



POWER BI

Syllabus of POWER BI

Introduction to Power BI

- What is Power BI?
- Power BI components and services
- Getting started with Power BI Desktop and Power BI Service

Data Acquisition and Transformation

- Connecting to various data sources (Excel, databases, web, etc.)
- Data loading and transformation using Power Query Editor
- Data cleansing, shaping, and structuring

Data Modeling

- Creating a data model using the Power BI Desktop's Data Modeling interface
- Working with relationships between tables
- DAX (Data Analysis Expressions) basics for creating calculated columns and measures

Data Visualization

- Introduction to Power BI's visualization capabilities
- Creating basic visualizations (charts, graphs, tables)
- Customizing visualizations (formatting, labels, colors, etc.)
- Utilizing interactive features (drill-through, cross-filtering, etc.)

Advanced Data Modeling and DAX

- Advanced DAX functions and expressions
- Time intelligence calculations
- Hierarchies and role-playing dimensions
- Handling complex business logic in DAX

Power Query Advanced Techniques

- Merging and appending queries
- Working with query parameters
- Advanced transformations and conditional logic

Dashboard and Report Design

- Design principles for effective dashboards and reports
- Building interactive and user-friendly reports
- Storytelling with data using Power BI

Power BI Service and Collaboration

- Publishing reports to the Power BI Service
- Sharing and collaboration options
- Power BI apps and workspaces

Data Security and Governance

- Implementing row-level security
- Managing data source credentials
- Applying best practices for data security and compliance

Advanced Visualizations and Customization

- Custom visuals and marketplace integrations
- Drill-through and drill-down functionality
- Custom themes and templates

Performance Optimization

- Optimizing report performance for large datasets
- Reducing data model size and complexity
- Using aggregations for improved performance

Data Insights and AI Integration

- Using AI visuals like Q&A and Quick Insights
- Integrating Power BI with Azure Machine Learning
- Incorporating advanced analytics into reports

Case Studies and Projects

- Practical exercises and real-world scenarios
- Developing complete Power BI solutions
- Presenting insights and findings from data using Power BI