

Tableau Desktop: Part 2

095205

Target Student

Professionals in a variety of job roles who are currently using Tableau to perform numerical or general data analysis, visualization, and reporting, who now need to provide data visualizations from multiple data sources, or blend data to show comparisons, correlations, and relationships through data.

Prerequisites

To ensure your success in this course you should have experience with importing and creating data visualizations in Tableau. You can obtain this level of skills and knowledge by taking the following Logical Operations courses:

Tableau Desktop: Part 1

Course Objectives

In this course, you will perform advanced data visualization and data blending with Tableau. You will:

- Join data sources to create multiple data source visualizations.
- Connect to PDFs and cubes.
- Define subsets of data.
- Analyze and report data with calculations.
- Refine data analysis with parameters.
- Blend data to visualize relationships.
- Perform statistical analysis and forecasting.
- Leverage dashboards and stories.

Lesson 1: Creating Visualizations Using Multiple Data Sources

Topic A: Create Joins to Data Sources

- Create multiple joins to data sources and a union.

Data Source Access in Tableau

- Review data source access in tableau.

Joins

- Identify joins.

Inner Joins

- Describe inner joins.

Left Joins

- Describe left joins.

Right Joins

- Describe right joins.

Outer Joins

- Describe outer joins.

Union

- Describe unions.

How to Create Joins to Data Sources

Creating Joins to Data Sources

Topic B: Create Cross Database Joins

- Create cross database joins and views based on those joins.

Data from Different Sources

- Identify data from different sources.

Cross-Database Joins

- Describe database joins.

Integrated Data Sources

- Describe integration data sources.

How to Create Cross Database Joins

Creating Cross Database Joins

Creating Views with Cross Database Data

Topic C: Create and Access Data Extracts

- Create and access data extracts.

Extract Creation

- Describe the extracts creation process.

Extract Usage

- Describe uses for extracts.

Extract Refresh

- Describe the process of refreshing extracts.

Data Source Changes

- Describe changing data sources.

How to Create and Access Data Extracts

Creating and Accessing Data Extracts

Creating Multiple Data Source Visualizations

Lesson 2: Accessing Data in PDFs and Cubes

Topic A: Create Connections to PDFs

- Create connections to PDF data sources.

PDF Data Source Use Cases

- List PDF data source use cases.

Options for Connecting to PDF Data Tables

- List options for connection to PDF data tables.

Union Connections to PDFs

- Describe union connections to PDFs.

Table Data Cleanup

- Describe table data cleanup.

Null Values

- Describe null values.

Headers and Pivots

- Describe headers and pivots.

Field Members Re-aliasing

- Describe re-aliasing field members.

Group Recreation

- Describe recreating groups.

Hierarchy Recreation

- Describe recreating hierarchies.

How to Connect to PDF Data Sources

Connecting to PDF Data Sources

Topic B: Create Connections to Data Cubes

- Create a connection to a data cube and filter the data.

Data Cubes

- Define data cubes.

Cubes vs. Relational Data Sources

- Identify the difference between cubes and relational data sources.

Key Performance Indicators (KPIs)

- Describe KPIs.

Options for Grouping

- List options for grouping data.

Options for Connecting

- List options for connecting to data.

Hierarchies

- Describe hierarchies.

Filters

- Describe the filters.

Continuous Date Filters

- Describe continuous date filters.

Non-Hierarchical Quick Filters

- Describe non-hierarchical quick filters.

How to Connect to Data Cubes

Connecting to Data Cubes

Topic C: Analyze Data Cubes with Multidimensional Expressions (MDX)

- Analyze a data cube using multidimensional expressions.

Multidimensional Expressions

- Describe multidimensional expressions.

MDX in Tableau

- Describe the functions of MDX in Tableau.

Options for Creating Calculated Members for Grouping

- List options for creating calculated members for grouping.

Cohort Calculations

- Describe cohort calculations.

How to Analyze Data Cubes with MDX

Analyzing Data Cubes with MDX

Lesson 3: Defining Subsets of Data

Topic A: Create Sets

- Create and combine sets.

