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| **POWER BI ADVANCED COURSE CONTENTS** |

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| **POWER BI ADVANCED COURSE CONTENTS** |
| **Introduction**   * Introduction to Power BI * Power BI Architecture * Components of Power BI * Relationship between Excel &Power BI * Power BI Data Sources * Connecting to different database like sql server, mysql etc. * Power BI File Sources * Connecting to different file systems like flat file, excel etc. * Power BI Web Sources * Fetching data from different files * Working with import and direct query * Difference between Import and DirectQuery. * Editing Data Sources * Editing Data Queries * Data Sets * Editing Datasets * Applying Changes to Datasets * Cleaning Datasets in Power * Reverting changes to Datasets * Relationship in Datasets * Editing Relationship in Datasets * Defining relationships between tables * Creating custom table * Connected to Different web sources * Merging Data from different data sources * Connecting to JSON , XML etc * Connecting to Cloud Data Sources * Connecting to Azure Data Sources   **OLAP & Power BI**   * OLAP Data Sources in Power BI * Using MDX Queries with PowerBI * Connecting Power BI with OLAP * Understanding Import & DirectQuery * MDX SELECT and Perspective Access * MDX Expressions with Power BI * MDX Queries with Power BI   **Power Query**   * What is Power Query * When to Use Power Query * Connecting Data Sources using Power Query * Manipulating Data using Power Query * Power Query Functions * Applying Power Query Functions   **Power BI Editor Features**   * Merge Queries and Append Queries * Merging Data from diff sources * Remove columns and split columns * Choosing required columns in the data * Working with different transformations * Applied steps in query editor * Working with hierarchies * Working with Pivot & UnPivot * Working with Transpose in Power BI * Creating index and custom columns * Group By functionality in Query Editor   **Power BI Visualizations**   * Working with different visualizations * Working with table and matrix visuals * Working with different level of filters * Data Visualizations with Power BI * Gauge and cards * CHART Report Types and Properties * STACKED BAR CHART, STACKED COLUMN CHART * CLUSTERED BAR CHART, CLUSTERED COLUMN CHART * 100% STACKED BAR CHART, 100% STACKED COLUMN CHART * LINE CHARTS, AREA CHARTS, STACKED AREA CHARTS * LINE AND STACKED ROW CHARTS * LINE AND STACKED COLUMN CHARTS * WATERFALL CHART, SCATTER CHART, PIE CHART * Field Properties: Axis, Legend, Value, Tooltip * Field Properties: Color Saturation, Filters Types * Formats: Legend, Axis, Data Labels, Plot Area * Data Labels: Visibility, Color and Display Units * Data Labels: Precision, Position, Text Options * Analytics: Constant Line, Position, Labels * Working with Waterfall Charts and Default Values * Modifying Legends and Visual Filters - Options * Hierarchies: Grouping Multiple Report Fields * Hierarchy Levels and Usages in Visualizations |
| **Case – Study - Creating a Power BI Dashboard and make a Presentations**  **(The Trainer will give a demo of a case – study and participant needs to create a Power BI Dashboard on their own using all the capabilities of Power BI)** |
| **Power BI Advanced Features**   * Working with Data Hierarchies * In-built slicers and custom slicers * Date slicer * Working with reference lines * Filters * Drill Through in Power BI * Developing KPIs * Parameters * Types of Parameters * Linking Parameters with Datasets * Power BI Templates * Difference between Reports & Templates * Key Influencers in Power BI * What-If Parameters in Power BI * Creating What-If Parameters   **Power BI Custom Visuals**   * Adding Custom Visuals in Power BI * Word Cloud * Text Filters * Tornado * Zebra BI Tables * Hierarchy Charts * Interactive Pareto Charts * ARIMA Forecasting   **DAX functions with Power BI**   * Working with DAX Functions * Calculated Measures by using DAX * Parameters with DAX * Dynamic Report Filters, Expressions * Variables * Date functions * String functions * Arithmetic Functions * Understanding Calculated Column * Creating Calculated Columns * Understanding Measures * Creating Measures * Difference between Columns & Measures   **DAX Expressions & DAX Functions**   * YTD, QTD, MTD Calculations with DAX * DAX Calculations and Measures * Using TOPN, RANKX, RANK.EQ * SAMPLE Function, COUNTALL, ISERROR * ISTEXT, DATEFORMAT, TIMEFORMAT * Time Intelligence Functions with DAX * Data Analysis Expressions and Functions * DATESYTD, DATESQTD, DATESMTD * ENDOFYEAR, ENDOFQUARTER,ENDOFMONTH * FIRSTDATE, LASTDATE, DATESBETWEEN * CLOSINGBALANCEYEAR,CLOSINGBALANCEQTR * SAMEPERIOD and PREVIOUSMONTH,QUARTER * FILTER FUNCTIONS   **Power BI Deployment & User Management**   * Understanding PowerBI Cloud Architecture * Power BI Server Configuration * PowerBI Cloud Account and Workspace * Creating Account in Power BI Services * Power BI Users * Types of Users -> Free, Pro, Premium * Creating Workspaces * User Management * Workspaces Management * Deployment Power BI Desktop Reports * Managing report in Power BI Services * Editing Reports in Power BI Servers * Downloading PBIX files from Server * Share dashboards to Client /Users * Gateways * PowerBI Gateway -Download and Installation * Data Refresh with Power BI Architecture * PowerBI Settings : Dataset -Gateway Integration * Configuring Dataset for Manual Refresh of Data * Configuring Automatic Refresh and Schedules * Subscriptions in Power BI * Power BI Alerts * Dataset Actions and Refresh Settings with Gateway * Security Features in Power BI * Implementing Row Level Security (RLS) * Security Roles and Role Members. * Power BI Mobile Apps   **Power BI Organization Data Packs**   * What is Get Data * Connecting to Data in Power BI Services * How to Import Data in Power BI Services * What is Workbooks * What is Data Packs * How to Create Organization Data Packs * Using Data Packs and Creating Reports * Connecting with Different sources like Google Analytics etc.   **Paginated Report Builder in Power BI**   * What is Paginated Report Builder * Download and install Paginated Report Builder * Creating Reports in Paginated Report Builder * Publishing in Power BI |
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