









# Data Analysis with Excel

## 10-Week Curriculum: Beginner to Advanced

*From Zero to Dashboard — A Practical, Hands-On Learning Journey*

 <b>Duration</b> 9 Weeks	 <b>Meeting Day</b> Sundays, 8PM – 9PM
 <b>Platform</b> Google Meet / Zoom	 <b>Community</b> WhatsApp Group (Midweek)
 <b>Level</b> Beginner to Advanced	 <b>Start Date</b> [Insert Date]

### Programme Vision

*To equip participants with practical, job-ready data analysis skills using Microsoft Excel — from absolute beginner to dashboard-building professional — enabling them to make data-driven decisions, improve workplace performance, and unlock career opportunities in data.*

# 9-Week Session Schedule

We ek	Date	Session Title	Topic Category	Session Focus	Platform	Presenter
We ek 1	TBD	Introduction to Data Analysis	Conceptual / Discussion	What is data? What is data analysis? Types, tools, real-world use cases, and career paths.	Google Meet / Zoom	Lead Instructor <b>Mayokun Onadipe</b>
We ek 2	TBD	Excel Foundations & Interface Mastery	Excel Basics	Navigation, data entry, basic formatting, understanding the Excel environment.	Google Meet / Zoom	Lead Instructor <b>Mayokun Onadipe</b>
We ek 3	TBD	Data Entry, Cleaning & Organisation	Data Cleaning / Text Functions	Removing duplicates, handling blanks, TRIM, PROPER, UPPER, LOWER, data validation.	Google Meet / Zoom	Lead Instructor <b>Mayokun Onadipe</b>
We ek 4	TBD	Core Formulas & Functions	Math & Statistical Functions	SUM, AVERAGE, MIN, MAX, COUNT, IF, VLOOKUP — the backbone of Excel analysis.	Google Meet / Zoom	Lead Instructor <b>Mayokun Onadipe</b>
We ek 5	TBD	Data Visualisation – Charts & Graphs	Data Visualisation	Creating and formatting bar, line, pie and combo charts for impactful storytelling.	Google Meet / Zoom	Lead Instructor <b>Mayokun Onadipe</b>
We ek 6	TBD	PivotTables & PivotCharts	Data Summarisation	Summarising and analysing large datasets dynamically without writing formulas.	Google Meet / Zoom	Lead Instructor <b>Mayokun Onadipe</b>
We ek 7	TBD	Advanced Formulas & Lookups	Lookup & Conditional Functions	XLOOKUP, SUMIFS, COUNTIFS, AVERAGEIFS, nested IFs, IFERROR, FILTER, SORT, UNIQUE.	Google Meet / Zoom	Lead Instructor <b>Mayokun Onadipe</b>
We ek 8	TBD	Power Query & Data Automation	Data Transformation / ETL	Importing, transforming and automating data workflows using Power Query.	Google Meet / Zoom	Lead Instructor <b>Mayokun Onadipe</b>
We ek 9	TBD	Dashboards & Project Presentation	Dashboard Design / Project	Building a professional dashboard and presenting your final project.	Google Meet / Zoom	Lead Instructor <b>Mayokun Onadipe</b>
We ek 10	TBD	Career Talks & Open Q&A	Career Development	Industry insights, career pathways in data, portfolio tips, and open Q&A session.	Google Meet / Zoom	Guest Analyst <b>Mrs. Pelumi Ayepola</b>

# 9-WEEK SESSION OVERVIEW

*"Equipping Everyone to Turn Data Into Decisions — With Confidence."*

## Week 1 – Introduction to Data Analysis

Level:  Discussion / Conceptual

Welcome! Before we touch Excel, we need to understand WHY we're here. This opening session is a rich, engaging discussion about what data analysis actually is, why it matters in today's world, and how it shows up in everyday life and work.

### **Session Focus:**

What is data? What is data analysis? The data analysis process (collect → clean → analyse → visualise → communicate). Types of data (qualitative vs quantitative). Real-world examples across industries — business, healthcare, education, government. Overview of tools used in data analysis (Excel, Power BI, Python, SQL). Career paths and opportunities in data.

