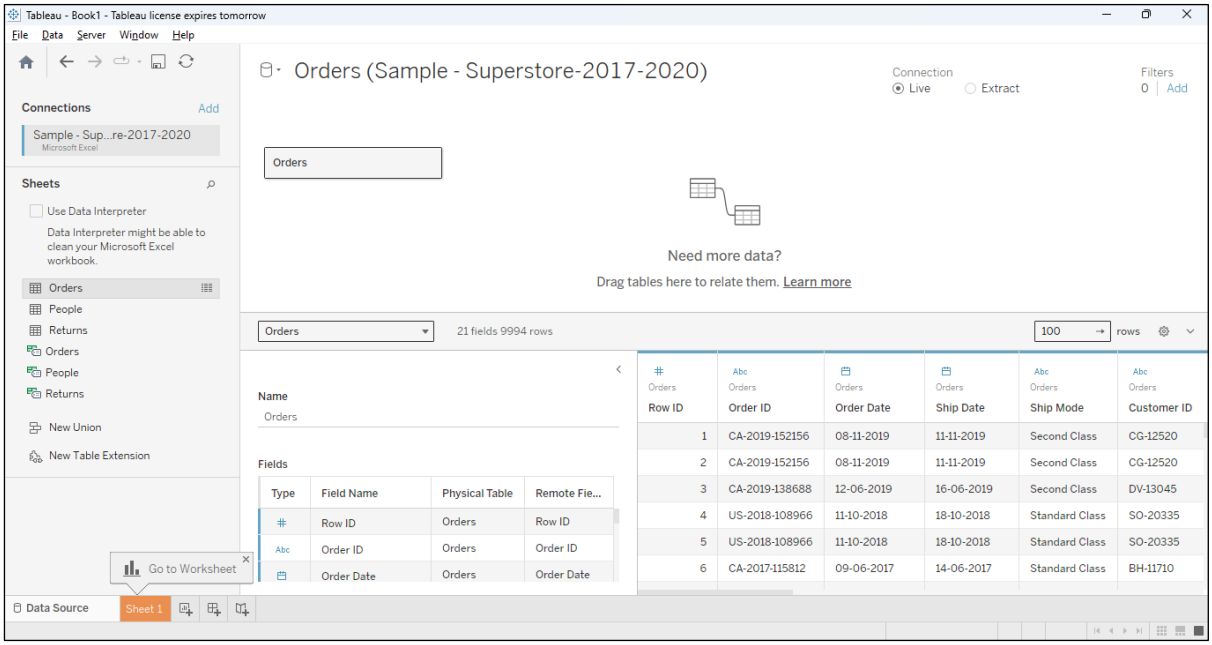
Answer Key

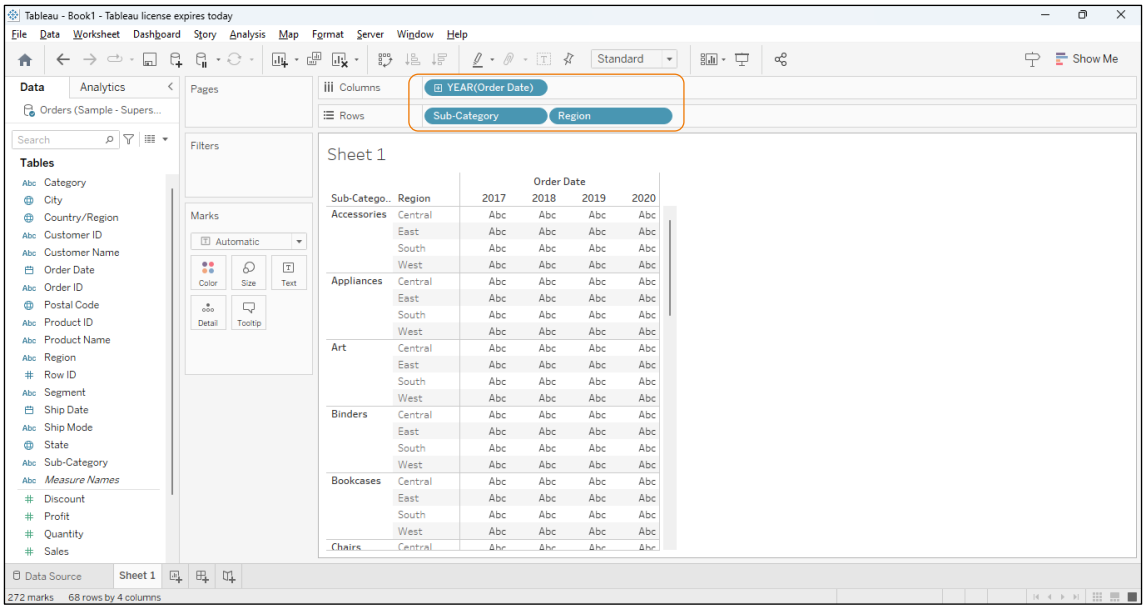
1. Dataset connection

- Import the **Sample - Superstore-2017-2020** dataset into the Tableau Desktop

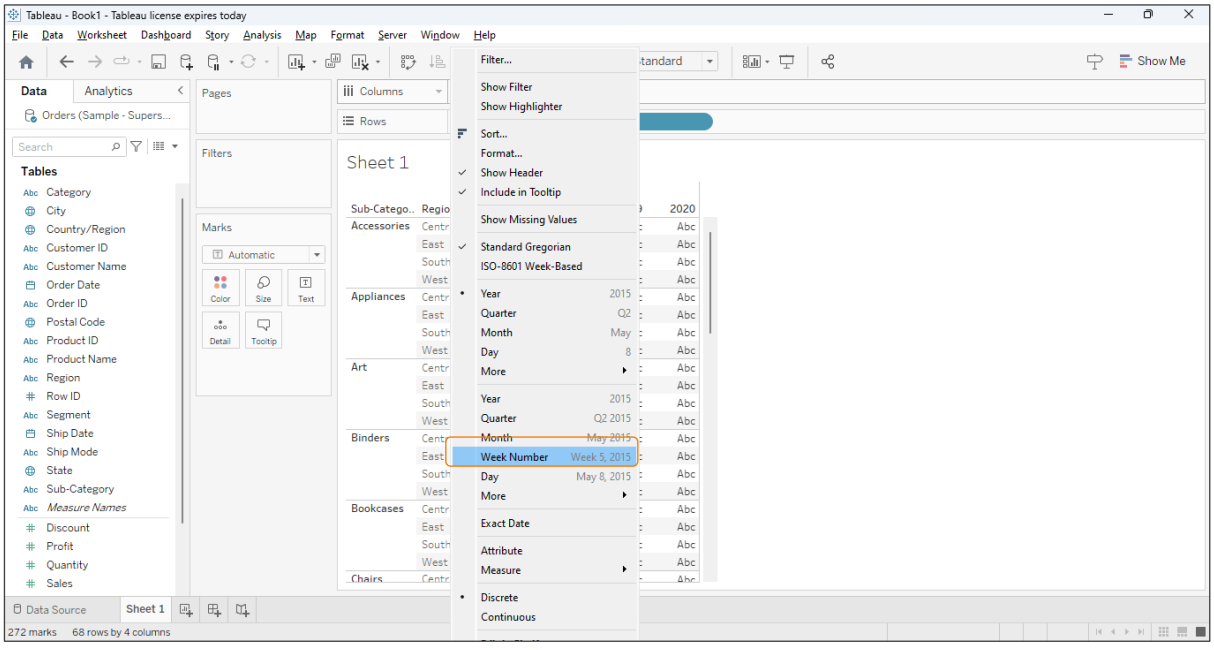


2. Implement Gantt chart

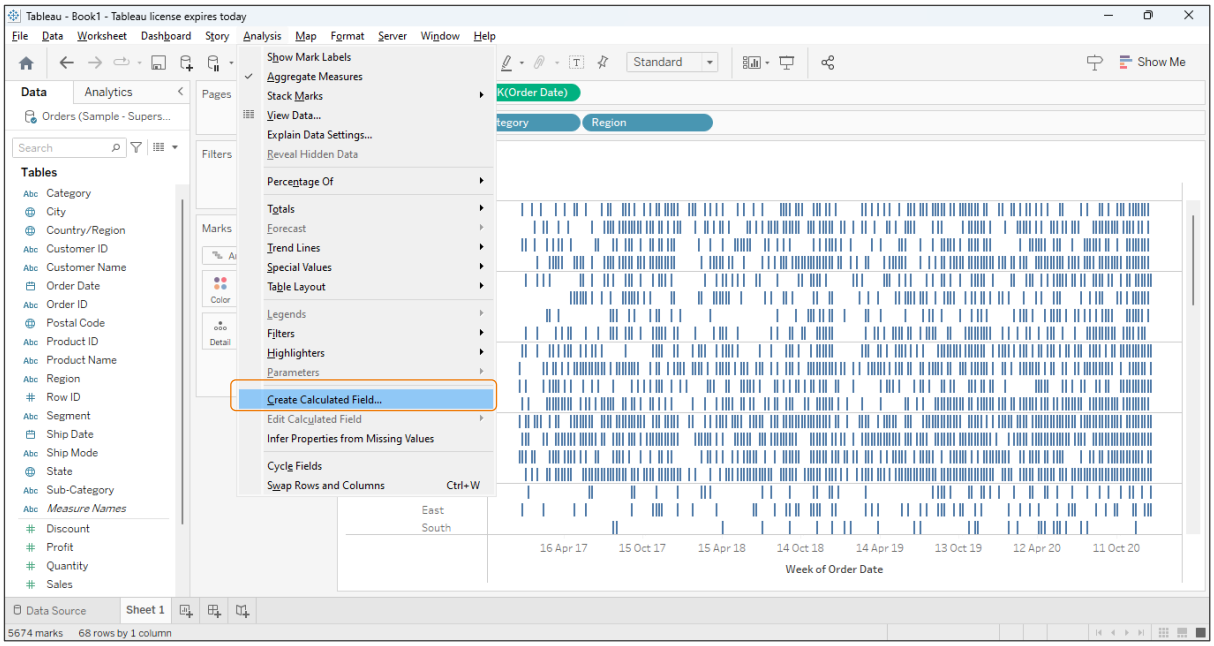
- Create a Gantt chart using Order Date, Sub-Category, and Region:
