

VINAY TECH HOUSE

Power BI Training

 **Trainer:** Mr. Vinay [12+ years of IT Exp, 6+ in PBI]

 **Duration:** 50 - 60 hours, Daily 1 hour

 **Modes:** Normal / Fast Track / One on One

 **Fee:** (Normal track) Online 11,000/- Offline 9,000/-



Institute Provides

- In-Depth **Theory & practical** Material
- Complete **Practical Oriented** Training
- **Mock Interviews**
- Daily **Live Class Videos** Shared
- Good Interaction with the Trainers
- **Resume Preparation** Sessions

Power Platform

Power Apps

Power Automate

Power Pages

Virtual Agents

Power BI



Power BI Cloud Operations

Power BI **Desktop** & **DAX**
Power Query, Pivot, View
Power BI **Service**
[app.powerbi.com]

Power BI On-Premise Operations

Power BI Report Server Desktop
Paginated Reports Creation
Power BI **Report Server**
Power BI **Report Builder**

Power BI Others

REST Understanding
Mobile APPS Understanding
Microsoft **Flow & Apps**
Practice with Examples

Power BI Projects & Case Studies

Two Projects [Retail & Financial]
Multiple Case Studies
Projects Environment [real-time]
FAQs Discussion

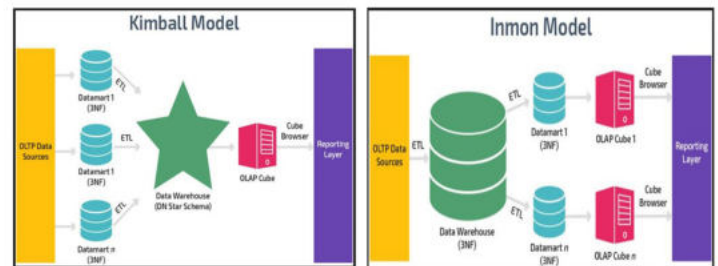
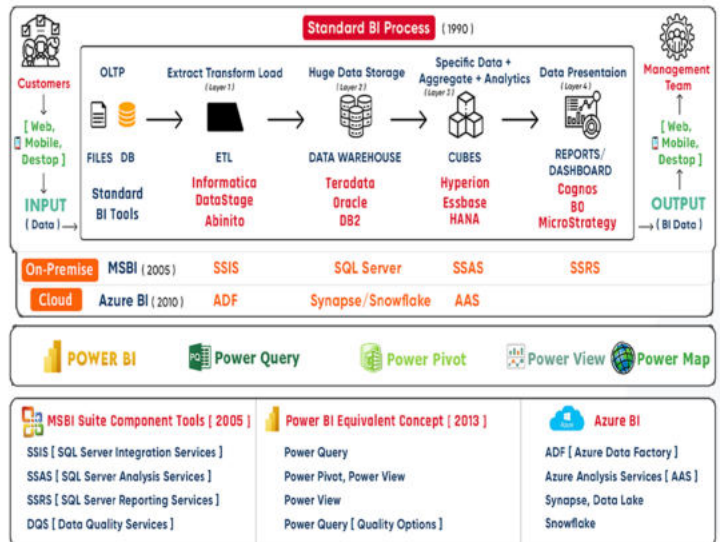
MANDATORY Topic 1: POWER BI DEMO AND DATAWAREHOUSE FUNDAMENTALS

Power BI Demo content

- > Data, Data Availability types in IT
- > IT data storage areas [File stream, Database]
- > Data warehouse, BI definitions and layers
- > Power BI existence in IT, Product services
- > Power BI Features, Self Service BI
- > Power BI Tools and Components
- > On-Premises vs. Cloud computing [Azure]
- > Power BI Opportunities and Support
- > Legacy vs. Modern BI tools
- > OLAP vs. OLTP vs. Insights and Analytics
- > Power BI challenging Data Science
- > Power BI History, releases and blogs
- > Installation process and challenges

