**Microsoft Power BI**

**Course Overview**

The **Microsoft Power BI** course introduces learners to a powerful business analytics service that enables interactive data visualization and business intelligence capabilities. Power BI allows users to connect to multiple data sources, transform and model data, and create insightful, dynamic reports and dashboards to drive data-driven decision-making.

This course is designed for beginners and intermediate users who want to harness Power BI for data analysis and reporting without requiring extensive programming knowledge.

**Course Objectives**

By the end of this course, learners will be able to:

* Understand Power BI components and architecture.
* Connect to various data sources and import data.
* Cleanse, transform, and model data using Power Query and DAX.
* Design interactive reports and dashboards.
* Use visualization tools effectively to present insights.
* Share and collaborate on Power BI reports securely.
* Implement data refresh and automation for real-time analytics.

**Syllabus Breakdown**

**Module 1: Introduction to Power BI**

* Overview of Power BI and business intelligence
* Understanding Power BI Desktop, Service, and Mobile apps
* Installing and setting up Power BI Desktop
* Exploring the Power BI interface and components

**Module 2: Data Sources and Data Loading**

* Connecting to common data sources (Excel, SQL Server, Web, etc.)
* Importing vs DirectQuery modes
* Data refresh options and scheduling
* Managing data connections

**Module 3: Data Transformation with Power Query**

* Introduction to Power Query Editor
* Cleaning and transforming data (filter, split, merge)
* Handling missing or erroneous data
* Creating custom columns and measures

**Module 4: Data Modeling**

* Understanding relationships between tables
* Creating and managing data models
* Using DAX (Data Analysis Expressions) basics
* Calculated columns and measures
* Time intelligence functions

**Module 5: Creating Visualizations**

* Types of visualizations (charts, maps, gauges, tables)
* Customizing visual elements and formatting
* Using slicers and filters for interactivity
* Creating drill-through and tooltip pages

**Module 6: Reports and Dashboards**

* Designing multi-page reports
* Publishing reports to Power BI Service
* Creating dashboards and pinning visuals
* Sharing reports and dashboards securely

**Module 7: Advanced Features and Collaboration**

* Using Power BI Q&A for natural language queries
* Row-level security and permissions
* Integrating with Microsoft Teams and SharePoint
* Embedding Power BI visuals in apps and websites

**Module 8: Practical Project**

* End-to-end project: connecting, transforming, modeling data
* Designing a comprehensive dashboard for business insights
* Presenting findings and sharing reports

**Career Opportunities**

Power BI skills are in high demand across industries for roles focused on data analytics, business intelligence, and decision support:

* **Business Intelligence Analyst**
* **Data Analyst**
* **Data Scientist**
* **Reporting Analyst**
* **Financial Analyst**
* **Operations Analyst**
* **Consultant (BI Solutions)**

Mastering Power BI enables professionals to turn raw data into actionable insights that support strategic business goals.