    - Add **Order Date** field to **Columns**. Add **Sub-Category** and **Region** fields to **Rows**.



- Change the **Order Date** from **Year** to **Week**

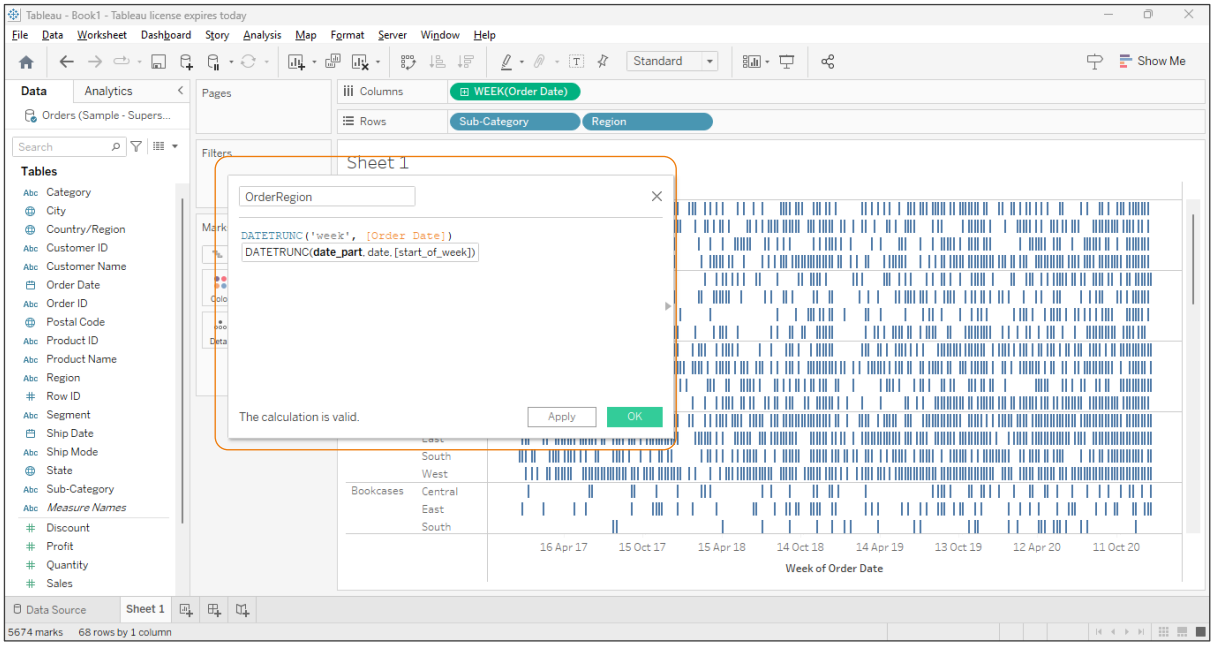


- Create a calculated field and apply the following condition: **DATETRUNC('week', [Order Date])**

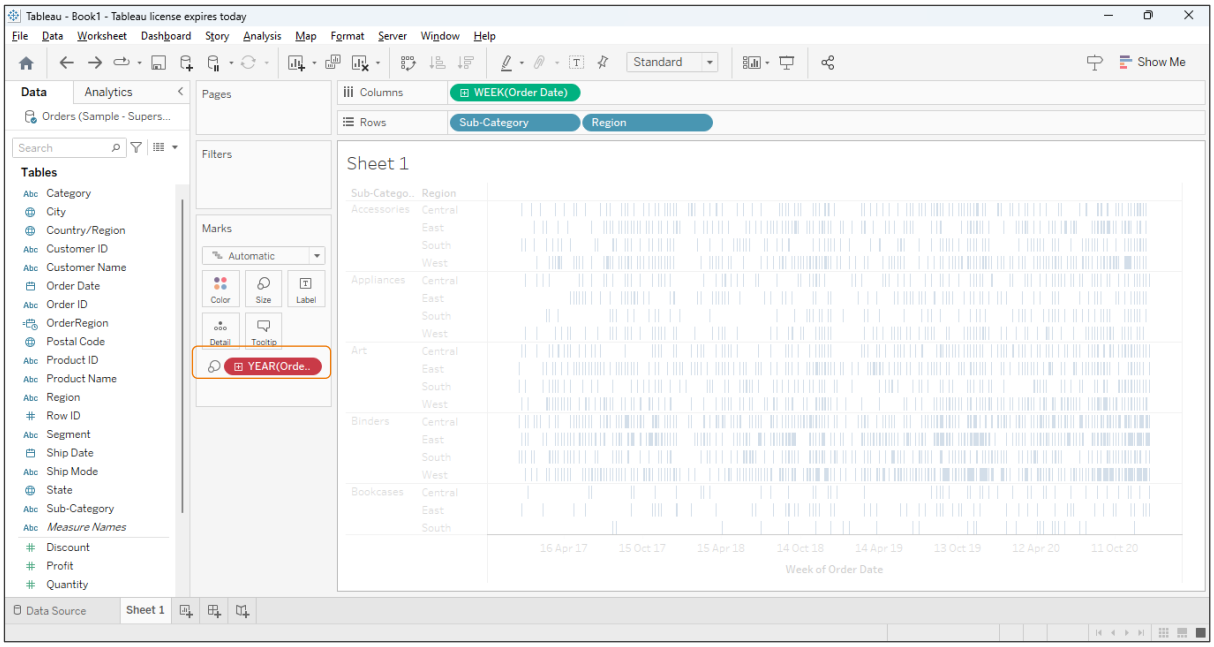


- Name the calculated field as **OrderRegion** and write the formula, then click **Apply** and **OK**