### **Main Activity:**

"Data in My World" — group discussion: participants share where they encounter data in their personal or professional lives. Open Q&A: What do you hope to do with data skills?

### **Learning Outcome:**

A clear understanding of what data analysis is, why it matters, and how Excel fits into the broader data landscape. Participants leave motivated and with a sense of direction.

### **Weekly Task / Assignment:**

*Reflection Exercise: Write 3–5 sentences describing a problem in your work or life that data could help solve. Share in the WhatsApp group by Tuesday.*

## Week 2 – Excel Foundations & Interface Mastery

Level:  Beginner

Now we open Excel! This session is all about getting comfortable with the Excel environment. Whether you're brand new or just rusty, we'll make sure every participant is set up and confident before diving deeper.

### **Session Focus:**

Understanding the Excel ribbon, worksheets, cells, rows, and columns. Keyboard shortcuts, data types, and basic cell formatting. Saving, naming, and organising workbooks.

### **Main Activity:**

"My First Dataset" – participants create a simple personal budget or sales table from scratch.

### **Learning Outcome:**

Ability to navigate Excel confidently, enter and format data, and understand workbook structure.

### **Weekly Task / Assignment:**

*Build a 10-row dataset of your choice and format it with headers, borders, and colour fills.*

## Week 3 – Data Entry, Cleaning & Organisation

Level:  Beginner

Dirty data is the enemy of good analysis. This week we tackle the unsung hero of data work — cleaning. You'll learn how to receive real-world data and turn it into analysis-ready information.

### **Session Focus:**

Text-to-columns, removing duplicates, Find & Replace, handling blank cells. Textual functions: TRIM, PROPER, UPPER, LOWER, CONCATENATE, LEFT, RIGHT, MID. Data validation to prevent future errors.

### **Main Activity:**

"Messy to Magnificent" – participants receive a deliberately messy dataset and must clean it using the techniques covered.

### **Learning Outcome:**

Ability to receive raw data, identify issues, and clean it systematically using Excel tools and functions.

### **Weekly Task / Assignment:**

*Download the provided messy dataset, clean it fully, and submit your clean version.*

## Week 4 – Core Formulas & Functions

Level:  Beginner–Intermediate

Formulas are the heartbeat of Excel. This week we cover the essential functions every data analyst uses daily — building your toolkit from the ground up with real business scenarios.

### **Session Focus:**

Math functions: SUM, SUMIF, ROUND, INT, MOD. Statistical functions: AVERAGE, MIN, MAX, COUNT, COUNTA, LARGE, SMALL. Logical functions: IF, AND, OR. Error handling with IFERROR.

### **Main Activity:**

"Formula Challenge" – live problem-solving using a sales dataset: calculate totals, averages, commissions, and apply conditional logic.

### **Learning Outcome:**

Comfort writing and debugging core formulas; ability to answer basic business questions with data.

### **Weekly Task / Assignment:**

*Complete the Formula Worksheet — 15 formula challenges across a business dataset.*

## Week 5 – Data Visualisation: Charts & Graphs

Level:  Beginner–Intermediate

Numbers alone don't tell the full story — visuals do. This week we explore how to choose the right chart for your data and design it to communicate insights clearly and professionally.

### **Session Focus:**

Bar charts, line charts, pie/donut charts, combo charts. Chart formatting, titles, legends, data labels. Choosing the right visual for your data and audience. Sparklines for quick in-cell trends.

### **Main Activity:**

"Tell the Story" – participants receive monthly revenue data and must create a dashboard-style chart summary with three chart types.

### **Learning Outcome:**

Ability to create clean, formatted, insight-driven charts that communicate data to non-technical audiences.

### **Weekly Task / Assignment:**

*Create a one-page visual summary of the provided quarterly sales dataset with at least 3 chart types.*

## Week 6 – PivotTables & PivotCharts

Level:  Intermediate

PivotTables are one of Excel's most powerful features — and the most feared. This week we demystify them completely. You'll slice, dice, and summarise thousands of rows in minutes.

