

Data Analytics: Excel, SQL, Power BI & Python

Clean, analyse and present data with spreadsheets, SQL, Python and Power BI — and turn it into decisions

Data Analytics and Data Science · beginner · Live online, instructor-led

This syllabus is a draft awaiting instructor review and may change.

A 48-hour live course: spreadsheets and data cleaning, SQL for analysis, Python and pandas basics, KPIs and Power BI dashboards, data storytelling and a reviewed portfolio case study.

Length and schedule

48 hours of live teaching, on either schedule:

- Weekday Intensive (Mon–Fri): about 10 weeks before holidays
- Weekend Evening (Sat & Sun evenings): about 12 weeks before holidays

Fees per student, whole course

- Group: Rs. 11,999
- Duo: Rs. 19,999
- One-to-One: Rs. 35,999

Launch fee — GST treatment to be confirmed.

What you will be able to do

- Frame a business question and identify the data needed to answer it
- Clean messy data in spreadsheets and Power Query, and document every change
- Analyse data with formulas, lookups and PivotTables
- Query and combine relational data with SQL, including joins, CTEs and window functions
- Load, clean, summarise and chart data with Python and pandas
- Define KPIs precisely and build an interactive, accessible Power BI dashboard
- Present findings as a clear, honest data story with stated limitations
- Publish a documented portfolio case study that respects data privacy and licences

Before you start

- Comfortable using a computer, installing software and working with files and folders
- Everyday arithmetic and percentages; no programming or statistics background required
- A laptop with at least 8 GB RAM; Power BI Desktop runs only on Windows, so macOS and Linux users need access to a Windows machine or virtual machine for that module

Tools

Microsoft Excel (Microsoft 365 or Excel 2021; paid — Google Sheets or LibreOffice Calc are free alternatives for most spreadsheet exercises), Power Query, Power BI Desktop (free; Windows only — publishing and sharing through the Power BI service needs a paid licence and is optional), PostgreSQL 17 or 18, DBeaver or

pgAdmin, Python 3.13 or later, Jupyter Notebook or JupyterLab, pandas, matplotlib, Git and GitHub, Visual Studio Code

Syllabus

Module 1: Data thinking and spreadsheet foundations

How analysis turns questions into evidence, and the spreadsheet skills every analyst relies on.

1. How data analysis works (2 h)
2. Spreadsheet essentials (2 h)
3. Logic, lookups and conditional summaries (2 h)
4. Spreadsheet review and doubt-clearing (2 h)

Module 2: Cleaning and analysing data in spreadsheets

Find and fix data-quality problems repeatably, then summarise and chart the clean data.

5. Data cleaning in spreadsheets (2 h)
6. Repeatably cleaning with Power Query (2 h)
7. PivotTables and charts (2 h)
8. Cleaning workshop and doubt-clearing (2 h)

Module 3: SQL for analysis

Pull, combine and summarise data directly from a relational database with SQL, using PostgreSQL.

9. Databases and SELECT (2 h)
10. Joins and aggregation (2 h)
11. CASE, CTEs and dates (2 h)
12. Window functions for analysis (2 h)
13. SQL review and doubt-clearing (2 h)

Module 4: Python and pandas for analysts

Make cleaning and analysis repeatable with Python, pandas and notebooks — no prior programming needed.

14. Python essentials for analysts (2 h)
15. Loading and exploring data with pandas (2 h)
16. Cleaning, grouping and merging with pandas (2 h)
17. Charts in Python and doubt-clearing (2 h)

Module 5: KPIs and dashboards with Power BI

Define the right measures, model data properly and build dashboards that people can trust and use.

18. KPIs and metric design (2 h)
19. Power BI data modelling (2 h)
20. DAX measures (2 h)
21. Dashboard design and doubt-clearing (2 h)

Module 6: Data storytelling and portfolio case study

Turn analysis into a clear, honest recommendation, then complete and present the portfolio case study.

22. Data storytelling and honest presentation (2 h)
23. Case study build lab and review (2 h)
24. Final assessment and case study presentations (2 h)

Final project

Portfolio case study: where is the business growing, and where is it leaking? You receive a written brief from the fictional stationery chain's management team, a synthetic multi-year dataset (sales transactions, products, stores, customers and returns) with realistic data-quality problems deliberately included, and three business questions to answer. You may instead propose a public open dataset with a clear licence, agreed with the instructor in advance. Deliverables- A cleaning log: every problem found (duplicates, inconsistent categories, missing values, invalid dates), how it was fixed and how many rows each step affected.- SQL queries that answer the business questions, with comments explaining each step.- A Jupyter notebook using pandas for at least one analysis that would be awkward in a spreadsheet, with charts.- A Power BI dashboard with a documented star-schema model, a written definition for every KPI, filters that make sense for the audience and accessible colours and labels.- A five-minute data story presented live: the question, what the data shows, the recommendation and the limitations of the analysis.- A GitHub repository with a README covering the data source and licence, the tools used, how to reproduce the work and a note confirming that no real personal data is included. The case study is presented and reviewed live in the final week, with feedback on accuracy, clarity and honesty of presentation.

Certificate

- At least 80% attendance
- All assignments submitted
- Projects passed
- Final assessment passed (60%)

A ZORK Academy course completion certificate; paying for the course does not by itself earn it.

Next step

Book a free consultation: <https://zorkacademy.online/consultation?course=data-analytics>

We help you prepare for work; we do not guarantee jobs, placements or salaries.