

# Microsoft data analytics

## Module 1. Introduction To Power Excel

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

## Module 2: Connecting & Transforming Data With Power Query.

- 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

## Module 3: Building Table relationships with Excel Data Model.

- 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

#### Module 4:

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

#### Module 5:

- Capstone project based on dataset

#### Module 6: Discover data analysis

- Different data roles
- Data analyst tasks

#### Module 7: Get started building with Power BI

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

#### Module 8: Get data in Power BI

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

#### Module 9: Clean, transform, and load data in Power BI

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

#### Module 10: Design a data model in Power BI

- Data types

- Star schema
- Create relationships
- Edit relationships
- Create hierarchies

#### Module 11: Introduction to DAX

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

#### Module 12: Advanced DAX concepts

- Filter context
- Semi-additive measures
- Time intelligence functions

#### Module 13: Optimize DAX performance

- Variables in DAX expressions
- Performance analyzer

#### Module 14: Work with visuals

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

#### Module 15: Report layout and interactions

- Design appealing report layout
- Cross-highlight and drill down

#### Module 16: Navigation and filtering

- Navigate and sort report
- Filters and slicer visual