informatech

DIGITAL INNOVATION AND TRANSFORMATION | COURSE

Power BI: Data Mining and Big Data Analytics

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Course content

Why Attend

Course Introduction

As businesses continue to produce vast amounts of data, the ability to turn this information into actionable insights has become a key competitive advantage.

Data mining and big data analytics provide organizations with the tools to identify patterns, forecast trends, and make data-driven decisions that fuel growth and efficiency.

This Power BI: Data Mining and Big Data Analytics course is designed to help professionals master the skills needed to leverage big data within Microsoft Power BI, one of the most powerful and accessible tools for business intelligence and data analysis.

Throughout the course, participants will learn how to import, process, and analyze large datasets, apply advanced data mining techniques, and visualize complex data to uncover key patterns and relationships. Additionally, the course covers how to integrate predictive analytics using AI-powered features in Power BI. With a focus on hands-on learning, this training is ideal for data analysts, business intelligence experts, and decision-makers looking to extract valuable insights from big data and apply them in practical business contexts.

By the end of the course, attendees will be equipped to tackle big data challenges, use advanced DAX functions for tailored analytics, and create visually impactful dashboards that communicate insights for strategic decision-making.

This course empowers participants to not only interpret large datasets but also to drive data-centric initiatives that turn data into a valuable asset for their organizations.

The training course will feature

- An overview of data mining and big data analytics in today's data-driven world
- Understanding how Power BI can be used to analyze large datasets
- Clear course objectives and expected outcomes for participants

Course Methodology

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Course Methodology

This training course will utilise a variety of proven adult learning techniques to ensure maximum understanding, comprehension and retention of the information presented.

This includes theoretical presentation of the concepts, but the emphasis will be on the exercises performed by the delegates with the guidance of the instructor. The delegates will be "learning by doing" as the training course is designed for them to use the software on the real problems and real data applying each of the techniques themselves. Delivery will be by presentation, group syndicate investigations, training e-manual and interactive seminars, as well as group discussion on the results of the exercises.

Who should Attend?

This training course is suitable to a wide range of professionals but will greatly benefit:

• Data analysts, business intelligence professionals, and IT specialists interested in big data analysis

• Business managers and decision-makers seeking to leverage big data insights for strategic planning

• Professionals in marketing, finance, operations, and research fields aiming to apply data mining techniques

Course Objectives

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

• Equip participants with skills to process, visualize, and analyze large datasets using Power BI

• Understand data mining techniques and how they can be applied in Power BI

• Teach best practices for handling big data, from importing to transforming and visualizing

• Enable participants to use advanced analytics features, including predictive analytics and clustering

• Develop the ability to identify patterns, trends, and insights from large datasets

Course outline

Day One: Introduction to Big Data and Power BI Essentials

Course content

Course outline

- Understanding big data and its applications in business
- Overview of Power BI and its relevance to big data analytics
- Connecting to large data sources and managing data ingestion (SQL, Hadoop, Azure, etc.)
- Introduction to Power Query for data transformation and cleansing
- Hands-on: Loading and preparing a large dataset in Power BI

Day Two: Data Modeling and Advanced Data Mining Techniques

- Building efficient data models to handle large datasets
- Introduction to data mining concepts: classification, clustering, and association
- Using DAX (Data Analysis Expressions) for calculated fields and complex measures
- Applying data mining techniques with DAX in Power BI
- Hands-on: Creating data models and applying DAX for data mining

Day Three: Data Visualization and Identifying Patterns in Big Data

- Exploring visualizations optimized for big data in Power BI
- Using Power BI visuals to identify trends, patterns, and anomalies
- Interactive dashboards and drill-down features for big data insights
- Advanced visual techniques for clustering, classification, and segmentation
- Hands-on: Building a big data dashboard with advanced visualizations

Day Four: Advanced Analytics and AI Integration in Power BI

- Introduction to AI features in Power BI for predictive analysis and forecasting
- Leveraging the Key Influencers visual to detect trends and factors impacting outcomes
- Using Power BI's Q&A and AI-driven clustering to enhance data mining

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• Applying machine learning models and integrating Azure Machine Learning with Power BI

• Hands-on: Implementing AI-powered analytics and predictive insights in Power BI

Day Five: Optimizing, Publishing, and Sharing Big Data Insights

• Optimizing big data reports and dashboards for performance and accessibility

• Publishing and securely sharing Power BI dashboards with stakeholders

• Integrating Power BI reports with Microsoft Teams and SharePoint for collaboration

• Case studies: Real-world applications of big data analytics using Power BI

• Final Hands-on Project: Creating and presenting a comprehensive big data analytics dashboard

Seminar dates

Available seminar dates

Live dates and pricing for Power BI: Data Mining and Big Data Analytics generated from the course details page.

Date	Location	Format	Fee
3 - 7 August 2026	London - U.K	Classroom	**€4,200.-**
7 - 11 September 2026	Istanbul - Turkey	Classroom	**€2,850.-**
12 - 16 October 2026	Vienna - Austria	Classroom	**€4,250.-**
9 - 13 November 2026	Barcelona - Spain	Classroom	**€3,850.-**
14 - 18 December 2026	Paris - France	Classroom	**€4,500.-**
3 - 7 August 2026	Paris - France	Classroom	**€4,500.-**
7 - 11 September 2026	Frankfurt - Germany	Classroom	**€3,250.-**
12 - 16 October 2026	Barcelona - Spain	Classroom	**€3,850.-**
9 - 13 November 2026	Frankfurt - Germany	Classroom	**€3,250.-**
14 - 18 December 2026	Rome - Italy	Classroom	**€4,250.-**

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