

# Certificate course on Power BI Course 3 Months Duration

## Syllabus

### Module 1:

- Introduction to Power BI
  - What is Power BI?
  - Components: Power BI Desktop, Service, and Mobile
  - Power BI vs Excel vs Tableau
  - Installing Power BI Desktop
  - Understanding Power BI Interface
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### Module 2:

- Connecting to Data
  - Importing Data from:
    - Excel, CSV, SQL Server, Web, SharePoint, APIs
  - Understanding Data Sources
  - Data Loading Options (DirectQuery vs Import)
  - Data Transformation Overview
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### Module 3:

- Power Query & Data Cleaning
  - Power Query Editor Interface
  - Data Transformation Techniques:
    - Remove duplicates, blanks
    - Pivot/Unpivot
    - Merge and Append Queries
    - Custom columns
    - Data profiling, error handling
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### Module 4:

- Data Modeling
  - Relationships in Power BI
  - Star vs Snowflake Schema
  - Normalization & Denormalization
  - Creating Calculated Columns, Measures
  - Introduction to DAX (Data Analysis Expressions)
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### Module 5:

- DAX Essentials
  - Syntax and Functions
  - SUMX, CALCULATE, FILTER, RELATED, IF, SWITCH
  - Time Intelligence Functions
  - Aggregation and Ranking
  - Variables in DAX
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### Module 6:

- Data Visualization
- Visual Types: Bar, Line, Pie, Cards, Matrix, Table, Map, Treemap, Gauge

- Custom Visuals from Marketplace
  - Formatting and Interactions
  - Tooltips and Drillthroughs
  - Bookmarks and Buttons
  - Creating Report Themes
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#### **Module 7:**

- Dashboards & Reports
  - Page navigation
  - Slicers and Filters
  - Publishing to Power BI Service
  - Creating Dashboards in Power BI Service
  - Pinning visuals and tiles
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#### **Module 8:**

- Power BI Service (Cloud)
  - Workspaces, Apps, Sharing Reports
  - Dataset Refresh Scheduling
  - Row-Level Security (RLS)
  - Dataflows and Gateways
  - Power BI Mobile Overview
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#### **Module 9:**

- Advanced Topics (Optional)
  - Performance Optimization
  - Paginated Reports (Power BI Report Builder)
  - AI Visuals (Decomposition Tree, Key Influencers)
  - Integration with Python/R
  - Embedding Power BI in Apps
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#### **Module 10:**

##### **Real-World Projects and Administration**

Power BI Administration:

Usage monitoring

Gateway configuration

Governance and compliance

Integration with:SharePoint,Microsoft Teams,Power Apps and Power Automate

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##### **Assessment & Certification Preparation**

- Weekly assignments and quizzes
  - Real-world case study: Sales, HR, Marketing, or Finance Dashboard Creation
  - Capstone projects with real datasets (Sales, HR, Finance, etc.)
  - Power BI PL-300: Microsoft Power BI Data Analyst certification prep (optional)
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