

UNDERSTANDING BLENDS

Blends, unlike relationships or joins, never truly combine the data. Instead, blends query each data source independently, the results are aggregated to the appropriate level, then the results are presented visually together in the view. Because of this, blends can handle different levels of detail and working with published data sources. Blends are also established individually on every sheet and can never be published, because there is no true “blended data source”, simply blended results from multiple data sources in a visualization.

Data blending is particularly useful when the blend relationship—linking fields—need to vary on a sheet-by-sheet basis, or when combining published data sources.

STEPS TO CREATE A BLEND

Step 1: Connect to the first data source e.g.: Sales_Person_Details.xlsx

File Data Window Help

Connections [Add](#)

Sales_Person_Details
Microsoft Excel

Sheets

Sales_Person_Details

New Union

Sales_Person_Details (Sales_Person_Details)

Filters
0 [Add](#)

Sales_Person_Details

Need more data?
Drag tables here to relate them. [Learn more](#)

Sort fields Data source order

☐ Show aliases ☐ Show hidden fields 5 rows

Sales Person ID	First Name	Last Name	Salary
SalesPerson01	Aaron	Levy	100,000
SalesPerson02	Bill	Denver	100,000
SalesPerson03	Charles	Xavier	100,000
SalesPerson04	David	Long	100,000
SalesPerson05	Eve	Kendell	100,000

Data Source Sheet 1

STEPS TO CREATE A BLEND

Step 2: The second data source can be added by going to
Data > New data source

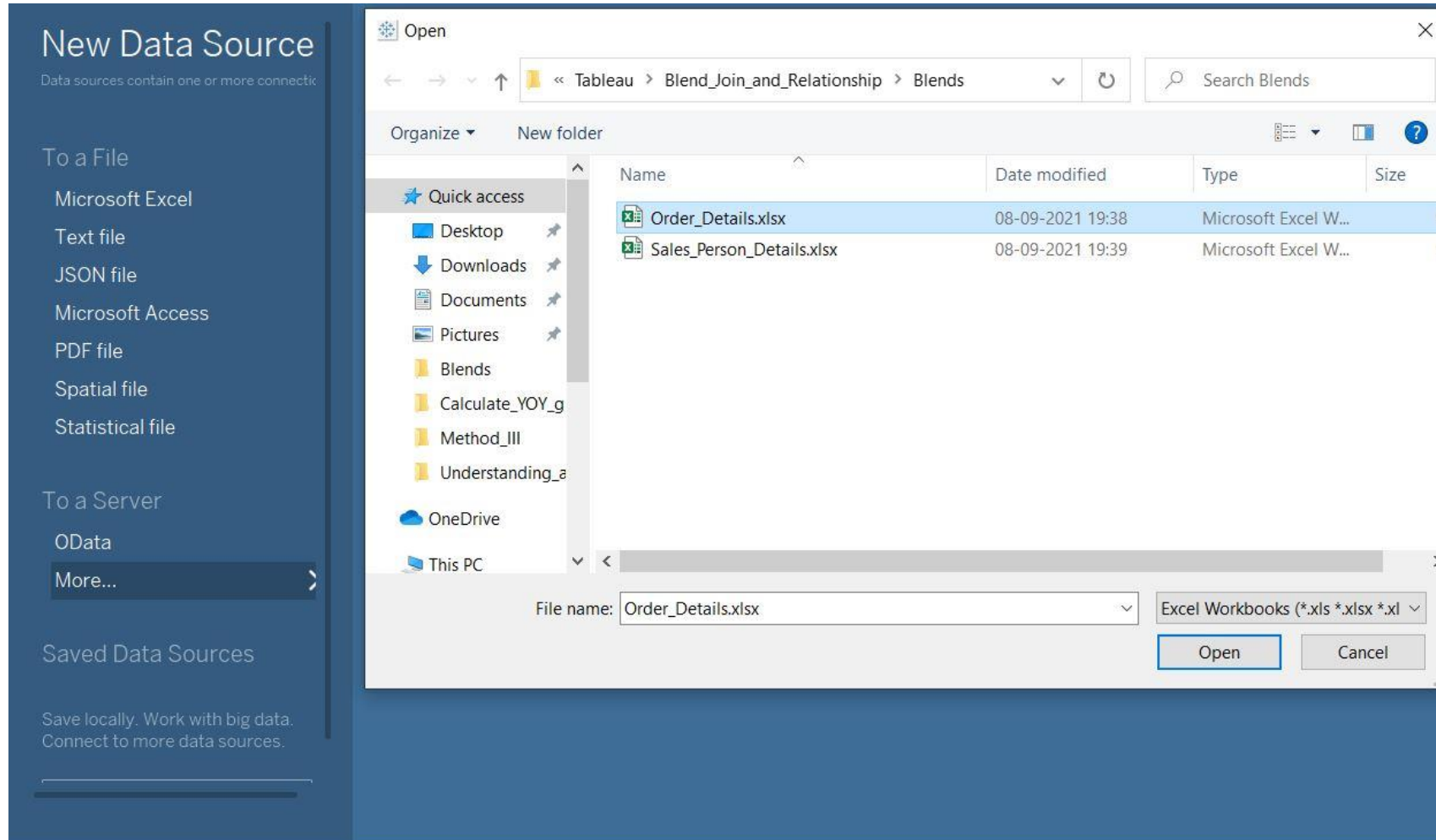
The screenshot shows the Tableau interface. The 'Data' menu is open, and 'New Data Source' is selected. The main view displays a data source named 'Sales_Person_Details (Sales_Person_Details)'. Below the data source name, there is a table with the following data:

