

Power BI Course Content

The Power BI Course Curriculum is designed by Microsoft Power BI Certified Experts. Our Power BICourse Syllabus covers basic to advanced level concepts that consist of Report Designing, Visual Sync, Grouping, Hierarchies, Filters, Bookmarks, Azure, Modeling, DAX Functions - Level 1, DAX Functions - Level 2, Power BI Cloud, Excel & RLS, Report Server, RDL and more. Get Practical Exposure on Microsoft Power BI for Data Analytics and Visualization with Our Updated Power BI Training Course Content.

Power BI Desktop

Module 1: Introduction to Power BI (Free Demo Class)

- ☐ Power BI Job Roles in Real-time
- ☐ Power BI Data Analyst Job Roles
- ☐ Business Analyst - Job Roles
- ☐ Power BI Developer - Job Roles
- ☐ Power BI for Data Scientists
- ☐ Comparing MSBI and Power BI
- ☐ Comparing Tableau and Power BI
- ☐ Types of Reports in Real-World
- ☐ Interactive & Paginated Reports
- ☐ Analytical & Mobile Reports
- ☐ Data Sources Types in Power BI
- ☐ Power BI Licensing Plans - Types
- ☐ Power BI Training: Lab Plan
- ☐ Power BI Dev & Prod Environments
- ☐ Understanding the Power BI Tools
- ☐ Installing Power BI & Connecting to Data
- ☐ The "Locale" used in the curriculum
- ☐ Working with the query Editor
- ☐ Working with the data model and creating a visualization

Module 1: Power BI Desktop

1.1 Power BI Tutorial

1.2 How to Download, Install and upgrade features in Power BI

- ☐ Basic Charts in Power BI Desktop

- 2.1 Column Chart
- 2.2 Stacked Column Chart
- 2.3 Pie Chart
- 2.4 Donut Chart
- 2.5 Funnel Chart
- 2.6 Ribbon Chart
- 2.7 Keep Only and Exclude
- 2.8 View Data and Export

□ Basic Maps in Power BI Desktop

- 3.1 How to Create a Basic Map in Power BI
- 3.2 How to Creating a Filled Map in Power BI
- 3.3 How to Creating a Map with Pie Chart in Power BI
- 3.4 How to Formatting of Map in Power BI
- 3.5 Change Background of Maps in Power BI
- 3.6 How to create Map of India in Power BI
- 3.7 Create Map of Australia in Power BI

□ Table and Matrix in Power BI

- 4.1 Creating a Simple Table
- 4.2 Formatting in Table
- 4.3 Conditional Formatting in Table
- 4.4 Changing Aggregation in Table
- 4.5 Creating a Matrix in Power BI
- 4.5 Conditional Formatting in Matrix
- 4.6 Automatic Hierarchy in Matrix
- 4.7 Subtotal and Grand Total
- 4.8 Number Formatting in Table and Matrix

□ Other Charts in Power BI Desktop

- 5.1 Line Chart
- 5.2 Drill down in Line Chart
- 5.3 Area Chart
- 5. 4 Line vs Column Chart
- 5.5 Scatter Plot
- 5.6 Waterfall Chart
- 5.7 TreeMap
- 5.8 Guage Chart

□ Cards and Filters

- 6.1 Number card
- 6.2 Text Card
- 6.3 Date Card
- 6.4 Multi-Row Card
- 6.5 Filter on Visual
- 6.6 Filter on Page
- 6.7 Filter on All Pages

□ Slicers in Power BI Desktop

- 7.1 Slicer for Text
- 7.2 Format Text Slicer
- 7.3 Date Slicer
- 7.4 Format Date Slicer

7.5 Number Slicer

- ☐ Advanced Charts in Power BI
 - 8.1 Animated Bar Chart Race
 - 8.2 Drill Down Donut Chart
 - 8.3 Drill Down Column Chart
 - 8.4 Word Cloud
 - 8.5 Sankey Chart
 - 8.6 Infographic
 - 8.7 Play Axis
 - 8.8 Scroller
 - 8.9 Sunburst Chart
 - 8.10 Histogram
- ☐ Objects and Actions (Hyperlinks)
 - 9.1 Insert Image
 - 9.2 Insert Text
 - 9.3 Insert Shapes
 - 9.4 Insert Buttons
 - 9.5 Action - Web URL
 - 9.6 Action - Page Navigation
 - 9.7 Action - Back
 - 9.8 Action – Bookmark