Data warehouse Fundamentals

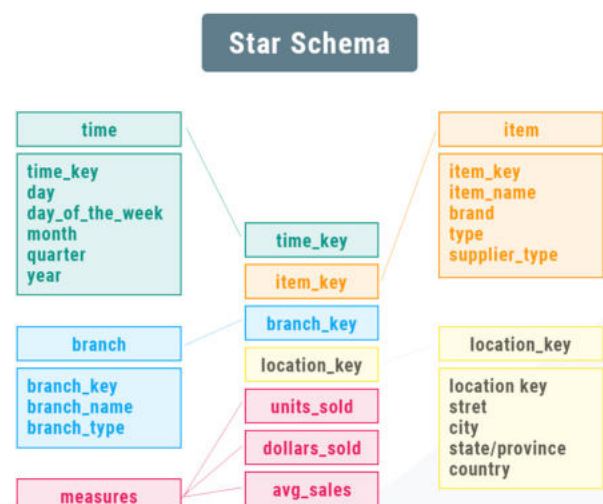
- > Data warehouse, Data Mart and differences
- > Types of data marts and real-time usage
- > ODS, Stage, EDW, and DW definitions
- > Data Lake and Blob Storages
- > DWH Life Cycles
- > DWH Approaches (INMON and KIMBALL)
- > Data Granularity, Data movement stages



MANDATORY Topic 2: DATA MODEL FUNDAMENTALS [E-R MODEL AND DIMENSIONAL MODEL]

[Theory and Complete Practical]

- > Dimension, Dimension Table & types
- > Fact, Fact Table & measures types
- > Fact less fact table
- > Schemas (Star, Snow Flake, Galaxy & Hybrid)
- > Surrogate key and usages in real time
- > Business, Conceptual, Logical, Physical Data Models
- > 1:1, 1: Many, Many: Many relationships
- > Active, Inactive relationships
- > Single and Bidirectional relationships
- > Cross filtering relationship
- > Role Playing real-time usage
- > Surrogate key live usages with practical



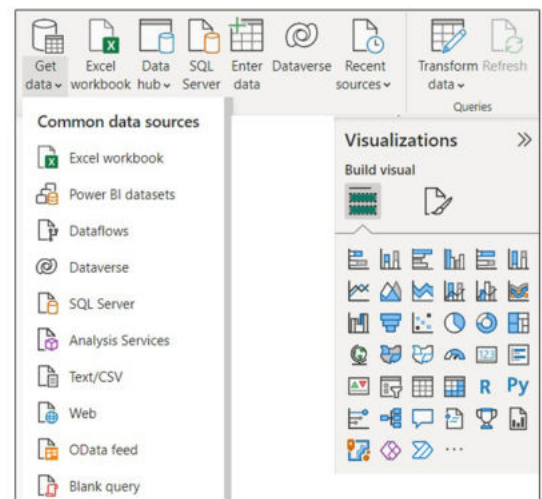
TOPIC 1: INSTALLATION [DESKTOPS, GATEWAY, SERVER, & STUDIO]

- > Various windows versions
- > Software components
- > Release impact on installation
- > Power BI Cloud Desktop installation
- > Power BI Report Server Desktop installation
- > DAX Studio installation
- > Report Server Installation
- > Gateway Installation



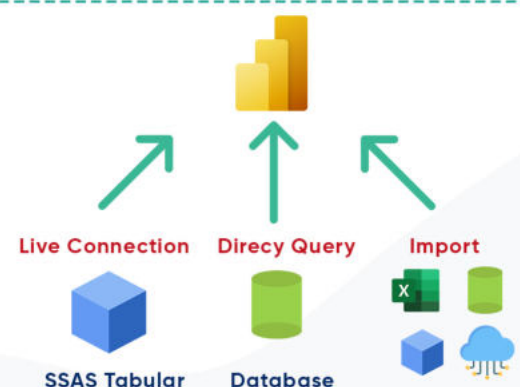
TOPIC 2: WORKING WITH POWER BI DESKTOP AND CONNECTING TO MANY DATA SOURCES

- > Desktop over view and Building blocks of PBI Desktop
- > Differences between Power BI and SSRS(MSBI)
- > Connecting to various sources and retrieving data
 1. Flat files
 2. CSV files
 3. JSON files
 4. Databases (Sql Server & Oracle)
 5. Excel files
 6. Web
 7. Analysis Services [Tabular & Multi-dimensional model]
 8. Azure SQL database and DWH
 9. Python Script
 10. M- Retrieval



TOPIC 3: WORKING WITH DATABASES, CUBES, MODES & CHANGING MODES

- > Working on data modes [very detailed]
 - Import
 - Direct Query
 - Connect Live
- > Genera reports using SQL, SQL Procedures and Views.
- > Generate reports using MDX and DAX Queries
- > Control retrieval rows and time.
- > Differences between Load and Edit options.



