

# COURSE OUTLINE

## POWER BI: DATA VISUALIZATION AND DASHBOARDS

Microsoft Power BI for Business Intelligence

## **OVERVIEW**

Gain a 360° overview of how to explore and use Power BI to build impactful reports. In this course, you discover how to use this popular business intelligence platform through hands-on exercises. You'll first learn how to confidently load and transform data using Power Query and the importance of data models, before diving into creating visualizations using Power BI's dragand-drop functionality.

You'll also learn how to drill down into reports and make your reports fully interactive. Lastly, you'll level up your skills using DAX formulas (Data Analysis Expressions) to create customized calculated columns and fields to better analyze your data.

## **TRAINING OBJECTIVES**

- Understand the business intelligence workflow.
- Transform raw data into an interactive dashboard.
- Create interactive visualizations to deliver business insights.
- Extract business intelligence by using DAX and Power Query.
- Pre-format and import data from an Excel Report using Power Query.
- Able to import, transform, and visualizing the data.
- Add value with measures, calculated columns, and calculated tables using DAX.
- Integrate data from CSV files and Excel Workbooks.



## METHODOLOGY

The training program will employ the following methods

- Instructor-led sessions
- Interactive discussions
- Hands-on exercises

## AGENDA

#### INTRODUCTION TO DATA ANALYSIS AND POWER BI DESKTOP

- Understanding Business Intelligence.
- Business Intelligence components
- What is Power BI?
- Power BI Installation.
- Visual Analytics.
- What are Reports and Dashboards in Power BI?



#### CONNECTION AND SHAPING DATA

- Introduction and adjusting the setting in power BI.
- Transform data in power BI.
- Dealing with texts.
- Dealing with numbers.
- Working with Date & Time.
- Index column and conditional column.
- Grouping & Aggregating.
- Pivot & unpivot
- Merging Queries.
- Append Queries.
- Data source sitting and refreshing in the report.
- Data type and categories in power BI

#### TABLE RELATIONSHIPS AND DATA MODEL

- The issue and Data model.
- Normalization and understand Data table & Data lookup.
- Creating table relationship.
- Editing relationship and Active vs. Inactive relationship.
- Connect multiple data table.
- Filter flow. Intro to DAX and calculated column.
- Intro to measures



### DATA VISUALIZATION WITH POWER BI DESKTOP

- Basics of Visualization Data in Power BI.
- Formatting options.
- Filter Options.
- Explore data with Matrix.
- Filter Data with slicers.
- Cards and KPI Visuals.
- Visualizing Data with Maps.
- Visualizing Data with Tree maps.
- Decomposition Tree.
- Edit Report Interactions.
- Drill through Filter.
- Mobile Layout.





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