Quality Thought®

SQL

⇨ Introduction
⇨ SQL Data Definition
⇨ SQL Data Manipulation
⇨ SQL Data Control
⇨ SQL Transactional Control
⇨ SQL Data Types
⇨ SQL Constraints
⇨ SQL Joins
⇨ SQL Subqueries
⇨ SQL Advanced Queries

Power BI

⇨ Power BI Basics
⇨ Power BI Desktop
⇨ Power BI Query – Transform
⇨ Data / Edit Queries
⇨ Power BI Service
⇨ Power BI Mobile App
⇨ Power BI Licensing Models
⇨ (Pro & Premium)
⇨ Power BI DAX – Data
⇨ Analysis Expressions
⇨ Power BI Custom
⇨ Visualizations

PowerApps

⇨ Power App Introductions
⇨ Canvas Apps
⇨ Common Data Sources
⇨ Model–Driven Apps

Power Automate

⇨ Introduction
⇨ Power Automate
⇨ Power Automate Flow
⇨ End to End Flow

Azure

⇨ Cloud Computing
⇨ Azure
⇨ Azure Services
⇨ Azure with Power BI

Tools used in this Course

Power BI

SQL

PowerApps

Power Automate

Azure

SQL ®

Introduction

⇨ What is SQL?
⇨ Brief history of SQL
⇨ Why is SQL Important
⇨ Popular Databases
⇨ What Is MySQL?
⇨ Introduction to MySQL & MySQL workbench
⇨ Install MySQL Database Server
⇨ Connect to MySQL Server

SQL Data Definition

⇨ Selecting Database
⇨ CREATE DATABASE
⇨ DROP DATABASE
⇨ Data Types
⇨ CREATE TABLE
⇨ Sequence
⇨ ALTER TABLE
⇨ ADD COLUMN
⇨ DROP COLUMN
⇨ RENAME TABLE
⇨ DROP TABLE
⇨ TRUNCATE TABLE

SQL Data Manipulation

⇨ SELECT
⇨ ORDER BY
⇨ WHERE
⇨ SELECT DISTINCT
⇨ AND
⇨ OR
⇨ IN
⇨ BETWEEN
⇨ LIKE
⇨ LIMIT
⇨ IS NULL
⇨ Table & Column Aliases
⇨ GROUP BY
⇨ HAVING
⇨ Subquery
⇨ Derived Tables
⇨ EXISTS
⇨ UNION
⇨ MINUS
⇨ INTERSECT
⇨ INSERT
⇨ UPDATE
⇨ DELETE
⇨ REPLACE

Data Control Language

⇨ GRANT
⇨ REVOKE

Transaction Control Language

⇨ COMMIT
⇨ ROLLBACK
⇨ SAVEPOINT
⇨ SET TRANSACTION

Transaction Control Language

⇨ COMMIT
⇨ ROLLBACK
⇨ SAVEPOINT
⇨ SET TRANSACTION

SQL Data Types

⇨ Bit
⇨ Boolean
⇨ Char
⇨ Date
⇨ Datetime
⇨ Decimal
⇨ Int
⇨ Time
⇨ Timestamp
⇨ Varchar

SQL

SQL Constraints

⇨ Primary Key
⇨ Foreign Key
⇨ Unique Constraint
⇨ Check Constraint
⇨ Not Null
⇨ Default

SQL Joins

⇨ Joins
⇨ Inner Join
⇨ Left Join
⇨ Right Join
⇨ Self-join
⇨ Cross Join

SQL Subqueries

⇨ Single-row subqueries
⇨ Multiple-row subqueries
⇨ Correlated subqueries

SQL Advanced Queries

⇨ Rank
⇨ Dense Rank
⇨ Row number

Power BI

Power BI

Power BI Basics

⇨ Introduction to Reporting
⇨ History of Power BI
⇨ Power bi desktop installation
⇨ Advantages of power bi than SSRS
⇨ Tool Introduction
⇨ Creating a sample Report

Power BI Desktop

⇨ What is Power BI Desktop?
⇨ Connecting / fetching the data to power bi from SQL SERVER / EXCEL /
⇨ Tabular SSAS/text file.
⇨ Modifying the data source settings.
⇨ Understanding of Relationships view/Data view/report view
⇨ Creating/modifying and deleting the relationships.
⇨ Manage Relationships.
⇨ Creating / deleting and renaming the reports
⇨ Data Refresh options
⇨ Table level & column level options
⇨ Delete
⇨ Rename
⇨ Hide
⇨ View Hidden
⇨ Unhide/collapse/expand all
⇨ All filter
⇨ New Hierarchy
⇨ New Measure/calculation
⇨ Datatypes, Changing the Datatype of a Column
⇨ Filters 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
⇨ Other reporting options
⇨ Cut
⇨ Copy
⇨ Paste
⇨ Format Painter
⇨ Adding images/Text boxes/shapes
⇨ Enter Data
⇨ Page View

