

DATA ANALYTICS AND AI FOR PROFESSIONALS



OCT 08-09, 2026



9 AM - 5 PM



NIBAF, PAKISTAN (KARACHI)

COURSE CONTENTS

Module 1 — Excel with AI

1. Data Cleaning & Preparation with ChatGPT and Claude AI

- Identify missing values, duplicates, and inconsistent data
- Get AI-recommended cleaning steps
- Prepare structured data for analysis

2. Generate Excel Formulas with AI

- Create formulas using natural-language prompts
- Generate XLOOKUP, SUMIFS, IF, INDEX-MATCH, and date formulas
- Fix and explain formula errors with AI

3. Power Query

- Generate Power Query transformation steps
- Create and explain M code using ChatGPT and Claude
- Automate repetitive data-cleaning tasks

4. PivotTables & Data Analysis with AI

- Build PivotTables and PivotCharts for analysis
- Use AI to suggest relevant dimensions and measures
- Summarize key findings from PivotTable results

5. Trend, Variance & Performance Analysis

- Analyze monthly and yearly trends
- Compare actual vs target or previous-period performance
- Identify high and low-performing areas

6. Financial Analysis & P&L with AI

- Analyze Revenue, Cost of Sales, Gross Profit, Operating Expenses, EBITDA, and Net Profit using AI
- Perform Actual vs Budget, Month-over-Month, and Year-over-Year variance analysis
- Generate AI-based P&L commentary, key financial insights, and management recommendations

7. Dashboard Building with AI

- Create and recommend key KPIs, tables, matrices, and charts using ChatGPT, Claude, and Copilot
- Use AI to select the right visual for revenue, profit, variance, trends, and performance analysis
- Generate dashboard layouts, KPI logic, DAX measures, and executive-level insights with AI

8. Forecasting & Trend Analysis with AI

- Analyze historical patterns and growth trends
- Create basic sales, revenue, or expense forecasts
- Use AI to explain forecast assumptions and results

Module 2 — Power BI with AI & MCP

1. Data Cleaning & Transformation with AI

- Clean and transform data using Power Query
- Identify data-quality issues
- Prepare data for dashboard reporting

2. AI-Assisted Data Modeling & Relationships

- Identify fact and dimension tables
- Create and review table relationships
- Use AI to support Star Schema design

3. Generate DAX Measures with ChatGPT & Claude

- Create business KPIs using natural-language prompts
- Generate measures for YTD, YoY, variance, ranking, and profitability
- Debug and explain DAX formulas with AI

5. Build Power BI Dashboards

- Generate dashboard ideas based on business requirements
- Select appropriate charts and visualizations
- Create interactive reports with slicers and filters

6. AI-Assisted KPI & Visualization Selection

- Identify the most relevant KPIs for a dataset
- Match business questions with suitable visuals
- Improve dashboard structure and readability

7. Power BI MCP Server Integration

- Understand how MCP connects AI with Power BI
- Access semantic models through compatible AI tools
- Use AI agents to interact with Power BI data

8. Connect Claude & AI Agents with Power BI through MCP

- Connect MCP-compatible AI tools with Power BI models
- Ask business questions using natural language
- Retrieve structured analysis from semantic models

10. Natural Language Analysis of Power BI Data

- Ask questions without writing DAX manually
- Analyze trends, rankings, and comparisons
- Generate quick business insights from report data

Module 3 — SQL with AI

1. Understanding Databases & Data Structures with AI

- Understand tables, columns, keys, and relationships
- Use AI to explain unfamiliar database schemas
- Translate technical structures into business language

2. Generate SQL Queries with ChatGPT and Claude AI

- Convert business questions into SQL queries
- Generate SELECT, WHERE, GROUP BY, and ORDER BY queries
- Explain generated SQL step by step

3. Basic to Advanced SQL Query Generation

- Generate aggregate and analytical queries
- Create filtering and grouping logic
- Build more complex business analysis queries

4. SQL Error Detection & Troubleshooting with AI

- Identify syntax and logic errors
- Fix incorrect JOINS and duplicate results
- Explain why a SQL query is failing

6. Query Optimization with AI

- Simplify complex SQL queries
- Improve query structure and readability
- Get AI suggestions for more efficient logic

7. Natural Language to SQL Analysis

- Ask business questions in plain English
- Convert questions directly into SQL
- Validate AI-generated query results

8. Business Data Analysis with SQL & AI

- Analyze customers, products, regions, and transactions
- Perform trend and variance analysis
- Identify top, bottom, and unusual performers

FEE:

PKR 36,000

(Plus Tax)

FACILITATOR

Mr. Irfan Bakaly, who got Pakistan's first Microsoft Most Valuable Professional (MVP) award in Excel category, is also having 20+ years of experience in technology training field and served many institutions & organizations of repute. He is also a YouTuber with an active tutorial channel by the name of "Irfan Wazir Ali" which has more than 525+ videos

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