Sales Person ID	First Name	Last Name	Salary
SalesPerson01	Aaron	Levy	100,000
SalesPerson02	Bill	Denver	100,000
SalesPerson03	Charles	Xavier	100,000
SalesPerson04	David	Long	100,000
SalesPerson05	Eve	Kendell	100,000

The interface also shows a 'Filters' section with '0' filters and an 'Add' button. A message 'Need more data? Drag tables here to relate them. [Learn more](#)' is displayed. The bottom status bar shows 'Data Source' and 'Sheet 1'.

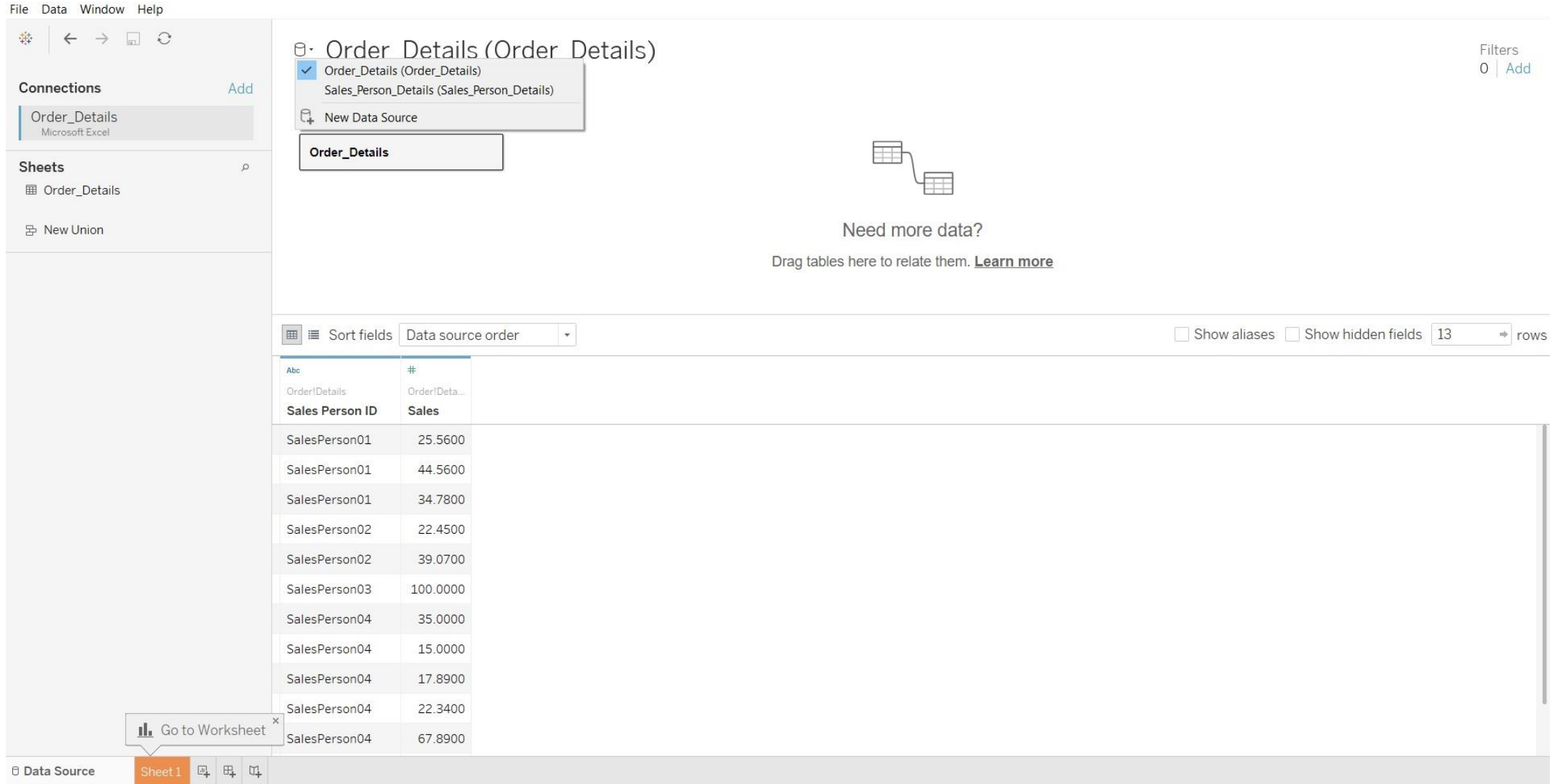
STEPS TO CREATE A BLEND

Step 3: Connect to the second data source e.g.: Order_details.xlsx



STEPS TO CREATE A BLEND

Step 4: Now we have 2 data sources in the same workbook
Click on **Sheet1**



File Data Window Help

Connections [Add](#)

- Order_Details (Microsoft Excel)

Order_Details (Order_Details)

- ☒ Order_Details (Order_Details)
- ☐ Sales_Person_Details (Sales_Person_Details)
- [New Data Source](#)

Order_Details

Need more data?
Drag tables here to relate them. [Learn more](#)

Sort fields Data source order

☐ Show aliases ☐ Show hidden fields 13 rows

Order_Details	Sales
SalesPerson01	25.5600
SalesPerson01	44.5600
SalesPerson01	34.7800
SalesPerson02	22.4500
SalesPerson02	39.0700
SalesPerson03	100.0000
SalesPerson04	35.0000
SalesPerson04	15.0000
SalesPerson04	17.8900
SalesPerson04	22.3400
SalesPerson04	67.8900

Go to Worksheet

Data Source Sheet 1

STEPS TO CREATE A BLEND

Step 5: Both the data sources are seen in the Data pane
Select **Sales_Person_Details** data source

The screenshot displays the Tableau Desktop interface. On the left, the 'Data' pane is active, showing a list of data sources. 'Sales_Person_Details (Sales_Person_Details)' is selected and highlighted in grey. Below it, a search bar and a list of fields are visible. The 'Columns' shelf at the top is empty. The 'Rows' shelf is also empty. The 'Marks' card is set to 'Automatic'. The main view area is titled 'Add A Blend' and contains two 'Drop field here' prompts. The 'Filters' shelf is empty. The 'Pages' shelf is empty. The 'Detail' and 'Tooltip' cards are visible in the Marks card.