Module 3: Basic Report Design

- ☐ Power BI Desktop Installation
- ☐ Data Sources & Visual Types
- ☐ Canvas, Visualizations and Fields
- ☐ Get Data and Memory Tables
- ☐ In-Memory x-velocity Database
- ☐ Table and Tree Map Visuals
- ☐ Format Button and Data Labels
- ☐ Legend, Category and Grid
- ☐ PBIX and PBIT File Formats
- ☐ Visual Interaction, Data Points
- ☐ Disabling Visual Interactions
- ☐ Edit Interactions - Format Options
- ☐ SPOTLIGHT & FOCUSMODE
- ☐ CSV and PDF Exports. Tooltips
- ☐ Power BI Ecosystem, Architecture

Module 4: Visual Sync, Grouping

- ☐ Slicer Visual: Real-time Usage
- ☐ Orientation, Selection Properties
- ☐ Single & Multi Select, CTRL Options
- ☐ Slicer: Number, Text and Date Data
- ☐ Slicer List and Slicer Dropdowns
- ☐ Visual Sync Limitations with Slicer
- ☐ Disabling Slicers, Clear Selections
- ☐ Grouping: Real-time Use, Examples
- ☐ List Grouping and Binning Options
- ☐ Grouping Static / Fixed Data Values
- ☐ Grouping Dynamic / Changing Data
- ☐ Bin Size and Bin Limits (Max, Min)
- ☐ Bin Count and Grouping Options
- ☐ Grouping Binned Data, Classification

Module 5: Hierarchies, Filters

- ☐ Creating Hierarchies in Power BI
- ☐ Independent Drill-Down Options
- ☐ Dependent Drill-Down Options
- ☐ Conditional Drilldowns, Data Points
- ☐ Drill Up Buttons and Operations
- ☐ Expand & Show Next Level Options
- ☐ Dynamic Data Drills Limitations
- ☐ Show Data and See Records
- ☐ Filters: Types and Usage in Real-time
- ☐ Visual Filter, Page Filter, Report Filter
- ☐ Basic, Advanced and TOP N Filters
- ☐ Category and Summary Level Filters
- ☐ Drillthrough Filters, Drill Thru Reports
- ☐ Keep All Filters" Options in Drillthrough
- ☐ Cross Report Filters, Include, Exclude

Module 6: Bookmarks, Azure, Modeling

- ☐ Drill-thru Filters, Page Navigations
- ☐ Bookmarks: Real-time Usage

- ☐ Bookmarks for Visual Filters
- ☐ Bookmarks for Page Navigations
- ☐ Selection Pane with Bookmarks
- ☐ Buttons, Images with Actions
- ☐ Buttons, Actions and Text URLs
- ☐ Bookmarks View & Selection Pane
- ☐ OLTP Databases, Big Data Sources
- ☐ Azure Database Access, Reports
- ☐ Import & Direct Query with Power BI
- ☐ SQL Queries and Enter Data
- ☐ Data Modeling: Currency, Relations
- ☐ Summary, Format, Synonyms
- ☐ Web View & Mobile View in PBI

Module 7: Visualization Properties

- ☐ Stacked Charts and Clustered Charts
- ☐ Line Charts, Area Charts, Bar Charts
- ☐ 100% Stacked Bar & Column Charts
- ☐ Map Visuals: Tree, Filled, Bubble
- ☐ Cards, Funnel, Table, Matrix
- ☐ Scatter Chart: Play Axis, Labels
- ☐ Series Clusters & Selections
- ☐ Waterfall Chart and ArcGIS Maps
- ☐ Info graphics, Icons and Labels
- ☐ Color Saturation, Sentiment Colors
- ☐ Column Series, Column Axis in Lines
- ☐ Join Types: Round, Bevel, Miter
- ☐ Shapes, Markers, Axis, Plot Area
- ☐ Display Units, Data Colors, Shapes
- ☐ Series, Custom Series and Legends

Power Query Editor

Text Functions in Power Query editor

- ☐ 11.1- Merge
- ☐ 11.2 - Split and Trim

- ☐ 11.3 - Upper, Lower and Proper
- ☐ 11.4 - Add Suffix and Prefix
- ☐ 11.5 - Left, Right and Mid
- ☐ 11.6 - Extract Text with Delimiter

Date Functions in Power Query (Power E)

- ☐ 12.1 - Year, Quarter, Month, Day
- ☐ 12.2 - Difference between Dates, Earliest and Latest
- ☐ 12.3 - Name of Day and Name of Month
- ☐ 12.4 - Day of Week/Month/Year & Week of Month/Year
- ☐ 12.5 - Extract Date from Date and Time
- ☐ 12.6 - Calculate Age in 2 button Clicks
- ☐ 12.7 - Which day of Year, Quarter, Month your Date of Birth is

