TableauPresents

The Art of Data Massage

Joins, Blends, Unions, Relationships

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Leading the Way: A Guided eLearning Journey

During this series, you'll have the opportunity to:

EXPERIENCE a practical approach to eLearning with real world examples	**ADVANCE** your Tableau skills and ability to answer critical business questions with data	**CONNECT** with your industry community and learn how to apply new skills in your field

+++ +**tableau**
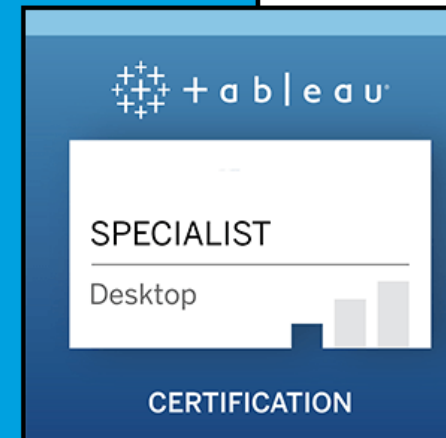
Recommended Role Based Learning

Recommended Course Based Learning

DESKTOP I: FUNDAMENTALS

> Connecting to Data

> Customizing a Data Source

DESKTOP II: INTERMEDIATE

> Joining Tables

> Joining Tables Using Calculations

> Blending Multiple Data Sources

> Blending Data without a Common Field

> Using Unions to Combine Data

T A B L E A U TERMINOLOGY

DATASOURCE:

Underlying data

DATA PANE:

Shows the list of data connectors available

WORKBOOK:

Collection of one or more worksheets and dashboards

CANVAS:

Blank area to set up data source

DATA GRID

Previews first 1,000 rows of data

DATA CONNECTION PAGE:

Make changes after initial connection

MARKS:

Visual representation of one or more rows in a data source

NUMBER OF RECORDS:

Automatically generated field representing each record

PACKAGED WORKBOOK (.TWBX):

Workbook + copy of the data source

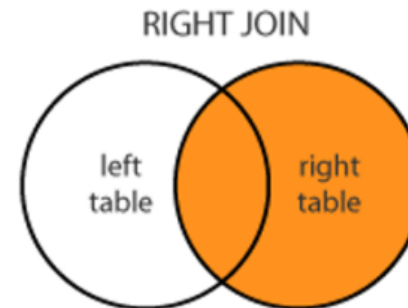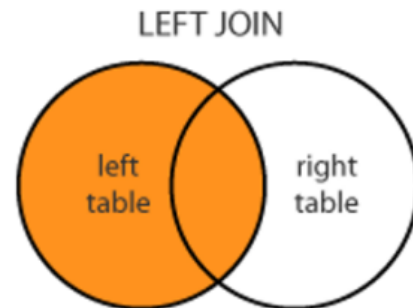**PILL:**

AKA: Field = Piece of Data
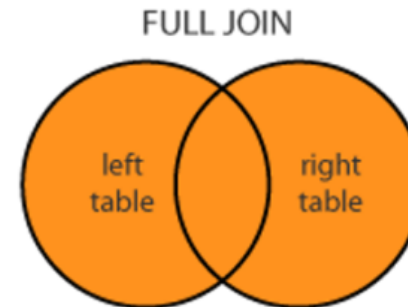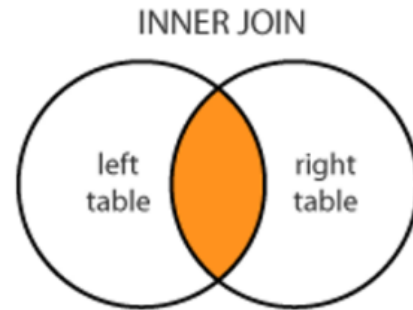
STATUS BAR:

Shows information about current view

SHELVES:

Areas to place fields

Let's Talk About Joins

| Method for combining data on based on common fields

| Joins extend horizontally by adding columns of data

| There are four types of joins you can use in Tableau

INNER JOIN

FULL JOIN

LEFT JOIN
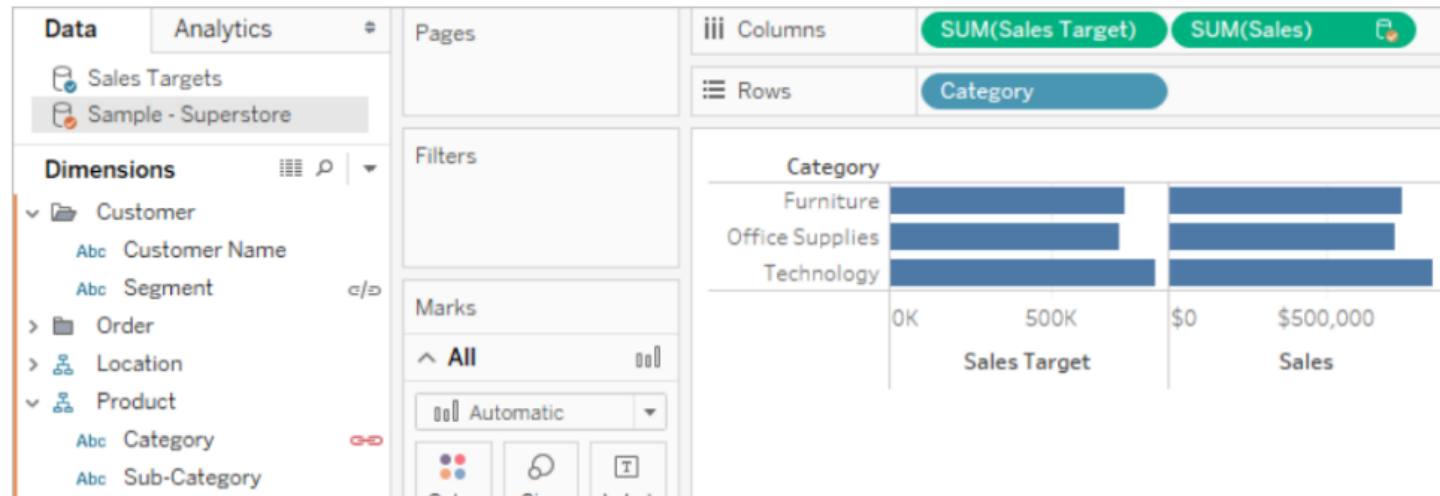
RIGHT JOIN

Let's Talk About Cross-Database Joins

| Combine tables from different datbases

| Creates a "multi-connection" data source in Tableau

| Connector is grayed out = Cross-Database Joins are not supported for that combination

Let's Talk About Blends

| Use data from multiple data sources together in the same view

| One data source will be the "primary" and the other the "secondary"

| Query each data source independently

| Data blending is Tableau worksheet specific

Let's Talk About Unions

| Combine two or more tables by appending values (rows) from one table to another

| Tables must be from the same data connection

| Two ways to create a union - Manual or Wildcard

May2016

DAY	CUSTOMER	PURCHASES	TYPE
4	Lane	5	Credit
10	Chris	6	Credit
28	Juan	1	Credit

June2016

DAY	CUSTOMER	PURCHASES	TYPE
1	Lisa	3	Credit
28	Isaac	4	Cash
28	Sam	2	Credit

July2016

DAY	CUSTOMER	PURCHASES	TYPE
2	Mario	2	Credit
15	Wei	1	Cash
21	Jim	7	Cash

DAY	CUSTOMER	PURCHASES	TYPE
4	Lane	5	Credit
10	Chris	6	Credit
28	Juan	1	Credit
1	Lisa	3	Credit
28	Isaac	4	Cash
28	Sam	2	Credit
2	Mario	2	Credit
15	Wei	1	Cash
21	Jim	7	Cash

Let's Talk About Relationships

| New data modeling in Tableau = Relationships

| More flexible way to combine data from multiple tables

| New default starting in Tableau 2020.2

| Physical + Logical Layers

Orders+ (Sample - Superstore)

[Connecting to data in 2020.2 for the first time]

| Orders |————| Returns |

Beer Check-Ins (Multiple Connections)

[Opening older data sources in 2020.2]

| Migrated Data |

Let's Summarize...

RELATIONSHIPS
| Combine data from multiple tables
| Describes how two logical tables related to each other but remain seperate
| Lower barrier to entry - no need to learn advanced database concepts
| More efficient - queries only the data you need
| Automatic level of detail - helps avoid data duplication without LODs

BLENDS
| Combine two different datasources in one view
| Blends can be defined on a worksheet level
| Useful when data is at different levels of granularity
| Data blending is best for quick ad-hoc questions
| Only option when combining data from published data sources

JOINS
| Row-level combination of the data
| Adding Columns to the table
| Join occurs in the database
| Data can be from multiple sources (Cross-Database)
| Best for data at the same level of detail

UNIONS
| Multiple tables in the same datasource/multiple flat files
| Adding rows to the table
| Unioned tables can be used in a join
| Tables must have the same column structure
| Not all connectors are supported

LOCAL COVERAGE YOU CAN COUNT ON

LEADING THE WAY SERIES
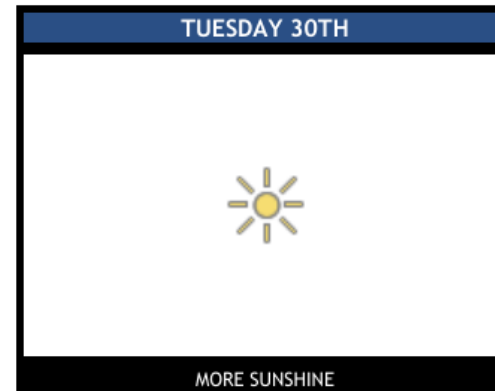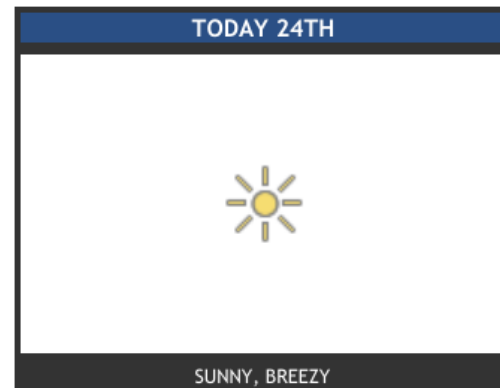
NEXT WEEK'S SESSION

Data Delivery
How to leverage filtering and best practices to tell a story with your data
Tuesday, June 30
10:00 AM PT
Francis Dejonckheere & Lindsey Carlsen

TODAY 24TH

SUNNY, BREEZY

TUESDAY 30TH

MORE SUNSHINE

Ways to Learn More...

General

New Features: https://www.tableau.com/products/new-features
Release Notes: https://www.tableau.com/support/releases
Tableau Public: https://public.tableau.com/en-us/s/

Data Integration

Joins: https://help.tableau.com/current/pro/desktop/en-us/joining_tables.htm
Blends: https://help.tableau.com/current/pro/desktop/en-us/multiple_connections.htm
Unions: https://help.tableau.com/current/pro/desktop/en-us/union.htm

Relationships

Relationships Video: https://www.tableau.com/learn/tutorials/on-demand/relationships
FAQ: https://help.tableau.com/current/pro/desktop/en-us/datasource_datamodel_faq.htm

QUESTIONS.