Data Analytics <

Order_Details (Order_Details)
Sales_Person_Details (Sales_Person_Details)

Search

Tables

- First Name
- Last Name
- Sales Person ID
- Measure Names
- Salary
- Sales_Person_Details (Cou...
- Measure Values

Columns

Rows

Filters

Marks

Automatic

Color Size Text

Detail Tooltip

Add A Blend

Drop field here

Drop field here

STEPS TO CREATE A BLEND

Step 6: Drag the **Sales Person ID** from **Sales_Person_Details** data source to the **Rows** shelf
Sales_Person_Details will now become the **primary data source**
The **primary data source** is indicated with a **blue check mark** on the data source

The screenshot shows the Tableau Desktop interface with the following components:

- Data Pane:** Lists data sources: **Order_Details (Order_Det...)** and **Sales_Person_Details (Sa...)**. The latter is selected and has a blue checkmark, indicating it is the primary data source.
- Columns Shelf:** Labeled "Columns", it is currently empty.
- Rows Shelf:** Labeled "Rows", it contains the field **Sales Person ID** from the **Sales_Person_Details** source.
- Filters Shelf:** Currently empty.
- Marks Shelf:** Set to "Automatic". Below the shelf are icons for **Color**, **Size**, **Text**, **Detail**, and **Tooltip**.
- Table List:** On the left, under "Tables", it lists: **First Name**, **Last Name**, **Sales Person ID**, **Measure Names**, **Salary**, **Sales_Person_Details (Cou...**, and **Measure Values**.
- Add A Blend:** A section on the right showing a list of sales persons: **Sales Person ID**, **SalesPerson01**, **SalesPerson02**, **SalesPerson03**, **SalesPerson04**, and **SalesPerson05**, each followed by the value **Abc**.

STEPS TO CREATE A BLEND

Step 7: Select **Order_details** data source

Switch to another data source and make sure there is a **blend relationship** to the **primary data source**

If there is an **orange linking field icon**, the data sources are automatically linked.

The screenshot displays a data analytics dashboard with a sidebar on the left and a main workspace on the right. The sidebar contains a 'Data' tab, a search bar, and a 'Tables' list. The 'Tables' list includes 'Sales Person ID' (marked as the primary data source with an orange icon), 'Measure Names', 'Sales', 'Order_Details (Count)', and 'Measure Values'. The main workspace shows a 'Columns' shelf with 'Sales Person ID' and a 'Rows' shelf. Below the shelves, there is a 'Filters' section and a 'Marks' section with a dropdown menu set to 'Automatic'. The 'Marks' section also includes icons for 'Color', 'Size', 'Text', 'Detail', and 'Tooltip'. The main workspace area is titled 'Add A Blend' and displays a table with the following data:

Sales Person ID	
SalesPerson01	Abc
SalesPerson02	Abc
SalesPerson03	Abc
SalesPerson04	Abc
SalesPerson05	Abc

STEPS TO CREATE A BLEND

Step 8: Drag the **Sales** from **Order_details** data source into the view

As soon as this second data source is used in the same view, a blend is established

In this example below, our **primary data source** is **Sales_Person_Details** and the **secondary data source** is **Order_details**

The screenshot shows the Tableau Desktop interface with the following components:

