

Data Visualization

Duration: 2 Days · **Training format:** Virtual Classroom / Online

Description

Spreadsheets and large tables can be complex, difficult to decipher, and present barriers to extracting valuable information parsed from an organization's data. But applying best practices for data visualization will allow you to solve problems, identify how to use visuals in presentations and reports, and make decisions. You will learn the basics of the visual perception of data as well as strengthen and practice these new techniques through a capstone exercise.

Python and Excel offer powerful tools for data visualization, and both have unique features to meet different use cases and needs.

Audience

This course is an entry-level course for those who are interested in or work with data sets for visual presentation.

Outline

Part I

What is Data? Is Data Important?

Data Visualization

- The purposes and areas of use for data visualization
- The importance of data visualization for business intelligence and decision-making processes

What is Data Storytelling?

- The Impact of Storytelling in the Field of Data Visualization

Effective Design Practices for Data Visualization

Tools for Data Visualization with Python

- Matplotlib - Seaborn - Plotly

Interactive Graphs with Plotly

- Usage of 2D Graphics (Line, bar, scatter, histogram, pie, heatmap, etc.)
- Usage of 3D Graphics
- Operations on Graphs
- Title and Axis Labeling, defining colors, legends, etc.

Part II

The Role of Data Visualization in Business and Education with Excel

Basic Visualization Techniques

- Creating tables, graphs, and charts - Basic graph types: Bar charts, pie charts, line charts - Usage of color, labels, and axes in graphs - Working with dynamic ranges and named ranges

Advanced Visualization and Analysis

- Histograms, box plots, and scatter plots - Trend lines and moving averages - Data visualization with conditional formatting - Data analysis with pivot tables and pivot charts

Creating Dashboards and Tips

- Techniques for creating impressive dashboards - Using interactive elements in graphs - Dynamic dashboards with slicers and timelines - Customization and enhancement tips for visualizations

Prerequisites

There are no prerequisites for this course.