



TECHNOCATION FREELANCING TRAINING INSTITUTE & SOFTWARE HOUSE

# Professional Power BI Course Outline

## Module 1: Introduction to Power BI

- Overview of Business Intelligence & Data Analytics
- Introduction to Power BI & Its Components
- Understanding Power BI Desktop, Power BI Service & Power BI Mobile
- Installing & Setting Up Power BI

## Module 2: Getting Started with Power BI

- Navigating Power BI Interface & Features
- Connecting to Data Sources (Excel, SQL Server, Cloud, Web)
- Understanding Data Models & Relationships
- Importing & Transforming Data with Power Query

## Module 3: Data Transformation & Cleaning

- Data Shaping & Cleaning Techniques
- Handling Missing Data & Duplicates
- Merging & Appending Queries
- Using Power Query for ETL (Extract, Transform, Load)

## Module 4: Data Modeling & Relationships

- Understanding Data Modeling in Power BI
- Creating & Managing Relationships Between Tables
- Implementing Star Schema & Snowflake Schema
- Using Calculated Columns & Tables

## Module 5: Introduction to DAX (Data Analysis Expressions)

- Basics of DAX Syntax & Functions
- Creating Measures & Calculated Columns
- Aggregation & Filtering Functions
- Using Time Intelligence Functions in Power BI

## **Module 6: Data Visualization & Dashboard Design**

- Best Practices for Effective Data Visualization
- Creating Bar Charts, Line Charts, Pie Charts, Maps, & More
- Using Advanced Visuals (KPI Cards, Gauges, Treemaps)
- Designing Interactive Dashboards & Reports

## **Module 7: Advanced DAX & Data Calculations**

- Working with Complex DAX Formulas
- Implementing Ranking, Running Totals & Cumulative Sums
- Using Variables in DAX Expressions
- Performance Optimization in DAX

## **Module 8: Power BI Service & Cloud Integration**

- Publishing Reports to Power BI Service
- Setting Up Workspaces & Sharing Reports
- Managing Data Refresh & Scheduled Updates
- Collaboration & Security in Power BI Service

## **Module 9: Power BI Paginated Reports & Report Builder**

- Understanding Paginated Reports vs. Interactive Reports
- Creating & Formatting Paginated Reports
- Exporting Reports to PDF, Excel, & Other Formats
- Best Practices for Report Performance

## **Module 10: Power BI for Business Intelligence & Analytics**

- Business Metrics & KPI Tracking
- Forecasting & Trend Analysis with Power BI
- Scenario Analysis & "What-If" Parameters
- Using AI-Powered Insights in Power BI

## **Module 11: Power BI Integration & Automation**

- Connecting Power BI with Excel, SharePoint & Teams

- Power BI & Power Automate for Workflow Automation
- Integrating Power BI with PowerApps for Custom Applications
- Embedding Power BI Reports in Websites & Applications

## **Module 12: Power BI Security & Governance**

- Implementing Row-Level Security (RLS) & Object-Level Security
- Managing User Access & Permissions
- Data Encryption & Compliance in Power BI
- Monitoring & Auditing Power BI Usage

## **Module 13: Performance Optimization & Best Practices**

- Optimizing Data Models for Faster Performance
- Reducing Report Load Time & Query Optimization
- Using Aggregations & Indexing for Large Datasets
- Troubleshooting Common Power BI Issues

## **Module 14: Final Project & Certification Preparation**

- Developing an End-to-End Power BI Dashboard
- Real-World Business Case Studies & Capstone Projects
- Preparing for Microsoft Power BI Certification (PL-300)
- Career Opportunities in Business Intelligence & Data Analytics