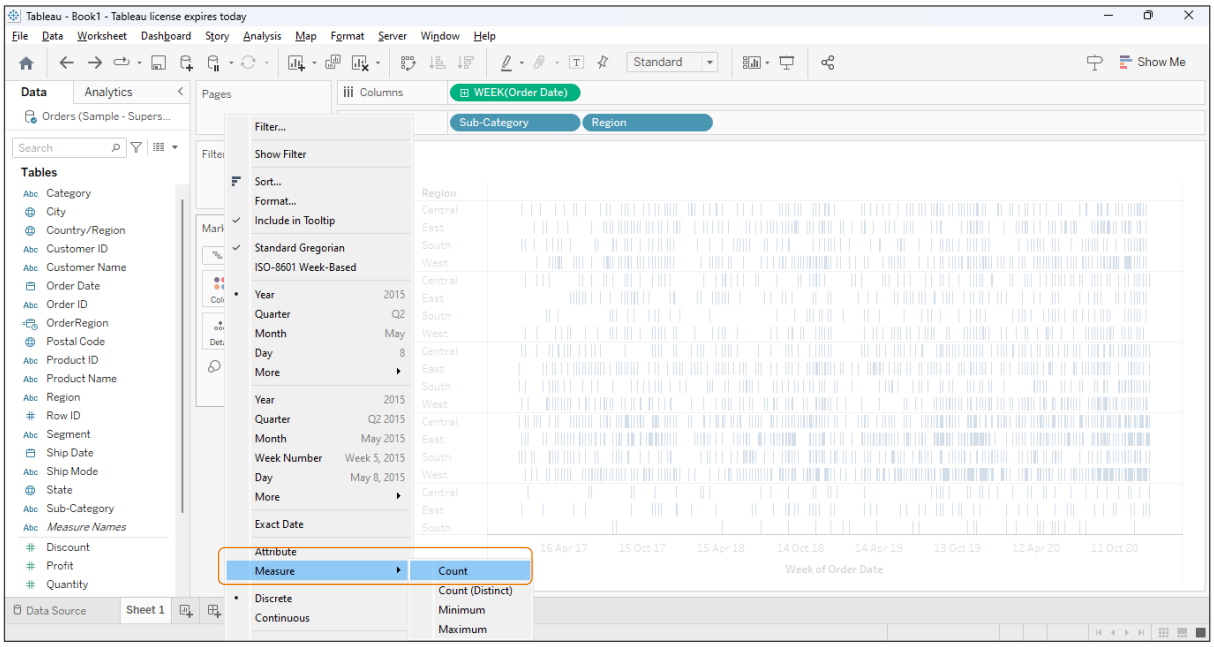
Note: We have named calculated field as OrderRegion because we want to calculate the Orders by Region.



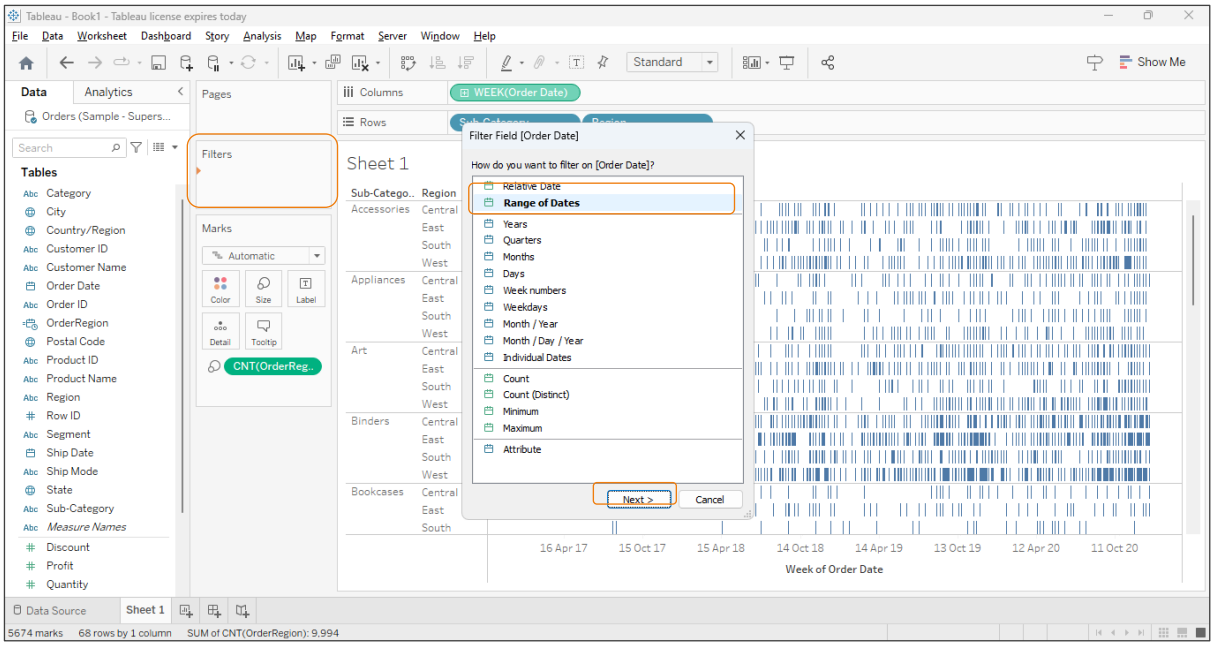
- Drag the calculated field **OrderRegion** and drop it into the **Size** section in the **Marks** card



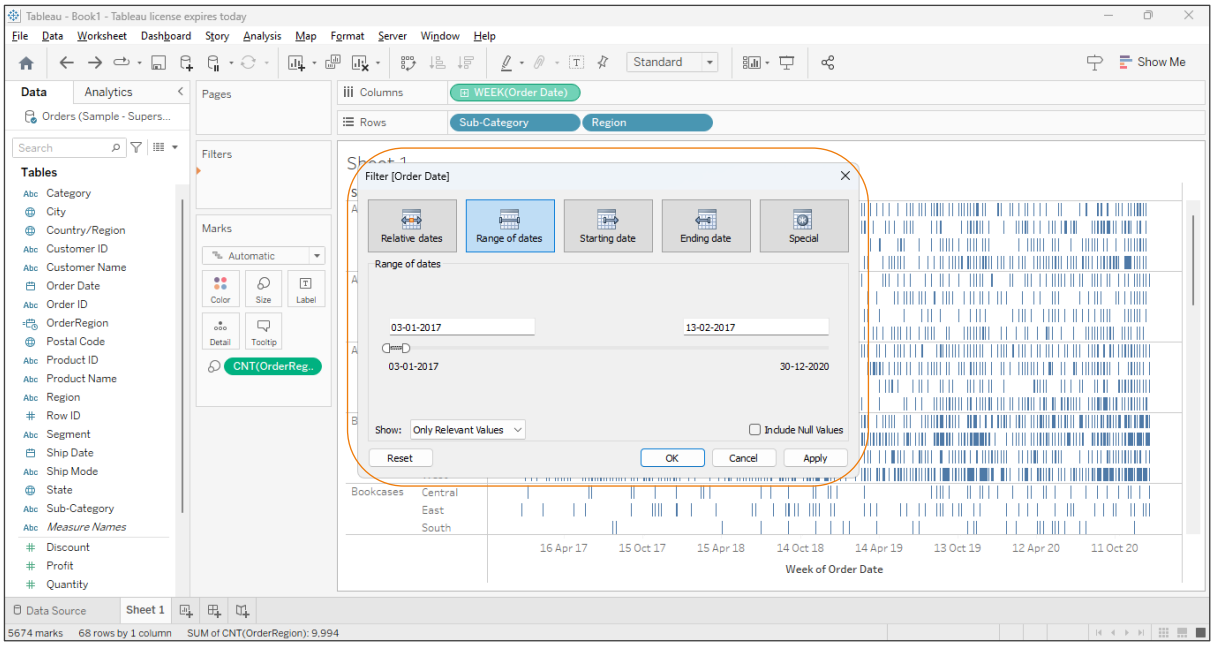
- Right-click on the field **YEAR(OrderRegion)**, click on **Measure**, and select the **Count** option from the list