Power BI Query – Transform Data / Edit Queries

Table level options

⇨ Copy
⇨ Paste
⇨ Delete
⇨ Rename
⇨ Duplicate
⇨ Reference
⇨ Move up/down/group
⇨ Create function

Column Level options

⇨ Copy/rename
⇨ Rename other columns
⇨ Duplicate columns
⇨ Remove duplicate / errors
⇨ Change type
⇨ Transform
⇨ Replace
⇨ Replace error
⇨ Split column
⇨ Group by
⇨ Fill up
⇨ Fill down
⇨ Unpivot columns and other columns
⇨ Rename
⇨ Move
⇨ Drilldown
⇨ Add as a new query
⇨ Other options
⇨ Merge queries
⇨ Append queries
⇨ Use first row as a header
⇨ Sorting
⇨ Create / work with parameters

Power BI

Append Queries

⇨ Append Queries
⇨ Append Queries as New
⇨ Append 2 or more files individually with different queries
⇨ Query Options
⇨ Copy Query, Paste Query
⇨ Delete Query, Rename Query
⇨ Enable Load, Include in report Refresh
⇨ Duplicate Query, Reference Query
⇨ Move to Group, Move Up, Move Down

Merge Queries

⇨ Merge Queries, Merge Queries as New
⇨ Default Types of Joins / Join Kinds / Merge Type
⇨ Left Outer (all from first, matching from second)
⇨ Right Outer (all from second, matching from first)
⇨ Full Outer (all rows from both)
⇨ Inner (only matching rows)
⇨ Left Anti (rows only in first)
⇨ Right Anti (rows only in second)
⇨ Cartesian Join or Cross Join
⇨ Transpose   ⇨ Parse
⇨ Reverse columns   ⇨ Date
⇨ Count   ⇨ Time
⇨ Detect data types ⇨ Expand
⇨ Extract   ⇨ Aggregate

Power BI Service

Power BI Service Introduction

⇨ 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 Service
⇨ My Workspace / App Workspaces Tabs
⇨ DATASETS, WORKBOOKS, REPORTS, DASHBOARDS
⇨ Working with Datasets, Creating Reports in Cloud using Published
⇨ Datasets
⇨ Power BI Datasets Live Connection using Desktop
⇨ Working with Workbooks, working with Reports, Sharing Reports

Dashboards Development

⇨ Publishing Reports to the Power BI service,
   Import / Getting the
⇨ Report to PBI Service
⇨ My Workspace / App Workspaces Tabs
⇨ DATASETS, WORKBOOKS, REPORTS, DASHBOARDS
⇨ Working with Datasets, Creating Reports in
   Cloud using Published
⇨ Datasets
⇨ Power BI Datasets Live Connection using Desktop
⇨ Working with Workbooks, working with Reports,
   Sharing Reports
⇨ Creating Dashboards
⇨ Pin Visuals and Pin LIVE Report Pages to Dashboard
⇨ Advantages of Dashboards
⇨ Interacting with Dashboards
⇨ Adding Tiles to Dashboards
⇨ Web Content, Image, Text Box, Video
⇨ Formatting Dashboard
⇨ Sharing Dashboard

Data Gateways

⇨ Introduction to Data Gateways
⇨ How Data Gateways work
⇨ Connect to an on premise Data Source by using a Data Gateway
⇨ Download Data Gateway
⇨ Installing a Data Gateway
⇨ Types of Gateways
⇨ On-premises Data Gateway,
   On-premises Data Gateway (personal mode)
⇨ Manage Data Gateway
⇨ Add and Remove Administrators
⇨ Add Data Source, Add or Remove Users to a Data Source
⇨ Refresh On Premise Data
⇨ Configuring Automatic Refresh using Schedules

Collaboration in Power BI using App Workspace

⇨ Introduction to App Workspaces
⇨ Create an App Workspace
⇨ Add Members to App Workspace to Collaborate
⇨ App Workspace Access
⇨ Admin, Member, Contributor

