



CERTIFICATE IN POWER BI

DURATION: 60 Hours

TOTAL CREDITS: 2

COURSE SYLLABUS

Objective

The course helps you to easily connect data, model, visualize your data, collaborate on reports and helps you to quickly make data-driven decisions that drive strategic actions for business needs.

Exit Profile

- Understanding Data & Scope of data
- Data analysis using power BI
- Knowledge in Power BI
- Able to create Dashboards & reports

Career Path

- Data Analyst
- Business Analyst
- Power BI developer
- MIS Executive
- Office Work

Course Outline

Course Name:	Certificate in Power BI	Duration:	60 H
Module	Topic	Duration	Total Duration
Module 1	Introduction to Excel Interface	1 H	7 H
	Basic Data Importing	2 H	
	Importing Data from Other Sources	1 H	
	Importing Data from Websites	1 H	
	Importing from SQL Servers	2 H	
Module 2	Introduction to Power BI	1 H	7 H
	Power BI Architecture	2 H	
	Exploring Power BI Desktop Interface	1 H	
	Data Types in Power BI	1 H	
	Data Refresh in Power BI	2 H	
Module 3	Basic Report Design	1 H	6 H
	Canvas, Visualizations, and Fields	2 H	
	Working with Visual Interactions	2 H	
	Exporting Reports	1 H	
Module 4	Charts and Graphs	3 H	9 H
	Hierarchies and Drill-downs	2 H	
	Filters and Slicers	2 H	
	Dashboards and KPI Visuals	2 H	
Module 5	Introduction to DAX	2 H	8 H
	Basic DAX Functions	3 H	
	Advanced DAX Functions	3 H	

Module 6	Power Query Basics	3 H	9 H
	Data Cleaning Techniques	3 H	
	M Language in Power Query	3 H	
Module 7	Introduction to Power BI Service	1 H	5 H
	Creating Dashboards in Power BI Service	2 H	
	Row-Level Security (RLS)	2 H	
Module 8	Custom Visuals in Power BI	3 H	9 H
	Power BI API & Embedding	3 H	
	Data Gateway & Refresh Scheduling	3 H	

Course In Detail

Module - 1

- Introduction to Excel Interface
 - Navigating the Excel UI
 - Workbook, Worksheet, and Cell Basics
 - Formatting Data in Excel
 - Basic Excel Formulas and Functions
- Basic Data Importing
 - Importing from CSV, Text Files
 - Entering Data Directly
- Importing Data from Other Sources
 - Importing from JSON, XML, and PDFs
 - Importing from Google Sheets
 - Connecting to Online Services (OneDrive, SharePoint)
- Importing Data from Websites
 - Web Scraping Basics with Excel
 - Extracting Structured and Semi-Structured Data
 - Handling Web Data Refresh
- Importing from SQL Servers
 - Connecting to SQL Databases
 - Writing Basic SQL Queries for Data Extraction
 - Importing Tables and Views

Module - 2

- Introduction to Power BI
 - What is Power BI?
 - Key Features and Benefits
 - Power BI Components (Power Query, DAX, etc.)
- Power BI Architecture
 - Power BI Desktop vs. Power BI Service vs. Power BI Mobile
 - How Power BI Works Internally
- Exploring Power BI Desktop Interface
 - Home, Data, and Model Views
 - Using Power BI Ribbon and Menus
 - Understanding PBIX and PBIT File Formats
- Data Types in Power BI
 - Numeric, Text, Date, and Logical Data Types

- Data Type Conversion and Formatting
 - Handling Null and Missing Data
 - Data Refresh in Power BI
 - Manual vs. Automatic Refresh
 - Incremental Refresh Configuration
 - Data Connectivity and Scheduled Refresh
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Module - 3

- Basic Report Design
 - Working with Report Canvas
 - Using Pages in Reports
 - Formatting Reports
 - Canvas, Visualizations, and Fields
 - Drag-and-Drop Data Fields
 - Adding and Customizing Visualizations
 - Using Tooltips and Report Themes
 - Working with Visual Interactions
 - Filtering, Highlighting, and Cross-Filtering
 - Enabling and Disabling Visual Interactions
 - Drill-through and Drill-down Options
 - Exporting Reports
 - Exporting to PDF, PowerPoint, and Excel
 - Publishing Reports to Power BI Service
 - Sharing Reports via Links and Embedding
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Module - 4

- Charts and Graphs
 - Bar, Line, Pie, and Area Charts
 - Scatter Plots, Waterfall, and Funnel Charts
 - Tree Maps and Gauge Charts
 - Customizing Chart Properties (Axes, Colors, Labels)
- Hierarchies and Drill-downs
 - Creating Hierarchies in Power BI
 - Independent vs. Dependent Drill-downs
 - Expanding and Collapsing Hierarchies
- Filters and Slicers
 - Page, Report, and Visual-Level Filters
 - Text, Number, and Date Slicers
 - Advanced Filtering Options
- Dashboards and KPI Visuals
 - Creating and Customizing Dashboards
 - Pinning Visuals and Live Report Pages

- Working with KPI, Card, and Gauge Visuals
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Module - 5

- Introduction to DAX
 - DAX Syntax and Functions Overview
 - Measures vs. Calculated Columns
 - Row Context vs. Filter Context
 - Basic DAX Functions
 - SUM, AVERAGE, MIN, MAX
 - IF, SWITCH, COUNT, COUNTROWS
 - Logical and Text Functions
 - Advanced DAX Functions
 - Time Intelligence Functions (TOTALYTD, DATEDIFF)
 - CALCULATE, FILTER, ALL, RELATEDTABLE
 - Running Totals, Moving Averages
 - Dynamic Measures with Variables
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Module - 6

- Power Query Basics
 - What is Power Query?
 - Power Query Editor Interface
 - Query Steps and Applied Steps
 - Data Cleaning Techniques
 - Handling Missing Data (Fill Down, Fill Up)
 - Removing Duplicates and Blanks
 - Column Splitting and Merging
 - M Language in Power Query
 - Introduction to M Language
 - Writing Basic M Queries
 - Creating Custom Columns using M
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Module - 7

- Introduction to Power BI Service
 - Power BI Service vs. Power BI Desktop
 - Publishing Reports to Power BI Cloud
 - Working with Power BI Apps
- Creating Dashboards in Power BI Service
 - Pinning Visuals from Reports
 - Adding Custom Tiles (Images, Text, Web Content)
 - Interacting with Dashboards in the Cloud
- Row-Level Security (RLS)
 - Implementing RLS in Power BI

- Creating Roles and Assigning Users
 - Testing RLS in Power BI Service
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Module - 8

- Custom Visuals in Power BI
 - Importing and Using Custom Visuals
 - Best Practices for Custom Visuals
 - Marketplace for Power BI Visuals
- Power BI API & Embedding
 - Introduction to Power BI REST API
 - Embedding Reports into Web Applications
 - Automating Workflows with Power Automate
- Data Gateway & Refresh Scheduling
 - Installing and Configuring Data Gateways
 - Managing On-Premises Data Connections
 - Setting Up Scheduled Data Refresh