TOPIC 4: WORKING ON POWER BI DESKTOP COMPONENTS

- Power Query
- Power Pivot
- Power View
- Power Map



TOPIC 5: WORKING WITH VARIOUS MENU TAB OPTIONS-RIBBON OPTIONS & REAL-TIME

File Tab [All options-Detailed Practical]

- New Report Creation and Opening Existing Report
- Save report with PBIX extension
- Export **Power BI Template** (PBIT)
- Import Power BI Template, Power Query, View, Model, and others
- Working on Options and Settings for additional

Home Tab [All options- Detailed Practical]

- External Data:
 - Get Data, Recent Sources, Enter Data
 - Edit Queries and Refresh
 - Text Box, ImageShapes[Oval, Rectangle, Line, etc...]
- Transform data & edit parameters
- Publishing to cloud service
- Themes: Switch themes [using **corporate theme**]
- Calculations creation using
New Measure / Column / Quick Measure

Insert Tab [All options - Detailed Practical]

- Visuals:** New Page, New Visual, More Visuals
All Visuals: Key Influencers, Decomposition Tree, Smart Narrative, Q & A
Power Platform: Paginated Report, Power Apps, Power Automate
Elements: Text box, Buttons, Shapes, Image
Sparklines: Add a Sparkline

Format Tab [All options-Detailed Practical]

- Edit interactions for the visual for **cross highlighting**, **cross filtering**, and none options.
- Bring forward, send backward etc...visual option (Z-Order)

View Tab [All options -Detailed Practical]

- Report **Phone Layout** / Desktop View
 Show Gridlines, Snap Objects to Grid
 Locking Objects on the surface
Bookmarks creation, viewing, & using in Dashboard
 Selection Pane [Hiding and showing objects]
Slicer and Sync Slicers explanation with practical
 Performance analyzer test run
Scale to fit: Page view, **Mobile:** Mobile layout, Page options
Show panes: Filters, Bomarks, Selection, Performance Analyzer, Sync slicers

Modeling Tab [All options-Detailed Practical]

- Changing Data types, formats, and sort order
- Create roles and implement **row-level security** & **dynamic row-level security**
- Working on Linguistic schemas
Relationships: Manage Relationships
Calcuations: New measure, Quick measure, New Column, New table
Page Refresh: Change detection
Parameters: New parameter
Security: Manage roles, View as
Q & A: language, Linguistic Schema

Help Tab [All options-Detailed Practical]

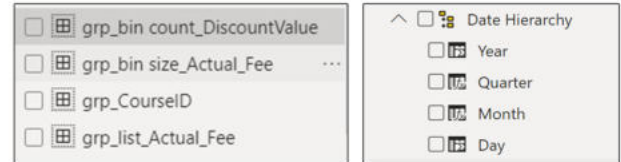
- Guided learning, documentation, training videos
- Blogs, Communities**, Power BI for developers
- Support** and Consulting Services

Data / Drill Tab [All options-Detailed Practical]

- Drill down report creation
- Drill one level down, multiple levels, & data drill
- Visual table, Data point table

TOPIC 6: POWER BI DATASET PROPERTIES

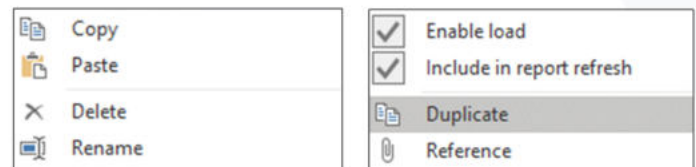
- > Create Hierarchies and analyzing data
- > Create Groups (List, Bin)
- > Hide / Unhide columns usage in real-time
- > Consider table as Date Table
- > Expand and collapse columns
- > Incremental refresh & manage aggregations



TOPIC 7: POWER QUERY PROPERTIES [8 types of properties and M-Language]