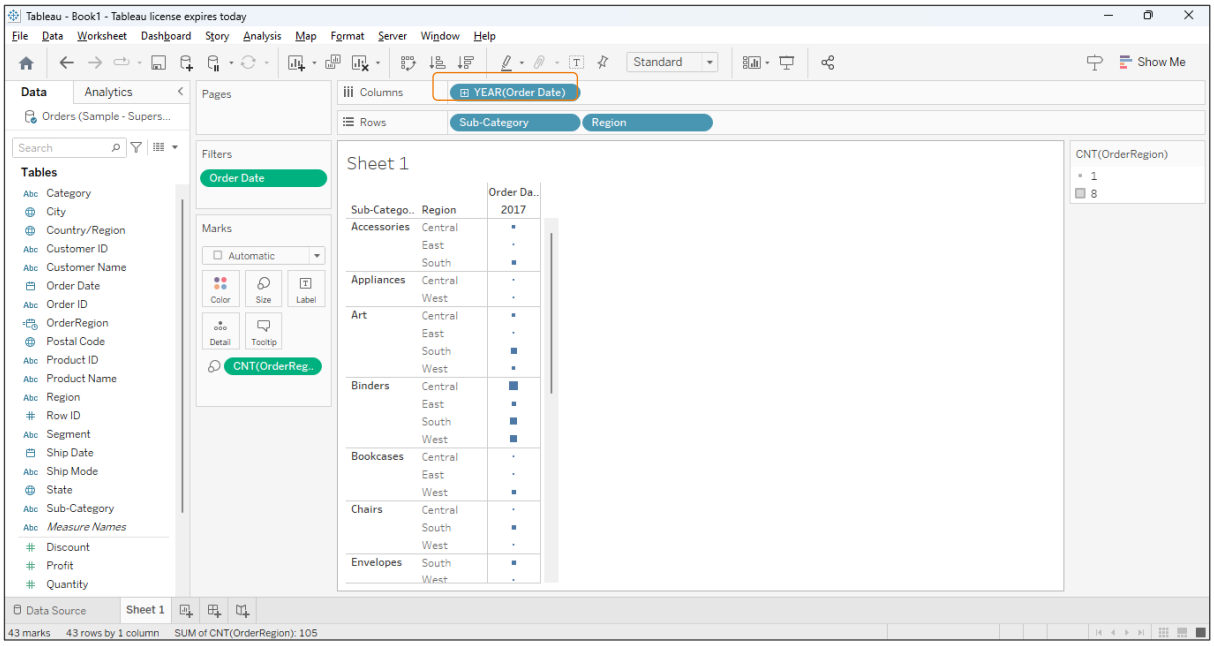
- Drag and drop **WEEK(Order Date)** to the **Filter** card and select **Range of Dates** from the filter list and click on **NEXT**



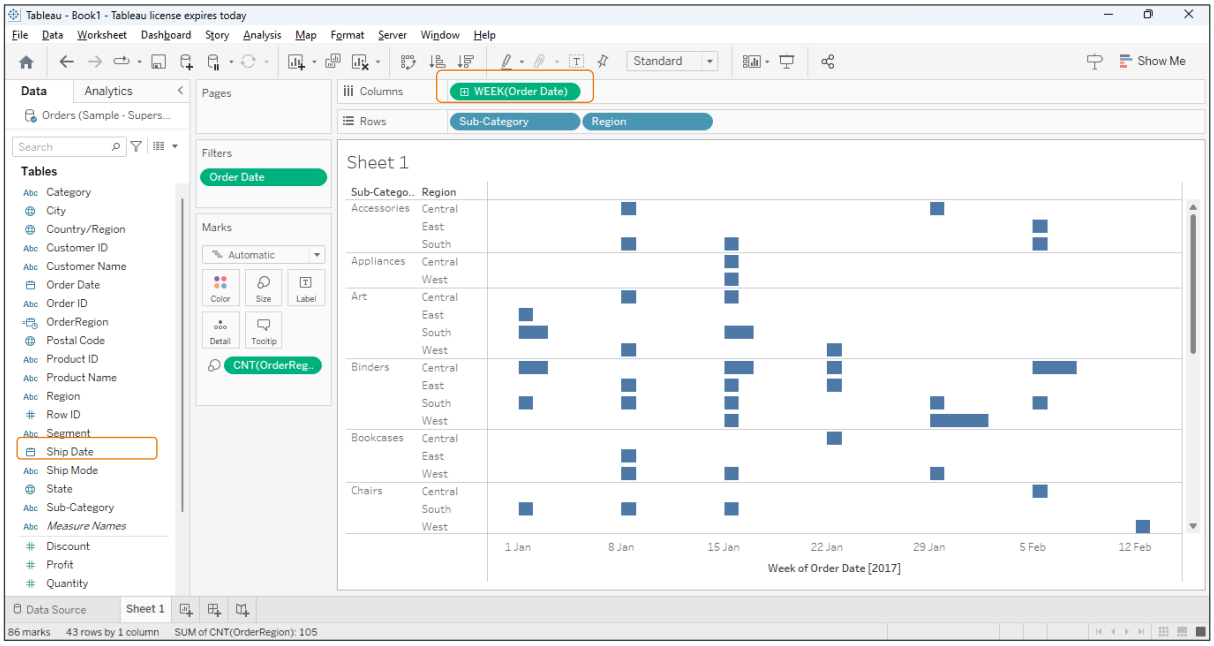
Set the range from 03-01-2017 to 12-02-2017. Click **OK**.



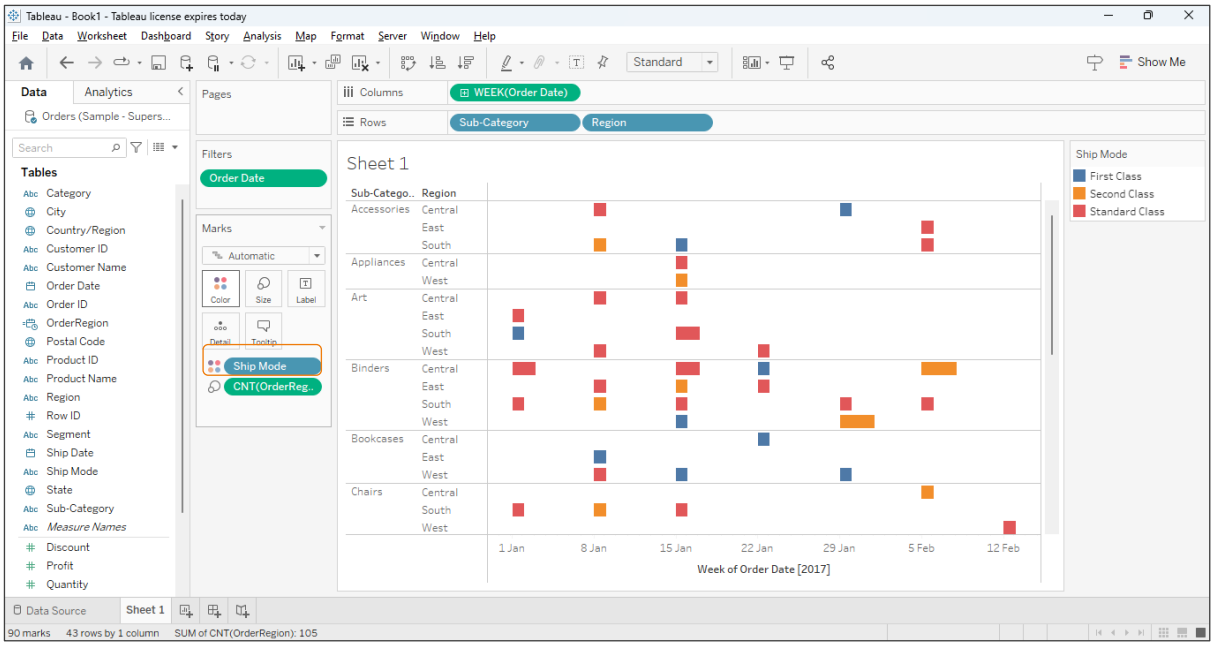
- Drag and drop **Order Date** to **Columns** and change the measure **WEEK(Order Date)**



