

# PL-300T00

## Microsoft Power BI Data Analyst

This course will discuss 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 also show how to access and process data from a range of data sources including both relational and non-relational data. This course will also explore how to implement proper security standards and policies across the Power BI spectrum including datasets and groups. The course will also discuss how to manage and deploy reports and dashboards for sharing and content distribution. Finally, this course will show how to build paginated reports within the Power BI service and publish them to a workspace for inclusion within Power BI.

### Course Contents

- Module 1: Get Started with Microsoft Data Analytics
- Module 2: Prepare Data in Power BI
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- Module 7: Create Reports in Power BI
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- Module 11: Manage Datasets in Power BI
- Module 12: Create and Manage Workspaces in Power BI

**E-Book** The original Microsoft courseware is made available to you online.

### Target Group

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

### Prerequisites

Successful Data Analysts start this role with experience of working with data in the cloud.

Specifically:

- Understanding core data concepts.
- Knowledge of working with relational data in the cloud.
- Knowledge of working with non-relational data in the cloud.
- Knowledge of data analysis and visualization concepts.

You can gain the prerequisites and a better understanding of working with data in Azure by completing Microsoft Azure Data Fundamentals before taking this course.

Status 04/25/2024

### This Course in the Web



You can find the up-to-date information and options for ordering under the following link:

[www.experteach-training.com/go/ML30](http://www.experteach-training.com/go/ML30)

### Reservation

On our Website, you can reserve a course seat for 7 days free of charge and in a non-committal manner. This can also be done by phone under +49 6074/4868-0.

### Guaranteed Course Dates

To ensure reliable planning, we are continuously offering a wide range of guaranteed course dates.

### Your Tailor-Made Course!

We can precisely customize this course to your project and the corresponding requirements.

Training		Prices, excl. of V.A.T.
<b>Classes in Germany</b>	<b>3 Days</b>	<b>€ 1,595</b>
<b>Online Training</b>	<b>3 Days</b>	<b>€ 1,595</b>
<b>Date/course venue</b>	Course language German	
13/05-15/05/24	Online	30/09-02/10/24  Online
01/07-03/07/24	Online	04/11-06/11/24  Frankfurt
12/08-14/08/24	Online	04/11-06/11/24  Online
30/09-02/10/24	Frankfurt	

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### Module 1: Get Started with Microsoft Data Analytics

This module explores the different roles in the data space, outlines the important roles and responsibilities of a Data Analysts, and then explores the landscape of the Power BI portfolio.

Lessons  
Data Analytics and Microsoft  
Getting Started with Power BI

Lab : Getting Started in Power BI Desktop  
Getting Started

After completing this module, students will be able to:  
Explore the different roles in data  
Identify the tasks that are performed by a data analyst  
Describe the Power BI landscape of products and services  
Use the Power BI service

### Module 2: Prepare Data in Power BI

This module explores identifying and retrieving data from various data sources. You will also learn the options for connectivity and data storage and understand the difference and performance implications of connecting directly to data vs. importing it.

Lessons  
Get data from various data sources

Lab : Preparing Data in Power BI Desktop  
Prepare Data

After completing this module, students will be able to:  
Identify and retrieve data from different data sources  
Understand the connection methods and their performance implications  
Use Microsoft Dataverse  
Connect to a data flow

### Module 3: Clean, Transform, and Load Data in Power BI

This module teaches you the process of profiling and understanding the condition of the data. They will learn how to identify anomalies, look at the size and shape of their data, and perform the proper data cleaning and transforming steps to prepare the data for loading into the model.

Lessons  
Data shaping  
Enhance the data structure  
Data Profiling

Lab : Transforming and Loading Data in Power BI Desktop  
Loading Data

After completing this module, students will be able to:  
Apply data shape transformations  
Enhance the structure of the data  
Profile and examine the data

### Module 4: Design a Data Model in Power BI

This module teaches the fundamental concepts of designing and developing a data model for proper performance and scalability. This module will also help you understand and tackle many of the common data modeling issues, including relationships, security, and performance.

Lessons  
Introduction to data modeling  
Working with tables  
Dimensions and Hierarchies

Lab : Data Modeling in Power BI Desktop  
Create Model Relationships  
Configure Tables  
Review the model interface  
Create Quick Measures

Lab : Advanced Data Modeling in Power BI Desktop  
Configure many-to-many relationships  
Enforce row-level security

After completing this module, students will be able to:  
Understand the basics of data modeling  
Define relationships and their cardinality

Implement Dimensions and Hierarchies  
Create histograms and rankings

### Module 5: Create Model Calculations using DAX in Power BI

This module introduces you to the world of DAX and its true power for enhancing a model. You will learn about aggregations and the concepts of Measures, calculated columns and tables, and Time Intelligence functions to solve calculation and data analysis problems.