Number Functions in Power Query (Power BI)

- ☐ 13.1 - Add, Subtract, Divide, Multiply
- ☐ 13.2 - Percentage, Percent of, Modulo
- ☐ 13.3 - Rounding the numbers
- ☐ 13.4 - IsEven, IsOdd and Sign

Appending Files and Tables in Power BI (WITHOUT CODING)

- ☐ 14.1 - Append multiple CSV Files from a folder
- ☐ 14.2 - Append multiple Excel tables/Sheets from single file
- ☐ 14.3 - Append Excel tables with different number of columns
- ☐ 14.4 - Append multiple Excel files from a folder
- ☐ 14.5 - Append different data source files in Power Query (Power BI)

Merging files and Tables in Power BI - [VLOOKUP without formula]

- ☐ 15.1 - Merge-Tables/sheets in Power Query (Power BI)
- ☐ 15.2 - Merge Data from multiple Excel Files/Workbooks in Power Query (Power BI)
- ☐ 15.3 - Merge Data from different Data Sources in Power Query (Power BI)
- ☐ 15.4 - Merge data having multiple Criteria in Power Query (Power BI)

Column from Examples and Conditional Column in Power BI

- ☐ 16.1 Column from Examples on Splitting Text
- ☐ 16.2 Column from Examples on merging text
- ☐ 16.3 Column from Examples on data column
- ☐ 16.4 Column from Examples on Alphanumeric data
- ☐ 16.5 Conditional Column on One Column
- ☐ 16.6 Conditional Column on two columns
- ☐ 16.7 Conditional Column Comparing two column values
- ☐ 16.8 Conditional Column on dates.

Very Important Topics in Power BI

- ☐ 17.1 Fill down and fill up
- ☐ 17.2 Grouping
- ☐ 17.3 Transpose
- ☐ 17.4 Unpivot
- ☐ 17.5 Data Types in Power Query (Power BI)
- ☐ 17.6 Replace Errors and Values
- ☐ 17.7 Keep Rows and Remove Rows
- ☐ 17.8 Add, Remove, Goto Columns

M Language in Power Query (Power BI)

- ☐ 18.1 Introduction to M Language
- ☐ 18.2 M Functions - Date (ISIN)
- ☐ 18.3 M Functions - Date (Add and Subtract)
- ☐ 18.4 M Functions - Date (Day, Month, Week, Year)
- ☐ 18.5 M Functions - Text (Basic)
- ☐ 18.6 Writing a small M code in Power BI
- ☐ 18.7 Trick to get all 900 M Functions Help

Module 8: Power Query Level-1

- ☐ Power Query M Language Purpose
- ☐ Power Query Architecture and ETL
- ☐ Data Types, Literals and Values
- ☐ Power Query Transformation Types
- ☐ Table & Column Transformations
- ☐ Text & Number Transformations
- ☐ Date, Time and Structured Data
- ☐ List, Record and Table Structures
- ☐ let, source, in statements @ M Lang
- ☐ Power Query Functions, Parameters
- ☐ Invoke Functions, Execution Results
- ☐ Get Data, Table Creations and Edit
- ☐ Merge and Append Transformations
- ☐ Join Kinds, Advanced Editor, Apply
- ☐ ETL Operations with Power Query

Module 9: Power Query Level 2

- ☐ Query Duplicate, Query Reference
- ☐ Group By and Advanced Options
- ☐ Aggregations with Power Query
- ☐ Transpose, Header Row Promotion
- ☐ Reverse Rows and Row Count
- ☐ Data Type Changes & Detection
- ☐ Replace Columns: Text, Non-Text
- ☐ Replace Nulls: Fill Up, Fill Down
- ☐ PIVOT, UNPIVOT Transformations
- ☐ Move Column and Split Column
- ☐ Extract, Format and Numbers
- ☐ Date & Time Transformations
- ☐ Deriving Year, Quarter, Month, Day
- ☐ Add Column: Query Expressions
- ☐ Query Step Inserts and Step Edits

Module 10: Power Query Level 3

- ☐ Creating Parameters in Power Query
- ☐ Parameter Data Types, Default Lists
- ☐ Static/Dynamic Lists for Parameters
- ☐ Removing Columns and Duplicates
- ☐ Convert Tables to List Queries
- ☐ Linking Parameters to Queries
- ☐ Testing Parameters and PBI Canvas
- ☐ Multi-Valued Parameter Lists
- ☐ Creating Lists in Power Query
- ☐ Converting Lists to Table Data
- ☐ Advanced Edits and Parameters
- ☐ Data Type Conversions, Expressions
- ☐ Columns From Examples, Indexes
- ☐ Conditional Columns, Expressions

