

The Ultimate Excel & BI Toolkit

Practical Skills for Data Analysis, Automation & Insightful Reporting

Day 1 – Advanced Lookups & Arrays

Duration: 4 Hours (with 15 min break)

- Quick recap of VLOOKUP vs. XLOOKUP (to set context)
 - **XLOOKUP in Depth**
 - Syntax and advanced parameters
 - Handling errors with IFNA and IFERROR
 - Multi-condition lookups
 - Approximate match and range lookups
 - Real-life applications: pricing tables, employee records, product matching
 - **Array Functions**
 - Dynamic arrays vs. legacy arrays
 - FILTER, SORT, SORTBY, UNIQUE
 - SEQUENCE and RANDARRAY for automation
 - Nested array formulas in business reports
 - Hands-on mini-project: Building a smart employee search tool with XLOOKUP + FILTER
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Day 2 – Power Excel Foundations

Duration: 4 Hours (with 15 min break)

- **Error handling & data validation**
 - Using IFERROR, ISNA, ISTEXT, etc.
 - Practical validation rules for finance/sales data
- **Named Ranges & Structured References**
 - Using tables effectively

- Dynamic named ranges with OFFSET and INDEX
 - **Advanced Conditional Formatting**
 - Formula-based formatting
 - Color scales & icon sets for KPIs
 - **What-If Analysis Tools**
 - Goal Seek
 - Scenario Manager
 - Data Tables (one-variable & two-variable)
 - Hands-on mini-project: Profit sensitivity analysis using scenarios
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Day 3 – Power Query (ETL in Excel)

Duration: 4 Hours (with 15 min break)

- Introduction to **Power Query**
 - Importing data from different sources (Excel, CSV, Web)
 - Data cleaning & transformation (remove blanks, split, merge, replace)
 - Column operations
 - Add custom columns
 - Split columns by delimiter
 - Grouping & summarizing
 - Merge & Append queries
 - Automating repetitive cleaning tasks
 - Hands-on project: Cleaning messy sales dataset for reporting
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Day 4 – Power Pivot & Data Modeling

Duration: 4 Hours (with 15 min break)

- Introduction to **Power Pivot**

- Data Model basics
 - Relationships between tables
 - DAX Formulas for beginners
 - Calculated Columns vs. Measures
 - Common DAX: CALCULATE, SUMX, RELATED, FILTER
 - Building KPIs & time intelligence (YTD, MTD, YOY growth)
 - Hands-on project: Sales performance dashboard using Power Pivot
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Day 5 – Reporting & Dashboards

Duration: 4 Hours (with 15 min break)

- Principles of **Dashboard Design** (clarity, simplicity, interactivity)
 - Building interactive reports in Excel
 - PivotTables & PivotCharts
 - Slicers & Timelines
 - Conditional formatting for KPIs
 - Combining Power Query + Power Pivot + Excel charts for automation
 - Hands-on project: Executive dashboard for Sales & Finance
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Day 6 – Capstone & Power BI Desktop Intro

Duration: 4 Hours (with 15 min break)

- **Capstone Projects** (choose based on industry dataset):
 1. HR – Employee Attrition Dashboard
 2. Finance – Budget vs. Actuals Tracker
 3. Sales – Regional Sales Performance Report
- Transitioning from Excel to **Power BI Desktop**
 - Difference between Excel BI & Power BI

- Importing Excel data into Power BI
 - Creating a simple interactive dashboard in Power BI Desktop
 - Final wrap-up, Q&A, and best practices
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🌟 **End Result:** By the end of Day 6, learners will be able to independently handle advanced Excel lookups, arrays, automate data cleaning with Power Query, build data models with Power Pivot, create executive dashboards, and get a head start with Power BI.