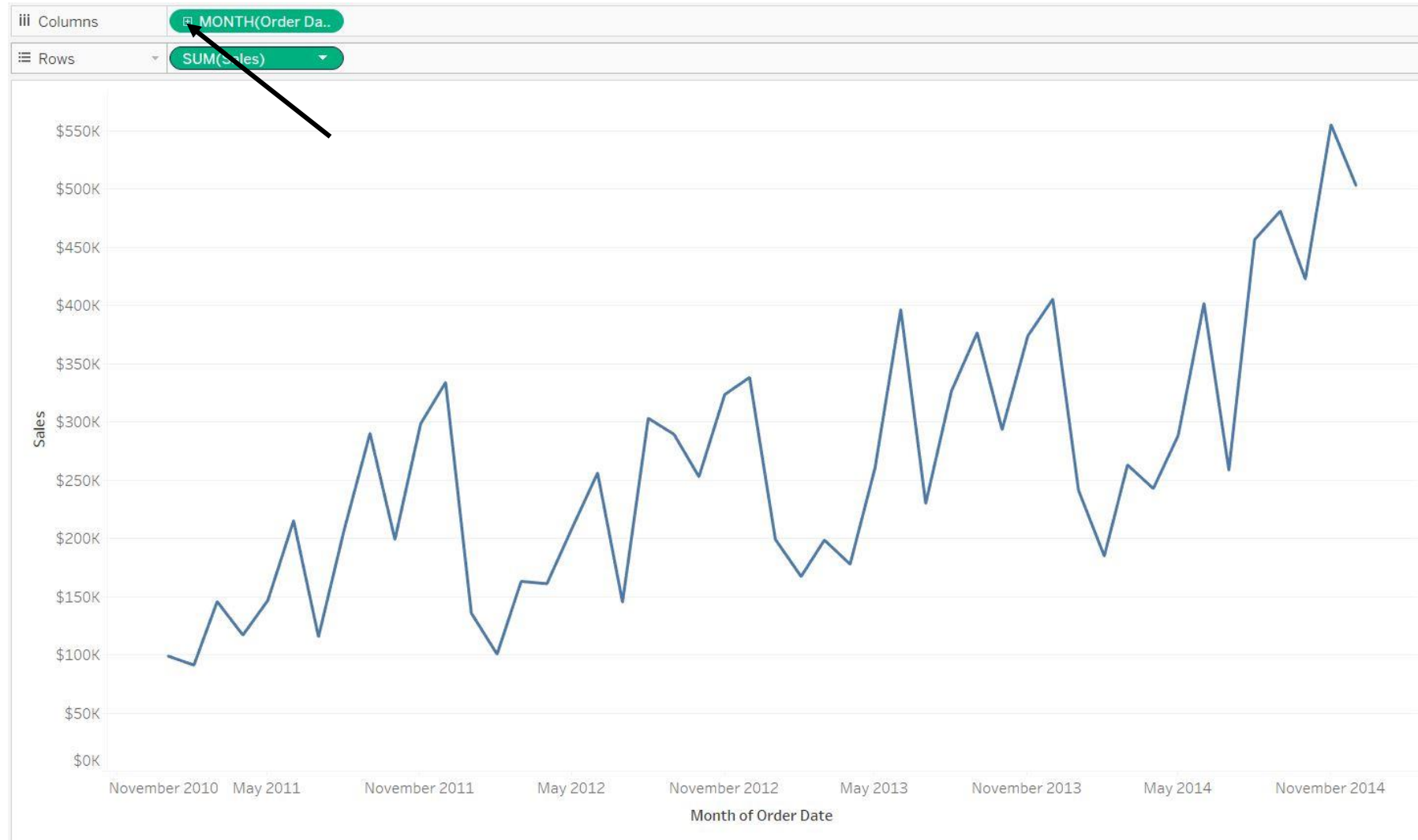
NOTE: Unlike **Date Parts** for **Date Values**, we do not have multiple pills
Click on the + icon on the right-side of **QUARTER(Order Date)** green pill