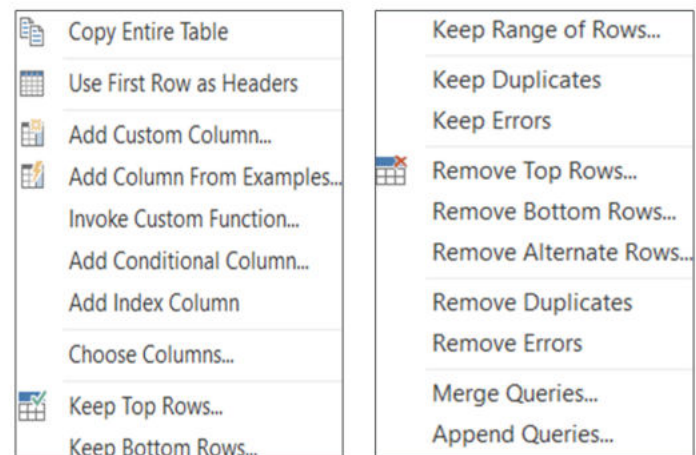
Queries properties [All options —Detailed Practical]

- a) Real-time practical on duplicates and references
- b) Create groups to classify tables
- c) Refreshing table data and enabling data to tables
- d) Creating reusable functions



Query Properties

- a) Perform data transformations by adding, removing and retaining columns, duplicates, errors
- b) Working on reusable functions
- c) Merging multiple queries
- d) Joining multiple queries to get matched, unmatched and both matched and unmatched rows.

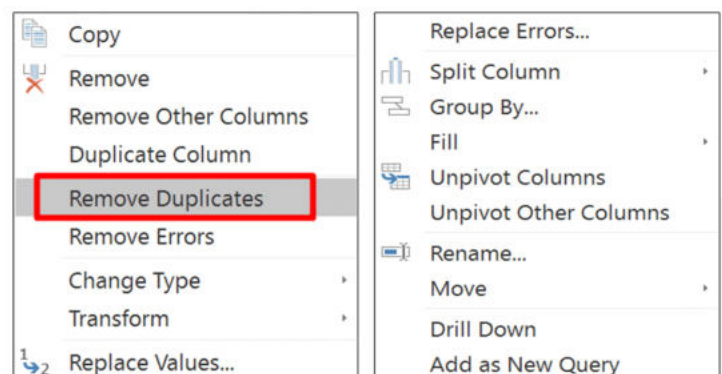


Column Properties

Data types, Different types of data transformations on

- a) Numeric columns
- b) String columns (split strings)
- c) Date columns

Full real-time examples on the data transformations





Filter properties

Working on Number, String, and Date
Various filter options

Parameters properties

Working on Any, List & Query Parameters
Working on multiple parameters
Working on cascading parameters

Miscellaneous Transformations

Transpose rows, reverse rows,
Pivot & Unpivot
View options [monospaced font, column profiling, Column distribution, performance monitoring]

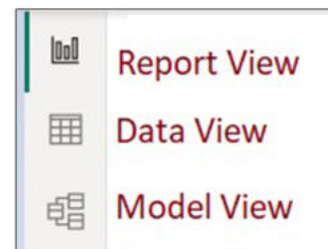
Mash up (M) language

Syntax, protocols, variables & conventions
Let, In, semicolon, and other functions

TOPIC 8: POWER BI VIEWS , FILTERS, VISUALS AND VISUAL FORMATING OPTIONS

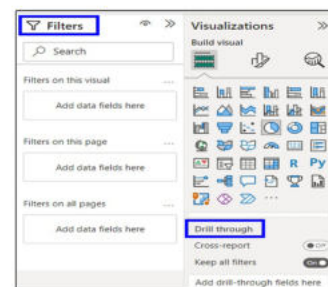
Types of views in PBI Desktop

- Report View
- Data View
- Relationship View



Working with different level of filters

- Visualization level
- Page level
- Report level
- Drill through page level
- Drill through cross report level



