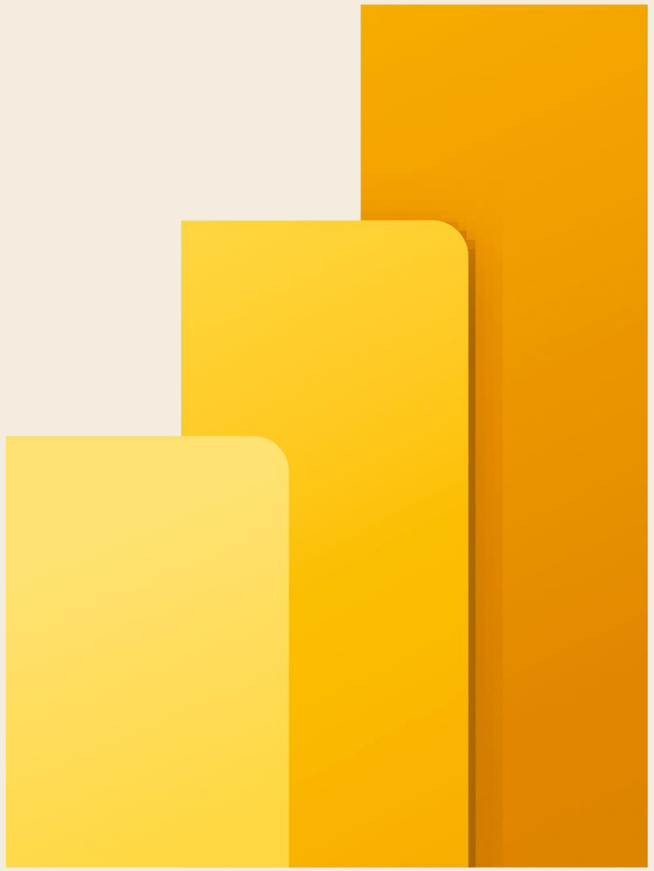


Master Power BI

From Data to Dashboards

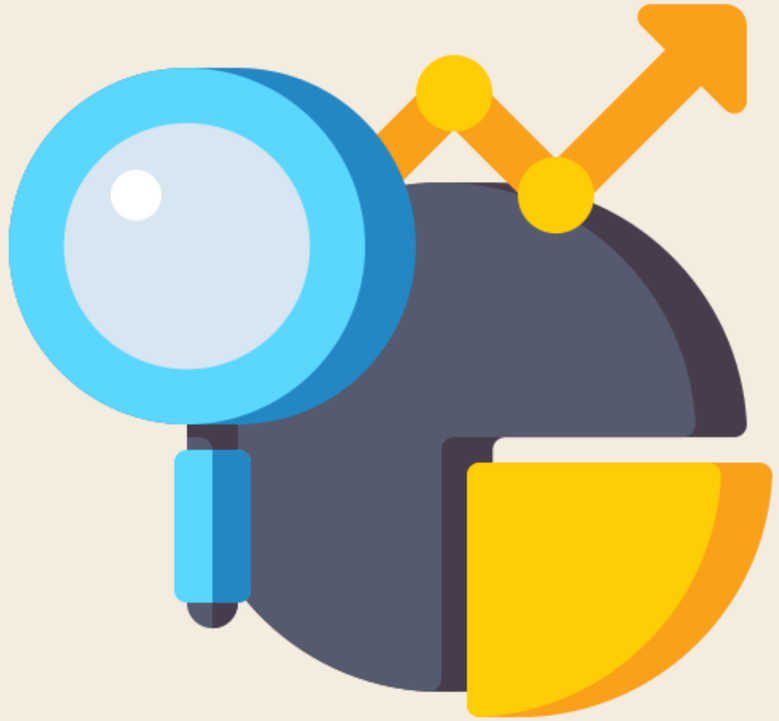
A Practical Guide to Power BI for Everyday Work.

> Course Overview

Power BI is a dynamic business analytics service! lets you Connect all your data, transform it, and Make Ultimate Relationships and Analysis to build and share interactive dashboards and Business Intelligence reports.

This Workshop is a **Practical Guide** to mastering Power BI for everyday tasks.

Your data-driven future begins here >>



> Learning Journey

This course consists of four parts:

Part 1: Connect and Transform

- Learn to **import data** from various sources such as Excel, CSV, PDF, SQL, and more.
- Master using the Power Query editor to **clean, transform, and automate** your data effectively.

Part 2: Data Modeling

- Enhance the benefits of the data by Creating meaningful **relationships** between different datasets and finally use all data as one Dataset.

