XALTIUS
Towards Higher Excellence

It's all about Analytics!

# Data Analysis with Tableau

Tableau is one of the powerful and fastest-growing data visualization tool used in the Business Intelligence Industry. Data analysis is amazingly fast with Tableau and the visualizations created are in the form of dashboards and worksheets. The data that is created using Tableau can be understood by professionals at any level in an organization. It even allows a non-technical user to create a customized dashboard.

www.xaltiusacademy.com

## Start your data science journey with us.

There is no pre-requisite required to attend this course.

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**A short course in 16 hours.**

# What You'll Learn

This workshop is a hands-on business case study driven workshop where participants will work with data and learn how powerful a tool like Tableau can be to showcase data in a visually insightful manner and create Dashboards and Reports. Participants will learn how to use various functionalities in Tableau such as data connections, filters, calculations, various charts, and graphs and more importantly skills required to communicate the right message and actionable insights.

**Learn how you can put your data to good use.**

# About the Course

These are the key takeaways that participants will gain:

- Connect to, import, and transform data from a variety of sources
- Define business rules and KPIs
- Create interactive visuals
- Understanding Business Intelligence
- Build informative dashboards
- Work with various business cases

It's about your goals & your future!

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# Course Outline

## Module 1: Data Collection, Ingestion and Preparation

Prior to visualization and analytics, it is imperative to make sure that the data you use is clean and ready for visual analysis. This module takes you through the concepts of various data sources, how data is collected and how you prepare and make the data ready.

- Introduction to Data Sources
- Data Collection Mechanisms – How should you collect data?
- Data Cleaning methods
- Creating a data model

## Module 2: Data Normalization and Tables

One of the important parts of data analytics is making sure data is in the most optimized form. Non optimized data tends to slow down visualizations and makes the process messy. This module will recap a few concepts of data normalization and the basic normal forms of data along with the main types of tables that should exist in a dataset.

- What is Data Normalization?
- Normalizing a dataset
- Understanding Fact and Dimension Tables

## Module 3: Understanding Data Storytelling

The aim of using data is to present actionable insights using the right dashboards, charts, metrics, and story. It is important to convey the right message to the right people.

- Key elements of data storytelling
- Formulating business questions relevant to the data
- Introduction to KPIs and key KPIs
- Visualizations and their implications
- What differentiates good and bad visualizations?

## Module 4: Tableau Overview, Data Sources, Worksheet and View

In this module participants will get a high-level understanding of the capabilities of Tableau and will start working with the Tableau interface. As part of analytics and visualization, getting your data ready is the first step. This also covers the basics of working with the data to prepare it for further visualization and analytics.

- Exploring Tableau and its Interface
- Connecting to different data sources
- Create relationships between tables
- Create data extracts and filters at data source
- Understanding Dimensions and Measures
- Basics of worksheets and views
- Create Folders and Hierarchy

## Module 5: Charts, Graphs and Formatting

The next step towards analytics and visualizations is to summarize the data and create the right charts and graphs to present data in the most precise manner.

- Create different charts for different scenarios
- Formatting size, colours, and other elements of charts
- Gathering insights from charts

## Module 6: Organize and Transform Data

In many cases, you would require organizing, transforming, or creating new data fields to make data visualization more effective. This refinement helps analysts to find better insights within data.

- Create Filter from measures and dimensions
- Apply Filters to Charts
- Organize Data by groups and sets
- Create calculated fields and parameters
- Apply logical functions
- Top N Analysis

## Module 7: Advanced Analytics

Many a time, you would want to employ analytics to get quick insights from your data. Tableau presents such advanced analytics features which can be directly applied to charts and graphs.

- Create trend and average lines to make charts more insightful
- Forecast future values using built in methodologies
- Create clusters in the data and visualize them
- Create and fit regression lines

## Module 8: Creating Maps and Analytical Dashboards

Map services are used to show geographical insights in a visually appealing manner. This module covers the basics of how maps can be used and the different kinds of maps that can be added to Tableau to provide more detailing. Creating insightful dashboards are critical to all sectors. Dashboards and reports are designed to help managers, executive draw insights and conclusions by viewing interpretable data, understand the cause and effect and implement further plans accordingly.

- Maps Basics and Adding Markers
- Creating dashboards from charts and graphs
- Formatting dashboards to make them interpretable
- Creating filters for dashboard visualizations
- Adding images and annotations to dashboards
- Publishing a dashboard to Tableau public

# Join us & launch your career in data science.

It's time to upskill for the Industry 4.0

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