



# MS POWER BI

Master Power BI Desktop & Learn Advanced  
Power BI Analysis & Data Visualization

**SYLLABUS/ COURSE CONTENT**  
**TIME DURATION: 30 HRS / 2.5 MONTHS**

## ❖ Introduction to Power BI

- An Overview of the Workflow in Power BI Desktop
- Download and Installing Power BI Desktop
- Getting to know the Interface
- Power BI Free Vs. Pro Vs. Premium
- Power BI Key Components
- Introducing the Different Views of the Data Model
- Taking a Closer Look at the Query Editor Interface

## ❖ Power BI Vs Excel Reporting

- When we use which reports

## ❖ Power BI overview Concept

- Dataset
- Reports
- Dashboard
- Workspace
- Tile

## ❖ Connecting Power BI Desktop to our Data Sources

- Excel
- CSV
- Web
- PDF
- MS Access
- SQL Developer
- XML
- Connecting to a folder
- Others

## ❖ Power Query

- When to Use Power Query
- Import and analysis millions of Rows
- Best things to happen in Power BI
- Type of Connection
- Automate your data processing
- Query Editor Tool
- Pivoting and Un pivoting Columns

- Duplicating Vs Referencing Queries
- Transformations
  
- ❖ **Editing Rows**
  - First Header Row
  - Remove Top Rows
  - Filtering- Remove-Replace
  - Techniques
  
- ❖ **Editing columns**
  - Remove or Keep Columns
  - Navigation to the Columns
  - Change Columns Header Name
  
- ❖ **Understanding Append Queries**
  - Append Queries as existing (With two or multiple tables)
  - Append Queries as New
  - Formatting Data
    - Change data Type
    - Detect Data type for multiple columns
  - Remove error while loading
  - Remove null values
  - Splitting Columns
  - Delimiters
  - Delimiters positions
  - Creating a New Group for our Queries
  - Others
    - Sorting
    - Performing Basic Mathematical Operations in Query Editor
    - Improving Performance and Loading Data into the Data Model
    - Columns distribution, Quality, Profile
  
- ❖ **Introducing the Star Schema**
  - Fact Table Vs dim Table
  - Star Schema | Dim Vs Fact Table
  
- ❖ **Joins**
  - Outer Join

- Left, Right, Full, Anti
- Inner join

#### ❖ **Data Table Vs Lookup Table**

- Primary key Vs, Foreign Key
- Relationship Vs. Merged Table
- Connecting Lookup to Lookups
- Relationship Cardinality
- Introducing and Understanding Relationships
- One to One Relationship
- One to Many Relationship
- Many to Many Relationship
  - Bad Cardinality Many to Many
  - Bad Cardinality One to One
  - Importance for Filter Direction
  - Editing Relationships
  - Data Model Best Practice

#### ❖ **Working on our Data Model Data Relationship View**

- Query Editor vs. Data Model
  - Feature of Query Editor (Structure + Prepare Data)
  - Data Model – Add Relationship, Add Measures (Analysis Data)
- Active properties
- Understanding the differences between the M-Language and DAX
- DAX – Basic information
- Calculated Columns vs. Measures
- Introducing DAX-Measures
- DAX-Measures

#### ❖ **DAX (Data Analysis Expression)**

- Math & Stats Functions
  - Sum, Average, Max/Min, Divide, Count/Counta, Countrows, Distinctcount
- Interactor Functions:
  - SUMX, AVERAGEX, MAXX/MINX, RANKX, COUNTX
- Logical Function
  - IF, IFERROR, AND, OR, NOT, SWITCH
- Text Function

- Concatenate, Format, Left/Mid/Right,
- Upper/Lower, Proper, Len, Search/Find,
- Replace, Rept, Substitute, Trim
- Filter Function
  - Calculate, Filter, All, Allexcept, Related, Distinct, Values
- Date Function
  - Datediff, Yearfrace, Year/Month/Day, Hour/Minute/Second,
  - Today/Now, Weekday/Weeknum

#### ❖ **Working in the Report View to Visualize our Results**

- Understanding the Interface of the Report View
- Creating our First Visualizations
- Editing Interactions and Adding Tooltips
- Adding Color Saturation
- Understanding Hierarchies and Adding Drill-Down
- Formatting charts and Sorting
- Essential Formatting setting: Color, Data Labels, Axis, Placement, Legends, Value
- Table View vs. Matrix View
- Conditional Formatting in Table View
- Basic Charts: Line, Bar Chart, Column Chart, Tree map, Pie, Doughnut, Area
- Tooltips – On hover Text
- Color Saturation in Column Chart
- Slicers: Vertical list Vs. Horizontal tiles
- Text Cards
- Adding Tree maps and Tables
- Applying different Filter Types
- Creating Multi-Row Cards
- Understanding Combined Visualizations and Waterfalls

#### ❖ **Conditional columns and Data Segmentation:**

- Conditional Columns: Writing multi-layered If Conditions
- Segmentation: Use “Group By” to calculate aggregated calculation based on clusters
- Segmentation: Use “Binning” to categorize values into equally sized groups

#### ❖ **Advance Visualization:**

- KPI & Gauge Chart
- Forecast, Trend-line
- Map Visuals
- Custom Visuals – Downloadable Charts
- Use Drill down/up feature to specify chart behavior – granular view
- Show/Expand next level
- Filter level: Report level vs Page level vs Visual level

#### ❖ Power BI Service

- Introducing Power BI Service
- Connecting to Data
- Gateway Refresh and Data Flow
- Understanding Gateways
- Gateway Types
- Reports & Dashboard
- Sharing & Collaboration Tool
- Power BI Mobile
- My Workspace Vs. App Workspace
- Creation App Workspace
- Report Reading tool in Power BI Service
- Pining tiles to Dashboard
- Pining Entire report to Dashboard
- Dashboard interface
- Manage Alerts
- Generate Quick insight
- Adding personal Bookmarks
- Web Vs. Mobile Layout

**For More Details: Visit our website at: <https://www.innozant.com/>**

**Call / WhatsApp: 7065069985**

**You can also visit our institute at the following address.**

**B-1363, First floor, office no. 7, Sarpanch Complex, Near Wine & Beer Shop,  
New Ashok Nagar, Delhi-96.**