The output after changing **Order Date** from year to week will appear as shown below:



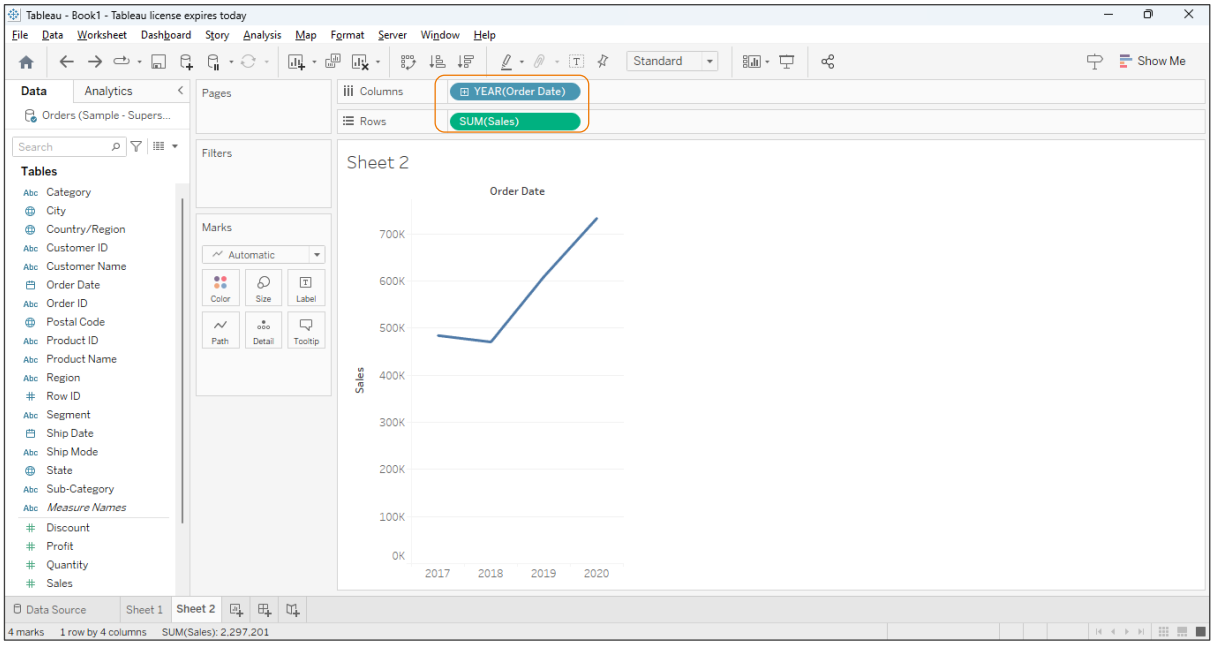
- Drag and drop the **Ship Mode** variable into the **Color** tile in the **Marks** card



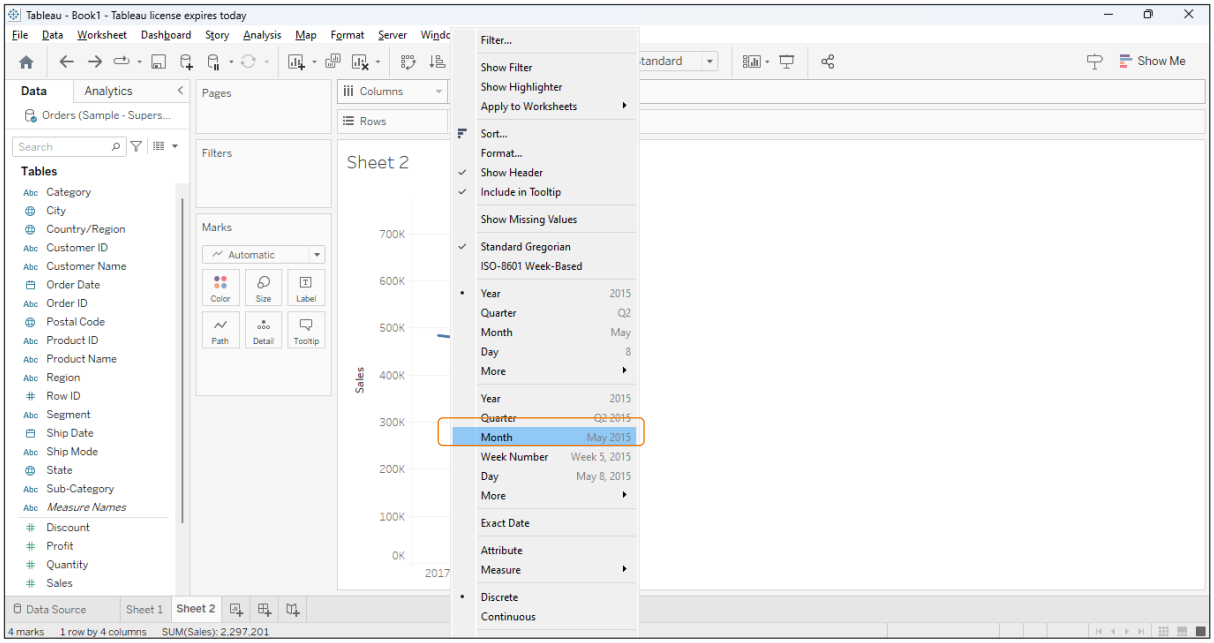
We have built a Gantt chart that displays the weekly orders received by category and region.

3. Implement Motion chart

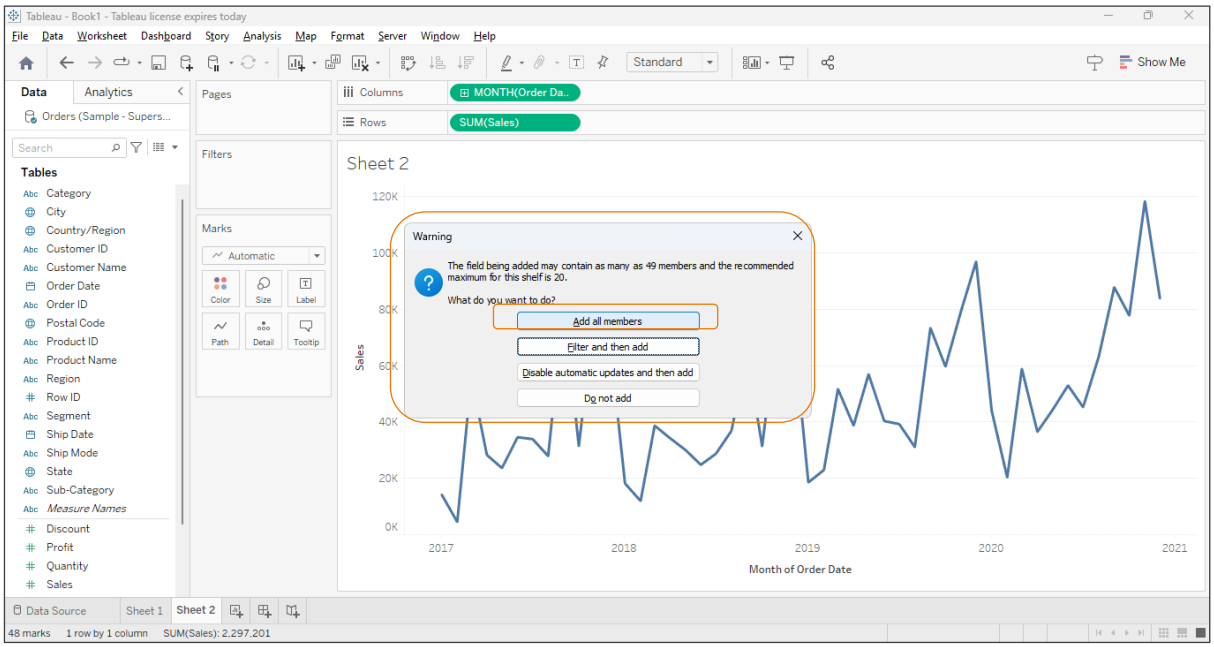
- Create a Motion chart using **Order Date**, **Sales**, and **States**:
    - Add **Order Date** to **Columns** and **Sales** to **Rows**