### **Session Focus:**

Building PivotTables, row/column fields, value fields. Filters and slicers, grouping data by date or category. PivotCharts for dynamic visual summaries. Refreshing data connections.

### **Main Activity:**

"PivotTable Sprint" – using a 500-row retail sales dataset, participants answer 8 business questions using only PivotTables.

### **Learning Outcome:**

Ability to build and customise PivotTables and PivotCharts to answer business questions dynamically without formulas.

### **Weekly Task / Assignment:**

*Use the provided dataset to build a PivotTable report answering 5 specified business questions.*

## Week 7 – Advanced Formulas & Lookups

Level:  Intermediate–Advanced

Ready to level up? This week we go beyond VLOOKUP into the advanced formula toolkit used by professional analysts. These functions will help you handle complex, multi-condition business scenarios.

### **Session Focus:**

Lookup functions: VLOOKUP vs XLOOKUP. Conditional aggregation: SUMIFS, COUNTIFS, AVERAGEIFS. Logical nesting: nested IFs, IFS function. Error handling: IFERROR, IFNA. Dynamic functions: FILTER, SORT, UNIQUE.

### **Main Activity:**

"Advanced Formula Lab" – participants solve real-world HR and finance scenarios using advanced lookups and conditional aggregation.

### **Learning Outcome:**

Ability to write complex multi-condition formulas and dynamic lookups that handle real-world data challenges.

### **Weekly Task / Assignment:**

*Complete the Advanced Formula Assessment — 10 progressive challenges using a combined HR/Finance dataset.*

## Week 8 – Power Query & Data Automation

Level:  Advanced

This week we introduce Power Query — Excel's built-in ETL (Extract, Transform, Load) tool. If you've ever spent hours copy-pasting data between files, this session will change your life.

### **Session Focus:**

Introduction to Power Query editor. Importing data from multiple sources (CSV, Excel, web). Transforming and reshaping data: split columns, change types, filter rows, unpivot. Merging queries. Building refreshable automated pipelines.

### **Main Activity:**

"Automate Your Report" – participants build a Power Query pipeline that combines data from 3 separate files into one clean, refreshable summary table.

### **Learning Outcome:**

Ability to build automated, repeatable data workflows using Power Query that eliminate manual data preparation.

### **Weekly Task / Assignment:**

*Build a Power Query pipeline using the provided multi-source files and document each transformation step.*

## Week 9 – Dashboards & Project Presentation

Level: 🏆 Advanced – Project

We close out with one of the most exciting sessions — building a professional interactive dashboard and presenting your final project. This is where everything you have learned comes together.

### **Session Focus:**

Dashboard layout design and best practices. Linking charts to PivotTables. Interactive slicers and dynamic summaries. Conditional formatting for visual alerts. Protecting sheets and sharing reports professionally.

### **Main Activity:**

"Dashboard Showcase" – each participant presents a fully built Excel dashboard based on a real-world dataset of their choice. Peer feedback and group Q&A.

### **Learning Outcome:**

A portfolio-ready Excel dashboard project to showcase to employers or clients.

### **Weekly Task / Assignment:**

*Final Project: Build and present a complete Excel dashboard answering at least 5 business questions from your chosen dataset. Submit your file for group review.*

## Week 10 – Career Talks & Open Q&A

Level:  Career Development

We wrap up the programme with an inspiring career session. This is a space to ask questions, get honest industry insights, and understand how to position yourself as a data professional — whether you're looking for a job, a promotion, or freelance opportunities.

### **Session Focus:**

Career pathways in data analytics. How to build and present a data portfolio. Excel and data skills on your CV/LinkedIn. What employers look for in data roles. Freelancing and consulting opportunities. Open floor Q&A — no question is off limits.

### **Main Activity:**

"Ask Me Anything" — open discussion and Q&A session. Participants share their learning journey and ask career-related questions. Group conversation on next steps after the programme.

### **Learning Outcome:**

Clarity on how to leverage your new Excel and data skills in the job market or business. Participants leave with a roadmap for their next step in data.

### **Weekly Task / Assignment:**

*Reflection: Write down 3 career or business goals you now feel equipped to pursue with your data skills. Share with the group and celebrate your journey!*