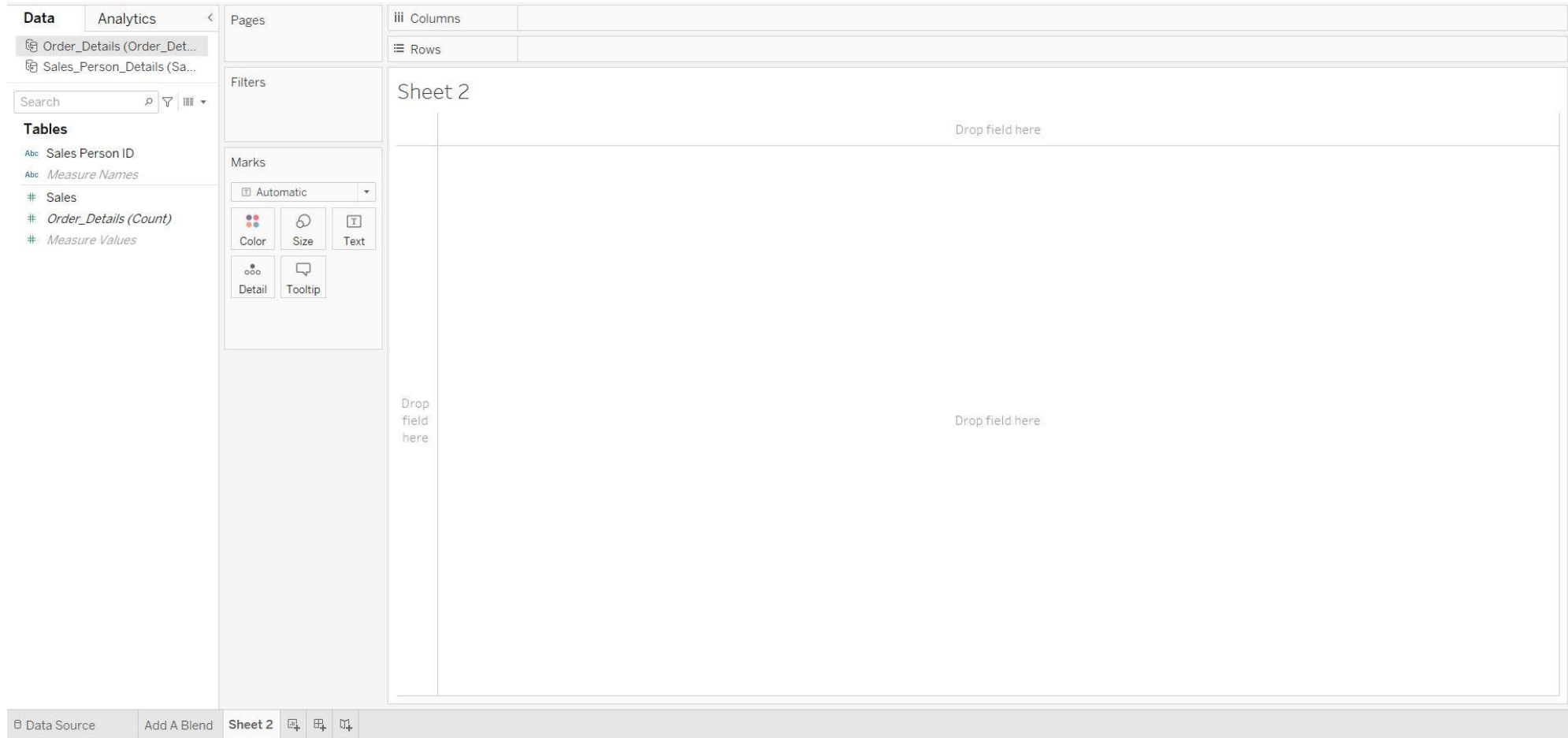
- Data Pane:** Lists two data sources: **Order_Details (Order_Det...)** and **Sales_Person_Details (Sa...)**. Below them, under **Tables**, are **Sales Person ID**, **Measure Names**, **Sales**, **Order_Details (Count)**, and **Measure Values**.
- Columns Shelf:** Contains the field **Sales Person ID**.
- Rows Shelf:** Contains the field **Sales**.
- Marks Card:** Set to **Automatic**.
- Filters:** Empty.
- Columns Header:** Displays the title **Add A Blend** and a table of data.

Sales Person ID	
SalesPerson01	104.9
SalesPerson02	61.5
SalesPerson03	100.0
SalesPerson04	236.1
SalesPerson05	57.5