Sharing Power BI Content using Apps and Content Packs

⇨ Introduction to App
⇨ Publish an App
⇨ Update a Published App
⇨ Manage Content in App
⇨ Include in App, Exclude in App
⇨ Sharing App
⇨ Entire Organization, Specific individuals or group

Row Level Security in Power BI

⇨ Introduction to Row Level Security
⇨ Row Level Security (RLS) with DAX
⇨ Manage Roles, Creating Roles, Testing Roles
⇨ Adding Members to Roles in Power BI Service

Power BI Mobile App

⇨ How to install Power BI Mobile App
⇨ How to sign in to mobile app
⇨ How to customize reports / visuals only for mobile apps specific.

Power BI Licensing Models (Pro)

⇨ Introduction to power bi licensing model
⇨ What is Power BI Pro
⇨ What Is Power BI Premium
⇨ Difference between those two Pro and Premium

DAX – Data Analysis Expressions

⇨ Enhancing the Data Model – 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
⇨ Filter & value functions
⇨ Logical functions
⇨ Mathematical functions
⇨ Statistical functions
⇨ Text functions
⇨ Time functions

DAX Date & Time Functions

⇨ Year, Month, Day
⇨ Weekday, Weeknum
⇨ Format (text Function) Month Name, Weekday Name
⇨ Date, Today, Now
⇨ Hour, Minute, Second, Time
⇨ Datediff, Calendar
⇨ Creating Date Dimension Table

DAX Text Functions

⇨ Len, Concatenate (&)
⇨ Left, Right, Mid
⇨ Upper, Lower
⇨ Trim, Substitute, Blank

DAX Logical Functions

⇨ IF
⇨ TRUE, FALSE
⇨ NOT, OR, IN, AND
⇨ IFERROR
⇨ SWITCH

Power BI

Power BI

DAX Math and 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

DAX Filter Functions

⇨ Calculate
⇨ Calculatetable
⇨ All
⇨ Related
⇨ Allselected
⇨ Allcrossfiltered
⇨ Distinct
⇨ Earlier
⇨ Filter
⇨ Hasonefilter
⇨ Hasonevalue
⇨ Isfiltered
⇨ Iscrossfiltered
⇨ Selectedvalue
⇨ Userrelationship

DAX Time Intelligence Functions

⇨ Time Intelligence Introduction
⇨ Totalmtd, Totalqtd, Totalytd
⇨ Previousday, Previousmonth
⇨ Previousquarter, Previousyear
⇨ Nextday, Nextmonth
⇨ Nextquarter, Nextyear
⇨ Sameperiodlastyear
⇨ Parallalperiod

Power BI Custom Visualizations

⇨ PBI certified Visuals
⇨ Word Cloud
⇨ Infographic Designer
⇨ Drill down pie chart
⇨ Histogram

PowerApps

Power App Introductions

⇨ What is Power Apps?
⇨ Power BI Features
⇨ Power App Account
⇨ Connecting to Data

Canvas Apps

⇨ Layout, views, elements
⇨ Galleries, Forms, Data Cards
⇨ Triggers
⇨ Publish

Common Data Sources

⇨ Entities
⇨ Relationship
⇨ Calculated field
⇨ Custom views

Model-Driven Apps

⇨ Introduction
⇨ Site Map
⇨ Business process Flows

Model-Driven Apps

⇨ Introduction
⇨ Site Map
⇨ Business process Flows

Power BI

Power Automate

Introduction
⇨ What is Power Automate?
⇨ Features of Power Automate
⇨ Flow and Types of Flow

Power Automate
⇨ Creating a flow
⇨ Flow Diagram
⇨ Edit Flow
⇨ Share Flow

Power Automate Flows
⇨ Introduction to flows
⇨ UI Flows
⇨ Business Process flow
⇨ End to End Flow

Azure

Induction to Cloud Computing
⇨ What is Cloud Computing?
⇨ Different cloud platforms
⇨ Could Services

Azure with Power BI
⇨ Azure Power BI Connectivity
⇨ End to End Connectivity from Azure Services to PowerBI

Azure
⇨ Azure Introductions
⇨ Azure Fundamentals
⇨ IaaS, PaaS & SaaS

Azure Services
⇨ Azure Blob Storage
⇨ Azure Data Lake Storage (ADLS)
⇨ Azure SQL Database
⇨ Azure Data Factory
⇨ Dataflow   ⇨ Power Query Editor
⇨ Pipeline   ⇨ Datasets