DATE VALUES EXPANSION

Now we see **MONTH(Order Date)** is present

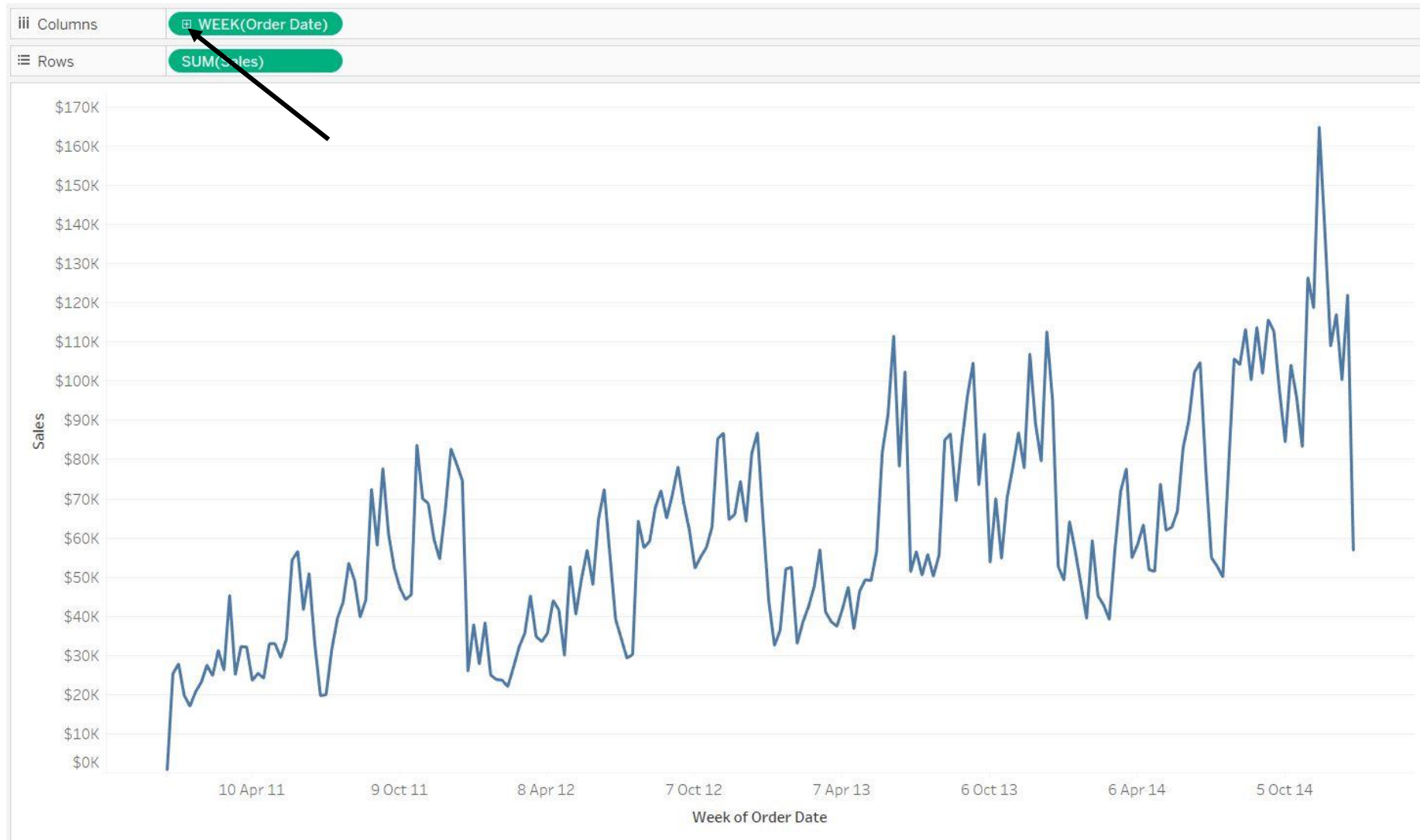
Click on the + icon on the right-side of **MONTH(Order Date)** green pill