STEPS TO CREATE A BLEND

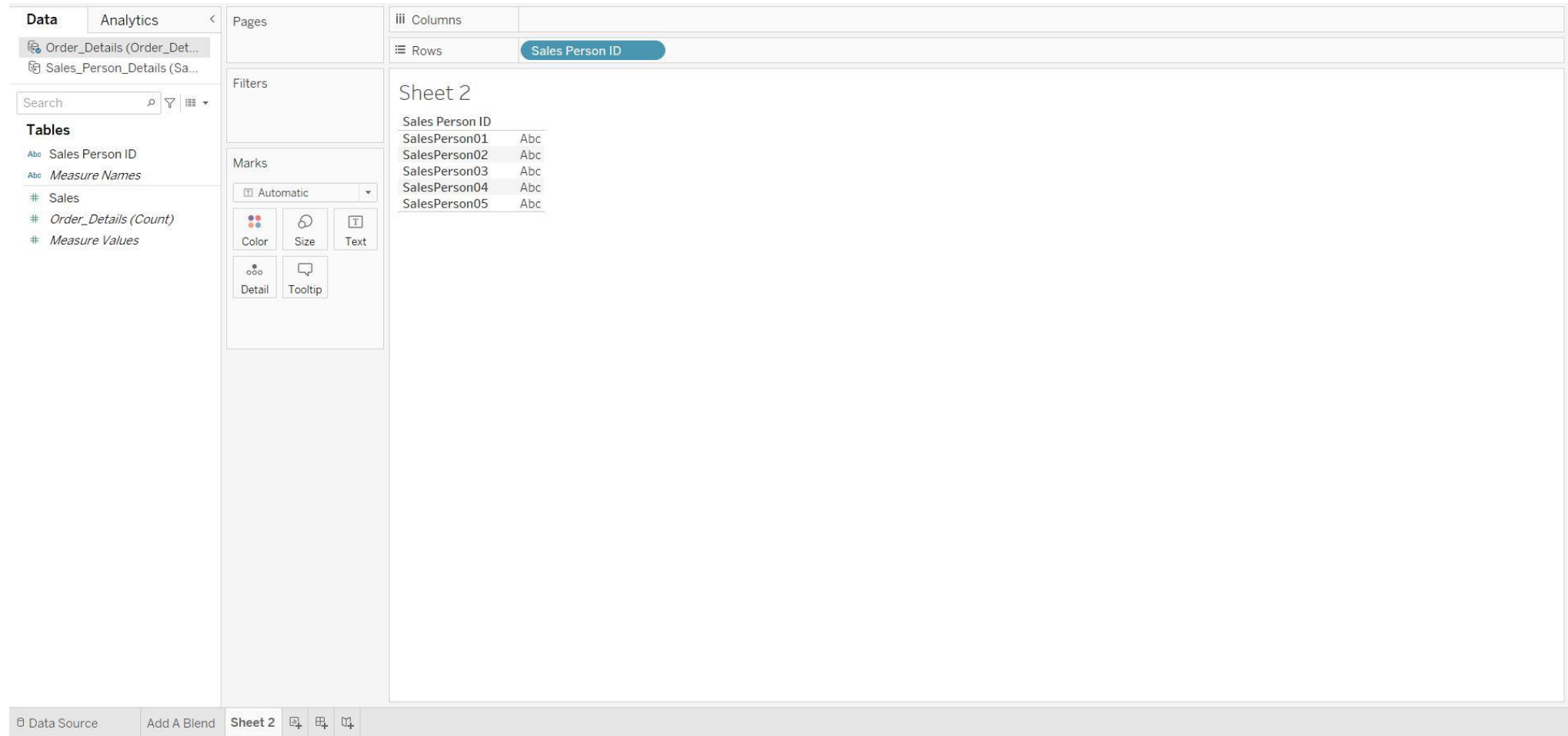
Step 9: Blend is created on a **sheet-by-sheet** basis

Hence in a new sheet we do not see the same blend relationship retained



STEPS TO CREATE A BLEND

Step 10: We can drag the **Sales Person ID** from **Order_details** data source to the **Rows** shelf
For this sheet **Order_details** becomes the **primary data source** indicated with a **blue check mark**



STEPS TO CREATE A BLEND

Step 11: Go back to the previous sheet and if required drag the **First Name** from **Sales_Person_Details** to the **Rows** shelf

The screenshot shows the Tableau Desktop interface with the following components:

- Data Pane:** Lists 'Order_Details (Order_Det...)' and 'Sales_Person_Details (Sa...'. The 'Tables' section includes 'First Name', 'Last Name', 'Sales Person ID', 'Measure Names', 'Salary', 'Sales_Person_Details (Cou...', and 'Measure Values'.
- Columns Shelf:** Contains 'Sales Person ID' and 'First Name'.
- Rows Shelf:** Is empty.
- Marks Card:** Shows 'SUM(Sales)'.
- View:** A table titled 'Add A Blend' with columns 'Sales Person ID', 'First Name', and a numerical value.