Data Display Visuals

Card, Multi-row, Table, Matrix

Simple KPI visuals

KPI, Gauge, Bullet Chart

More categories visuals

Charts

Rounded charts: Pie, donut

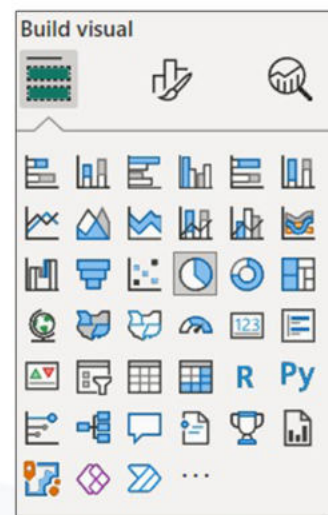
Bar: Stacked, Clustered, 100% Stacked,

Trend: Line, Area, Stacked Area, Ribbon, Mixed Charts, Rectangle Tree Map, Funnel, Scatter, Waterfall

Maps (Bubble, Filled, Shape, ARCGis)

AI Visuals: Key-influencer, De-composition, Smart Narrative, QA

Others: Sparklines, Metric, Paginated Report



TOPIC 9: POWER BI CLOUD SERVICE

WEB PORTAL NAVIGATIONS

- ✓ Navigation pane
- ✓ Portal URL explanation
- ✓ Office 365 office launcher
- ✓ Settings
- ✓ Embed Codes
- ✓ Power BI Developer
- ✓ Manage Group and Personal Storage

WORKSPACES

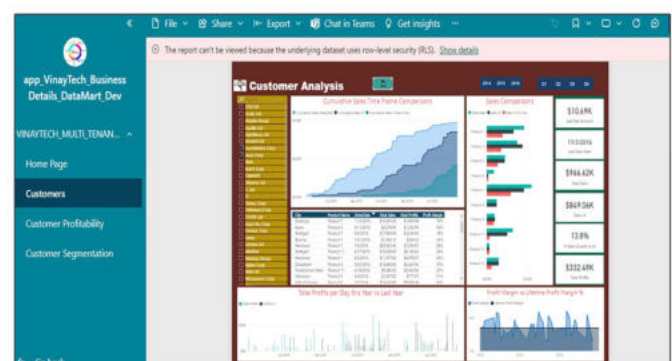
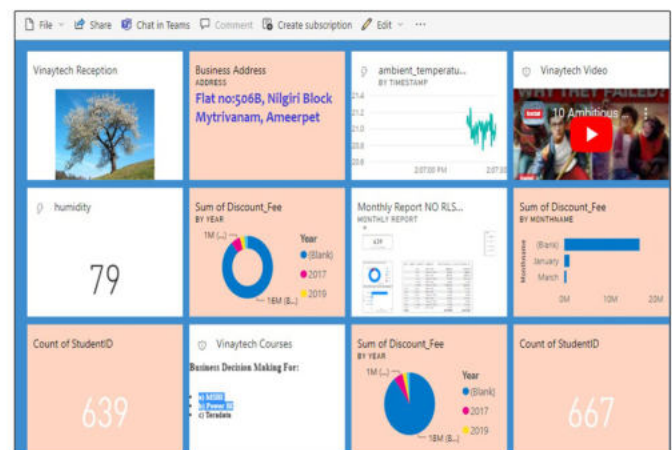
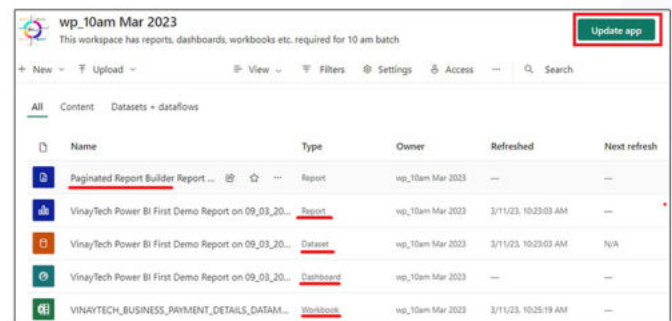
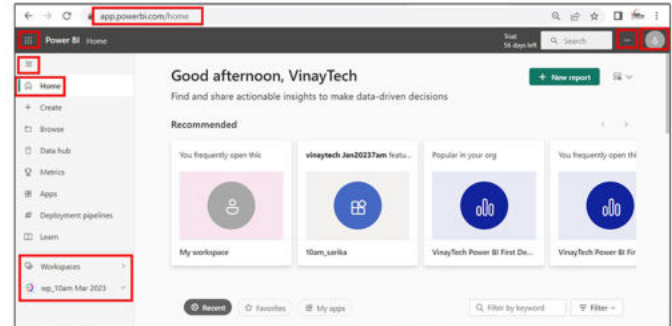
- ✓ My workspace and properties
- ✓ User app workspaces and properties
- ✓ Workspace Settings and Roles