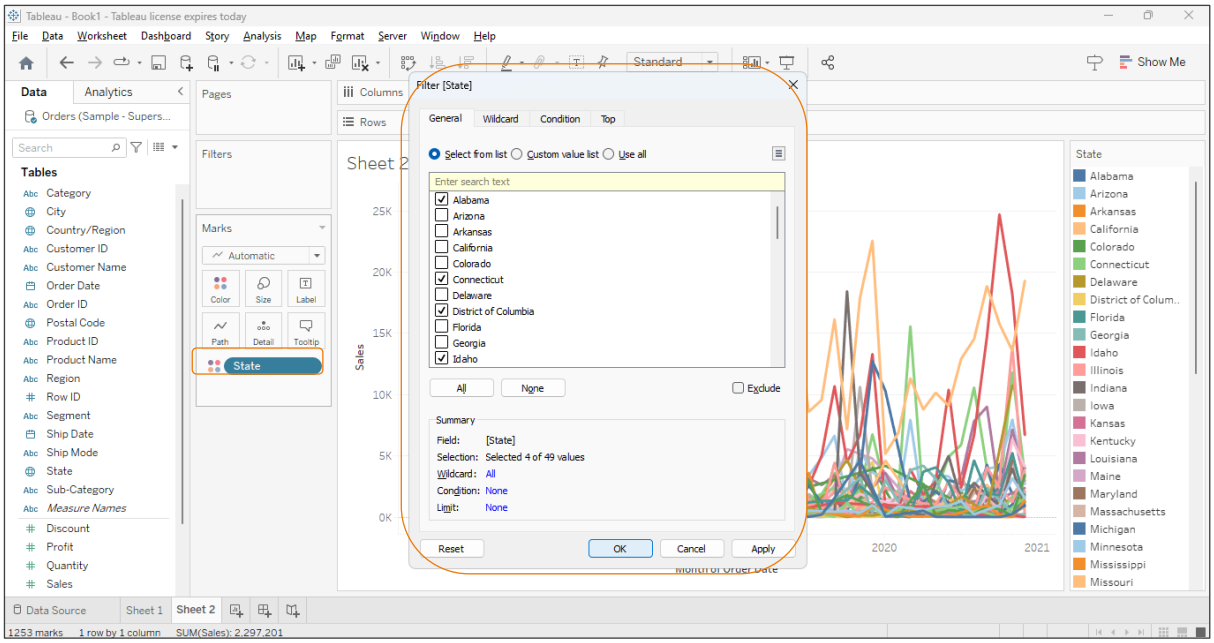
- Change the **Order Date** from **Year** to **Month**



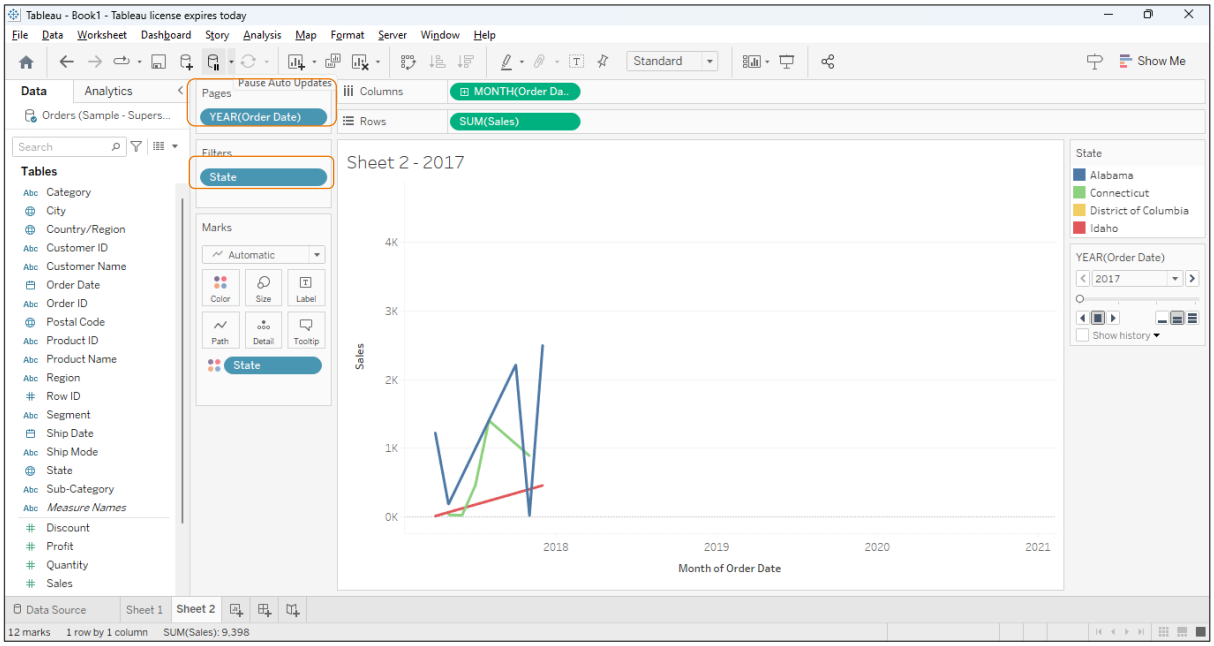
- Drag and drop the **State** variable into the **Color** tile in the **Marks** card. Click on **Add all members** when prompted.



