2 – DAY
ANALYSING AND VISUALISING DATA WITH POWER BI

CONTACT

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METHODOLOGY

PREREQUISITE

- Microsoft Power BI Desktop (free download)
- This course is designed for PC/ Windows users (currently not available for Mac)
- Experience with Excel Power Query, Power Pivot & DAX is a plus, but not required

NOTE: This is **PART 1** of a 2-Part Microsoft Power BI series:
1. Up and Running with **Power BI Desktop**
2. Publishing to **Power BI Service**
Don't forget to complete PART 2 to learn Power BI Service and take your Power BI skills to the cloud!

WHO SHOULD ATTEND?

- Anyone looking for a hands-on, project-based introduction to Microsoft Power BI Desktop
- Data analysts and Excel users hoping to develop advanced data modeling, dashboard design, and business intelligence skills
- Aspiring data professionals looking to master the #1 business intelligence tool in the market
- Students who want a comprehensive, engaging, and highly interactive approach to training
- Anyone looking to pursue a career in data analysis or business intelligence

INTRODUCTION

Transform, analyse and visualise data with Microsoft Power BI Desktop: hands-on demos, projects and 1-on-1 Power BI support.

By the end of the Adventure Works project, not only will you have developed an entire business intelligence (BI) tool from the ground up using Power BI, but you will have gained the knowledge and confidence to apply these same concepts to your own Power BI projects.

COURSE OBJECTIVES

By the end of this course, you will be able to:

- Build professional-quality business intelligence reports from the ground up
- Blend and transform raw data into beautiful interactive dashboards
- Design and implement the same BI tools used by professional analysts and data scientists
- Showcase your skills with two full-scale course projects (with step-by-step solutions)
- Understand the business intelligence workflow from end-to-end
- Learn from a best-selling instructor and professional BI developer

PROGRAM OUTLINES

MODULE 1: CONNECT AD TRANSFORM THE RAW DATA

- Introduction to the Power BI Query Editor
- Types of Power BI Data Connectors
- Basic Table Transformations
- Text, Number and Date Tools
- Index and Conditional Columns
- Grouping and Aggregating Data
- Pivoting and Unpivoting
- Modifying, Merging and Appending Queries
- Connecting to Folders
- Defining Hierarchies and Categories
- Query Editing and Power BI Best Practices

MODULE 4: ADD CALCULATED FIELDS WITH DATA ANALYSIS EXPRESSIONS (DAX)

- Introduction to DAX
- Calculated Columns vs. Measures
- Row Context vs. Filter Context in Power BI
- DAX Syntax and Operators
- Common Power BI Functions
- Basic Date and Time Formulas
- Logical and Conditional Statements
- Text, Math and Stats Functions
- Joining Data with RELATED
- CALCULATE, ALL and FILTER Functions
- DAX Iterators (SUMX, AVERAGEX)
- Time Intelligence Formulas
- DAX and Power BI Best Practices

MODULE 2: BUILD A RELATIONAL DATA MODEL

- Introduction to Database Normalisation
- Data ("Fact") Tables vs. Lookup ("Dimension") Tables
- Creating Power BI Table Relationships
- "Star" vs. "Snowflake" Schemas
- Active vs. Inactive Relationships
- Relationship Cardinality
- Connecting Multiple Data Tables
- Filtering and Cross-Filtering
- Hiding Fields from the Power BI Report View
- Data Modeling and Power BI best Practices
- data

MODULE 4: DESIGN INTERACTIVE POWER BI REPORTS

- Introduction to the Power BI Report View
- Adding Basic Charts to Power BI Reports
- Formatting and Filtering Options
- Matrix Visuals
- Slicers and Timelines
- Cards and KPIs
- Power BI Map Visuals (Basic, Fill, ArcGIS)
- Treemaps, Lines, Areas and Gauges
- Editing Report interactions
- Adding Drillthrough Filters
- Linking to Report Bookmarks
- Using "What-If" Parameters
- Managing and Viewing Roles
- PREVIEW: Publishing to Power BI Service
- Power BI Data Viz Best Practices