

[Md. Shah Alam](#)

Microsoft Certified Trainer | Consultant |

Microsoft Certified MS Excel & Power BI Specialist

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## A. Training Summary

Training Type	Days Required	Total Project	Assessment	Post Training Project
Data Analytics with Power BI and AI	10 Days/ 15 Hours	5	6	1

Training Take-home	Hands-on experience in cleaning, modelling, analysing, and visualizing data using Power BI & AI-assisted tools
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Training Type	Summary
Data Analytics with Power BI & AI	<ol style="list-style-type: none"><li>1. Understand the role of data analytics in business decision-making</li><li>2. Introduction to Power BI: Components, Architecture, Workflow</li><li>3. Connect Power BI to multiple data sources (Text/CSV, Excel, Folder, Web, Google Sheet, PDF, SQL, etc)</li><li>4. Use Power Query to clean, reshape, and transform data</li><li>5. AI-assisted generation of M Code in Power Query</li><li>6. Build efficient Data Models and relationships between datasets (Snowflake, Star Schema, Fact/Dim concepts)</li><li>7. Apply DAX formulas to create Measures for data analysis</li><li>8. DAX for Calculated Columns and Tables</li><li>9. AI-assisted DAX formula generation</li><li>10. Time Intelligence (YTD, QTD, YoY, Date Table Creation)</li><li>11. Row-Level Security (Static &amp; Dynamic)</li><li>12. Apply performance optimization techniques for Data Model and DAX</li><li>13. Design interactive dashboards for professional reporting</li><li>14. Integrate AI visuals like Smart Narrative, Key Influencers, and Q&amp;A for deeper insights</li><li>15. AI-assisted color themes and dashboard design enhancement</li><li>16. Publish, share, and collaborate reports in Power BI Service</li><li>17. End-to-end Project (Real-life scenario)</li></ol>

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## B. Training Content:

Pre-Assessment			
Section	Duration	Lead	Components
Section-1	1 Hour	Introduction to Data Analytics and Power BI	<ul style="list-style-type: none"><li>Understanding Data Analytics and its importance in Decision Making</li><li>The role of Business Intelligence (BI) tools</li><li>Overview of Power BI environment</li><li>Key components: Power Query, Data Model, DAX, and Visualization</li><li>Power BI Desktop and Power BI Service</li></ul>
Section-2	5 Hour	Data Cleaning, Reshaping, Transforming with Power Query	<ul style="list-style-type: none"><li>Importing data from Text/CSV, Excel, Folder, Web, Google Sheet, PDF, SQL and Others</li><li>Text Data Transformation by UI Text Tools</li><li>Number Data Transformation by UI Number Tools</li><li>Date Data Transformation by UI Date Tools</li><li>Conditional and Custom Column</li><li>Pivoting and Unpivoting Table</li><li>Merger and Append Query</li><li>Groupby Function</li><li>Other UI Tools</li><li>How to Manage M Codes</li><li>How to Create M Codes</li><li><b>AI Integration: Using AI for transformation and M Code Generation suggestions</b></li></ul>
Assessment-1			
Section-3	1 Hour	Data Modelling and Relationships	<ul style="list-style-type: none"><li>Understanding tables and relationships</li><li>Creating relationships between Dim and Fact Table</li><li>Cardinality: One-To-One, Many-To-One, Many-To-Many</li><li>How to Convert Many-to-Many into Many-to-One</li><li>Normalization and De-normalization of Dim and Fact Table</li><li>Star Schema and Snowflake Schema</li><li>Single and Both Direction Relationships</li></ul>
Assessment-2			
Section	Duration	Lead	Components
Section-4	4 Hour	Data Analytics with DAX	<ul style="list-style-type: none"><li>Implicit and Explicit Measure</li><li><b>Calculated Columns and Table Creation Functions</b>- Lookup up, Related, Related Table, Conditional Functions, Switch Function, Table Functions, Row Level Security Function, Hierarchy Creation Functions</li><li><b>Creation and Management of Explicit Measure</b>- Statistics Functions, Calculate Function, Iteration Function, Filter Function, All and All Selected, Conditional Function, Time Intelligence Functions, Var for Structured Dax writing</li><li>Dax Evaluation</li></ul>

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			<ul style="list-style-type: none"><li>• <b>AI Integration: Writing and explaining DAX formulas with AI assistance</b></li></ul>
<b>Assessment-3</b>			
Section-5	3 Hour	Data Visualization and Dashboard Design	<ul style="list-style-type: none"><li>• Best practices in visualization design</li><li>• Creating interactive charts, slicers, and cards</li><li>• Filter Concepts along with Slicers</li><li>• <b>Story behind each Charts</b></li><li>• Conditional Formatting- Gradient, Rules and Field Value (Measure Creation)</li><li>• Sparkline</li><li>• Importing and Using Image for Better Visualization</li><li>• Tooltips</li><li>• Drill-up, Drill-down and Drill-through</li><li>• Custom Theme. Importing Theme</li><li>• Usages of Buttons</li><li>• Custom Order</li><li>• Alt Text</li><li>• How to Use Bookmarks</li><li>• <b>AI Integration: Using AI visuals (Smart Narrative, Q&amp;A, Decomposition Tree, Key Influencers)</b></li></ul>
Section-6	1 Hour	From Insights to Decisions	<ul style="list-style-type: none"><li>• Interpreting dashboards for actionable insights</li><li>• Case Study: Business decision-making</li><li>• <b>AI-assisted storytelling in Power BI</b></li><li>• Tips for building a portfolio-worthy dashboard</li></ul>
<b>Assessment-4</b>			
<b>Post-Assessment</b>			
<b>Post Training Project Submission</b>			

### C. Project Summary

SL No	Project Data Types
1	Superstore Data
2	Sales Data
3	HR Data
4	Loan Data
5	Deposit Data