

Excel & Power BI: Power Query, DAX & Dashboards

Learn to transform data with Power Query, model relationships, build DAX measures and design dashboards and reports in Excel and Power BI.

75

TOPICS

1

HANDS-ON ACTIVITIES

COURSE OVERVIEW

This course covers the Power Excel workflow, connecting to and transforming data with Power Query, and building table relationships in Excel's Data Model. It then covers creating dashboards with Power Pivot, using slicers, timelines and filters, and applying data validation, followed by a capstone project. It continues into Power BI, covering data analyst roles, getting and cleaning data, designing star-schema data models, and writing DAX measures from introductory through advanced and performance-optimisation concepts. It closes with building and formatting report visuals, laying out reports with cross-highlighting and drill down, and adding navigation and filtering.

WHO THIS COURSE IS FOR

Data Analysts

Excel Users

Business Intelligence Developers

Report Developers

Dashboard Designers

LEARNING OBJECTIVES

- Apply Power Query transformations such as merging and appending queries
- Build table relationships and hierarchies in Excel's Data Model
- Design dashboards using slicers, timelines and data validation
- Describe data analyst roles and typical data analysis tasks
- Retrieve, clean and load data into Power BI from various sources
- Design a star-schema data model with relationships and hierarchies
- Develop DAX measures, calculated columns and time intelligence functions
- Configure report visuals, layout, navigation and filtering in Power BI

75 Topics

01

Introduction To Power Excel

TOPICS

Understanding the “Power Excel” Workflow · Introduction to Power Query + Power Pivot · When to use Power Query & Power Pivot

02

Connecting & Transforming Data With Power Query

TOPICS

- Getting to Know Power Query in Excel
- Exploring Excel’s Power Query Editor
- Power Query Data Loading Options
- **Important:** Updating Locale Settings
- Applying Basic Table Transformations with Power Query
- **Power Query Demo:** Text Tools
- **Power Query Demo:** Number & Value Tools
- **Power Query Demo:** Date & Time Tools
- **Pro Tip:** Creating a Rolling Calendar with Power Query
- **Power Query Demo:** Generating Index & Conditional Columns
- **Power Query Demo:** Grouping & Aggregating Records
- **Power Query Demo:** Pivoting & Unpivoting Data
- Modifying Excel Workbook Queries
- Merging Queries with Power Query
- Appending Queries with Power Query
- **Power Query Demo:** Connecting to a Folder of Files
- Excel Power Query Best Practices

03

Building Table Relationships with Excel Data Model

TOPICS

- Meet Excel’s “Data Model”
- The Data Model Data vs. Diagram View
- Principles of Database Normalization
- Understanding Data Tables vs. Lookup Tables
- Benefits of Relationships vs. Merged Tables
- Creating Table Relationships in Excel’s Data Model
- Modifying Data Model Table Relationships
- Managing Active vs. Inactive Table Relationships
- Understanding Relationship Cardinality
- Connecting Multiple Data Tables in the Data Model
- Understanding Filter Flow
- Hiding Fields from Excel Client Tools
- Defining Hierarchies in a Data Model
- Excel Data Model Best Practices

04

TOPICS

Creating dashboards with Power Pivot · Creating dashboards · Using relational data for database · Slicers and timelines · Conditional timelines · Filter & sorting · Data validation · Designing dashboard layouts

06

Discover Data Analysis

TOPICS

Different data roles · Data analyst tasks

07

Get Started Building with Power BI

TOPICS

Data analytics with Microsoft · Building blocks of Power BI · Compelling visuals and reports

08

Get Data in Power BI

TOPICS

Retrieve data from various data sources · Select storage mode · Resolve import errors · **Demo:** Get data in Power BI Desktop

09

Clean, Transform, and Load Data in Power BI

TOPICS

- Resolve inconsistencies and data quality issues
- Profile data for better insights
- Apply data shape transformations
- **Demo:** Clean, transform, and load data in Power BI

10

Design a Data Model in Power BI

TOPICS

Data types · Star schema · Create relationships · Edit relationships · Create hierarchies

11

Introduction to DAX

TOPICS

What is DAX · Calculated measures, columns, and table · **Demo:** Create measures using DAX in Power BI

12

Advanced DAX Concepts

TOPICS

Filter context · Semi-additive measures · Time intelligence functions

13

Optimize DAX Performance

TOPICS

Variables in DAX expressions · Performance analyzer

14

Work with Visuals

TOPICS

Add visuals to report · Choose effective visuals · Format and configure visuals

15

Report Layout and Interactions

TOPICS

Design appealing report layout · Cross-highlight and drill down

16

Navigation and Filtering

TOPICS

Navigate and sort report · Filters and slicer visual

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.

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