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Data Analysis Fundamentals for Business Professionals

Transforming Raw Data into Actionable Business Insights with Excel and Modern Analytics

FA-0151

Data & Analytics

Introduction

Data has become one of the most valuable operational assets within modern organisations. Businesses increasingly rely on data-driven insights to support decision-making, monitor performance, improve efficiency, and identify opportunities for growth. Yet many professionals work with data daily without fully understanding how to structure, clean, analyse, and interpret information effectively. Excel remains one of the most widely used analytical tools in enterprise environments, making foundational data analysis skills highly valuable across virtually every industry sector.

This course provides practical, business-oriented training in data cleaning, preparation, structuring, analysis, and reporting using Microsoft Excel. Participants will learn how to organise datasets, apply analytical formulas, generate summaries, and produce meaningful insights through PivotTables and reporting workflows. The programme emphasises real-world operational data handling practices and business analysis scenarios rather than academic statistical theory. The instructor brings over 30 years of industry experience and integrates enterprise reporting methodologies, operational data workflows, and practical analytical techniques used in modern business environments. Current workplace trends involving AI-assisted analysis, intelligent reporting, and modern Excel productivity enhancements are also incorporated into the course delivery.

Learning outcomes

Participants will be able to:

- Understand foundational concepts in business data analysis

- Clean and prepare datasets for analysis using Excel
- Structure and organise data for reporting and operational insights
- Apply common analytical formulas and functions
- Create summaries and reports using PivotTables
- Identify patterns, trends, and operational insights from datasets
- Improve data accuracy and reporting consistency
- Develop efficient spreadsheet workflows for business analysis
- Understand practical data governance and quality considerations
- Apply analytical thinking to workplace decision-making

Prerequisites

- Basic computer literacy
- Familiarity with Microsoft Excel basics
- Understanding of spreadsheets and tabular data
- Laptop with Microsoft Excel installed
- Basic arithmetic and logical reasoning skills

Training outline

1. Introduction to Business Data Analysis

Understanding data in modern organisations

1. Data-driven decision making
2. Operational reporting concepts
3. Business intelligence fundamentals
4. Data lifecycle awareness

Foundations of Data Analysis

1. Structured versus unstructured data
2. Data quality concepts
3. Accuracy and consistency considerations
4. Common business data sources
5. Analytical thinking fundamentals

Excel as a Business Analysis Tool

1. Excel environment overview
2. Spreadsheet architecture
3. Data handling capabilities
4. Business reporting workflows
5. Modern Excel productivity features

2. Data Cleaning and Preparation

Data Quality Management

1. Identifying incomplete datasets
2. Handling duplicates
3. Managing inconsistent values
4. Formatting standardisation
5. Error identification workflows

Structuring Datasets

1. Organising rows and columns
2. Creating tabular data structures
3. Naming conventions
4. Data categorisation methods
5. Preparing data for analysis

Data Validation Techniques

1. Validation rules
2. Controlled data entry
3. Preventing input errors
4. Data integrity management
5. Spreadsheet governance basics

3. Excel Formulas and Analytical Functions

Formula Fundamentals

1. Formula syntax
2. Relative and absolute references
3. Nested formulas
4. Formula auditing
5. Error handling

Logical and Conditional Functions

1. IF functions
2. Nested IF structures
3. Logical operators
4. Conditional evaluation
5. Decision-support formulas

Aggregation and Counting Functions

1. SUMIF functions
2. COUNTIF functions
3. Conditional aggregation
4. Data summarisation workflows
5. Category-based analysis

Data Lookup and Reference Concepts

1. Lookup methodologies
2. Reference structures
3. Cross-sheet analysis
4. Data linking principles
5. Reporting efficiency techniques

4. Data Analysis and Reporting

Sorting and Filtering Techniques

1. Data filtering workflows
2. Multi-condition filtering
3. Sorting methodologies
4. Structured analysis preparation
5. Data segmentation

PivotTables and Data Summarisation

1. PivotTable architecture
2. Data aggregation workflows
3. Grouping and categorisation
4. Summary reporting
5. Dynamic analysis techniques

Data Visualisation Fundamentals

1. Chart selection concepts
2. Trend representation
3. Reporting dashboards
4. Visual storytelling principles
5. Data presentation workflows

5. Business Insight Development

Interpreting Analytical Results

1. Identifying trends
2. Variance analysis
3. Operational insight generation
4. Business performance interpretation
5. Decision-support reporting

Reporting Best Practices

1. Report structuring
2. Executive summary concepts
3. Stakeholder-oriented reporting
4. Information clarity principles
5. Reporting consistency standards

Analytical Productivity Techniques

1. Efficient spreadsheet workflows
2. Template standardisation
3. Reporting automation awareness
4. AI-assisted analysis trends
5. Operational productivity enhancement

6. Data Governance and Operational Best Practices

Data Accuracy and Integrity

1. Governance principles
2. Data handling responsibilities
3. Spreadsheet risk awareness
4. Version management concepts
5. Audit readiness considerations

Operational Troubleshooting

1. Common spreadsheet errors
2. Formula debugging
3. Data inconsistency resolution
4. Reporting issue management
5. Recovery workflows

Enterprise Reporting Practices

1. Collaborative spreadsheet usage

2. Departmental reporting structures
3. Data sharing considerations
4. Secure information handling
5. Scalable reporting methodologies

Disclaimer

The above outlines are intended to serve as structured training guidelines and may be adjusted, refined, expanded, or reorganised by the trainer based on participant profiles, organisational requirements, operational constraints, technology updates, delivery timelines, or evolving industry practices. The trainer reserves the right to modify the sequence, depth, emphasis, or coverage of topics where necessary to ensure optimal learning outcomes and relevance to current market and business conditions without prior notice.

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