



Consulting and Training | Reach New Heights

Course Name

AI Applications in Business Data Analysis

Sector Name

Digital Transformation and Innovation

Document Type

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AI Applications in Business Data Analysis

Course Introduction

Organizations increasingly depend on data to understand performance, identify opportunities, manage risks, and make informed decisions. Artificial intelligence can support this process by accelerating data preparation, identifying patterns, producing forecasts, and presenting complex findings clearly and accessibly.

This program introduces employees to the practical applications of artificial intelligence in business data analysis without requiring advanced technical, programming, or statistical knowledge. It focuses on how employees can use accessible data and AI tools responsibly to improve reporting, problem-solving, planning, and everyday decision-making.

Participants will explore realistic business examples from operations, finance, human resources, customer service, marketing, project management, and organizational performance.

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AI Applications in Business Data Analysis

Target Audience

- ✓ Employees who prepare or use reports and performance data
- ✓ Business and administrative professionals
- ✓ Managers and team leaders
- ✓ Strategy and performance teams
- ✓ Finance and budgeting professionals
- ✓ Human resources and talent teams
- ✓ Operations and customer service employees
- ✓ Marketing and sales professionals
- ✓ Project and program teams
- ✓ Digital transformation and innovation employees

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AI Applications in Business Data Analysis

Learning Objectives

- ✓ Understand the role of data analysis and artificial intelligence in modern organizations.
- ✓ Translate workplace challenges into clear analytical questions.
- ✓ Recognize different types and sources of business data.
- ✓ Prepare, organize, and validate data for reliable analysis.
- ✓ Use AI tools to support data cleaning, analysis, and interpretation.
- ✓ Use Microsoft Excel and Power Query to prepare and analyze business data.
- ✓ Develop interactive reports and dashboards using Microsoft Power BI.
- ✓ Identify trends, patterns, relationships, and unusual results.
- ✓ Understand the basic applications of predictive analytics and forecasting.
- ✓ Use generative AI to support formulas, summaries, reports, and analytical tasks.
- ✓ Present analytical findings through clear visualizations and management reports.
- ✓ Evaluate AI-generated outputs for accuracy, relevance, bias, and reliability.
- ✓ Apply data privacy, security, and responsible AI principles.
- ✓ Convert analytical findings into practical business recommendations.

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AI Applications in Business Data Analysis

Course Outline

✓ DAY 01

Business Data Analysis with Excel and Generative AI

Applications: Microsoft Excel and Microsoft Copilot/ChatGPT

Understanding Business Data

- ✓ The role of data in organizational performance and decision-making
- ✓ Differences between data, information, insight, and business action
- ✓ Common sources of organizational data
- ✓ Structured, semi-structured, and unstructured data
- ✓ Quantitative and qualitative business information
- ✓ Understanding data quality, relevance, accuracy, and reliability

Business Analytics Fundamentals

- ✓ Descriptive analytics: What happened?
- ✓ Diagnostic analytics: Why did it happen?
- ✓ Predictive analytics: What may happen next?
- ✓ Prescriptive analytics: What action should be taken?
- ✓ Selecting the appropriate analytical approach for a business question
- ✓ Translating workplace challenges into clear analytical questions
- ✓ Defining objectives, KPIs, stakeholders, and expected outcomes

Organizing and Analysing Data in Excel

- ✓ Structuring business data correctly in Excel
- ✓ Using tables, sorting, filtering, and conditional formatting
- ✓ Applying essential formulas for business analysis
- ✓ Using logical, lookup, date, and summary functions
- ✓ Creating PivotTables and PivotCharts
- ✓ Comparing performance across periods, teams, and departments
- ✓ Using Excel's Analyze Data functionality
- ✓ Recognizing trends, patterns, and performance exceptions

