

Technology

Excel Data Analysis & Reporting with Copilot and AI

Data-Insights · Efficient Worksheets · Now with AI

S\$1000 /2 Days

Delivery
In-Person

Level
Intermediate

About the Course

This 2-day course is designed for intermediate to advanced-level professionals who work with data and reports using Microsoft Excel. Participants will develop practical skills in data preparation, cleansing, analysis, visualization, and dashboard creation to transform raw data into meaningful business insights.

The course addresses the increasing industry demand for data-driven decision-making by equipping learners with advanced Excel techniques commonly used in business, finance, operations, and reporting functions.

By the end of the programme, learners will be able to analyse and interpret data effectively, create professional reports and interactive dashboards, leverage AI-assisted insights, and support informed decision-making to enhance workplace productivity and performance.

Pre-requisite:

This is a **fast-paced, intermediate-level** course, not suitable for beginners. Participants should have a solid grasp of spreadsheet fundamentals and be confident creating and using complex functions and formulas.

3 Takeaways



Enhanced
Organizational Data
Analysis Skills.



Master Excel functions
and tools to streamline
data analysis and
reporting processes.



Creating a Dynamic
professional
spreadsheet report

Who is this course for?

Anyone who must analyse data of any sort and create reports for the organisation

What You'll Learn:

- ✓ **Turn raw data into clear business insights.** Learn to quickly spot trends, patterns, and performance signals using Excel's built-in visual analysis features — so you can make faster, more confident decisions.
- ✓ **Turn large, messy datasets into clear, actionable information.** Learn practical Excel techniques to organise, filter, and summarise your data — so you can find answers fast and make decisions with confidence.
- ✓ **Get your data reporting-ready, fast.** Learn practical techniques to clean, standardise, and reshape messy data — so it's accurate, consistent, and ready for analysis whenever you need it.
- ✓ **Build interactive reports that bring your data to life.** Learn how to present business information clearly and dynamically — so stakeholders can explore the numbers and make informed decisions with confidence.
- ✓ **Build dynamic reports** and leverage Microsoft Copilot in Excel to generate insights, summaries, and reporting recommendations while validating AI-generated outputs to support effective and responsible business decision-making.

Day 1

Here's what you get to learn in this course



Spot Trends & Patterns Instantly with Excel's Visual Tools

Using Advanced Functions

Data Filtering with Functions and Advanced Filter

Topic 1

Spot Trends & Patterns Instantly with Excel's Visual Tools

- Convert raw data into visual insights quickly using Excel's Quick Analysis feature.
- Highlight high and low values instantly with Data Bars for easier comparison.
- Visualize trends and data variation using Color Scales for faster interpretation.
- Categorize performance using Icon Sets based on threshold values or KPI levels.
- Track upward or downward trends using Sparklines embedded directly in cells.

Topic 3

Data Filtering with Functions and Advanced Filter

- Use Flash Fill to quickly split text, change text case, combine text, and format numbers or dates
- Apply Text Functions to clean and transform data: (TEXT, LEFT, RIGHT, MID, LEN and FIND)
- Use Text to Columns Wizard to split text strings and format date values
- Combine data from multiple cells using: (CONCAT and TEXTJOIN)
- Load Excel table data into Power Query Editor for transformation
- Use Power Query Editor to modify and standardize data types
- Combine Multiple Files from a Folder using Power Query
- Use Power Query Editor to merge columns and split columns for better data preparation

Topic 2

Using Advanced Functions

- Use Subtotal to automatically summarize grouped data
- Apply Custom Lists with AutoFill to speed up repetitive data entry
- Sort data using multiple levels for deeper analysis
- Sort records based on custom list orders
- Filter datasets using Search Box criteria for quick data retrieval
- Apply Advanced Filter to extract specific records based on criteria
- Use Advanced Filter to copy filtered records to another worksheet
- Extract only selected columns into a separate worksheet using Advanced Filter
- Understand and apply relative and absolute cell references
- Use Defined Names to create more meaningful and readable formulas
- Apply Logical Functions: (IF, AND, OR and IFS)
- Use Statistical Functions: (COUNTIFS, AVERAGEIFS, SUMIFS, MAXIFS and MINIFS)
- Use Database Functions: (DSUM, DCOUNT, DCOUNTA, DMIN, DMAX and DAVERAGE)
- Apply Lookup Functions to retrieve and match data: (VLOOKUP, XLOOKUP, INDEX and MATCH)

Day 2

Here's what you get to learn in this course



Creating Interactive Spreadsheet Report

AI-Enabled Reporting with Microsoft Copilot for Excel

Topic 1

Creating Interactive Spreadsheet Report

- Convert raw data into visual insights quickly using Excel's Quick Analysis feature.
- Highlight high and low values instantly with Data Bars for easier comparison.
- Visualize trends and data variation using Color Scales for faster interpretation.
- Categorize performance using Icon Sets based on threshold values or KPI levels.
- Track upward or downward trends using Sparklines embedded directly in cells.

