Data Analysis and Visualization with Microsoft Excel

Course ISI-1596 2 Days Instructor-led

At Course Completion

Technology and the data that it both collects and makes accessible is now interwoven with businesses and lives. The era of "big data" has exploded due to the rise of cloud computing, which provides an abundance of computational power and storage, enabling organizations of all sorts to capture and store data. Leveraging that data effectively can provide timely insights and competitive advantage.

Analyzing data to find issues, insights, and opportunities is now a critical part of many job roles. Beyond the analysis, data analysts in all job roles must be able to effectively present and communicate their findings in visually compelling ways.

Microsoft® Excel® is designed for this purpose. Excel can connect to a wide range of data sources, perform robust data analysis, and create diverse and robust data-driven visualizations to show insights and trends, as well as create reports. These capabilities enable people who use Excel for data analysis to turn data into thoughtful action.

Prerequisites

To ensure success, you should have baseline skill using Excel worksheets, particularly in creating workbooks with formulas and functions. You can obtain this level of knowledge and skill by taking the following or any equivalent course:

EXL-01 - Microsoft Excel Level 1

Course Objectives

In this course, you will analyze and visualize data using Excel and associated tools. You will:

- Perform data analysis fundamentals.
- Visualize data with Excel.
- Analyze data with formulas and functions.
- Analyze data with PivotTables.
- Present visual insights with dashboards in Excel.
- Create geospatial visualizations with Excel.
- Perform statistical analysis.
- Get and transform data.
- Model and analyze data with Power Pivot.

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- Present insights with reports

Course Content

Module 1: Data Analysis Fundamentals

- Introduction to Data Science
- Create and Modify Tables
- Sort and Filter Data

Module 2: Visualizing Data with Excel

- Visualize Data with Charts
- Modify and Format Charts
- Apply Best Practices in Chart Design

Module 3: Analyzing Data with Formulas and Functions

- Analyze Data with Formulas and Named Ranges
- Analyze Data with Functions
- Implement Data Validation, Forms, and Controls
- Create Conditional Visualizations with Lookup Functions

Module 4: Analyzing Data with PivotTables

- Create a PivotTable
- Analyze PivotTable Data

Module 5: Presenting Visual Insights with Dashboards in Excel

- Visualize Data with PivotCharts
- Filter Data Using Slicers and Timelines
- Create a Dashboard in Excel

Module 6: Creating Geospatial Visualizations with Excel

- Create Map Charts in Excel
- Customize Map Charts in Excel

Module 7: Performing Statistical Analysis

- Visualize Trendlines and Sparklines with Excel
- Analyze Data with the Analysis ToolPak

Module 8: Getting and Transforming Data

- Connect to Data with Queries

- Clean and Combine Data
- Shape and Transform Data

Module 9: Modeling and Analyzing Data with Power Pivot

- Install Power Pivot in Excel
- Create Data Models with Power Pivot
- Create Power Pivots
- Perform Advanced Data Analysis and Visualization

Module 10: Presenting Insights with Reports

- Plan a Report
- Create a Report