Sales Person ID	First Name	
SalesPerson01	Aaron	104.9
SalesPerson02	Bill	61.5
SalesPerson03	Charles	100.0
SalesPerson04	David	236.1
SalesPerson05	Eve	57.5

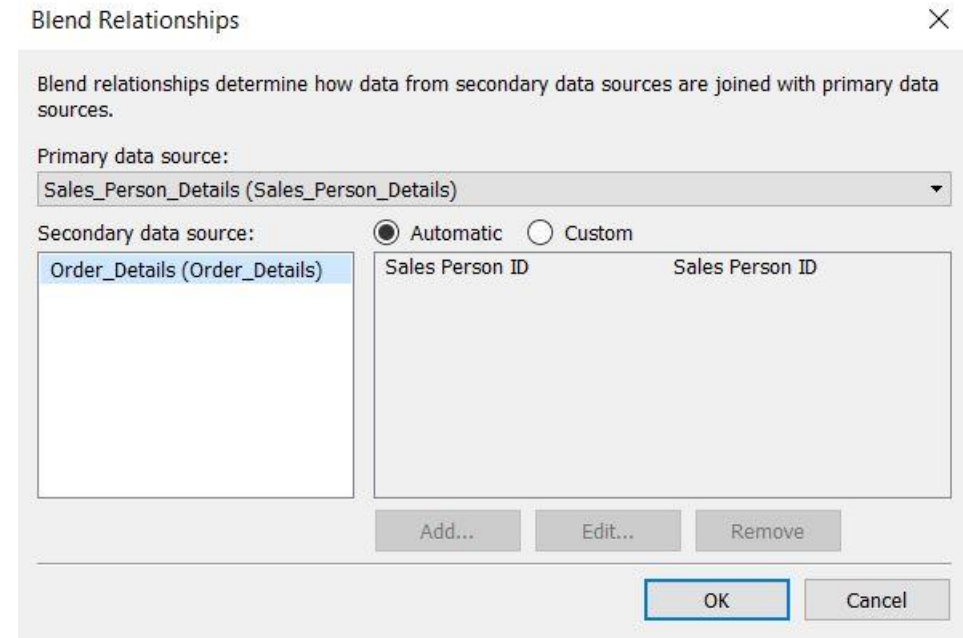
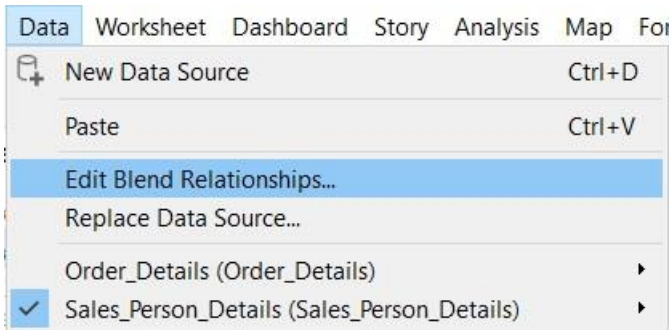
STEPS TO CREATE A BLEND

Step 12: Sometimes we might need to define the Blend Relationships

This can be accessed from **Data > Edit Blend Relationships**

For this example, we can see that Tableau has by default (**Automatic** option) detected the **linking field** as the **Sales Person ID**

If required, we can define it manually using the **Custom** option



SUMMARY OF BLENDING

Given below are the important points w.r.t Blends:

1. The **visual cue** for a blend is a **linking field** (red color)
2. We need **at least 2 separate data sources** to create a **blend**
Only one of the data sources will be the **primary data source** indicated by **blue check mark**, **secondary data source** is indicated by **orange check mark**
3. We retain the original table structure
4. Tables are combined via separate queries and linking field
5. Numbers are **aggregated** based on the **primary data source**
6. **Blend** is always a **left join** with the **primary data source**