Part 3: DAX Measures and Data Analysis

- Discover the power of DAX language for creating **measures and calculations.**
- Learn essential data **analysis techniques.**

Part 4: Interactive Dashboards

- Learn the Data visualization essentials.
- Create Powerful, Interactive dashboards.
- Share and Publish Dashboards.

> Course Methodology

Hands-on Learning Approach

- This course adopts a **completely practical** approach, ensuring that participants apply their learning **during the course.**
- Participants engage in hands-on exercises **during the lecture, receiving immediate feedback** from the trainer.
- At the end of each module, participants are required to **complete a project**, allowing them to reinforce their learning.

Final Project Assessment

- Upon completion of the course, participants must successfully pass a final project (End-To-End) that covers all the course content.
- This final project evaluates the participant's ability to apply their learning effectively, ensuring proficiency in Power BI and data analysis techniques.

This course uses **real-world examples and projects** that simulate practical scenarios, providing participants with hands-on experience and **adding real value** to their **Daily Work**.

> Course Structure

Course Duration: 24 Hours

[redacted]

> Course Outline

🔗 Module 1 – Connect Data

01. **Introduction to Power BI**
    - Download & Install.
    - Power BIower BI Features.
    - Power BI Desktop and Power BI Service.

02. **Capstone basic project (End-To-End)**
    - Overview of Power BI and its components by implementing a small & Basic project to be familiar with its uses and outcomes.

03. **Connent and load Data into Power BI**
    - Load a single file (Excel, CSV, PDF, SQL).
    - Load & Combine all files from the same folder.
    - Load Date from online Sources (Onedrive, Google Drive, Web)

> Course Outline

🔗 Module 2– Power Query (Cleaning–Wrangling)

01. Introduction to Power Query Editor

- Overview of Power Query and its benefits.
- Power Query Editor Interface.

02. Power Query - Data Wrangling “Transformation”

- Learn how to reshape and Prepare your data for analysis.
- Remove top Rows and Promote Headers.
- Delete, Rename, and reorder columns.
- Filter & Sort.

03. Power Query - Data Cleaning

- Understand the importance of data cleaning.
- Learn Data Cleaning techniques, such as:
  - Handle missing values.
  - Handle Blanks.
  - Correct Data Type.

04. Power Query - advanced data wrangling techniques

- Split and Merge Columns.
- Add Custom Columns.
- Applying conditional transformations.
- GroupBY.
- Pivot & Unpivot
- Merge & Append.

> Course Outline

Module 3 – Data Modeling (Basic)

01. **Understanding Data Relationships**
    - Explore the importance of creating relationships between datasets.
    - Types of Datasets (Fact vs. Dimension)
    - Relationship Types.

02. **Dax Measures & Calculations (Basics)**
    - Calculated columns.
    - Measures (Implicit Vs. Explicit).
    - Sum, Count, Average, Min, Max.
    - Add Columns and Measures to Visuals
    - Filter Context.

> Course Outline

Module 4 – Data Modeling (Advanced)

01. **Dax Measures & Calculations (Advanced)**
- Iterated Measures.
- Distnict Count & Countrows.
- Related.
- Divid.
- Calculate, All, Allselected.
- Conditional Functions (IF, and, or, Switch).

02. **Advanced Techniques**
- Calendar Table.
- Measure Table & Folders.
- Relationships Layouts.

03. **Time Intelligence function**
- Calculate for Time Intelligence.
- DATEADD
- TOTALYTD
- TOTALQTD
- TOTALMTD
- SAMEPERIODLASTYEAR
- Year-over-year / Month-over-month trends &comparisons.
- Moving & Rolling averages.

> Course Outline

Module 5– Data Visualization & Dashboards

01. **Data Visualization**
    - Principles of effective data visualization.
    - Choose the right visualization for different scenarios.
    - Formate and customize charts & Visuals.

02. **Interactive Dashboards**
    - Understand the components of a Power BI dashboard.
    - Learn how to arrange and format visuals on a Power BI dashboard.
    - Explore techniques for creating interactive elements such as slicers, filters, drill–throughs, and Tooltip.
    - Page Navigator, Bottoms, Field Parameters.

> Course Outline

Module 6 – Share and collaborate

01. **Share & Publish**
    - Understand the different sharing options available in Power BI.
    - Explore sharing settings and permissions management.

02. **Collaboration with Power BI Service**
    - Understand how to collaborate with colleagues using the Power BI Service.
    - Understand how to share and collaborate on Power BI reports using OneDrive for Business integration.