

POWER BI Course Content

Module-1: Introduction to Power BI

- Introduction to Business Intelligence (BI)
- Stages of business intelligence (BI)
- Use cases of BI
- Various BI tools
- Overview of Data warehouse & concepts
- Introduction to Power BI
- Why Power BI
- Power BI Components
- Power BI pricing structure
- Building blocks of Power BI
- Architecture of Power BI
- Power BI vs. Tableau vs. QlikView
- Introduction of Power BI Desktop
- Installation of Power BI Desktop
- The key features of Power BI workflow
- Process of creating reports in Power

Module-2: Data Extraction

- Overview of Power BI desktop
- Data sources in Power BI
- Using files (excel, pdf, csv, etc.) as a data source
- Using SaaS connectors
- Extracting data from folders, and databases
- Working with Azure SQL database and database sources

- Connecting to Analysis Services
- Other data sources (OData, web, SharePoint etc.)
- Python & R script in Power BI
- Introduction of power query editor
- Advance editor
- Query dependency editor

Module-3: Data Transformation

- Shaping data using Power Query Editor
 - Formatting data
 - Transformation of data
 - Understanding of Data types
 - Data profiling for data quality check
 - Naming conventions & best practices to consider
 - Working with Parameters
 - Merge Query
 - Append Query
 - Group by of data (aggregation of data)
 - Applied steps (query settings)
 - Duplicate & Reference tables
 - Transpose of data
 - Fill
 - Pivot & Un-pivot of data
 - Custom columns
 - Conditional columns
 - Replace data from the tables
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- Split columns values
- Move columns & sorting of data
- Detect data type, count rows & reverse rows
- Promote rows as column headers
- Hierarchies in Power BI
- M query

Module-4: Data Modeling & DAX

- Introduction of relationships
- Creating relationships
- Cardinality
- Cross filter direction
- Use of inactive relationships
- Introduction of DAX
- Why DAX is used
- DAX syntax
- DAX functions
- Context in DAX
- Calculated columns using DAX
- Measures using DAX
- Calculated tables using DAX
- Learning about table, information, logical, text, iterator,
- Time intelligence functions (YTD, QTD, MTD)
- Cumulative values, calculated tables, and ranking and rank over groups
- Date and time functions
- DAX advanced features

Module-5: Data Visualization

- Deep dive into Power BI data visualization
- Understanding Power View and Power Map
- Data visualization techniques
- Page layout & Formatting
- Power BI Desktop visualization
- Formatting and customizing visuals
- Visualization interaction
- Custom visualization in Power BI
- Top-down and bottom-up analytics
- Geographical data visualization using Maps

Module-6: Power BI Service Cloud

- Introduction to Power BI Service
- Introduction of workspaces
- Dashboard
- Creating & Configuring Dashboards
- Reports vs Dashboards
- Sharing reports & dashboards
- Ad-hoc analytics building
- Introduction of Paginated Reports
- Introduction of Power BI Report Server

Module-7: Power BI Administration

- Getting to understand Power BI Desktop settings
- Aggregating data from multiple data sources
- Power BI Service settings
- Power BI Admin Portal
- Administration activities
- Power BI usage analysis
- Installation & Configuration of data gateways
- Scheduling auto data refresh
- Real time data analysis using Direct Connectivity
- Direct Query vs. Import Mode

Module-8: Embedded Power BI with API & Mobile View

- Introduction to embedded Power BI
 - Create embedded code
 - Manage embedded code
 - Integration of Power BI in SharePoint
 - Introduction of Power BI API
 - Power BI Embedded playground
 - Introduction to Power BI Mobile
 - Creating mobile based reports & dashboards
 - Optimizing report for Power BI mobile app
 - Features of Power BI mobile app
 - Introduction of integrating Power BI & Excel
 - Power BI Analyze in Excel
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