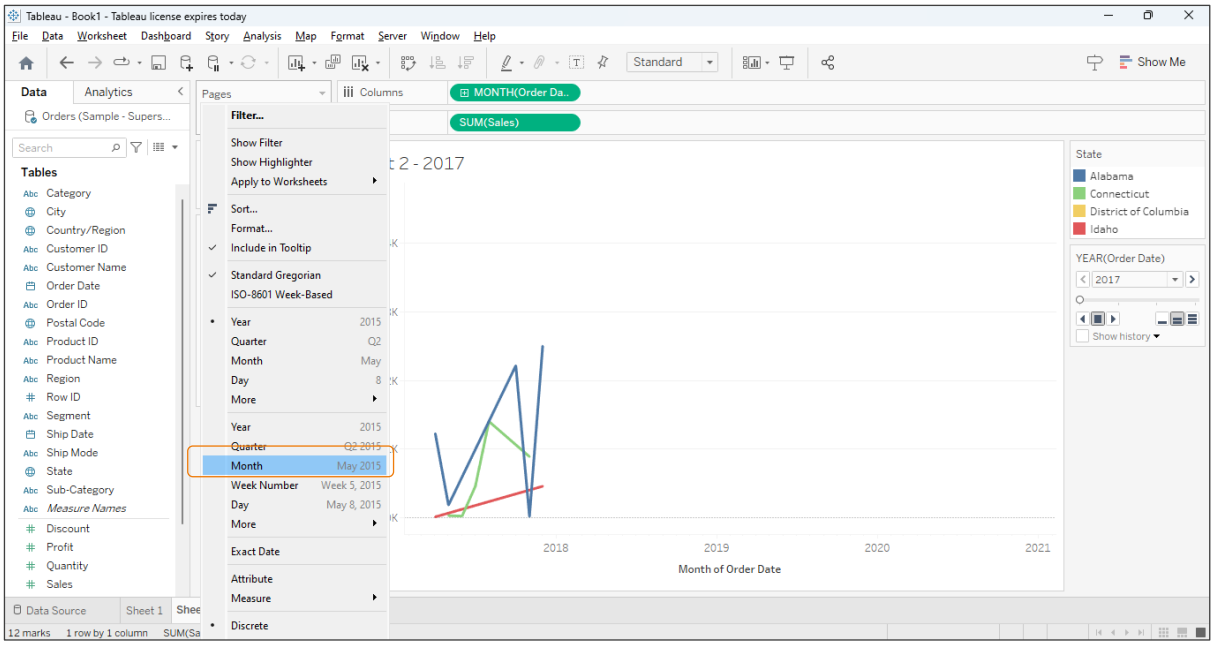
- Right-click on **State** to filter it. Select **Alabama, Connecticut, District of Columbia,** and **Idaho** from the list. Click **OK** to apply the filter.



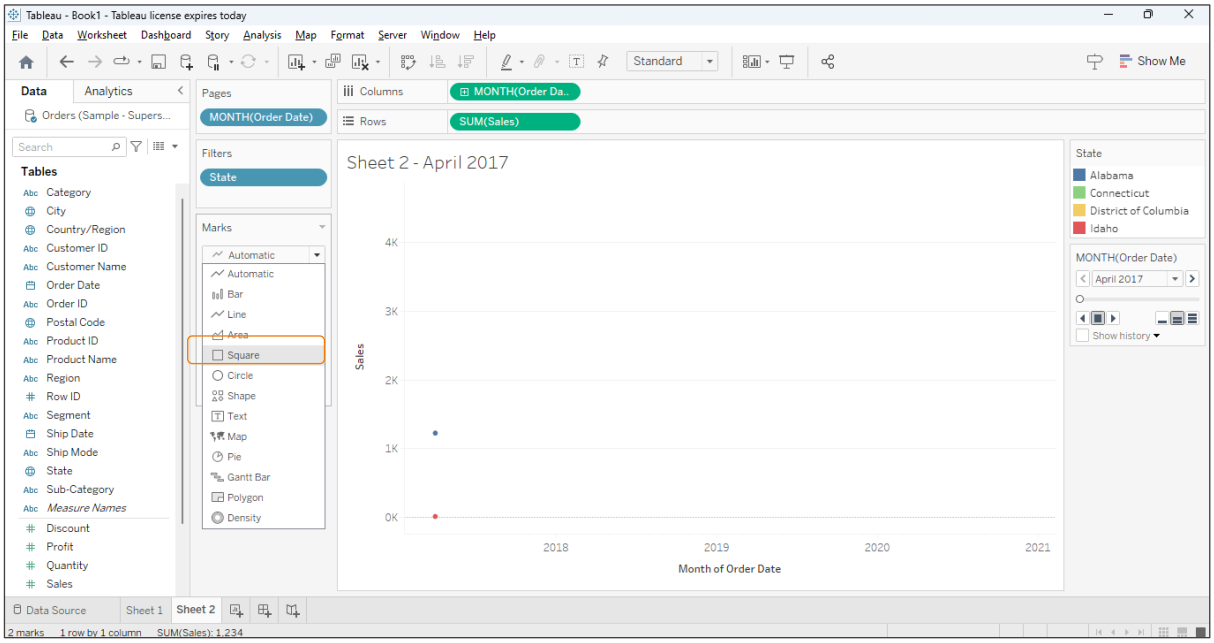
- Drag and drop the **Order Date** variable to the **Pages** card. Tableau automatically groups the order dates by year.



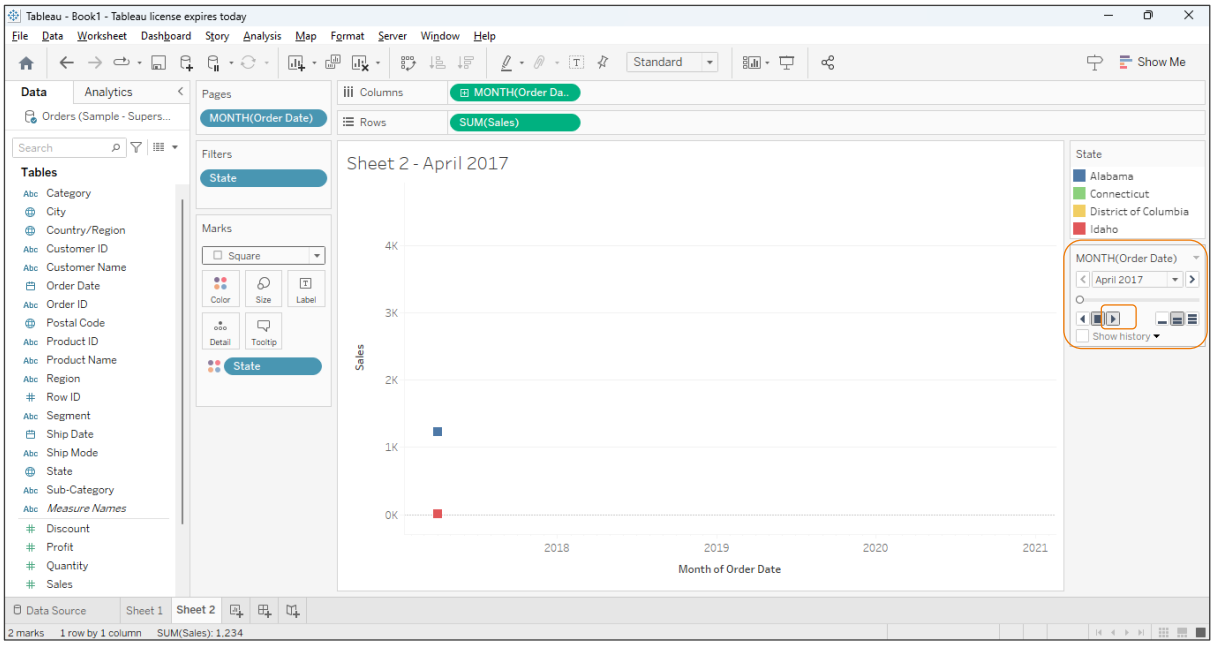
- In the Pages card, right-click on **YEAR(Order Date)** to change it to **Month**