DASH BOARD TEMPLATE

- ✓ Create dashboards
- ✓ Add the below tiles
 - a) Image tile b)Text box tile
 - b) Video tile d) Streaming tile
 - e) Live page tile f)Visual tile
 - g) Book mark tile h)Workbook tile
 - i)Insight tile j)Usage Metrics tile
- ✓ Share and Subscribe dash board
- ✓ Refresh Dashboard
- ✓ Edit tiles, Comments and QA
- ✓ Manage Alerts
- ✓ Tile properties

APP WORKSPACES

- ✓ Create, modify, and delete appspace
- ✓ Add content (show or hide)
- ✓ Audience (organization or users)
- ✓ Additional Settings (copy, build)
- ✓ Publish and Update app
- ✓ Browse App in Web, Desktop and Mobile
- ✓ App and Report properties





DATASET PROPERTIES

- ✓ Refresh (on-demand and scheduled)
- ✓ Security (Row Level Security)
- ✓ Download, Generate Reports
- ✓ Dataset Settings (Gateway and others)
- ✓ Parameters & Data Source Credentials

POWER BI GATEWAYS [STANDARD AND PERSONAL]

- ✓ Download and Install Power BI Gateways
- ✓ Install & Configure Gateways
- ✓ Add Data Sources
- ✓ Desktop, Service, and Mobile App
- ✓ Refresh (on-demand, scheduled and automated)
- ✓ Gateway trouble shooting

DEPLOYMENT PIPELINES

- ✓ Deployment and Deployment pipelines
- ✓ New and updates entities deploy
- ✓ Settings, Access, History of pipelines

REPORT PROPERTIES

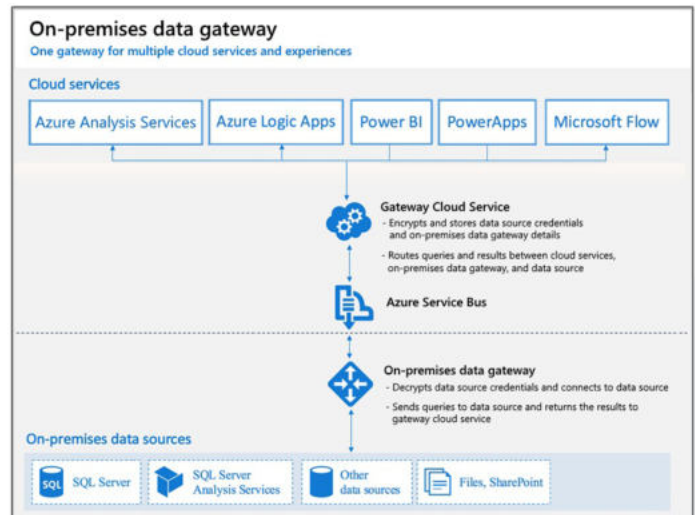
- ✓ Edit Report, Mobile and Web View
- ✓ Quick Insights and Usage Metrics
- ✓ Persistent Filters and Cross Report
- ✓ Share, Subscribe, and Refresh
- ✓ Lineage view, View Related
- ✓ Comments and ChatinTeams
- ✓ Manage Permissions

SCORECARDS AND METRICS

- ✓ Scorecard and Metrics or Goals
- ✓ Refresh Metrics

DATAFLOWS

- ✓ Create and modify dataflow
- ✓ Power Query Operations
- ✓ Common Data Model [CDM] usage
- ✓ Save and Use Dataflow
- ✓ Refresh (on-demand, scheduled, Incremental Refresh)



TOPIC 10: DAX [DATA ANALYSIS EXPRESSIONS] DAX Expression, Query Language, and DAX Studio

DAX Language General Topics

- > Syntax and usage
- > Naming conventions
- > Operators and Naming Parameters
- > Functions
- > DAX Queries, DAX Studio and SSMS
- > DAX FAQs, Optimization & Standards

DAX Functions [Very Detailed Practice]

