

# € TRAINING

Mastering Data Analysis and Visualization  
with Microsoft Power BI





# Mastering Data Analysis and Visualization with Microsoft Power BI

## Introduction:

This comprehensive training program focuses on leveraging Microsoft Power BI for powerful data analysis and visualization. It covers essential topics such as importing data, creating dynamic visualization, interpreting insightful data using Power BI features and functionality. It is aimed at individuals interested in learning data analysis skills or professionals seeking to enhance their proficiency in using Power BI to make data-driven decisions.

## Program Objectives:

By the end of this program, participants will be able to:

- Gain proficiency in importing data into Microsoft Power BI.
- Learn to create dynamic visualizations to interpret data effectively.
- Understand how to use Power BI features and functionality for insightful data analysis.
- Develop skills in generating actionable insights from datasets using Power BI.
- Enhance proficiency in making data-driven decisions through Power BI analysis.

## Targeted Audience:

- Data analysts.
- Business intelligence professionals.
- Professionals seeking to enhance data visualization skills.
- Anyone interested in leveraging Microsoft Power BI for data analysis.

## Program Outlines:

### Unit 1.

#### Introduction to Microsoft Power BI:

- Understanding the fundamentals of Microsoft Power BI.
- Installing and setting up Microsoft Power BI.
- Exploring the user interface and workspace.

- Connecting to data sources.
- Navigating datasets and reports.
- Introduction to Power BI desktop and Power BI service.

## Unit 2.

### Data Import and Transformation:

- Importing data from various sources into Power BI.
- Cleaning and transforming data using Power Query Editor.
- Combining multiple data sources.
- Handling data modeling and relationships.
- Implementing calculated columns and measures.
- Introduction to DAX Data Analysis Expressions.

## Unit 3.

### Creating Visualizations:

- Creating basic visualizations such as charts and graphs.
- Customizing visualizations with formatting and design options.
- Building interactive reports and dashboards.
- Incorporating slicers, filters, and drill-through functionality.
- Utilizing custom visuals and third-party integrations.
- Optimizing visualizations for performance.

## Unit 4.

### Advanced Analytics with Power BI:

- Implementing advanced analytics techniques.
- Using time intelligence functions for date calculations.
- Performing statistical analysis and forecasting.
- Utilizing AI and machine learning capabilities.

- Creating dynamic insights with Q&A and natural language processing.
- Incorporating R and Python scripts for advanced analytics.

## Unit 5.

### Collaboration and Sharing:

- Sharing reports and dashboards securely within organizations.
- Collaborating with colleagues using workspace collaboration features.
- Distributing insights through email subscriptions and mobile apps.
- Publishing and embedding Power BI content in websites and applications.
- Implementing row-level security and data protection measures.
- Monitoring and managing usage and performance metrics.