

EAS 5740: HOW TO USE DATA

# Data Visualization and Tableau

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# Multi-table Analysis

# Joining Datasets in Tableau

- **How to Create a Join:**

- You can create a join in the **physical layer** of Tableau's "Data Source" view

# Joining Datasets in Tableau

- **How to Create a Join:**
  - First, drag the first table to the canvas

The screenshot shows the Tableau interface with the 'Orders1' table loaded. The sidebar on the left shows the 'Connections' panel with 'Sample - Superstore' (Microsoft Excel) and the 'Sheets' panel with a list of tables: Orders, People, Returns, People, Returns, New Union, and New Table Extension. The central canvas area displays a 'Need more data?' prompt with a link to 'Learn more'. The bottom pane shows the 'Orders1' table structure and data.

**Orders1 Table Structure:**

Type	Field Name	Physical Table	Remote Fi...
#	Row ID	Orders	Row ID
Abc	Order ID1	Orders	Order ID
Calendar	Order Date1	Orders	Order Date

**Orders1 Table Data:**

#	Abc	Calendar	Calendar	Abc	Abc	Abc
Orders	Orders	Orders	Orders	Orders	Orders	Orders
Row ID	Order ID1	Order Date1	Ship Date1	Ship Mode1	Customer ID	Cus
1	US-2020-103800	1/3/2020	1/7/2020	Standard Class	DP-13000	Da
2	US-2020-112326	1/4/2020	1/8/2020	Standard Class	PO-19195	Phi
3	US-2020-112326	1/4/2020	1/8/2020	Standard Class	PO-19195	Phi
4	US-2020-112326	1/4/2020	1/8/2020	Standard Class	PO-19195	Phi
5	US-2020-141817	1/5/2020	1/12/2020	Standard Class	MB-18085	Mic
6	US-2020-167199	1/6/2020	1/10/2020	Standard Class	ME-17320	Ma

# Joining Datasets in Tableau

- **How to Create a Join:**
  - Select **Open** from the menu or **double-click** the first table to open the join canvas (**physical layer**)

The screenshot shows the Tableau interface with the 'Orders1' table selected in the physical layer. The left sidebar displays the 'Connections' pane with 'Sample - Superstore' (Microsoft Excel) and the 'Sheets' pane with a list of tables: Orders, People, Returns, People, and Returns. The main view shows the 'Orders1' table with 29 fields and 10194 rows. The table structure is as follows:

Type	Field Name	Physical Table	Remote Fi...
#	Row ID	Orders	Row ID
Abc	Order ID1	Orders	Order ID
📅	Order Date1	Orders	Order Date

The main data view shows the following data:

#	Abc	📅	📅	Abc	Abc	Abc
Orders	Orders	Orders	Orders	Orders	Orders	Orders
Row ID	Order ID1	Order Date1	Ship Date1	Ship Model1	Customer ID	Cus
1	US-2020-103800	1/3/2020	1/7/2020	Standard Class	DP-13000	Da
2	US-2020-112326	1/4/2020	1/8/2020	Standard Class	PO-19195	Phi
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6	US-2020-167199	1/6/2020	1/10/2020	Standard Class	ME-17320	Ma

# Joining Datasets in Tableau

- **How to Create a Join:**
  - **Drag and drop** the fields from one table onto the corresponding fields in another table. Tableau will **automatically** detect the common fields and suggest a join.

The screenshot shows the Tableau interface with the 'Sample - Superstore' data source. The 'Orders1' worksheet is active, showing a join between the 'Orders' and 'Returns' tables. A 'Join' dialog box is open, displaying the join type 'Left' and the join condition 'Customer ID = Order ID1'.

Connections: Sample - Superstore (Microsoft Excel)

Sheets: Use Data Interpreter, Orders, People, Returns, People, Returns, New Union, New Table Extension

Orders1 is made of 2 tables. ①

Orders+ — Returns

Join

Data Source			Returns	
Customer ID	=		Order ID1	
Add new join clause				

# Joining Datasets in Tableau

- **How to Create a Join:**

- **Drag** and **drop** the fields from one table onto the corresponding fields in another table. Tableau will **automatically** detect the common fields and suggest a join.
- Choose join type:
  - Left Join
  - Full Outer Join
  - Left Join (if NULL)
  - Inner Join
  - Right Join
  - Right Join (if NULL)