Sets

- Describe sets.

Options for Creating Sets from Marks

- List the options for creating sets from marks.

Options for Creating Sets from Computations

- List the options for creating sets from computations.

Options for Combining Sets

- List the options for combining sets.

How to Create and Combine Sets

Creating and Combining Sets

Topic B: Analyze Data with Sets

- Analyze data with different sets.

Options for Editing Sets

- List options for editing sets.

IN/OUT Versus Members

- Describe the differences of IN/OUT versus Members.

Options for Filtering Sets

- List the options for filtering sets.

Sets in Hierarchies

- Describe sets in hierarchies.

Sets in Calculations

- Describe sets in calculations.

How to Analyze Data with Sets

Analyzing Data with Sets

Lesson 4: Analyzing and Data with Calculations and Reporting Results

Topic A: Use Calculations in Tableau

- Analyze data in Tableau using In-shelf calculations and LOD expressions.

Calculations

- Describe calculations.

In-shelf Calculations

- Identify in-shelf calculations.

Calculation Syntax

- Define calculation syntax.

Calculation Examples

- List calculation examples.

Level of Detail (LOD) Expressions

- Describe Level-of-Detail expressions.

LOD Expressions Examples

- List examples of LOD expressions.

FIXED and INCLUDE

- Describe FIXED and INCLUDE.

How to Analyze Data with In-shelf, and LOD Expressions

Analyzing Data with In-shelf, and LOD Expressions

Topic B: Analyze Data with Table Calculations

- Analyze data in Tableau using table calculations.

Definitions

- Describe definitions.

Field Set

- Identify field sets.

Quick Table Calculations

- Describe quick table calculations.

Table Calculations Performed Manually

- Describe manual table calculations.

Table Calculation Editing

- Describe the editing of table calculations.

The Compute Using Feature

- Describe the Compute Using feature.

Options for Referencing Dimensions

- List the options for referencing dimensions.

How to Analyze Data with Table Calculations

Analyzing Data with Table Calculations

Topic C: Explore Data with Calculations

- Explore data with various types of calculations.

Aggregate Calculations

- Describe aggregate calculations.

Date Calculations

- Describe date calculations.

Logic Calculations

- Describe logic calculations.

Number Calculations

- Describe number calculations.

Type Calculations

- Describe type calculations.

How to Explore Data with Calculations

Exploring Data with Calculations

Topic D: Analyze Data with Advanced LOD Expressions

- Analyze data with advanced LOD expressions and the R integration with Tableau.

Aggregation

- Describe aggregation.

Replication

- Describe replication.

Nested LOD Expressions

- Describe nested LOD expressions.

The R Programming Language

- Describe the R programming language.

R Integration with Tableau

- Identify the R integration with Tableau.

Python and TabPy

- Describe the Python and TabPy programming languages.

How to Analyze Data with Advanced LOD Expressions

Analyzing Data with Advanced LOD Expressions

Lesson 5: Refining Data Analysis with Parameters

Topic A: Apply Parameters to Data to Refine Visualizations

- Apply parameters to data with filters, sets, calculated fields, and reference lines to refine visualizations.

Parameters

- Identify parameters.

Parameter Types

- List parameter types.

Parameter Scenarios

- Describe parameter scenarios.

Options for Using Parameters with Filters

- List the options for using parameters with filters.

Options for Using Parameters with Sets

- List the options for using parameters with sets.

Options for Using Parameters with Calculated Fields

- List the options for using parameters with calculated fields.

Options for Using Parameters with Reference Lines

- List the options for using parameters with reference lines.

How to Apply Parameters to Data to Refine Visualizations

Applying Parameters to Data to Refine Visualizations

Topic B: Create Groups and Bins Based on Parameterized Calculations

- Create groups and bins using parameterized calculations.

Group Creation with Calculations

- Describe the creation of groups with calculations.

Parameterized Calculations

- Describe parameterized calculations.

Parameterized Calculated Group Creation

- Describe the creation of parameterized calculated groups.

Bins

- Describe bins.

Bins Use Cases

- Identify use cases for bins.

