

KOENIG SOLUTIONS • COURSE OUTLINE

Advanced Visualization and Integration with Power BI

Learn to build advanced Power BI reports, from data modelling and DAX to row-level security, paginated reports and Python or R visuals.

5 Days

40 HOURS

15

MODULES

43

TOPICS

9

HANDS-ON ACTIVITIES

COURSE OVERVIEW

This course covers Power BI fundamentals, including connecting to data sources, transforming data with Power Query, and applying data visualization principles. It then moves into advanced visual interaction techniques such as drill down, drill through, bookmarks, custom tooltips and field parameters. Further modules address advanced data modelling, DAX measures and functions, and row-level security, followed by Power BI Service collaboration and report enhancement features like slicers, conditional formatting and drill through pages. The final modules cover paginated reports, integrating Python and R visuals, managing workspaces and datasets, and a revision session.

WHO THIS COURSE IS FOR

BI Developers

Data Analysts

Report Designers

Power BI Administrators

Business Intelligence Consultants

LEARNING OBJECTIVES

- Explain Power BI Desktop, Service and Mobile capabilities
- Apply Power Query techniques to clean and transform data
- Design data models and choose appropriate visualizations
- Configure drill down, drill through and bookmark interactions
- Implement custom tooltips and field parameters in reports
- Build DAX measures using functions such as CALCULATE and FILTER
- Configure static and dynamic row-level security
- Integrate Python, R and paginated reports into Power BI

15 Modules, 43 Topics

DAY 1 Introduction and Fundamentals

01

Introduction to Power BI

TOPICS

- Overview of Power BI
- Key Features and Benefits
- Power BI Desktop vs. Power BI Service vs. Power BI Mobile

02

Hands-on

Data Preparation and Transformation

TOPICS

- Connecting to Data Sources
- Data Cleaning and Transformation with Power Query
- Creating Data Models

03

Hands-on

Fundamentals of Data Visualization

TOPICS

Principles of Data Visualization · Choosing the Right Visualization · Best Practices for Effective Visualizations

DAY 2 Advanced Visual Interaction Techniques

04

Hands-on

Advanced Visual Interaction Techniques

TOPICS

- Customizing Visual Interactions
- Utilizing Drill Down and Drill Through Features
- Creating and Using Bookmarks

05**Hands-on**

Designing Custom Tooltips

TOPICS

Introduction to Custom Tooltips

06**Hands-on**

Implementing Field Parameters

TOPICS

Implementing Field Parameters

DAY 3

Advanced Data Modeling and DAX

07**Hands-on**

Advanced Data Schemas and Modeling Concepts

TOPICS

Understanding Data Schemas · Designing Efficient Data Models

08**Hands-on**

Deep Dive into DAX (Data Analysis Expressions)

TOPICS

Introduction to DAX · Comparing Calculated Columns and Measures · Utilizing Quick Measures

09**Hands-on**

Implementing Row-Level Security (RLS)

TOPICS

Introduction to Row-Level Security · Implementing Static and Dynamic RLS

DAY 4

Power BI Service and Advanced Features

10

Power BI Service and Collaboration

TOPICS

- Introduction to the Power BI Service
- Exploring Power BI Service Artifacts (excluding administration tasks)
- Strategies for Sharing and Collaboration

11

Enhancing Visualization

TOPICS

- Filtering and Sorting Reports
- Sync Slicers
- Creating Drill Through Pages
- Advance Drill Through
- Applying Conditional Formatting
- Control visibility of measure in DAX
- Bookmarks and Selection
- Display measure for specific users

12

Advanced Feature of Power BI

LESSON 1: DOWNLOADING REPORT BUILDER AND CREATING PAGINATED REPORT

Introduction to paginated reports · Get data · Create a paginated report · Work with charts on the report · Publish the report

13

Hands-on

Integrating Python, R, and Power Query Visuals

TOPICS

- Using Python for Visuals and Analysis
- Using R for Advanced Visuals and Statistical Analysis
- Overview of Power Query Visuals

14

Managing Workspace and Datasets

LESSON 1: INTRODUCTION TO WORKSPACE - MANAGING WORKSPACE

Distribute a report or dashboard · Monitor usage and performance · Creating and Publishing Apps

15

Revision Session and Q&A Session

HANDS-ON ACTIVITIES

Practise What You Learn

#	MODULE	ACTIVITY
02	Data Preparation and Transformation	Importing and Transforming Data
03	Fundamentals of Data Visualization	Creating Basic Visuals
04	Advanced Visual Interaction Techniques	Creating Drill down, Drill through, and Cross Drill through Reports
05	Designing Custom Tooltips	Adding and Customizing Tooltips in Reports

#	MODULE	ACTIVITY
06	Implementing Field Parameters	Parameterizing Fields within Reports
07	Advanced Data Schemas and Modeling Concepts	Data Modeling
08	Deep Dive into DAX (Data Analysis Expressions)	Utilizing DAX Functions like CALCULATE, FILTER, and ALL
09	Implementing Row-Level Security (RLS)	Configuring RLS in Power BI
13	Integrating Python, R, and Power Query Visuals	Demonstrating Examples (Note: Python and R requires prior experience)

WHAT IS INCLUDED

Everything You Need to Succeed

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

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