

End-to-End Data Intelligence: From Power BI Reports to Microsoft Fabric Pipelines

Duration: 10 Days (80 Hours)

Module 1: Get data in Power BI

- Lesson 1: Getting Data from Multiple Sources
 - Excel (Locally Stored and Cloud-Based Excel file)
 - Access
 - .CSV files and folders
 - Web
 - Data Verse and Data flow
 - Azure SQL Database
- Lesson 2: Resolve data import errors
 - Resolving Data Load Error
 - Resolving Data Path Error
 - Resolving Refresh Error

Module 2: 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
 - Attributes
 - Fact Table
 - Dimension Table
 - Understanding cardinality
 - Creating Relationships and their effects
 - Define data granularity
 - Configuring Tables
 - Work with relationships and cardinality
 - Resolve modelling challenges
 - Creating Hierarchy

Module 3: 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
- Lesson 2: Basic Math calculation
 - Summarization and Aggregation
- Lesson 3: Working with context in the data model
 - Getting data from other tables using RELATED and RELATEDTABLE
 - Modifying the context using CALCULATE function
 - Use of USERELATIONSHIP function
- Lesson 4 Using DAX to perform Advance calculation
 - Understanding Row Context with Iterator function
 - SUMX
 - AVERAGEX
 - MAXX
 - RANKX
- 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

Module 4: Visualize your data

- Lesson1: Introduction
 - Creating reports with different visuals
 - Cluster and Stacked column and bar chart
 - Map visualizations
 - Matrices and tables
 - Create scatter, waterfall, and funnel charts
 - Modify colors in charts and visuals
 - Page layout and formatting
 - Formatting different Visuals
- Lesson 2: Enhancing Report

- Filtering and Sorting Reports
- Sync Slicers
- Creating Drill Through Pages
- Applying Conditional Formatting
- Bookmarks and Selection
- Lesson 3: Introduction to advanced data visualization concepts
 - Create and import a custom report theme
 - Enable personalized visuals in a report
 - 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
 - Creating Animated Scatter Charts
 - Using Visuals to Forecast Values

Module 5: Advance 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
- Lesson 2: Introduction to creating Dashboards
 - Creating Dashboards – Editing Published Reports and Pinning to a New Dashboard
 - Accessing Power Automate
 - Enhancing Dashboard with Videos
 - Enhancing Dashboard Tile Alerts
 - Using Q&A and Quick Insights and Add to Dashboards
- Lesson 3: Copilot in Power BI
 - Data preparation using AI
 - Copilot Chat in Power BI

Module 6: Managing Workspace and Datasets

- Lesson 1: Introduction to Workspace
 -
 - Distribute a report or dashboard
 - Monitor usage and performance
 - Creating and Publishing Apps
- 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

Module 7: Get started with Microsoft Fabric

- Introduction to end-to-end analytics using Microsoft Fabric
- Get started with lakehouses in Microsoft Fabric
- Use Apache Spark in Microsoft Fabric
- Work with Delta Lake tables in Microsoft Fabric
- Orchestrate processes and data movement with Microsoft Fabric
- Ingest Data with Dataflows Gen2 in Microsoft Fabric
- Get started with data warehouses in Microsoft Fabric
- Get started with Real-Time Intelligence in Microsoft Fabric
- Get started with data science in Microsoft Fabric
- Administer a Microsoft Fabric environment

Module 8: Implement a data warehouse with Microsoft Fabric

- Load data into a Microsoft Fabric data warehouse
- Query a data warehouse in Microsoft Fabric
- Monitor a Microsoft Fabric data warehouse
- Secure a Microsoft Fabric data warehouse

Module 9: Work with semantic models in Microsoft Fabric

- Design scalable semantic models
- Create and manage Power BI assets
- Enforce Power BI model security

Module 10: Administer and govern Microsoft Fabric

- Administer a Microsoft Fabric environment
- Secure data access in Microsoft Fabric
- Secure a Microsoft Fabric data warehouse
- Govern data in Microsoft Fabric with Purview