



DATA MANAGEMENT AND BUSINESS INTELLIGENCE

# Data Analysis Masterclass

## Visualization and Statistics

Course code: DMBI-008



### SPARK TRAINING

Professional training courses for leaders, specialists, and organizations seeking practical capability development.

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## — Workshop Overview

In today's competitive, data-driven environment, professionals are expected to go beyond basic reporting and develop advanced analytical capabilities. This masterclass is designed to take participants from solid fundamentals to advanced proficiency in data analysis, statistics, and data visualization using modern analytical approaches and tools. Participants will learn how to extract meaningful insights from complex datasets, apply statistical reasoning, build advanced visualizations, and use analytical programming concepts to support high-impact decision-making across business and technical environments.

### Why Attend

This masterclass is highly practical and workshop-driven. It combines advanced theoretical concepts with hands-on exercises using real-world datasets. Participants will work through structured labs covering statistics, visualization design, and analytical problem-solving. Scenario-based learning, case studies, and guided project work

### Who Should Attend

Data Analysts and Business Intelligence Professionals  
Engineers and Technical Professionals working with data  
Business and Financial Analysts  
Project and Operations Managers  
IT Professionals transitioning into data roles

## — Learning Objectives

- Apply advanced statistical techniques for data interpretation and decision-making
- Build professional-level data visualizations and dashboards
- Understand and apply regression, correlation, and forecasting concepts
- Perform structured data cleaning, transformation, and analysis workflows
- Develop analytical thinking for complex business problems
- Use basic programming concepts for data analysis (Python/R foundations)
- Interpret and communicate insights effectively to stakeholders
- Build end-to-end data analysis projects from raw data to presentation

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## Course Outline

**DAY  
1**

### Advanced Foundations of Data Analysis

- Role of advanced analytics in modern organizations
- Data types, structures, and analytical frameworks
- Review of data lifecycle and analytical workflows
- Introduction to analytical problem-solving models
- Overview of tools and environments (Excel, BI, programming basics)

**DAY  
2**

### Advanced Statistical Analysis

- Probability distributions and their applications
- Correlation and regression analysis
- Hypothesis testing and statistical significance
- Data variability and uncertainty in decision-making
- Interpretation of statistical outputs in business contexts

**DAY  
3**

### Data Visualization & Dashboard Design

- Advanced visualization principles and techniques
- Designing executive-level dashboards
- KPI selection and performance measurement
- Interactive visual analytics concepts
- Story-driven dashboard development

**DAY  
4**

### Forecasting & Analytical Modeling

- Introduction to forecasting techniques
- Trend analysis and predictive thinking
- Basic regression-based forecasting
- Scenario analysis and decision modeling
- Applying analytics to real-world business cases

**DAY  
5**

### Advanced Programming & Capstone Project

- Introduction to programming concepts for data analysis (Python/R basics)
- Data manipulation and analysis workflow concepts
- Building an end-to-end analytical project
- Presenting insights and recommendations

- Final masterclass project presentation and review

## — Upcoming Classroom Dates

| DATE                  | LOCATION                | FEE    |
|-----------------------|-------------------------|--------|
| 5 - 9 October 2026    | Frankfurt - Germany     | €1,625 |
| 16 - 20 November 2026 | London - United Kingdom | €1,925 |
| 7 - 11 December 2026  | Barcelona - Spain       | €2,200 |
| 21 - 25 December 2026 | Paris - France          | €2,250 |
| 18 - 22 January 2027  | Munich - Germany        | €2,125 |
| 15 - 19 February 2027 | Istanbul - Türkiye      | €1,425 |
| 15 - 19 March 2027    | London - United Kingdom | €2,100 |
| 19 - 23 April 2027    | Barcelona - Spain       | €1,925 |

## — Certificate and Registration

Participants who attend and complete the full programme receive a SPARK Training Certificate of Completion. For registration, in-house delivery, or availability questions, contact [info@sparktraining.eu](mailto:info@sparktraining.eu) or +31 85 115 0004.