

# 3-Day Workshop Mastering Excel Dashboard and Data Analysing

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## Day 1 Advanced Excel techniques for Dashboard

### Module 1: Working with Reports and Graphs

#### 1. Introduction to Pivot Tables

- Understanding Pivot Tables: What they are and why they are important
- Basic Structure: Rows, Columns, Values, and Filters
- Creating a simple Pivot Table from a data set

#### 2. Formatting and Customizing Pivot Tables

- Formatting options for better readability (fonts, colors, etc.)
- Customizing Pivot Table designs
- Using Report Layouts to adjust the structure of Pivot Tables

#### 3. Advanced Options of Pivot Tables

- Sorting and Filtering within Pivot Tables
- Grouping data: Dates, Numbers, and Text
- Using Value Field Settings

#### 4. Using Group Features in Pivot Tables

- Grouping data by time (years, months, quarters)
- Grouping numbers into ranges
- Custom groupings for better analysis

#### 5. Working with Pivot Charts

- Introduction to Pivot Charts and how they are linked to Pivot Tables
- Creating Pivot Charts
- Customizing Pivot Chart formatting

#### 6. Inserting Normal Charts

- Overview of different chart types (Column, Line, Pie, etc.)
- Creating a basic chart from a data set
- Customizing chart elements (titles, labels, axes)

#### 7. Introduction to Power Query

- What is Power Query and why is it essential for data transformation
- Basic features: Importing data, transforming data, cleaning data

- Practical example: Using Power Query to clean and organize data

## **8. Introduction to Power Pivot**

- What is Power Pivot and its role in data modeling
- Setting up Power Pivot and connecting multiple data sources
- Using Power Pivot to create advanced calculations

## **9. Working with DAX**

- What is DAX (Data Analysis Expressions)
- Creating basic DAX measures: SUM, AVERAGE, COUNT
- Introduction to calculated columns and measures in Power Pivot

# **Module 2: Creating Interactive Dashboards**

## **1. Creating a Dashboard with Pivot Tables & Charts**

- Overview of Dashboard Elements (Pivot Tables, Pivot Charts, Slicers)
- Combining Pivot Tables and Charts for dynamic reporting
- Designing a functional and visually appealing dashboard layout

## **2. Creating a Relationship Between Slicers and Pivot Tables / Charts**

- What are Slicers and how do they help in filtering data across multiple Pivot Tables
- Setting up Slicer connections
- Using multiple Slicers to filter different Pivot Tables and Charts

## **3. Creating Timelines**

- Understanding the Timeline feature for date-based filtering
- Adding a Timeline to a dashboard
- Customizing the Timeline to filter Pivot Tables and Charts

## **4. Using Slicer/Timeline Options**

- Advanced features of Slicers: Multiple Slicers, Formatting, and Customizing
- Using Timeline options to select specific periods or ranges
- Combining Slicer and Timeline functionality for comprehensive analysis

## **5. Designing Dashboard Layouts**

- Organizing your dashboard layout for clarity and usability
- Sizing and aligning objects on the dashboard
- Using text boxes, images, and other elements for a professional dashboard look

## 6. Using a Theme to Make an Interactive Dashboard

- What is a Theme, and how does it affect the appearance of a dashboard
- Applying and customizing built-in themes in Excel
- Creating a cohesive color scheme for a dashboard to make it visually appealing

## Day 2 & 3 Working with Power BI

### Introduction to Power BI

### Connecting & Shaping Data

#### Creating a Data Model

- Database Normalization
- Fact & Dimension Tables
- Primary & Foreign Key
- Creating Table Relationships
- Managing & Editing Relationships
- Star & Snowflake Schemas
- What's the meaning of Active & Inactive Relationships
- Connecting Multiple Fact Tables
- Filter Context & Filter Flow
- Bi-Directional Filters & Ambiguity
- Hiding Fields from Report View
- Data Formats & Categories
- Creating Hierarchies

#### Calculated Fields with DAX

- Data Analysis Expressions
- DAX vs. M Languages
- Intro to DAX Calculated Columns
- Intro to DAX Measures
- Implicit vs. Explicit Measures
- Quick Measures
- Calculated columns vs. Measures
- Dedicated Measure Tables
- Understanding Filter Context
- DAX Syntax & Operators
- Common DAX Function Categories
- Basic Math & Stats Functions
- Counting Functions
- Conditional & Logical Functions
- The SWITCH Function
- Common Text Functions
- Basic Date & Time Functions
- Joining Data with RELATED

- The CALCULATE Function
- DAX Measure Totals
- The ALL Function
- The FILTER Function
- Iterator (X) Functions
- Time Intelligence Patterns

## **Visualizing Data with Reports**

- Introduction to reports in Power BI
- 3 Key Questions
- Dashboard Design Framework
- Sketching the Dashboard Layout
- Adding Report Pages & Objects
- Naming & Grouping Objects
- Cards & Multi-Row Cards
- Building & Formatting Charts
- Line Charts
- KPI Cards
- Bar & Donut Charts
- Basic Filtering Options
- Table & Matrix Visuals
- Conditional formatting
- Top N Filtering
- Top N Text Cards
- Map Visuals
- Report Slicers
- Gauge Charts
- Area Charts
- Drill Up & Drill Down
- Drillthrough Filters
- Editing Report Interactions
- Adding Bookmarks
- Custom Navigation Buttons
- Numeric Range Parameters
- Fields Parameters
- Importing Custom Visuals
- Managing & Viewing Roles
- Mobile Layouts
- PREVIEW: Publishing to Power BI Service
- Data Visualization Best Practices