Power BI Roadmap (Beginner to Advanced)

A complete step-by-step learning roadmap to master Power BI for data analysis, reporting, and business intelligence.

Phase 1: Data & BI Fundamentals (Beginner)

- What is Business Intelligence (BI)
- Role of Power BI in analytics
- Types of data: Structured vs Unstructured
- Basic data concepts: Rows, columns, tables, relationships
- KPIs, metrics, measures, dimensions

Phase 2: Power BI Desktop Basics

- Installing Power BI Desktop
- Understanding Power BI interface
- Power BI workflow: Get Data → Transform → Model → Visualize → Publish
- Supported data sources (Excel, CSV, SQL, APIs)

Phase 3: Data Loading & Cleaning (Power Query)

- Power Query Editor overview
- Data cleaning: remove duplicates, nulls, errors
- Changing data types
- Splitting, merging, appending queries
- Filtering and sorting data
- Applied steps & query folding basics

Phase 4: Data Modeling

- Creating relationships between tables
- Star schema vs Snowflake schema
- Fact tables and Dimension tables
- Cardinality and cross-filter direction
- Best practices for data modeling

Phase 5: DAX Fundamentals

- What is DAX and why it matters
- Calculated columns vs Measures
- Basic DAX functions: SUM, COUNT, AVERAGE
- Logical functions: IF, SWITCH
- Date & time functions

Phase 6: Intermediate DAX

- CALCULATE function
- Filter context vs Row context
- Time intelligence: YTD, MTD, YoY
- ALL, ALLEXCEPT, FILTER functions
- Ranking and conditional logic

Phase 7: Data Visualization & Dashboards

- Choosing the right visuals
- Charts, tables, matrices, cards
- Slicers and filters
- Drill-down, drill-through
- Tooltips and interactions
- Dashboard design best practices

Phase 8: Advanced DAX & Performance

- Variables in DAX
- Optimizing DAX performance
- Complex time intelligence scenarios
- Handling large datasets
- Avoiding common DAX mistakes

Phase 9: Power BI Service & Deployment

- Publishing reports to Power BI Service
- Workspaces and apps
- Data refresh (scheduled & incremental)
- Row Level Security (RLS)
- Sharing and collaboration

Phase 10: Advanced & Enterprise Features

- Power BI Gateway
- DirectQuery vs Import mode
- Composite models
- Paginated reports
- Power BI Embedded
- Using REST APIs

Phase 11: Real-World Projects

- Sales dashboard

- Manufacturing / Production dashboard
- Finance & KPI dashboard
- Operational & real-time dashboards
- End-to-end project with data refresh & security

Phase 12: Career & Certification Path
- Microsoft PL-300 certification
- Portfolio building
- Best practices for interviews
- Power BI for Data Analyst vs Developer roles