

POWER BI SYLLABUS

Power BI Introduction

- Data Visualization, Reporting
- Business Intelligence (BI), Traditional BI, Self-Serviced BI
- Cloud Based BI, On Premise BI
- Power BI Products
- Power BI Desktop (Power Query, Power Pivot, Power View)
- Flow of Work in Power BI Desktop
- Power BI Report Server, Power BI Service, Power BI Mobile Flow
- of Work in Power BI / Power BI Architecture
- A Brief History of Power BI
- Power Query
- Data Transformation, Benefits of Data Transformation
- Shape or Transform Data using Power Query
- Overview of Power Query / Query Editor, Query Editor User Interface The
- Ribbon (Home, Transform, Add Column, View Tabs)
- The Queries Pane, The Data View / Results Pane, The Query Settings
- Pane, FormulaBar
- Saving the Work
- Datatypes, Changing the Datatype of a Column Filter
- in Power Query
- Auto Filter / Basic Filtering
- Filter a Column using Text Filters
- Filter a Column using Number Filters
- Filter a Column using Date Filters
- Filter Multiple Columns
- Remove Columns / Remove Other Columns
- Name / Rename a Column
- Reorder Columns or Sort Columns
- Add Column / Custom Column Split
- Columns
- Merge Columns
- PIVOT, UNPIVOT Columns
- Transpose Columns

- **Header Row or Use First Row as Headers**
- **Keep Top Rows, Keep Bottom Rows Keep**
- **Range of Rows**
- **Keep Duplicates, Keep Errors**
- **Remove Top Rows, Remove Bottom Rows, Remove Alternative Rows**
- **Remove Duplicates, Remove Blank Rows, Remove Errors**
- **Group Rows / Group By M Language**
- **IF..ELSE Conditions, Transform Column () Types**
- **Remove Columns (), Split Columns (), Replace Value()**
- **Table. Distinct Options and GROUP BY Options Table.**
- **Group (), Table. Sort () with Type Conversions PIVOT**
- **Operation and Table. Pivot(). List Functions Using**
- **Parameters with M Language**

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Data Modeling

Data Modeling Introduction

Relationship, Need of Relationship

Relationship Types / Cardinality in General

One-to-One, One-to-Many (or Many-to-One), Many-to-Many

AutoDetect the relationship, Create a new relationship,

Edit existing relationships

Make Relationship Active or Inactive

Delete a relationship

DAX

What is DAX, Calculated Column, Measures

DAX Table and Column Name Syntax

Creating Calculated Columns, Creating Measures Calculated

Columns Vs Measures

DAX Syntax & Operators

DAX Operators

Types of Operators

Arithmetic Operators, Comparison Operators, Text

Concatenation Operator, Logical

Operators

- **DAX Functions Types**

- **Date and Time Functions**

- **Text Functions**

- **Logical Functions**

- **Math & Statistical Functions**

- **Filter Functions**

- **Time Intelligence Functions**

- **Date and Time Functions**

- **YEAR, MONTH, DAY**

- **WEEKDAY, WEEKNUM**

- **FORMAT (Text Function) à Month Name, Weekday Name**

- **DATE, TODAY, NOW**

- **HOUR, MINUTE, SECOND, TIME**

- **DATEDIFF, CALENDAR**

- **Creating Date Dimension Table**

- **Text Functions**

- **LEN, CONCATENATE (&)**

- **LEFT, RIGHT, MID UPPER,**

- **LOWER TRIM, SUBSTITUTE, BLANK**

Logical Functions

- **IF**
- **TRUE, FALSE NOT, OR, IN, AND**
- **IFERROR SWITCH Math & Statistical Functions**
- **INT**
- **ROUND, ROUNDUP, ROUNDDOWN**
- **DIVIDE**
- **EVEN, ODD**
- **POWER, SIGN**
- **SQRT, FACT**
- **SUM, SUMX**
- **MIN, MINX**
- **MAX, MAXX**
- **COUNT, COUNTX**
- **AVERAGE, AVERAGEX**
- **COUNTROWS, COUNTBLANK**

- **Filter Functions**
- **CALCULATE**
- **ALL**
- **RELATED**
- **Report View**

- **Report View User Interface**
- **Fields Pane, Visualizations pane, Ribbon, Views, Pages Tab, Canvas Visual Interactions**
- **Interaction Type (Filter, Highlight, None)**
- **Visual Interactions Default Behavior, Changing the Interaction**

Grouping and Binning Introduction

- **Using grouping, Creating Groups on Text Columns**
- **Using binning, Creating Bins on Number Column and Date Columns**
- **Sorting Data in Visuals**
- **Changing the Sort Column, Changing the Sort Order**
- **Sort using column that is not used in the Visualization**
- **Sort using the Sort by Column button**
- **Hierarchy Introduction, Default Date Hierarchy**
- **Creating Hierarchy, Creating Custom Date Hierarchy**
- **Change Hierarchy Levels**
- **Drill-Up and Drill-Down Reports**
- **Data Actions, Drill Down, Drill Up, Show Next Level**

Visualizations

- **Visualizing Data, Why Visualizations**
- **Visualization types, Create and Format Bar and Column Charts**
- **Create and Format Stacked Bar Chart Stacked Column Chart Create**
- **and Format Clustered Bar Chart, Clustered Column Chart**
- **Create and Format 100% Stacked Bar Chart, 100% Stacked Column Chart Createand**
- **Format Pie and Donut Charts**
- **Create and Format Scatter Charts**
- **Create and Format Table Visual, Matrix Visualization**
- **Line and Area Charts**
- **Create and Format Line Chart, Area Chart, Stacked Area Chart**
- **Combo Charts**
- **Create and Format Line and Stacked Column Chart, Line and Clustered ColumnChart**
- **Create and Format Ribbon Chart, Waterfall Chart, Funnel Chart**

Power BI Service

- **Power BI Service Introduction, Power BI Cloud Architecture**
- **Creating Power BI Service Account, SIGN IN to Power BI Service Account**
- **Publishing Reports to the Power BI service, Import / Getting the Report to PBI ServiceMy**
- **Workspace / App Workspaces Tabs**
- **DATASETS, WORKBOOKS, REPORTS, DASHBOARDS**
- **Working with Datasets, Creating Reports in Cloud using Published Datasets**

Creating Dashboards

- **Pin Visuals and Pin LIVE Report Pages to Dashboard**
- **Advantages of Dashboards**
- **Interacting with Dashboards**
- **Formatting Dashboard**
- **Sharing Dashboard**