Lessons  
Introduction to DAX  
DAX context  
Advanced DAX

Lab : Advanced DAX in Power BI Desktop  
Use the CALCULATE() function to manipulate filter context  
Use Time Intelligence functions

Lab : Introduction to DAX in Power BI Desktop  
Create calculated tables  
Create calculated columns  
Create measures

After completing this module, students will be able to:  
Understand DAX  
Use DAX for simple formulas and expressions  
Create calculated tables and measures  
Build simple measures  
Work with Time Intelligence and Key Performance Indicators

### 6: Optimize Model Performance in Power BI

In this module you are introduced to steps, processes, concepts, and data modeling best practices necessary to optimize a data model for enterprise-level performance.

Lessons  
Optimize the model for performance  
Optimize DirectQuery Models  
Create and manage Aggregations

After completing this module, students will be able to:  
Understand the importance of variables  
Enhance the data model  
Optimize the storage model  
Implement aggregations

### Module 7: Create Reports in Power BI

This module introduces you to the fundamental concepts and principles of designing and building a report, including selecting the correct visuals, designing a page layout, and applying basic but critical functionality. The important topic of designing for accessibility is also covered.

Lessons  
Design a report  
Enhance the report

Lab : Designing a report in Power BI Desktop  
Create a live connection in Power BI Desktop  
Design a report  
Configure visual fields and format properties

Lab : Enhancing reports with interaction and formatting in Power BI Desktop  
Create and configure Sync Slicers  
Create a drillthrough page  
Apply conditional formatting  
Create and use Bookmarks

After completing this module, students will be able to:  
Design a report page layout  
Select and add effective visualizations  
Add basic report functionality  
Add report navigation and interactions  
Improve report performance  
Design for accessibility

### Module 8: Create Dashboards in Power BI

In this module you will learn how to tell a compelling story through the use of dashboards and the different navigation tools available to provide navigation. You will be introduced to features and functionality and how to enhance dashboards for usability and insights.

Lessons  
Create a Dashboard  
Real-time Dashboards  
Enhance a Dashboard

Lab : Creating a Dashboard in Power BI Service  
Create a Dashboard  
Pin visuals to a Dashboard  
Configure a Dashboard tile alert  
Use Q&A to create a dashboard tile

After completing this module, students will be able to:  
Create a Dashboard  
Understand real-time Dashboards  
Enhance Dashboard usability

### Module 9: Enhance reports for usability and storytelling in Power BI

This module will teach you about paginated reports, including what they are how they fit into Power BI. You will then learn how to build and publish a report.

Lessons  
Paginated report overview  
Create Paginated reports

Lab : Creating a Paginated report in Power BI Desktop  
Use Power BI Report Builder  
Design a multi-page report layout  
Define a data source  
Define a dataset  
Create a report parameter  
Export a report to PDF

After completing this module, students will be able to:  
Explain paginated reports  
Create a paginated report  
Create and configure a data source and dataset  
Work with charts and tables  
Publish a report

### Module 10: Perform Advanced Analytics in Power BI

This module helps you apply additional features to enhance the report for analytical insights in the data, equipping you with the steps to use the report for actual data analysis. You will also perform advanced analytics using AI visuals on the report for even deeper and meaningful data insights.

Lessons  
Advanced Analytics  
Data Insights through AI visuals

Lab : Data Analysis in Power BI Desktop  
Create animated scatter charts  
Use the visual to forecast values  
Work with Decomposition Tree visual  
Work with the Key Influencers visual

After completing this module, students will be able to:  
Explore statistical summary  
Use the Analyze feature  
Identify outliers in data  
Conduct time-series analysis  
Use the AI visuals  
Use the Advanced Analytics custom visual

### Module 11: Manage Datasets in Power BI

In this module you will learn the concepts of managing Power BI assets, including datasets and workspaces. You will also publish datasets to the Power BI service, then refresh and secure them.

Lessons  
Parameters  
Datasets  
Security in Power BI

After completing this module, students will be able to:  
Create and work with parameters  
Manage datasets  
Configure dataset refresh  
Troubleshoot gateway connectivity