DATE VALUES EXPANSION

Now we see **WEEK(Order Date)** is present

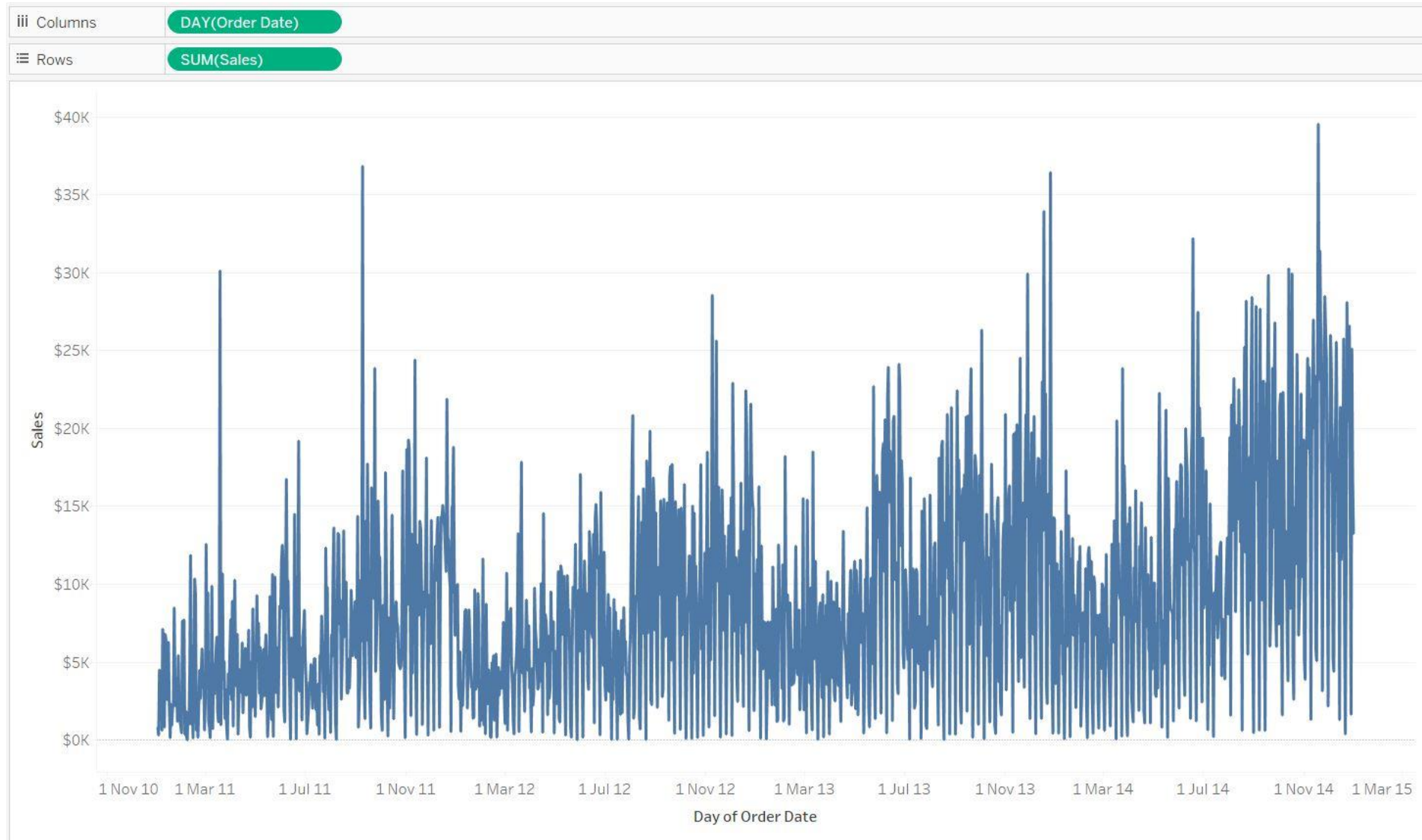
Click on the + icon on the right-side of **WEEK(Order Date)** green pill



DATE VALUES EXPANSION

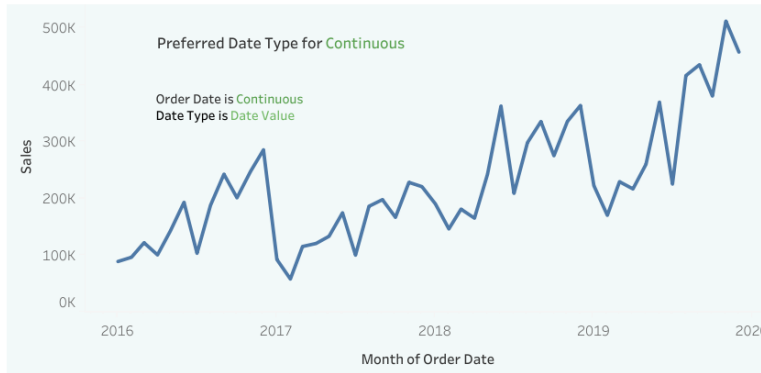
Now we see **DAY(Order Date)** is present

