

POWER BI COURSE - 2 MONTHS

MODULE 1: INTRODUCTION TO POWER BI

- ✓ Overview of Business Intelligence C Power BI
- ✓ Power BI Desktop vs Power BI Service vs Power BI Mobile
- ✓ Installing and setting up Power BI Desktop
- ✓ Understanding the Power BI interface
- ✓ Workflow: Import → Transform → Model → Visualize → Share

MODULE 2: CONNECTING TO DATA SOURCES

- ✓ Importing data from Excel, CSV, and Text files
- ✓ Connecting to databases: SQL Server, MySQL, PostgreSQL
- ✓ Connecting to online services: SharePoint, Web APIs, Google Analytics
- ✓ DirectQuery vs Import mode vs Live Connection
- ✓ Data refresh options

MODULE 3: POWER QUERY (DATA TRANSFORMATION)

- ✓ Introduction to Power Query Editor
- ✓ Data cleaning: handling missing values, removing duplicates, fixing errors
- ✓ Column transformations: split, merge, replace values, extract text
- ✓ Adding custom columns with M Language basics
- ✓ Working with multiple queries and appending/merging tables

MODULE 4: DATA MODELING

- ✓ Understanding relationships (one-to-one, one-to-many, many-to-many)
- ✓ Creating calculated columns and measures
- ✓ Star schema and snowflake schema in Power BI
- ✓ Role-playing dimensions
- ✓ Understanding filter context and row context

MODULE 5: DAX (DATA ANALYSIS EXPRESSIONS)

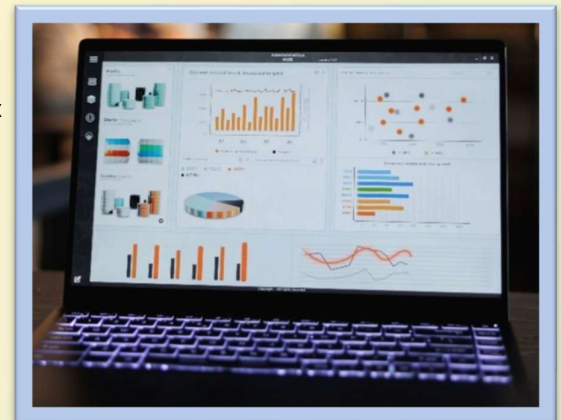
- ✓ Introduction to DAX
- ✓ Calculated columns vs measures
- ✓ Common DAX functions:
- ✓ Date s Time: DATE, TODAY, DATEDIFF
- ✓ Text: CONCATENATE, LEFT, RIGHT
- ✓ Math s Stats: SUM, AVERAGE, COUNTROWS
- ✓ Logical: IF, SWITCH, AND, OR
- ✓ Filter: CALCULATE, FILTER, ALL
- ✓ Time intelligence functions: TOTALYTD, SAMEPERIODLASTYEAR, PARALLELPERIOD

MODULE 6: DATA VISUALIZATION

- ✓ Creating basic visuals: bar chart, line chart, pie chart, tables, matrix
- ✓ Advanced visuals: funnel chart, gauge, KPI, map visualizations
- ✓ Conditional formatting in visuals
- ✓ Custom visuals from AppSource
- ✓ Designing dashboards with storytelling principles

MODULE 7: ADVANCED ANALYTICS IN POWER BI

- ✓ Drillthrough and tooltips
- ✓ Bookmarks and selections for interactivity
- ✓ QCA visual for natural language queries



- ✓ Decomposition tree
- ✓ Key Influencers visual
- ✓ Quick Insights in Power BI Service
- MODULE 8: POWER BI SERVICE**
- ✓ Publishing reports to Power BI Service
- ✓ Creating and sharing dashboards
- ✓ Workspaces and apps
- ✓ Dataflow creation and management
- ✓ Scheduled data refresh in the cloud
- MODULE 9: ROW-LEVEL SECURITY (RLS)**
- ✓ Static and dynamic RLS setup
- ✓ Managing roles and permissions
- ✓ Testing RLS in Power BI Desktop and Service

MODULE 10: POWER BI A

ND EXCEL INTEGRATION

- ✓ Analyzing Power BI datasets in Excel
- ✓ Exporting data from Power BI
- ✓ Using PivotTables with Power BI data

MODULE 11: POWER BI WITH ADVANCED TOOLS

- ✓ Integration with Azure ML and Python/R scripts
- ✓ Creating AI visuals
- ✓ Connecting to Power Automate for automation
- ✓ Embedding Power BI into websites and applications

MODULE 12: PERFORMANCE OPTIMIZATION

- ✓ Reducing dataset size
- ✓ Aggregations and summarizations
- ✓ Query folding concepts
- ✓ Optimizing DAX calculation

MODULE 13: POWER BI ADMINISTRATION

- ✓ Understanding Power BI licenses (Free, Pro, Premium)
- ✓ Managing users and groups
- ✓ Gateway setup for on-premises data

MODULE 14: CAPSTONE PROJECTS

- ✓ Sales performance dashboard
- ✓ Financial KPI dashboard
- ✓ Customer churn analysis
- ✓ Supply chain C inventory analysis
- ✓ Query folding concepts
- ✓ Optimizing DAX calculations

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