Power BI Advanced

Duration: 5 Days (40 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 CALULATE 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
        - SUMMARIZECOLUMN
        - GROUP BY
        - ADD COLUMN
        - CALENDAR & CALENDARAUTO
- Lesson 6: Working with Time
        - DatesYTD
        - DatesQTD
        - DatesMTD
        - Year on Year growth calculation
        - DateAdd
        - Parellelperiod
        - 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
    - Managing 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