Advanced Visualization with Power BI

Duration 5 Days (40 hours)

Day 1: Introduction and Fundamentals

1. **Module 1: Introduction to Power BI**

   - **Overview of Power BI**

   - **Key Features and Benefits**

   - **Power BI Desktop vs. Power BI Service vs. Power BI Mobile**

2. **Module 2: Data Preparation and Transformation**

   - **Connecting to Data Sources**

   - **Data Cleaning and Transformation with Power Query**

   - **Creating Data Models**

   - **Hands-on: Importing and Transforming Data**

3. **Module 3: Fundamentals of Data Visualization**

   - **Principles of Data Visualization**

   - **Choosing the Right Visualization**

   - **Best Practices for Effective Visualizations**

   - **Hands-on: Creating Basic Visuals**

Day 2: Advanced Visual Interaction Techniques

4. **Module 4: Advanced Visual Interaction Techniques**

   - **Customizing Visual Interactions**

   - **Utilizing Drill Down and Drill Through Features**

   - **Creating and Using Bookmarks**

   - **Hands-on: Creating Drill down, Drill through, and Cross Drill through Reports**

5. **Module 5: Designing Custom Tooltips**

   - **Introduction to Custom Tooltips**

   - **Hands-on: Adding and Customizing Tooltips in Reports**

6. **Module 6: Implementing Field Parameters**

   - **Implementing Field Parameters**

   - **Hands-on: Parameterizing Fields within Reports**

Day 3: Advanced Data Modeling and DAX

7. **Module 7: Advanced Data Schemas and Modeling Concepts**

   - **Understanding Data Schemas**

   - **Designing Efficient Data Models**

   - **Hands-on: Data Modeling**

8. **Module 8: Deep Dive into DAX (Data Analysis Expressions)**

   - **Introduction to DAX**

   - **Comparing Calculated Columns and Measures**

   - **Utilizing Quick Measures**

   - **Hands-on: Utilizing DAX Functions like CALCULATE, FILTER, and ALL**

9. **Module 9: Implementing Row-Level Security (RLS)**

   - **Introduction to Row-Level Security**

   - **Implementing Static and Dynamic RLS**

   - **Hands-on: Configuring RLS in Power BI**

Day 4: Power BI Service and Advanced Features

10. **Module 10: Power BI Service and Collaboration**

    - **Introduction to the Power BI Service**

    - **Exploring Power BI Service Artifacts (excluding administration tasks)**

    - **Strategies for Sharing and Collaboration**

11. **Module 11: Enhancing Visualization**

    - **Filtering and Sorting Reports**

    - **Sync Slicers**

    - **Creating Drill Through Pages**

    - **Advance Drill Through**

    - **Applying Conditional Formatting**

    - **Control visibility of measure in DAX**

    - **Bookmarks and Selection**

    - **Display measure for specific users)**

Day 5: Integrating Advanced Features and Final Project

12. **Module 12: Advanced feature of Power BI**
    - **Lesson 1: Downloading Report Builder and creating Paginated Report**
      1. **Introduction to paginated reports**
      2. **Get data**

3. **Create a paginated report**
4. **Work with charts on the report**
5. **Publish the report**

13. **Module 13: Integrating Python, R, and Power Query Visuals**

- **Using Python for Visuals and Analysis**

- **Using R for Advanced Visuals and Statistical Analysis**

- **Overview of Power Query Visuals**

- **Hands-on: Demonstrating Examples (Note: Python and R requires prior experience)**

14. **Module 14: Managing Workspace and Datasets**
   - **Lesson 1: Introduction to Workspace o Managing Workspace**
      1. **Distribute a report or dashboard**
      2. **Monitor usage and performance**
      3. **Creating and Publishing Apps**

15. **Module 15: Revision session and Q&A session**