

Design and Manage Analytics Solutions Using Power BI (PL-300T00)

Duration: 3 days

Audience: Analyste de données

Who is this training for?

The audience for this course is data professionals and business intelligence professionals who want to learn how to accurately perform data analysis using Power BI. This course is also targeted at those individuals who develop reports that visualize data from the data platform technologies that exist both in the cloud and on-premises.

Training objectives

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

- Describe the role of a Data Analyst and explain how Power BI supports data-driven decision-making through interactive reports and dashboards.
- Use Power BI and Microsoft Fabric capabilities to explore, analyze, and generate insights from business data.
- Connect to, extract, and prepare data from multiple data sources using Power Query and Power BI.
- Clean, transform, and optimize data to ensure it is ready for accurate analysis and reporting.
- Design and configure semantic data models that support accurate business analysis and reporting.
- Create and apply DAX calculations to enhance analytical capabilities and deliver deeper business insights.
- Design visually effective and user-friendly Power BI reports that communicate insights clearly to stakeholders.
- Apply data visualization and analytics techniques to identify trends and support informed decision-making.
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Manage Power BI workspaces, semantic models, and dashboards to support collaboration and content distribution.

- Implement Power BI security features, including Row-Level Security (RLS) and Object-Level Security (OLS), to protect sensitive data

Summary

This course covers the various methods and best practices that are in line with business and technical requirements for modeling, visualizing, and analyzing data with Power BI. The course will show how to access and process data from a range of data sources including both relational and non-relational sources. Finally, this course will also discuss how to manage and deploy reports and dashboards for sharing and content distribution.

Course outline

Learning Path 1: Get Started with Microsoft Data Analytics

- Module 1: Discover Data Analysis
- Module 2: Get Started Building with Power BI
- Module 3: Introduction to End-to-End Analytics Using Microsoft Fabric
- Module 4: Get Started with Copilot in Power BI

Learning Path 2: Prepare Data for Analysis with Power BI

- Module 1: Get Data in Power BI
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- Module 2: Clean, Transform, and Load Data in Power BI
- Module 3: Choose a Power BI Model Framework

Learning Path 3: Model Data with Power BI

- Module 1: Configure a Semantic Model
- Module 2: Write DAX Formulas for Semantic Models
- Module 3: Create DAX Calculations in Semantic Models
- Module 4: Modify DAX Filter Context in Semantic Models
- Module 5: Use DAX Time Intelligence Functions in Semantic Models
- Module 6: Create Visual Calculations in Power BI Desktop

Learning Path 4: Design Effective Reports in Power BI

- Module 1: Scope Report Design Requirements
- Module 2: Design Power BI Reports
- Module 3: Enhance Power BI Report Designs for the User Experience
- Module 4: Perform Analytics in Power BI

Learning Path 5: Manage and Secure Power BI

- Module 1: Manage Workspaces in Power BI Service
- Module 2: Manage Semantic Models in Power BI
- Module 3: Choose a Content Distribution Method
- Module 4: Create Dashboards in Power BI
- Module 5: Secure Data Access in Power BI

Approach and methodology

Practical and structured approach combining focused theory and guided workshops. Participants gradually discover how to design and manage analytics solutions with Power BI through hands-on exercises inspired by real-world business scenarios, promoting immediate application of the learnings.

They learn how to prepare and model data, create impactful visualizations, develop interactive reports and dashboards, and apply analytical techniques to support data-driven decision-making.

Led by a Microsoft Certified Trainer (MCT), the training emphasizes interactivity and the development of practical, transferable skills for effectively using Power BI in a professional environment.

Prerequisites

Students should have the following knowledge and experience before attending this course:

- A basic understanding of core data concepts, including tables, relationships, and common data structures.
- Experience working with data in Microsoft Excel or similar data analysis tools.
- Familiarity with data analytics and reporting concepts.
- A working knowledge of business processes and key performance indicators (KPIs).
- Basic skills in querying and transforming data from different sources.
- An understanding of cloud-based services and common business applications.
- Experience using Microsoft Power BI at a foundational level is recommended.
- The ability to navigate Windows-based applications and manage files and folders

Recommendations

- Have a foundation in data analysis (Excel or equivalent)
- Understand the basics of data (tables, relationships, filters)
- Have a first experience with Power BI (asset)
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Be comfortable with data manipulation Interest in data visualization and interpretation

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