Generative AI for Excel Analysis

- ✓ Writing effective prompts for analytical tasks
- ✓ Asking AI to generate and explain Excel formulas
- ✓ Using AI to suggest suitable analytical approaches
- ✓ Asking AI to interpret tables and analytical results
- ✓ Refining prompts to improve the quality of responses
- ✓ Validating AI-generated formulas, calculations, and conclusions

Business Examples

- ✓ Departmental performance analysis
- ✓ Budget versus actual expenditure
- ✓ Employee attendance and productivity
- ✓ Customer requests and service performance

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AI Applications in Business Data Analysis

Course Outline

✓ DAY 02

Data Cleaning and Preparation with Power Query

Applications: Excel Power Query and Microsoft Copilot/ChatGPT

Importance of Data Preparation

- ✓ Why data quality affects analytical results
- ✓ Common data-quality issues in organizational reports
- ✓ Identifying missing, duplicated, inconsistent, and outdated records
- ✓ Recognizing incorrect data types and formatting issues
- ✓ Understanding the risks of analyzing unreliable information
- ✓ Establishing validation checks before beginning an analysis

Importing Business Data

- ✓ Importing information from Excel workbooks
- ✓ Importing CSV files and structured data
- ✓ Working with multiple worksheets and files
- ✓ Understanding columns, records, headers, and data types
- ✓ Selecting relevant information for analysis
- ✓ Removing unnecessary rows and columns

Cleaning and Transforming Data with Power Query

- ✓ Correcting data types and formatting problems
- ✓ Removing duplicate and incomplete records
- ✓ Handling missing values
- ✓ Standardizing names, dates, departments, and categories
- ✓ Splitting, merging, and transforming columns
- ✓ Replacing inconsistent values
- ✓ Combining and appending multiple datasets
- ✓ Consolidating monthly or departmental files
- ✓ Creating repeatable data-cleaning processes
- ✓ Refreshing reports when new data becomes available

AI-Assisted Data Preparation

- ✓ Using AI to suggest data-quality rules
- ✓ Asking AI to explain Power Query transformation steps
- ✓ Generating instructions for cleaning common data issues
- ✓ Categorizing and organizing unstructured information
- ✓ Identifying possible anomalies and inconsistencies
- ✓ Checking AI recommendations before applying them
- ✓ Protecting confidential information when using AI tools

Business Examples

- ✓ Combining monthly performance reports
- ✓ Cleaning employee or customer records
- ✓ Consolidating data from different departments
- ✓ Preparing operational data for management reporting

AI Applications in Business Data Analysis

Course Outline

✓ DAY 03

Interactive Analysis and Dashboards with Power BI

Applications: Power BI Desktop and Power BI AI Visuals

Introduction to Power BI

- ✓ Understanding the Power BI environment
- ✓ Importing prepared business data
- ✓ Reviewing and transforming data
- ✓ Understanding relationships between datasets
- ✓ Creating a simple and reliable data model
- ✓ Differentiating dimensions, measures, and indicators

Business Measures and KPIs

- ✓ Creating basic calculated measures without advanced coding
- ✓ Defining organizational KPIs
- ✓ Comparing actual results against targets
- ✓ Calculating totals, averages, percentages, and variances
- ✓ Comparing performance over different periods
- ✓ Applying filters and business categories

- ✓ Presenting performance by department, location, or service

Building Interactive Reports

- ✓ Selecting suitable visualizations for different analytical questions
- ✓ Creating charts, tables, cards, and KPI visuals
- ✓ Applying filters, slicers, and drill-down functionality
- ✓ Designing clear and user-friendly report pages
- ✓ Highlighting risks, exceptions, and opportunities
- ✓ Avoiding misleading charts and unnecessary visual elements
- ✓ Structuring dashboards for management and operational users

Using Power BI AI Capabilities

- ✓ Using the Decomposition Tree for root-cause exploration
- ✓ Using Key Influencers to identify factors affecting outcomes
- ✓ Detecting unusual results and performance exceptions
- ✓ Exploring data through natural-language questions
- ✓ Interpreting AI-supported findings
- ✓ Validating suggested relationships against business knowledge

