informatech

DATA MANAGEMENT AND BUSINESS INTELLIGENCE | DMBI-019

Business Intelligence and Data Visualisation

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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.

Professional Problems This Course Is Designed to Solve

• Fragmented and unreliable business data — combining information from spreadsheets, databases, and operational systems into usable analytical datasets.

• Poorly defined KPIs — translating business objectives into measurable indicators with clear definitions, ownership, targets, and calculation logic.

• Weak data models — preventing inaccurate reporting caused by incorrect relationships, inconsistent dimensions, and poorly structured datasets.

• Overloaded dashboards — replacing confusing charts and excessive metrics with focused visualisations designed around actual management decisions.

• Slow reporting processes — reducing repetitive manual reporting through reusable queries, data models, refresh workflows, and self-service BI.

• Insights without action — moving beyond descriptive reporting to identify drivers, exceptions, trends, and business implications.

• Governance and trust issues — improving data quality, security, metric consistency, lineage, and responsible access to business information.

Course Methodology

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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

By the end of this course, participants will be able to:

- 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
- Apply data visualisation principles to communicate information clearly
- Analyze trends, variances, exceptions, and business performance drivers
- Present analytical findings through effective data storytelling
- Apply data quality, security, and governance principles to BI solutions

Target Audience

This course is suitable for:

- Business intelligence analysts
- Data analysts and reporting specialists
- Business analysts

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Target Audience

- MIS and performance reporting professionals
- Finance and management accounting professionals
- Planning and strategy professionals
- Operations and commercial analysts
- Managers responsible for dashboards, KPIs, and business performance

Target Competencies

Participants will develop competencies in:

- Business intelligence analysis
- Data preparation and transformation
- Data modelling
- KPI development
- Power BI reporting
- DAX calculations
- Data visualisation
- Dashboard design
- Business performance analysis
- Data storytelling and decision support

Course outline

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

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Course outline

• 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

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

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• 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

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
Dates on request	Venue on request	Classroom	**Contact us**

Live online option	Online delivery is available at €1,850.-.