

Excel BI: Power Query, Power Pivot & Dashboards

Practical Skills for Data Analysis, Automation & Insightful Reporting

6 Days

4 HOURS A DAY

42

TOPICS

5

HANDS-ON ACTIVITIES

LEARNING OBJECTIVES

- Apply XLOOKUP and dynamic array functions such as FILTER and UNIQUE
- Explain error handling and data validation techniques in Excel
- Configure named ranges, structured references and conditional formatting
- Analyse scenarios using Goal Seek, Scenario Manager and Data Tables
- Implement data cleaning and transformation workflows in Power Query
- Build data models and DAX measures using Power Pivot
- Design interactive dashboards using PivotTables, PivotCharts and slicers
- Compare Excel BI features with Power BI Desktop

42 Topics

DAY 1**Advanced Lookups & Arrays**

4 hours (with 15 minute break)

TOPICS**Hands-on mini-project**

- Quick recap of VLOOKUP vs. XLOOKUP (to set context)

XLOOKUP in Depth**TOPICS**

- Syntax and advanced parameters
- Handling errors with IFNA and IFERROR
- Multi-condition lookups
- Approximate match and range lookups
- **Real-life applications:** pricing tables, employee records, product matching

Array Functions**TOPICS**

Dynamic arrays vs. legacy arrays · FILTER, SORT, SORTBY, UNIQUE · SEQUENCE and RANDARRAY for automation · Nested array formulas in business reports

DAY 2**Power Excel Foundations**

4 hours (with 15 minute break)

Error Handling & Data Validation**Hands-on mini-project****TOPICS**

- Using IFERROR, ISNA, ISTEXT, etc.
- Practical validation rules for finance/sales data

Named Ranges & Structured References**TOPICS**

Using tables effectively · Dynamic named ranges with OFFSET and INDEX

Advanced Conditional Formatting**TOPICS**

Formula-based formatting · Color scales & icon sets for KPIs

What-If Analysis Tools**TOPICS**

Goal Seek · Scenario Manager · Data Tables (one-variable & two-variable)

Introduction to Power Query

[Hands-on project](#)

TOPICS

- Importing data from different sources (Excel, CSV, Web)
- Data cleaning & transformation (remove blanks, split, merge, replace)

Column Operations

TOPICS

Add custom columns · Split columns by delimiter · Grouping & summarizing
Merge & Append queries · Automating repetitive cleaning tasks

Introduction to Power Pivot

[Hands-on project](#)

TOPICS

Data Model basics · Relationships between tables

DAX Formulas for Beginners

TOPICS

- Calculated Columns vs. Measures
- **Common DAX:** CALCULATE, SUMX, RELATED, FILTER
- Building KPIs & time intelligence (YTD, MTD, YOY growth)

TOPICS

[Hands-on project](#)

- Principles of Dashboard Design (clarity, simplicity, interactivity)

BUILDING INTERACTIVE REPORTS IN EXCEL

- PivotTables & PivotCharts
- Slicers & Timelines
- Conditional formatting for KPIs
- Combining Power Query + Power Pivot + Excel charts for automation

Capstone Projects (Choose Based on Industry Dataset)

TOPICS

HR – Employee Attrition Dashboard · Finance – Budget vs. Actuals Tracker · Sales – Regional Sales Performance Report

Transitioning from Excel to Power BI Desktop

TOPICS

- Difference between Excel BI & Power BI
- Importing Excel data into Power BI
- Creating a simple interactive dashboard in Power BI Desktop

NOTES

- End Result: By the end of Day 6, learners will be able to independently handle advanced Excel lookups, arrays, automate data cleaning with Power Query, build data models with Power Pivot, create executive dashboards, and get a head start with Power BI.

HANDS-ON ACTIVITIES

Practise What You Learn

MODULE	ACTIVITY
Advanced Lookups & Arrays	Hands-on mini-project: Building a smart employee search tool with XLOOKUP + FILTER
Power Excel Foundations	Hands-on mini-project: Profit sensitivity analysis using scenarios
Power Query (ETL in Excel)	Hands-on project: Cleaning messy sales dataset for reporting
Power Pivot & Data Modeling	Hands-on project: Sales performance dashboard using Power Pivot
Reporting & Dashboards	Hands-on project: Executive dashboard for Sales & Finance

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

Visit koenig-solutions.com

✉ info@koenig-solutions.com