Good material provided for all the functions

- a) Date b) Filter c) Math & Trig d) Statistical
 e) Table Manipulated f) Informatica
 g) Relationship h) Logical i) parent Child
 j) Time Intelligence j) Other Query statements:
 Evaluate, Define, Var, Order By

DATE FUNCTIONS

Calendar, Calendarauto, Day, Month, Year
 YearFrac, Date, Time, DateValue, TimeValue
 Edate, EOMonth, Weekday, WeekOfMonth
 Today, UTCToday, Now, UTCNow, DateDiff

TIME INTELLIGENCE FUNCTIONS

DatesBetween, DatesInPeriod,
 ClosingBalanceofmonth,
 ClosingBalanceOfQuarter,
 ClosingBalanceOfYear,
 OpeningBalanceOfMonth,
 OpeningBalanceOfQuarter,
 OpeningBalanceOfyear,
 Datesytd, Datesqtd, Datesmtd
 Totalqtd, Totalmtd, Totalytd ,DirstDate,
 FirstNonBlankDate, LastDate,
 Lastnonblankdate, NextDay, NextMonth,
 NextYuarter, NextYear, ParallelPeriod,
 SamePeriodLastYear, PreviousDay,
 PreviousMonth,
 PeviousQuarter,previousYear,
 StartOfMonth, StartOfYuarter,
 StartOfYear

LOGICAL FUNCTIONS

And, Or, Not, Iferror, If, Switch, In
 True ,False, Coalesce

PARENT CHILD FUNCTIONS

path,pathlength,pathcontains,pathreverse,PathItem

**Practice DAX on Power BI Desktop,
 DAX Studio and Tabular Model Cube
 Instances**

FILTER FUNCTIONS

Addmissingitems, Filter, Filters,Distinct, Values,
 Countrows, All, Allexcept, Earlier, Earliest,KeepFilters,
 Remove filters, Calculate, CalculateTable, AllSelected,
 AllNoBlankRow

RELATIONSHIP FUNCTIONS

Related, Relatedtable,UseRelationship, Crossfilter

INFORMATION FUNCTIONS

ContainsRow, Contains, Iseven, Isodd, Istext,
 UserName, UserPricipalName, LookUpValue,
 IsError, IsNonText, IsNumber, IsLogical,
 Isinscope,Isonorafter, Hasonefilter, IsCrossFiltered

AGGREGATE FUNCTIONS

Sum, Sumx, Average, AverageX, AverageA,Max,
 MaxX,MaxA, Min, Minx,MinA,Count, CountX, CountA
 CountBlank, DistantCount, DistantCountNoBlank,
 Product, ProductX

MATH AND TRIG FUNCTIONS

Sum,Sumx,Round,MRound,Roundup,
 Rounddown,Rand,RandBetween , Sqrt, Trunc,
 Pi,log, Log10,ln,iso.ceiling, Ceiling, Floor,
 Iso.floor, Gcd,Lcd,Exp,Fact, Even, Odd, Product,
 Productx

STATISTICAL FUNCTIONS

Permut, Rank.eq, Rankx, Sample, Selectcolumns,
 Summarize, TopN

TABLE MANIPULATION FUNCTIONS

AddColumns, AddMissingItems, CrossJoin,
 CurrentGroup, ContainsStringExact, DataTable,
 DetailRows, DistinctColumn, DistinctTable, Except,
 Filters, Generate, GenerateSeries, Groupby,
 DataTable, Except, Intersect, Union, Symmarize
 Summarizecolumn, GenerateSeries, NaturalInnerJoin,
 NaturalLeftOuterJoin, Treatas, Isempty, Row
 SelectColumns, Values,

TEXTUAL FUNCTIONS

Blank, Code,Unichar,Concatinate, Combinevalues,
 Cacatinatex, Trim, Rept, Replace, Substitute, Find,
 Search, Format, Mid, Left, Right, Value