How to Create Groups and Bins Based on Parameterized Calculations

Creating Groups and Bins Based on Parameterized Calculations

Lesson 6: Blending Data to Visualize Relationships

Topic A: Blend Data

- Blend data from multiple data sources.

Data Blending

- Describe data blending.

Relationships for Blends

- Identify blend relationships.

Options for Blending Data

- List options for blending data.

Options for Swapping Primary and Secondary Data Sources

- List options for swapping primary and secondary data sources.

How to Blend Data

Blending Data

Topic B: Refine Blends to Visualize Key Information

- Refine blends to visualize key information.

Calculations in Data Blending

- Describe calculations in data blending.

Data Aggregation in Calculations

- Describe data aggregation in calculations.

Null Values in Blends

- Identify null values in blends.

Asterisk in Blending

- Describe asterisk in blending.

Asterisk Solutions

- Identify asterisk solutions.

How to Refine Blends to Visualize Key Information

Refining Blends to Visualize Key Information

Lesson 7: Performing Statistical Analysis and Forecasting

Topic A: Perform Statistical Analysis with Data

- Perform statistical analysis of data using trend lines.

Statistics

- Describe statistics.

Trend Line Analysis

- Describe trend line analysis.

Options for Adding Trend Lines

- List options for adding trend lines.

Trend Line Configuration

- Describe trend line configuration.

Residuals

- Identify residuals.

Options for Visualizing Statistical Information

- List options for visualizing statistical information.

How to Perform Statistical Analysis with Data

Performing Statistical Analysis with Data

Topic B: Forecast Data Trends

- Forecast data trends using Tableau forecasting options.

Forecasting

- Describe forecasting.

Tableau Forecasting

- Describe forecasting in Tableau.

Options for Creating a Forecast

- List options for creating a forecast.

Forecast Options Configuration

- Describe configuring forecast options.

Forecast Fields

- Identify forecast fields.

The Describe Forecast Dialog Box

- Identify functions of the Describe Forecast dialog box.

Tableau Limitations on Forecasting

- Identify Tableau limitations for forecasting.

How to Forecast Data Trends

Forecasting Data Trends

Lesson 8: Leveraging Dashboards and Stories

Topic A: Create and Share Dashboards and Stories

- Create and share dashboards and stories with Tableau and non-Tableau users.

Stories

- Describe stories.

View Sharing on the Web

- Describe sharing views on the Web.

View Sharing with Non-Tableau Users

- Describe sharing views with non-Tableau users.

Web Authoring Workspaces

- Describe Web authoring workspaces.

Web Views

- Describe Web views.

Options for Embedding Views on Web Pages

- List options for embedding views on Web pages.

Dashboards

- Identify dashboards.

Guidelines for Creating and Sharing Dashboards and Stories

How to Create and Share Dashboards and Stories

Creating and Sharing Dashboards and Stories

Topic B: Enhance Stories with Tooltips

- Enhance stories using different types of tooltips.

Storytelling with Tooltips

- Describe storytelling with tooltips.

Tooltip Selection

- Describe tooltip selection.

Command Buttons

- Identify command buttons.

Actions from Tooltips

- Describe the actions from tooltips.

Conditional Tooltips

- Describe conditional tooltips.

Viz in Tooltips

- Describe Viz in Tooltips.

Target Size

- Describe the target size.

Tooltip Modification

- Describe modifying tooltips.

Tooltips and Filtering

- Describe filtering with tooltips.

Best Practices

- Describe best practices for tooltips.

Guidelines for Enhancing Stories with Tooltips

How to Enhance Stories with Tooltips

Enhancing Stories with Tooltips

Topic C: Create Compelling Visualizations

- Create a compelling visualization using best practices.

Context

- Describe context.

Audience

- Identify the audience.

Visualization Selection

- Describe visualization selection.

Data Focusing

- Describe focusing the data.

Key Points Accentuation

- Describe accentuating key points.

Impactful Visualization Design

- Describe designing for impactful visualization.

Guidelines for Creating a Compelling Visualization

Creating a Compelling Visualization