This is the lowest level in Date Value hierarchy

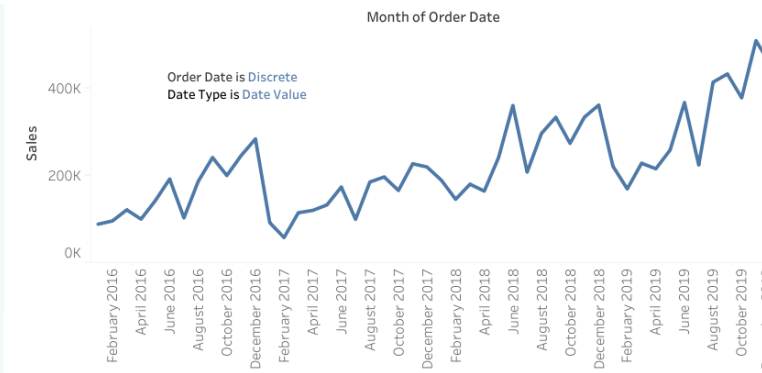


COMPARISON OF POSSIBLE OPTIONS FOR DATE PARTS AND DATE VALUES

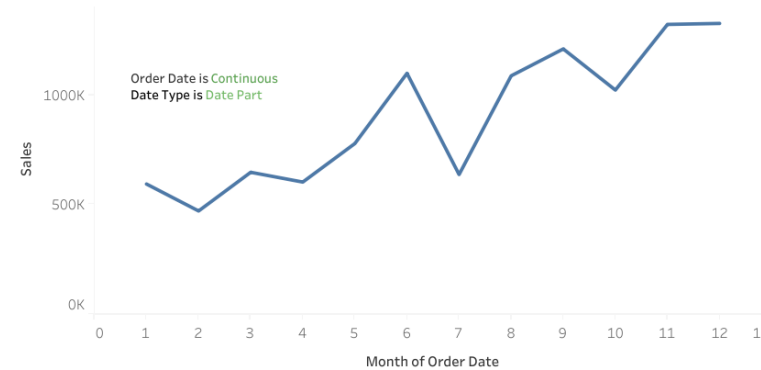
Continuous Date Value



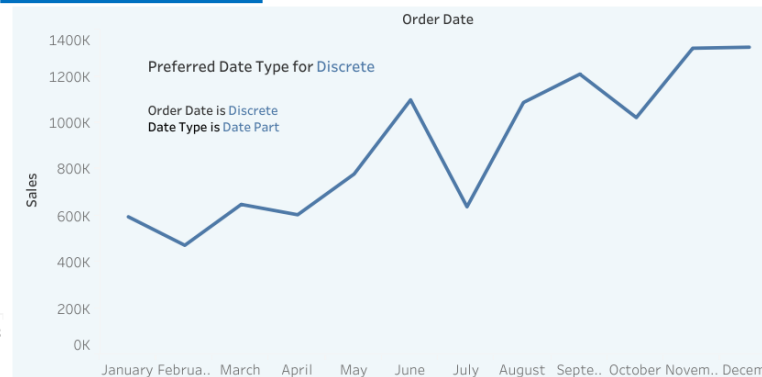
Discrete Date Value



Continuous Date Part



Discrete Date Part



The Viz gives a quick comparison and summary of all the possible options of using dates in our analysis.

Out of the 4 possible options given below are the usually preferred date types (i.e., Top Left and Bottom Right)

For **Continuous** it is **Continuous Date Value**
For **Discrete** it is **Discrete Date Part**

The usually less commonly preferred options are mentioned below:

Continuous Date Part
Discrete Date Value

NOTE: However, this may not be always true as there might be cases when we need to use Discrete Date Value or Continuous Date Part.