Business Examples

- ✓ Organizational performance dashboard
- ✓ Customer satisfaction analysis
- ✓ Workforce and HR dashboard
- ✓ Operational efficiency monitoring

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AI Applications in Business Data Analysis

Course Outline

✓ DAY 04

Forecasting, Insight Generation, and AI-Assisted Reporting

Applications: Microsoft Excel, Power BI, and Microsoft Copilot/ChatGPT

Understanding Business Forecasting

- ✓ The purpose of forecasting in business planning
- ✓ Identifying trends, recurring patterns, and seasonality
- ✓ Selecting an appropriate forecasting period
- ✓ Understanding historical data and external factors
- ✓ Differentiating forecasts from guaranteed outcomes
- ✓ Recognizing uncertainty and limitations

Forecasting with Excel and Power BI

- ✓ Creating forecasts using historical business data
- ✓ Applying forecasting features in Excel
- ✓ Applying forecasting features in Power BI
- ✓ Identifying anomalies and unexpected changes
- ✓ Comparing forecasted and actual results
- ✓ Developing best-case, expected, and worst-case scenarios
- ✓ Updating forecasts when new information becomes available

- ✓ Recognizing when a forecast should not be used

AI-Assisted Insight Generation

- ✓ Using AI to summarize analytical findings
- ✓ Asking AI to identify possible trends and relationships
- ✓ Converting technical results into clear business language
- ✓ Exploring alternative explanations for performance results
- ✓ Distinguishing evidence from assumptions
- ✓ Checking AI-generated insights against source data
- ✓ Identifying unsupported claims or recommendations

Data Visualization and Storytelling

- ✓ Selecting the right chart for the intended message
- ✓ Presenting trends, comparisons, composition, and relationships
- ✓ Structuring an analytical story for decision-makers
- ✓ Explaining the business context and key findings
- ✓ Communicating risks, opportunities, and implications
- ✓ Supporting recommendations with evidence

AI-Assisted Management Reporting

- ✓ Drafting executive summaries using generative AI
- ✓ Converting dashboard findings into structured reports
- ✓ Adapting messages for management and operational audiences
- ✓ Developing evidence-based recommendations
- ✓ Reviewing AI-generated reports for errors and unsupported claims
- ✓ Maintaining human accountability for the final report

Business Examples

- ✓ Workload and demand forecasting
- ✓ Budget and expenditure forecasting
- ✓ Customer service volume forecasting

✓ Workforce and resource planning

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AI Applications in Business Data Analysis

Course Outline

✓ DAY 05

Responsible AI and Workplace Application

Applications: Microsoft Copilot/ChatGPT, Excel, and Power BI

Data Privacy and Responsible AI

- ✓ Protecting confidential, personal, and sensitive information
- ✓ Understanding which information should not be entered into public AI tools
- ✓ Applying organizational data-security requirements
- ✓ Identifying hallucinations, bias, and inaccurate outputs
- ✓ Recognizing unsupported AI-generated conclusions
- ✓ Maintaining transparency when AI supports analysis

Validating AI-Generated Outputs

- ✓ Checking AI-generated formulas and calculations
- ✓ Comparing summaries with the original data
- ✓ Reviewing assumptions and limitations
- ✓ Applying professional judgment before accepting recommendations
- ✓ Maintaining human accountability for AI-supported decisions
- ✓ Documenting appropriate review and approval steps

Applying AI in the Workplace

- ✓ Selecting appropriate AI applications for different business tasks
- ✓ Recognizing tasks that require human expertise and judgment
- ✓ Identifying a relevant use case for each participant's department
- ✓ Defining the business need and expected benefit
- ✓ Identifying the data required for the selected use case
- ✓ Considering potential privacy, accuracy, and governance risks
- ✓ Defining practical next steps for responsible application

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Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
Aug. 23, 2027	Aug. 27, 2027	5 days	4250.00 \$	UAE , Dubai

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