**Good material with Real-time scenarios
 covered, a project with most of the
 DAX functions**

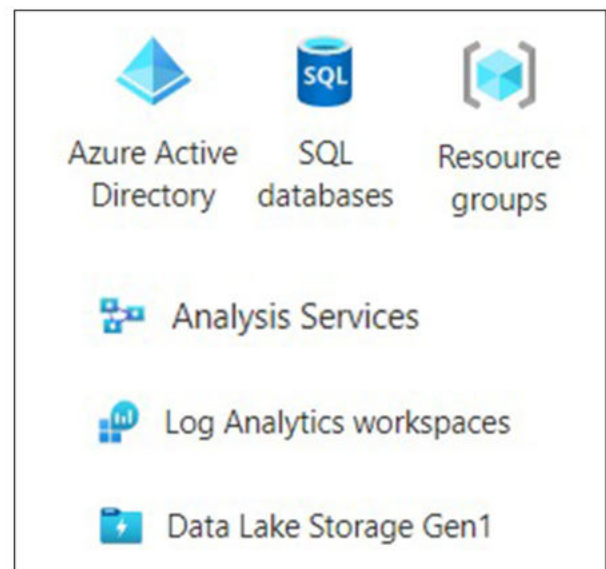
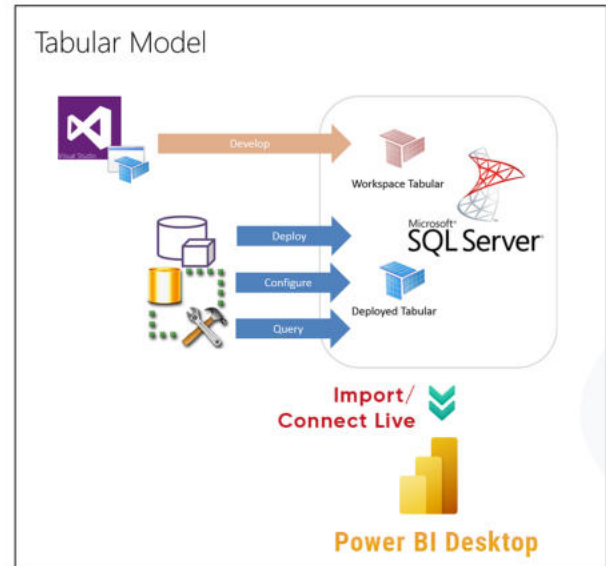
TOPIC 11: ADDITIONAL SESSIONS [ANALYSIS SERVICES TABULAR MODEL AND AZURE SESSIONS]

ANALYSIS SERVICES -TABULAR MODEL

- > Workspace Database , Workspace Server , Direct Query , Backup to disk
- > Installation steps , error mechanisms
Creating a tabular model and setting model
- > Data to the model , renaming tables, filtering columns
- > Rename Columns
- > Monitoring relationships , Providing relationships
- > Create Hierarchies
- > Create partitions
- > Create perspectives
- > Create Roles
- > Create KPIs
- > Deployment

AZURE SESSIONS

- > Azure cloud and introduction
- > Azure portal, resources, and resource groups
- > Azure account creation and pay-as-you-go
- > Azure SQL Database, Data warehouse, & Analysis Services Databases
- > Azure Blob and Data Lake Storages Introduction
- > Azure Data Factory [ADF] Introduction
- > ADF- Pipelines, Sources, Sync, and Azure Log Analytics Workspace
- > Azure Active Directory [AAD]



TOPIC 12: POWER AUTOMATE, POWER APP & POWER BI EMBEDDING

Microsoft Power Automate [Microsoft flow]

- > Power Automate overview
- > Flow.microsoft.com understanding with accounts and components
- > Scheduling the Dataset refresh
- > Implement set of operations using flow

EMAIL, Dataset Refresh, Power APPs

Basic Material and Live Class Videos Shared

Microsoft Power Apps

- > Power Apps Overview
- > Make.powerapps.com understanding
- > Understanding different apps [Canvas, Model Driven, Portal from Blank]
- > Power Apps few scenarios practice
APP showing Power BI Report [Embedding]
APP to connect to report and edit details
Create and manage a data form from OneDrive.



A BIG
Thank you!

check out our demos on **Youtube**

@ "Vinay Tech House"

<https://www.youtube.com/@vinaytechhouse4466/videos>

Our Institute provides **Top Tier Training** in the below
Career-Making Courses

Power BI

MSBI

AZURE BI

ADF

SQL SERVER

INFORMATICA

Modes: Normal / Fast Track / One on One

For regular updates on Free Demos

Follow us on FB / Insta **@ Vinay Tech House**

<https://www.facebook.com/vinaytechhouse>

Call: +91 957-316-8449

