

aractech

Global Learning for Operational Leaders



DATA MANAGEMENT AND BUSINESS INTELLIGENCE | DMBI-019

Business Intelligence and Data Visualisation

Contact

+31 85 7444446
info@aractech.com
<https://aractech.eu>

Address

Waarderweg 50, 2031PB Haarlem - Netherlands.

Course content

Why Attend

Business intelligence enables organizations to convert operational data into meaningful information for planning, performance management, and decision-making. The value of BI depends on more than producing charts; it requires reliable data, well-defined KPIs, appropriate analytical models, and visualisations that clearly communicate what is happening across the business.

This Business Intelligence and Data Visualisation course develops practical skills for collecting, preparing, analysing, and presenting business data. Participants will learn how to structure data for analysis, build performance measures, create interactive dashboards, identify trends and exceptions, and communicate findings to managers and stakeholders. The programme incorporates practical workflows using Power BI, Power Query, DAX, SQL, Excel, and established data visualisation techniques.

Course Methodology

- The course uses practical demonstrations, instructor-led exercises, business datasets, analytical workshops, dashboard development activities, and case studies. Participants progress through the complete business intelligence workflow, from defining business questions and preparing data to developing analytical models, creating dashboards, and presenting actionable insights.

Course Objectives

- Understand the role of business intelligence in organizational decision-making
- Translate business questions into analytical requirements and measurable KPIs
- Prepare, clean, transform, and integrate data from multiple sources
- Build structured data models for business intelligence reporting
- Create business calculations and performance measures using DAX
- Design interactive Power BI dashboards and management reports

Target Audience

- This course is suitable for:
- Business intelligence analysts
- Data analysts and reporting specialists

Course outline

Detailed course outline

Day-by-day outline for Business Intelligence and Data Visualisation.

Day 1 - Business Intelligence, Data Analysis and KPI Frameworks

- Understanding business intelligence and its role in performance management
- Mapping the BI process from business data to management decisions
- Translating business questions into analytical and reporting requirements
- Defining measures, dimensions, KPIs, targets, and performance thresholds
- Distinguishing descriptive, diagnostic, predictive, and prescriptive analytics
- Developing KPI frameworks for finance, sales, operations, and customer performance

Day 2 - Data Preparation, Power Query and Data Modelling

- Connecting to Excel, CSV, databases, and structured business data sources
- Cleaning and transforming datasets using Power Query
- Combining, merging, appending, grouping, and reshaping business data
- Applying SQL queries for filtering, joining, aggregating, and preparing analytical data
- Designing fact tables and dimension tables using star schema principles
- Building relationships, hierarchies, date tables, and structured analytical models

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Day 3 - Power BI Analytics, DAX and Interactive Reporting

- Creating business measures and calculated metrics using DAX
- Measuring revenue, cost, profitability, growth, productivity, and operational performance
- Performing actual versus budget, target, variance, and period-over-period analysis
- Building interactive Power BI reports with slicers, filters, drill-down, and drill-through
- Analyzing performance by customer, product, region, channel, and time period
- Practical case study: Investigating performance problems and identifying their underlying drivers

Day 4 - Data Visualisation and Executive Dashboard Design

- Selecting effective charts for comparison, trends, distribution, relationships, and performance
- Designing executive dashboards around business questions and management priorities
- Applying visual hierarchy, layout, labeling, scale, and information design principles
- Using KPI cards, charts, matrices, conditional formatting, and interactive visual elements
- Identifying misleading visualisations, unnecessary complexity, and dashboard information overload
- Practical workshop: Building a management dashboard that communicates performance and exceptions clearly

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Day 5 - Business Intelligence Governance, Data Storytelling and Decision Support

- Establishing data quality controls for accurate and consistent BI reporting
- Validating dashboard measures and reconciling results with source data
- Managing report access, permissions, and row-level security in BI environments
- Improving data model performance, maintainability, and reporting efficiency
- Using data storytelling to communicate findings, business impact, and recommended actions
- Capstone exercise: Developing and presenting an end-to-end Business Intelligence and Data Visualisation solution

Seminar dates

Available seminar dates

Live dates and pricing for Business Intelligence and Data Visualisation generated from the course details page.

Date	Location	Format	Fee
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