

**Workshop Title: Business Intelligence tool Power BI and Tableau**  
**A 60-Hour Comprehensive Workshop**

**Total Duration: 60 Hours**

- **Power BI:** 30 Hours
- **Tableau:** 30 Hours
- **Format:** 2 hours per session x 30 sessions
- **Level:** Beginner to Advanced
- **Includes:** Hands-on practice, real datasets, project-based learning, quizzes

**Power BI - 30 Hours (15 Sessions)**

Session	Duration	Topic
1	2 hrs	Introduction to Excel and Power BI – Tools, Interface, and Workflow
2	2 hrs	Connecting to Data Sources (Excel, CSV, SQL, Web, APIs)
3	2 hrs	Data Transformation using Power Query Editor
4	2 hrs	Data Modelling – Relationships, Star Schema, Snowflake
5	2 hrs	Introduction to DAX (Data Analysis Expressions)
6	2 hrs	Advanced DAX – Calculated Columns, Measures, Time Intelligence
7	2 hrs	Creating Basic Visuals – Bar, Pie, Line, Card, Table
8	2 hrs	Interactive Dashboards – Slicers, Filters, Drill through
9	2 hrs	Maps and Geo-Spatial Data Visualizations
10	2 hrs	Advanced Visuals – KPIs, Waterfall, Gauge, Decomposition Tree
11	2 hrs	Power BI Service – Publishing, Sharing, Workspaces
12	2 hrs	Row-Level Security (RLS) & Data Permissions
13	2 hrs	Power BI with Excel – Pivot Tables, Power Pivot

Session	Duration	Topic
14	2 hrs	Power BI and Python/R Integration
15	2 hrs	Capstone Project – Real-Time BI Dashboard

---

### Tableau - 30 Hours (15 Sessions)

Session	Duration	Topic
1	2 hrs	Introduction to Tableau – Versions, Interface, Terminology
2	2 hrs	Data Connections – Excel, Web Data Connectors, SQL
3	2 hrs	Data Preparation with Tableau Prep
4	2 hrs	Dimensions, Measures, and Data Types
5	2 hrs	Creating Charts – Bar, Line, Pie, Maps
6	2 hrs	Filters, Sorting, and Grouping
7	2 hrs	Parameters and Sets
8	2 hrs	Calculated Fields and Table Calculations
9	2 hrs	Dashboards and Storytelling in Tableau
10	2 hrs	Maps and Geo Mapping in Tableau
11	2 hrs	Forecasting and Trend Analysis
12	2 hrs	LOD Expressions (Level of Detail Calculations)
13	2 hrs	Tableau Server and Tableau Public
14	2 hrs	Tableau with R and Python Integration
15	2 hrs	Capstone Project – Interactive Data Story