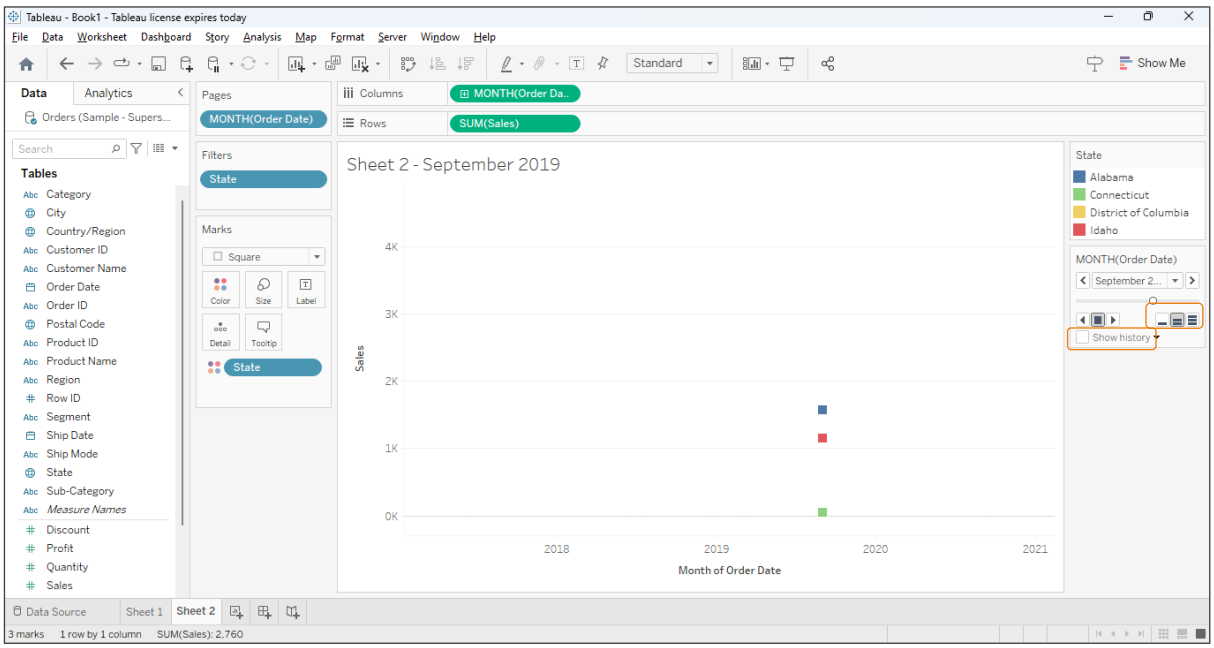
- In **Marks** card, change **Automatic** to **Square**. This will specify the shape of the data points.



- On the right side of Tableau Desktop application, you will see a section called **MONTH(Order Date)** with a list of options. In this section, click on the play button as shown in the screenshot below:

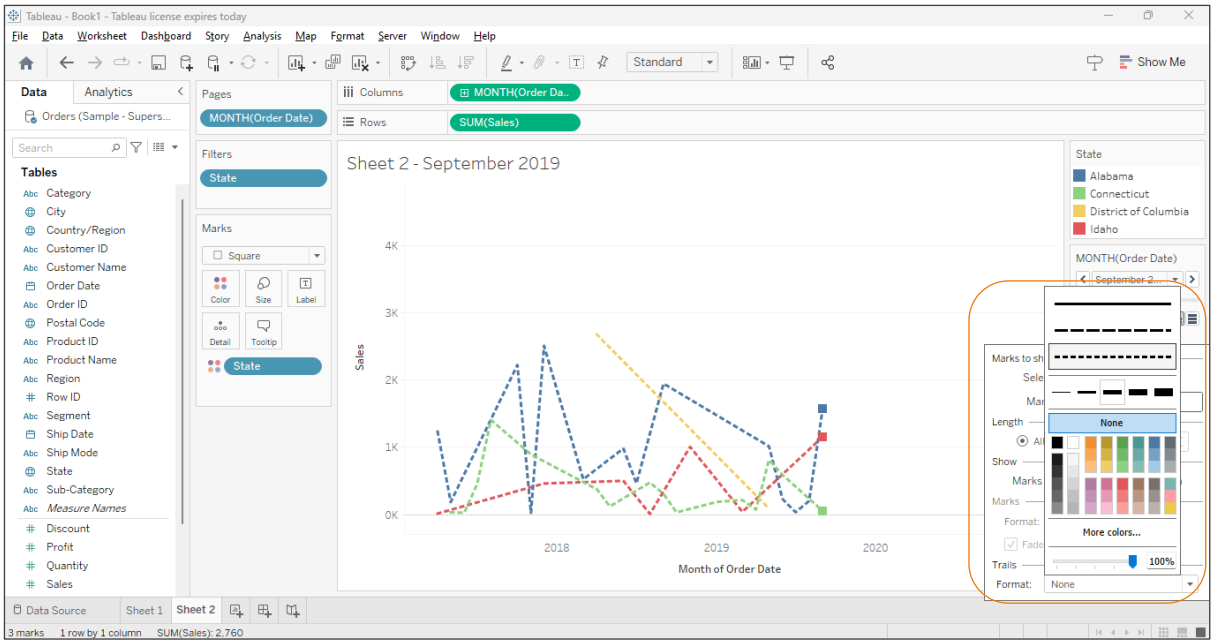


Here is the output after clicking the play button. The position of the square data points will change on the map.

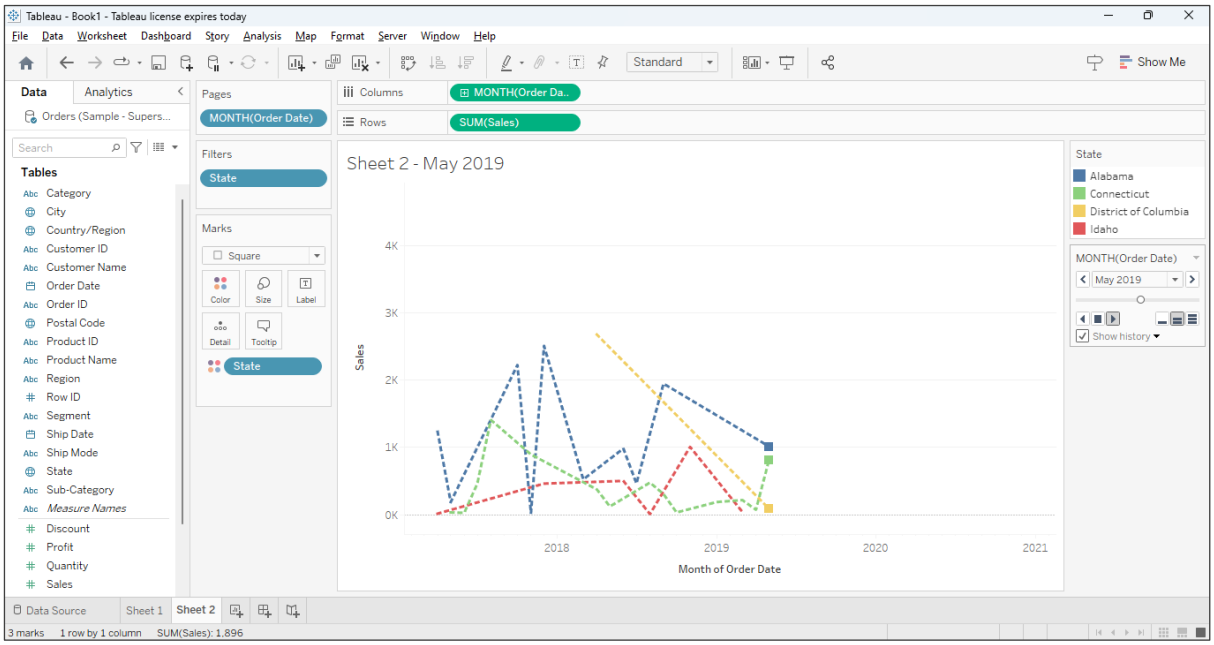


- In the same section, select the Show History checkbox below the play button (shown in above screenshot). Select show history for all and select Trails in the Show field. Then format the trail to show dotted line.

- Click the play button again



The output after clicking the play button is shown below. The data points have changed their position, and we can see that the trail line shows the count of monthly orders over the past few years.



4. Analysis and insights generation

DISCLAIMER: The analysis report given below is a skeletal solution, meant as a resource for reference. The actual report should be detailed and include actionable insights to solve the problem posed in the problem statement.

Sample Report:

1. Gantt chart analysis
   Findings: The Binders sub-category has the highest volume of orders. The highest order volume in this sub-category was received between 15th Jan and 21st Jan.

2. Motion chart analysis
   Findings: Alabama has the highest sales overall from the states we considered in our analysis. The District of Columbia shows the highest variation in sales volume.