Module 11: DAX Functions - Level 1

- ☐ DAX: Importance in Real-time
- ☐ Real-world usage of Excel, DAX

- ☐ DAX Architecture, Entity Sets
- ☐ DAX Data Types, Syntax Rules
- ☐ DAX Measures and Calculations
- ☐ ROW Context and Filter Context
- ☐ DAX Operators, Special Characters
- ☐ DAX Functions, Types in Real-time
- ☐ Vertipaq Engine, DAX Cheat Sheet
- ☐ Creating, Using Measures with DAX
- ☐ Creating, Using Columns with DAX
- ☐ Quick Measures and Summaries
- ☐ Validation Errors, Runtime Errors
- ☐ SUM, AVERAGEX, KEEPFILTERS
- ☐ Dynamic Expressions, IF in DAX

Module 12: DAX Functions - Level 2

- ☐ Data Modeling Options in DAX
- ☐ Detecting Relations for DAX
- ☐ Using Calculated Columns in DAX
- ☐ Using Aggregated Measures in DAX
- ☐ Working with Facts & Measures
- ☐ Modeling: Missing Relations
- ☐ Modeling: Relation Management
- ☐ CALCULATE Function Conditions
- ☐ CALCULATE & ALL Member Scope
- ☐ RELATED & COUNTROWS in DAX
- ☐ Entity Sets and Slicing in DAX
- ☐ Dynamic Expressions, RETURN
- ☐ Date, Time and Text Functions
- ☐ Logical, Mathematical Functions
- ☐ Running Total & EARLIER Function

Module 13: DAX Functions Level 3

- ☐ Connection with CSV, MS Access
- ☐ AVERAGEX and AVERAGE in DAX
- ☐ KEEPFILTERS and CALCULATE

- ☐ COUNTROWS, RELATED, DIVIDE
- ☐ PARALLELPERIOD, DATEDADD
- ☐ CALCULATE & PREVIOUSMONTH
- ☐ USERELATIONSHIP, DAX Variables
- ☐ TOTALYTD, TOTALQTD
- ☐ DIVIDE, CALCULATE, Conditions
- ☐ IF. ELSE.THEN Statement
- ☐ SELECTEDVALUE, FORMAT
- ☐ SUM, DATEDIFF Examples in DAX
- ☐ TODAY, DATE, DAY with DAX
- ☐ Time Intelligence Functions - DAX

Module 14: Power BI Cloud - 1

- ☐ Power BI Service Architecture
- ☐ Power BI Cloud Components, Use
- ☐ App Workspaces, Report Publish
- ☐ Reports & Related Datasets Cloud
- ☐ Creating New Reports in Cloud
- ☐ Report Publish and Report Uploads
- ☐ Dashboards Creation and Usage
- ☐ Adding Tiles to Dashboards
- ☐ Pining Visuals and Report Pages
- ☐ Visual Pin Actions in Dashboards
- ☐ LIVE Page Interaction in Dashboard
- ☐ Adding Media: Images, Custom Links
- ☐ Adding Charts and Embed Links
- ☐ API Data Sources, Streaming Data
- ☐ Streaming Dataset Tiles (REST API)

Power BI Service

- ☐ Introduction
- ☐ Sign Up Power Bi Service W/O work email
- ☐ Workspaces/Dashboards

- ☐ Licensing
- ☐ Publish Report to Power BI Service Account
- ☐ Export PBIX Report and Share
- ☐ Comment, Share and Subscribe to a report
- ☐ Create a dashboard in Power BI Service
- ☐ Problem in Power BI Dashboard and its solution
- ☐ Setup Data Gateway in local machine
- ☐ Automatic Refresh - Data Gateway
- ☐ Create Report Directly in Power BI Service
- ☐ Sharing & Embed
- ☐ Schedule Refresh
- ☐ RLS
- ☐ Datasets / Dataflow
- ☐ Create Apps
- ☐ Premium Per User Linked Tables Deployment Pipelines Paginated Reports
- ☐ AI Features
- ☐ Subscription
- ☐ Incremental Refresh
- ☐ XMLA Endpoint
- ☐ Workspace Roles

Module 15: Power BI Cloud - 2

- ☐ Dashboards Actions, Report Actions
- ☐ Dataset Actions: Create Report
- ☐ Share, Metrics and Exports
- ☐ Mobile View & Dashboard Themes
- ☐ Q & A [Cortana] and Pin Visuals
- ☐ Export, Subscribe, Subscribe
- ☐ Favorite, Insights, Embed Code
- ☐ Featured Dashboards and Refresh
- ☐ Gateways Configuration, PBI Service
- ☐ Gateway Types, Cloud Connections
- ☐ Gateway Clusters, Add Data Sources
- ☐ Data Refresh: Manual, Automatic

