Digital and artificial intelligence

Advanced Excel and Automation

Two days to stop repeating the same Excel manipulations every month. Participants structure their data, master lookup and conditional calculation functions, analyse with pivot tables, automate import and cleaning with Power Query and record their first macros, on the files they use at work.

Duration : 2 days

Objectives

1. Structure data in reliable tables: formats, validation, structured tables
2. Use the lookup, logical, conditional and text functions suited to each need
3. Analyse data with pivot tables and the related charts
4. Automate the import and cleaning of recurring data with Power Query
5. Automate a repetitive task with a recorded, then edited, macro

Programme

Day 1 — morning

• Good practice: one value per cell, structured tables, names, data validation
• Lookup functions: XLOOKUP, INDEX and MATCH
• Conditional functions: nested IF, IFS, SUMIFS, COUNTIFS
• Text and date functions to clean exports

Day 1 — afternoon

• Pivot tables: grouping, calculated fields, slicers, timelines
• Pivot charts and conditional formatting
• Dynamic array functions: FILTER, SORT, UNIQUE
• Exercise: a monthly tracking table built from one of your files

Day 2 — morning

• Power Query: importing a file, a folder of files, an export from management software
• Transforming: types, columns, merging queries, unpivoting
• Refreshing in one click instead of copying the data every month
• Protecting, sharing and versioning a workbook

Day 2 — afternoon (workshop)

• Macros: recording, reading and editing the VBA code of a repetitive task
• Overview of scripts and online automation flows, depending on the company's environment
• Workshop: automating a recurring report brought by the participants
• Practical test on an unfamiliar file and debrief

Teaching methods

• Hands-on exercises with your own files, anonymised if necessary
• A running case: a monthly report automated end to end
• Cheat sheets of functions and shortcuts handed to participants
• A short placement test at the start to adjust the pace
• Final practical test on a file the participants have not seen before

Assessment and documents

Placement test at the start, practical test at the computer at the end of the session and end-of-course survey the next day. Numbered certificate, verifiable online, for each participant; training report handed to the company.

Bilingual materials for every participant; each classroom course comes with its digital twin on OmniLearn.

Good to know

Dynamic array functions and XLOOKUP require a recent version of Excel: we check the installed version before the session. To move towards shared dashboards, the logical next step is “Power BI and Automated Dashboards”.

Practical information

Duration	2 days
Audience	Assistants, administrators, management controllers, QSE, logistics and purchasing teams who process data in Excel
Prerequisites	Everyday use of Excel: data entry, simple formulas, sorting and filters
Group size	Groups of 6 to 12 participants, in-company
Format	In-company, face to face on your site
Language	French, Darija or English; bilingual materials
Funding	OFPPT special training contracts (TFP), GIAC, Maroc PME: we prepare the applications with you, at no extra cost.
Programme customisation	Programme adapted to your procedures, your equipment and your audience

Frequently asked questions

What level do I need?

Being able to enter data, write simple formulas, sort and filter. The placement test at the start of the session lets us adjust the exercises to the group’s real level.

Do I need to know how to code for the macros?

No. Macros are first recorded, then read and edited line by line. The aim is to automate one specific repetitive task, not to become a developer.

Can we bring our own files?

Yes, that is the very principle of the second-day workshop. Each participant brings a report they redo regularly and leaves with an automated version.

Can the course be delivered in Darija?

Yes. The course can be delivered in French, Darija or English, with bilingual materials; function names remain those of the version of Excel installed on your computers.