PYTHON POWER BI

1: Introduction to Data Analysis with Python and Power BI

1.1   Understanding the Data Analysis Process

1.2   Introduction to Power BI and Python

1.3   Setting Up the Development Environment

2:Data Preprocessing with Python

2.1   Data Cleaning and Transformation with Python (Pandas)

2.2   Handling Missing Data

2.3   Data Types and Conversions

2.4   Data Aggregation and Grouping

3: Data Visualization with Power BI

3.1   Introduction to Power BI Desktop

3.2   Data Loading and Transformation in Power Query

3.3   Building Basic Visualizations: Bar Charts, Line Charts, Pie Charts

3.4   Working with Filters and Slicers

4: Advanced Data Analysis with Python

4.1   Exploratory Data Analysis (EDA) with Python

4.2   Statistical Analysis with Python (Scipy and Stats models)

4.3   Introduction to Machine Learning with Python

5: Advanced Data Visualization with Power BI

    5.1   Advanced Visualizations: Treemaps, Waterfall Charts, etc.

    5.2   Customizing Visuals with DAX (Data Analysis Expressions)

    5.3   Dashboard Creation in Power BI

    5.4   Sharing and Publishing Reports

6:Final Project and Course Review

    6.1   Capstone Project: Students will work on a real-world data analysis and visualization project using Python and Power BI.

    6.2   Course Review and Exam: A final review of key concepts and an assessment to test students' knowledge.

7:Additional Topics (Optional, depending on course duration):**

    7.1   Geospatial Analysis and Mapping with Power BI

    7.2   Power BI Service and Collaboration Features

    7.3   Integrating Python with Power BI using Python Scripts

    7.4   Using Python Libraries for Data Visualization (Matplotlib, Seaborn)