

KOENIG SOLUTIONS · COURSE OUTLINE

Power BI Advanced with Paginated Reports (Microsoft)

Learn to prepare data, build DAX calculations, design advanced visuals and create paginated reports in Power BI.

4 Days

32 HOURS

5

MODULES

89

TOPICS

COURSE OVERVIEW

This course covers preparing and shaping data in Power BI, including profiling, merging queries and designing dimensional data models with relationships and hierarchies. It then addresses DAX, from writing basic measures and calculated columns to using iterator functions, table manipulation functions and time-intelligence calculations. The course also covers advanced data visualisation concepts such as custom themes, accessibility, performance analysis and analytics features including clustering, forecasting and time series analysis, followed by building dashboards with real-time data and Power Automate flows. It closes with creating paginated reports using Report Builder, including parameters, dataset management and row-level security.

WHO THIS COURSE IS FOR

Power BI Developers

Data Analysts

Report Designers

Business Intelligence Professionals

Data Modellers

LEARNING OBJECTIVES

- Profile and shape data using merge queries and column type changes
- Design dimensional data models with facts, dimensions and hierarchies
- Write DAX measures, calculated columns and quick measures
- Apply iterator functions such as SUMX, AVERAGEX and RANKX
- Manipulate tables with DAX functions such as FILTER and SUMMARIZE
- Calculate time-intelligence measures such as DatesYTD and DateAdd
- Configure advanced visuals including clustering, binning and forecasting
- Build dashboards and create paginated reports with Report Builder

5 Modules, 89 Topics

01

Preparing Data in Power BI

LESSON 1: INTRODUCTION TO ENHANCING DATA STRUCTURE

- Enhancing Data Structure - Join Types Merge Queries
- Profile data in Power BI
- Shape the initial data
- Simplify the data structure
- Evaluate and change column data types

LESSON 2: INTRODUCTION TO DESIGNING A DATA MODEL

- Introduction to Dimensional Modeling
- Elements of the Dimensional Data Model
- Fact
- Dimension
- Attributes
- Fact Table
- Dimension Table
- Fact Vs Dimension
- Understanding cardinality
- Creating Relationships and their effects
- Configuring Tables
- Work with relationships and cardinality
- Resolve modelling challenges
- Creating Hierarchy
- Explore time-based data

02

Calculation with DAX

LESSON 1: INTRODUCTION TO DAX

- Write DAX formulas
- Calculated Column
- Measures
- Create simple measures
- Create compound measures
- Create quick measures
- Calculate Tables
- Compare calculated columns with measures
- Evaluation Context
- Types of Contexts

LESSON 2: WORKING WITH CONTEXT IN THE DATA MODEL

- Getting data from other tables using RELATED
- Modifying the context using CALCULATE function
- Use of USERELATIONSHIP function

LESSON 4: USING DAX TO PERFORM ADVANCE CALCULATION

- Handling errors gracefully
- Understanding Row Context with Iterator function
- SUMX
- AVERAGEX
- MAXX
- RANKX

Calculation with DAX (continued)

LESSON 5: CREATING AND MANIPULATING TABLE IN DAX WITH FUNCTIONS

- FILTER
- SUMMARIZE
- SUMMARIZECOLUMNS
- GROUP BY
- ADD COLUMN
- CALENDAR & CALENDARAUTO

LESSON 6: WORKING WITH TIME

- DatesYTD
- DatesQTD
- DatesMTD
- Year on Year growth calculation
- DateAdd
- Parallelperiod
- SameperiodLastYear
- Importance of Variables and Comments
- Introduction to Optimizing Model Performance

03

Introduction to Advanced Data Visualization Concepts

TOPICS

- Create and import a custom report theme
- Enable personalized visuals in a report
- Design and configure Power BI reports for accessibility
- Review report performance using Performance Analyzer
- Explore statistical summary
- Identify outliers with Power BI visuals
- Apply clustering techniques
- Conduct time series analysis
- Use the Analyze feature
- Use advanced analytics custom visuals
- Advanced Analytics - Grouping
- Advanced Analytics - Binning
- Advanced Analytics - Bandings
- Creating Animated Scatter Charts
- Using Visuals to Forecast Values

04

Advance Feature of Power BI

LESSON 1: INTRODUCTION TO CREATING DASHBOARDS

- Creating Dashboards - Editing Published Reports and Pinning to a New Dashboard
- Introduction to Real-Time Dashboards
- Creating Forms for Pushing Data
- Creating Push Datasets
- Accessing Power Automate
- Creating Flow to Push Form Data into Dataset
- Respond to Survey
- Enhancing Dashboards with Custom Themes

Advance Feature of Power BI (continued)

LESSON 1: INTRODUCTION TO CREATING DASHBOARDS (CONTINUED)

- Enhancing Dashboard with Videos
- Enhancing Dashboard Tile Alerts
- Using Q&A and Quick Insights and Add to Dashboards

05

Creating Paginated Reports

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
- Create Parameters and Publish the report

LESSON 2: INTRODUCTION TO MANAGING DATASETS

- Creating Parameters
- Editing Parameters in the Service and Refreshing Datasets and Visuals
- Working with What if Parameter
- Implementing Row Level Security

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

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