Topic 2

AI-Enabled Reporting with Microsoft Copilot for Excel

- Create PivotTables and PivotCharts from Excel Tables for dynamic data analysis
- Apply different PivotTable Report Layouts for better presentation and readability
- Show or hide Subtotals and Grand Totals to control summary views
- Generate Report Filter Pages from report filters for segmented analysis
- Use Row Labels and Column Labels filters to drill into specific data categories
- Summarize values using statistical calculations such as: (Sum, Count, Average, Max and Min)
- Calculate Percentage of Totals to analyse contribution by category
- Calculate Running Totals to track cumulative performance over time
- Group dates and numeric values for better trend analysis
- Use Microsoft Copilot in Excel to generate data insights and summaries
- Create AI-assisted charts, reports, and reporting recommendations using Copilot
- Validate AI-generated outputs and recommendations to support accurate and responsible business decision-making

Meet Our Trainer

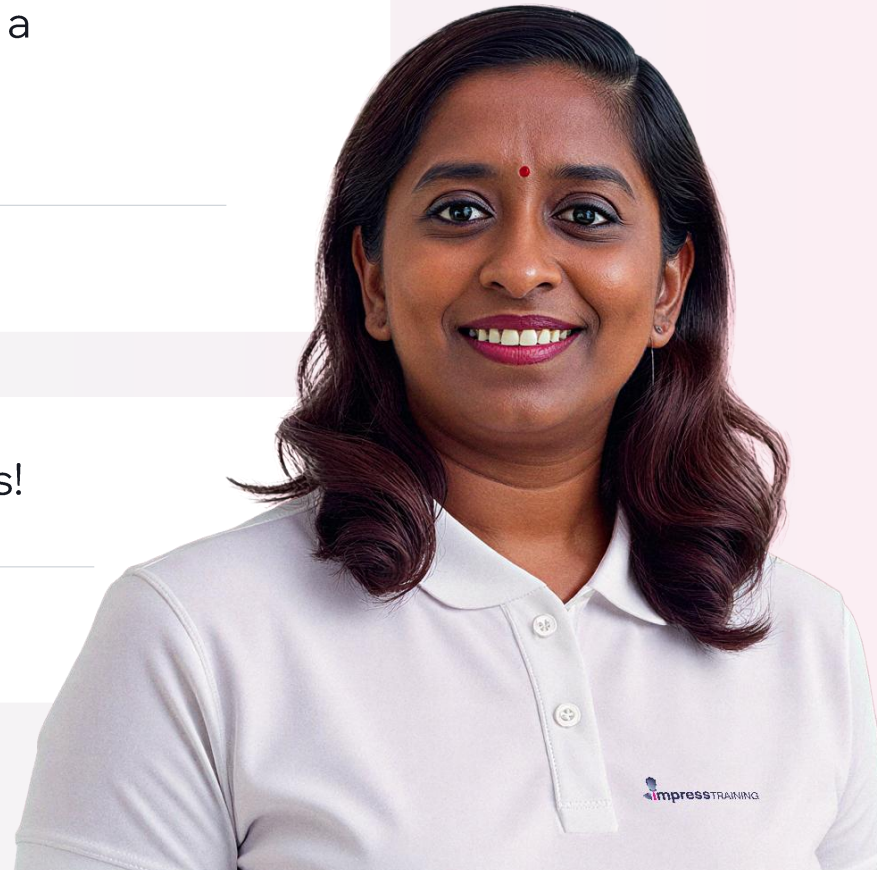
Uma Mageswari

“A very good course to become a confident data user and make informed decisions.

Stephen Tan, Manager

“Excellent content and exercises!

Albert Yeo, Senior Executive



Uma is a dynamic educator and training professional who brings a unique blend of technical expertise, curriculum design proficiency, and leadership acumen to the learning and development space. With hands-on experience in ICT and digital skills training — from Generative AI to Microsoft Excel, Power Automate, and Power BI — Uma excels at empowering learners with future-ready capabilities.

Her strong background in teaching, curriculum innovation, and EdTech integration ensures engaging, technology-enabled learning experiences underpinned by data-driven assessments. An ICAgile Certified Professional (ICP-ACC, ICP-AFT) and ACTA-certified trainer,

Uma is adept at agile coaching, facilitation, and stakeholder collaboration. Backed by the Advanced Certificate in Training and Assessment from IAL Singapore, Uma is committed to fostering impactful, workplace-relevant learning that drives both individual and organizational growth.

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