**CoUrse Duration – 60 Hours**

## Power BI Complete Introduction

* 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 Service, , Power BI Mobile
* Flow of Work in Power BI / Power BI Architecture
* A Brief History of Power BI

## Power Query Overview

* Overview of Power Query / Power Query Editor
* How to Open Power Query / Power Query Editor Software
* Connecting to Data Sources and Extracting the Data
* Establish connection to the Excel source, SQL Server
* Importing Data into Power Query Editor
* Transforming the Data in Power Query Editor using GUI Options
* Loading the Data into Power Pivot
* Understanding the M(Mashup) Language behind the GUI Options

## Power Pivot Overview

* Understanding about Power Pivot
* Advantage of In Memory Columnar Database
* Power Pivot - xVelocity In-memory Analytics Engine (Previously called Vertipaq)
* Overview of Data Modeling – Model View(Previously Relationship View)
* Enhancing the Data Model – DAX(Data Analysis eXpressions) Language – Data View
* DAX Query’s

## Power View Overview

* Overview of Visualizations, Fields, Field Wells
* Understanding Dimension Columns & Fact Columns
* Visualizing the Data using Power View and Power Maps – Report View
* Saving Report
* Publishing the Report to Power BI Service

## Power BI Service Overview

* Power BI Service Overview
* Logon to Power BI Service
* Share the Reports with Clients

## Power BI Desktop User Interface

* Understanding Power BI Desktop User Interface
* Fields Pane, Visualizations Pane, Filters Pane
* Ribbon, Multiple Views (Report View, Data View & Model View)
* Report Canvas, Pages Section

## Building Blocks of Power BI

* Datasets, Visualizations, Reports, Dashboards & Tiles

**Power Query:**

* **Introduction to Power Query & Power Query Editor User Interface**
* **Data Processing, Data types and Filters in Power Query**
* **Inbuilt Column Transformations**
* **In built Row Transformations**
* **Combine Queries (Merge Queries & Append Queries) Merge Queries / Join Tables**
* **Append Queries / Union ALL Tables**
* **Query Options**
* **Home Tab Options**
* **Transform Tab Options**
* **Add Column Tab Options**

**Power Pivot:**

* **Power Pivot Software Overview**
* **Power BI Data Modeling – Model View (Previously Relationship View)**
* **Enhancing the Data Model - DAX**
* **DAX Functions – Categories:**
* Text Functions
* Logical Functions
* Date and Time Functions
* Filter Functions
* Math & Statistical Functions
* Time Intelligence Function
* Relationship functions
* **Quick Measures:**
* Creating Measures without writing the DAX Formula using Quick Measures
* Sales YoY%, Sales YTD, Sales MTD

**Power View:**

* **Report View / Power View**
* **Visuals Interactions:**
* Visual Interactions
* Interaction Type (Highlight, Filter, None)
* Visual Interactions Default Behavior
* Changing the Default Interaction Behavior, Edit Interactions
* **Filters in Power View:**
* Filters, Filter Types in Power View
* Filters on this Visual, Filters on this Page, Filters on All Pages
* Drill Through Filters, Cross Report Drill Through, Keep All Filters
* Filter Sub Types - Basic Filtering, Advanced Filtering, Top N, Relative Date Filtering
* Numeric field filters, Text field filters, Date and Time field Filters

* **Hierarchies and Drill-Down Reports**
* **Power BI Visualizations**
* Visualizing Data, Why Visualizations
* Visualization types, Field Wells
* Visuals for Filtering, Visualizing Categorical Data, Visualizing Trend Data
* Visualizing KPI Data, Visualizing Tabular Data, Visualizing Geographical Data
* Leveraging Power BI Custom Visuals
* **Visuals for Filtering**
* **Visualizing Trend Data**
* Purpose of 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 Column Chart
* Create and Format Ribbon Chart, Waterfall Chart
* **Visualizing KPI Data**
* Create and Format Gauge Visual, KPI Visual
* Create and Format Card Visualization, Multi Row Card
* Create and Format Funnel Chart
* **Visualizing Tabular Data**
* Create and Format Table Visual, Matrix Visualization
* **Visualizing Geographical Data**
* Create and Format Map Visual, Filled Map Visual
* **Grouping, Binning & Sorting**
* **Tooltip Page**
* Create a Report Tooltip Page, Configure your Tooltip Report Page
* Manually setting a Report Tooltip
* **Bookmarks, Selection Pane & Buttons**

**Power BI Service:**

* **Power BI Service Introduction**
* **Adding Dataset to Power BI Service and Creating Multiple New Reports**
* **Dashboards Development**
* **Data Connectivity Modes in Power BI**
* Import, Direct Query & Connect Live / Live
* **Installing & Configuring the Data Gateways**
* **Understanding Sub folder in Workspace**
* Datasets + Data flows – Data flows, Datasets
* Content - Workbooks, Reports & Dashboards
* All – Data flows, Datasets, Workbooks, Reports & Dashboards
* **Data flows**
* **Dataset Actions**
* Refresh, Schedule Refresh, Analyze in Excel, Create Report
* Delete Dataset, Get Quick Insights, Security, Rename, Settings, Download .pbix
* Manage Permissions, View Lineage
* **Excel Workbooks**
* Import Excel Data into Power BI as Dataset
* Upload you Excel file to Power BI
* **Report Actions**
* Share, Mark as Favorite, Analyze in Excel, Delete, Quick Insights, Save a Copy, Settings
* View usage Metrics Report, View Lineage
* **Dashboard Actions**
* Share, Mark as Favorite, Delete, Settings, View usage Metrics Report, View Lineage
* **Team Collaboration in Power BI using Workspaces**
* Introduction to Workspaces
* Classic Workspaces, Upgraded Workspaces
* Create an Workspace, Add Members to Workspace to Collaborate
* Workspace Access - Admin, Member, Contributor, Viewer Roles
* **Sharing Power BI Content using Basic Sharing, Content Packs and Apps**
* **Row Level Security in Power BI**
* **Syncing Published Power BI Report Files Using OneDrive**
* Real-time Project Explanation
* Resume Preparation, Power BI Developer Roles & Responsibilities
* Interview Questions Discussions
* Mock Interviews