

Power BI: Data Mining and Big Data Analytics

Course code: IMCS-003



SPARK TRAINING

Professional training courses for leaders, specialists, and organizations seeking practical capability development.

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— Workshop Overview

As businesses increasingly generate vast amounts of data, the ability to transform this information into actionable insights has become a key competitive advantage. Data mining and big data analytics offer organizations the ability to uncover hidden patterns, forecast future trends, and make informed decisions that drive growth and operational efficiency. The Power BI: Data Mining and Big Data Analytics training course is designed to equip professionals with the skills needed to leverage the full potential of big data using Microsoft Power BI, one of the most powerful and intuitive tools for business intelligence and data analysis. This Course covers everything from importing and processing large datasets to applying advanced data mining techniques within Power BI. Participants will learn how to model and visualize complex data, identify significant patterns and relationships, and integrate predictive analytics using AI features. With a strong emphasis on practical application, the course is ideal for data analysts, business intelligence professionals, and decision-makers looking to extract valuable insights from big data and apply them to real-world challenges. By the end of the course, attendees will have the expertise to tackle big data challenges, utilize advanced DAX functions for customized analytics, and design visually compelling dashboards that provide clear insights for strategic decision-making. This training enables participants to not only analyze large datasets but also to drive data-driven initiatives within their organizations, turning data into a valuable competitive asset.

Why Attend

This course uses instructor-led sessions, guided discussion, and practical exercises built around Day One: Introduction to Big Data and Power BI Essentials, Day Two: Data Modeling and Advanced Data Mining Techniques, Day Three: Data Visualization and Identifying Patterns in Big Data, and day four: advanced analytics and ai

Who Should Attend

Professionals responsible for it management and cyber security decisions and reporting.
Managers and specialists who need practical capability in day one: introduction to big data and power bi essentials.
Team members involved in day two: data modeling and advanced data mining techniques and related

— Learning Objectives

- 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

- Building efficient data models to handle large datasets

Course Outline

**DAY
1**

Day One: Introduction to Big Data and Power BI Essentials

- 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.)
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**DAY
2**

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
3**

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
4**

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
- 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
5**

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

— Upcoming Classroom Dates

Schedule available on request. Contact SPARK Training for current dates, locations, and fees.

— Certificate and Registration

Participants who attend and complete the full programme receive a SPARK Training Certificate of Completion. For registration, in-house delivery, or availability questions, contact info@sparktraining.eu or +31 85 115 0004.