

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 BI

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

DATA TRANSFORMATION – SHAPING & COMBINING DATA

- 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
- Identify and create appropriate keys for joins
- Working with Parameters
- Merge Query
- Append Query
- Group by of data (aggregation of data)
- Applied steps (query settings)
- Duplicate & Reference tables
- Transpose data
- Fill
- Pivot & Un-pivot of data

- Custom columns
- Conditional columns
- Replace data from the tables
- 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

DATA MODELLING & 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
- identify poorly performing measures, relationships,
- and visuals
- DAX advanced features

DATA VISUALIZATION WITH ANALYTICS

- 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
- Drill down
- Drill through
- Page navigations
- Bookmarks
- Selection pane to show/hide visuals
- Comparing volume and value-based analytics
- Combinations charts (dual axis charts)

- Filter pane
- Slicers
- Use of Hierarchies in drill down analysis
- Theme for corporate standards
- Power BI template for design reusability
- Mastering the best practices
- Performance analyzer in Power BI for
- monitoring performance of report
- Power BI Q&A (Natural Language Query visual)
- Sync slicers
- Tooltips & custom tooltips
- Tables & matrix
- Conditional formatting on visuals
- Waterfall chart, KPI, Donut chart, Scatter chart
- Geographical data visualization using Map