- ☐ PBIEngw Service, ODG Logs, Audits
- ☐ DataFlows, Power Query Expressions
- ☐ Adding Entities and JSON Files

Module 16: Excel & RLS

- ☐ Import and Upload Options in Excel
- ☐ Excel Workbooks and Dashboards
- ☐ Datasets in Excel and Dashboards
- ☐ Using Excel Analyzer in Power BI
- ☐ Using Excel Publisher in PBI Cloud
- ☐ Excel Workbooks, PINS in Power BI
- ☐ Excel ODC Connections, Power Pivot
- ☐ Row Level Security (RLS) with DAX
- ☐ Need for RLS in Power BI Cloud
- ☐ Data Modeling in Power BI Desktop
- ☐ DAX Roles Creation and Testing
- ☐ Adding Power BI Users to Roles
- ☐ Custom Visualizations in Cloud
- ☐ Histogram, Gantt Chart, Infographics

Module 17: Report Server, RDL

- ☐ Need for Report Server in PROD
- ☐ Install, Configure Report Server
- ☐ Report Server DB, Temp Database
- ☐ Web service URL, Web portal URL
- ☐ Creating Hybrid Cloud with Power BI
- ☐ Using Power BI Desktop RS
- ☐ Uploading Interactive Reports
- ☐ Report Builder for Report Server
- ☐ Report Builder for Power BI Cloud
- ☐ Designing Paginated Reports (RDL)
- ☐ Deploy to Power BI Report Server
- ☐ Data Source Connections, Report
- ☐ Power BI Report Server to Cloud
- ☐ Tenant IDs Generation and Use

- ☐ Mobile Report Publisher, Usage

Module 18: PowerApps

- ☐ Overview
- ☐ Basic Power App Concept
- ☐ Canvas Apps | Navigation | Customization
- ☐ Contents (Galleries, Data Cards, Forms, Triggers, Functions & Formulas, Edit Forms, TextBoxes)

Module 19: Power BI Service & Power BI Mobile

- ☐ Why Power Bi Service?
- ☐ Comparison Power BI Free & Premium
- ☐ Logging into Power Bi Service
- ☐ Interface overview
- ☐ Importing data from Desktop to Service
- ☐ Dataset menu
- ☐ Working on reports
- ☐ Dashboard overview
- ☐ Workspace & Gateways
- ☐ Installing Gateways - Personal & On-premise
- ☐ Working alone or collaborating with colleagues
- ☐ Collaborating in App Workspace
- ☐ Sharing the results
- ☐ Publishing the app
- ☐ Content packs from online services
- ☐ Power Bi Mobile Overview
- ☐ Excluding dataset from sharing

Module 20: Power BI and Excel Together

- ☐ Options for Publishing from Excel
- ☐ Pin Excel Elements to Power BI
- ☐ Analyze in Excel (Power BI Pro or Premium)
- ☐ Excel Publish: Upload and Export to Power BI
- ☐ Sharing Published Excel Dashboards (Power BI Pro or Premium)

Module 21: Real-Time Project

- ☐ Project Requirement Analysis
- ☐ Implementing SDLC Phases
- ☐ Requirement Gathering, FSA

Phase 1:

- ☐ PBIX Report Design
- ☐ Visualizations, Properties
- ☐ Analytics and Formatting

Phase 2:

- ☐ Data Modeling, Power Query
- ☐ Dynamic Connections, Azure DB
- ☐ Parameters and M Lang Scripts

Phase 3:

- ☐ DAX Requirements, Analysis
- ☐ Cloud and Report Server
- ☐ Project FAQs and Solutions

Optional:

Power BI Paginated Reports

- ☐ 1. Introduction
- ☐ 2. Installation
- ☐ 3. Creating Your First Report
- ☐ 4. Power BI vs Paginated Diff
- ☐ 5. Create Reports Using Wizard
- ☐ 6. Create Charts
- ☐ 7. Row Group / Column Group
- ☐ 8. Expression and Parameters
- ☐ 9. Cascading Parameters
- ☐ 10. Report Items and Properties
- ☐ 11. Headers and Footers Sort, Repeat Table Headers
- ☐ 11. Deployment
- ☐ 12. Sub Reports
- ☐ 13. Paginated Reports in Power BI

☐ 14. Sharing / Embedding