Scandinavian Academy

for Training and Development AB

Course: Power BI: Data Mining and Big Data Analytics

Code	City	Hotel	Start	End	Price	Language - Hours
869	Frankfurt (Germany)	Hotel Meeting	2025-09-22	2025-09-26	5450 €	En - 25

Introduction :

As businesses continue to generate massive volumes of data, the ability to transform this information into actionable insights has become a critical advantage. Data mining and big data analytics offer organizations the opportunity to uncover patterns, predict future trends, and make informed decisions that drive growth and efficiency. This Power BI: Data Mining and Big Data Analytics training course is designed to equip professionals with the skills and knowledge to harness the full potential of big data within Microsoft Power BI, one of the most powerful and user-friendly tools available for business intelligence and data analysis. This course covers everything from importing and processing vast datasets to applying advanced data mining techniques within Power BI. Participants will learn how to model and visualize complex data, identify key patterns and relationships, and even integrate predictive analytics through AI features. With a strong focus on practical applications, this course is ideal for data analysts, business intelligence professionals, and decision-makers who want to unlock insights from big data and apply them to real-world scenarios. By the end of the course, attendees will have the expertise to handle big data challenges, leverage advanced DAX functions for customized analytics, and create visually compelling dashboards that present clear insights for strategic decision-making. This training empowers participants to not only interpret large datasets but also to drive data-informed initiatives within their organizations, ultimately turning data into a competitive asset.

This training course will feature:

- Overview of data mining and big data analytics in today's data-centric world

- Understanding the role of Power BI in analyzing large datasets
- Key objectives of the course and expected outcomes for participants

General Objective

This course aims to empower participants with the knowledge and skills necessary to effectively analyze and extract insights from large datasets using Power BI. It enables them to apply data mining techniques, optimize decision-making processes, and utilize AI-driven analytics to drive strategic growth and efficiency in their organizations.

Target Audience

- Data analysts and business intelligence professionals
- IT and data science professionals looking to enhance their Power BI capabilities
- Business professionals and decision-makers who rely on data-driven insights
- Financial analysts, marketing professionals, and operational managers who work with large datasets
- Professionals responsible for reporting, performance monitoring, and predictive analysis

Course Objective

- 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

- 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
- 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

The Scandinavian Academy for Training and Development adopts the latest scientific and professional methodologies in training and human resource development, aiming to enhance the efficiency of individuals and organizations. Training programs are delivered through a comprehensive approach that includes:

- Theoretical lectures supported by PowerPoint presentations and visual materials (videos and short films).
- Scientific evaluation of participants before and after the program to measure progress and knowledge acquisition.
- Brainstorming sessions and practical role-playing to simulate real-life scenarios.
- Case studies tailored to align with the training content and participants work nature.
- Assessment tests conducted at the end of the program to evaluate the achievement of training objectives.

Each participant receives the training material (both theoretical and practical) in printed form and saved on a CD or flash drive. Detailed reports, including attendance records, final results, and overall program evaluations, are also provided.

Training materials are prepared professionally by a team of experts and specialists in various fields. At the end of the program, participants are awarded a professional attendance certificate, signed and accredited by the Scandinavian Academy for Training and Development.

Program Timings:

- 9:00 AM to 2:00 PM in Arab cities.
- 10:00 AM to 3:00 PM in European and Asian cities.

The program includes:

- A daily buffet provided during the sessions to ensure participants comfort.