

Database Management & Data Analysis with MySQL/SQL

Relational databases, MySQL, SQL Queries, data management, Business Intelligence, Structured Query Language, data analysis. Database management & data analysis with MySQL/SQL

Online bootcamp with mentor and Bildungsgutschein





What to expect

In the **Business Intelligence with Power BI & Tableau** course, you'll build a strong foundation in business intelligence, data analysis, and data visualization. You'll start with Power BI training, covering the entire ecosystem from data loading and modeling to creating **dashboards** with custom DAX expressions. Step by step, you'll gain the skills to **design reports** that support data-driven decision-making in **real business contexts**.

In the final part, you'll master **Tableau's visualization and dashboarding** capabilities, learning how to create interactive, professional BI dashboards that transform raw data into actionable insights. Throughout theBI & Tableau program, you'll complete hands-on BI projects that simulate real-world business scenarios, ensuring you can apply your skills immediately in your job or career..

What will you learn

After completing this BI & Tableau bootcamp, you will have the skills to:

- understand the principles of business intelligence, data structures, and data architecture
- navigate and use Power BI Desktop to create professional data models and visual reports
- import, process, and relate datasets within Power BI for accurate reporting
- design and customize interactive visualizations and dashboards
- apply DAX formulas for calculated measures, KPIs, and advanced analytics
- use the M language for complex data transformation scenarios and automation
- understand Tableau's interface and its approach to data visualization
- build and customize dashboards for real business use cases using Tableau Desktop
- apply best practices in data storytelling across both Power BI and Tableau





Who should attend this course

- Aspiring business intelligence analysts or data analysts
- **Business analysts, data scientists**, and **IT specialists** seeking to enhance their BI and data reporting skills
- Managers and decision-makers looking to utilize business intelligence tools for data-driven insights
- Individuals interested in practical, real-world applications of Power BI and Tableau
- **Graduates and students**: Recent graduates or current students seeking to augment their academic qualifications with practical, industry-relevant skills
- **Professionals seeking career transition:** Professionals from diverse backgrounds looking to transition into data analytics for career growth and new opportunities
- **Entrepreneurs and small business owners:** Individuals involved in entrepreneurship or small business ownership who wish to harness the power of data for business insights
- Anyone Interested in data-driven Insights: Individuals curious about data analysis, regardless
 of their background, who want to understand and leverage data for personal or professional
 purposes.

What are the prerequisites for the data course?

This BI & Tableau course is suitable for beginners and intermediate learners interested in data analytics and business intelligence (BI). **No prior experience with Power BI or Tableau is required**. However, general computer skills and a basic understanding of structured data (such as Excel spreadsheets) will be helpful.

To get the most out of this course, you'll need a standard computer (laptop or PC) with internet access as well as a **Windows operating system** (ideal for seamless use) or a **Mac/Linux system with a virtual Windows environment** (e.g., VirtualBox, VMware Fusion, or UTM App). If you're using a Mac or Linux without a virtual Windows setup, some course features unfortunately may not be fully accessible, as Power BI Desktop isn't natively supported on these systems.





Modul 1 - LET'S TALK ABOUT BI

Business Intelligence: Introduction, key concepts and principles

Course overview, definition and importance of Business Intelligence, data warehouse, ETL

Business Intelligence tools, technologies and data structures

Tools, technologies, data structures

Practice: Explain and compare different BI tools and technologies.

Business Intelligence architecture, data visualization and reporting techniques

Business Intelligence architecture, data sources, data warehouses

Practice: Explain a basic BI architecture that includes data sources and a data warehouse.

Trends and challenges in Business Intelligence

Artificial intelligence, machine learning, natural language processing, augmented analytics and automated insights

Practice: Explain augmented analytics to generate automated insights and explore how BI trends impact data analysis.





Module 2 - MICROSOFT POWER BI FOR BUSINESS INTELLIGENCE - BASICS

Introduction

Introduction, role and importance of Power BI.

Getting started with Microsoft Power BI: the data model and architecture

Data model, fact and dimension tables, Power BI architecture

Practice: Create a basic star schema data model.

The Power BI Desktop Client

Desktop Client, Query Editor, Report View

Practice: Familiarize yourself with the Power BI Desktop Client, utilizing the Query Editor to load and transform data and the Report View to design your first report.

From zero to hero: Build an initial Power BI report

Power BI report, visuals, insights

Practice: Develop an initial Power BI report by adding visuals, formatting them, and gaining insights

Importing Data into Power BI

Data import, connectors, DirectQuery

Practice: Import data from various sources into Power BI

Processing the imported data

Data transformation, pivoting and unpivoting, merging queries, date columns

Practice: T ransform imported data to enhance your datasets for deeper analysis in Power BI





Establishing relationships between datasets

Relationships, 1:n, 1:1, n:m, cardinalities

Practice: Define and establish relationships between datasets in Power BI, configuring 1:n, 1:1, and n:m cardinalities to enable effective data modeling.

Visualizations - part 1

Visuals, charts, graphs, insights, filtering data

Practice: Create and customize various visuals, charts, and graphs in Power BI to derive insights and represent your data effectively.

Visualizations - part 2

Advanced Power BI visualization techniques, interactive elements

Practice: Explore advanced visualization techniques in Power BI, including interactive elements such as slicers, to enhance user engagement with your reports.

Building dashboards

Dashboards, KPIs, decision-making

Practice: Design and build interactive dashboards in Power BI, incorporating key performance indicators (KPIs) to facilitate informed decision-making.



Module 3 - ADVANCED TOPICS IN POWER BI

Introduction: More Power BI

Introduction, selected advanced topics.

Custom visuals

Custom visuals, enhanced data presentations, reporting requirements.

Practice: reate and implement custom visuals in Power BI to enhance data presentations and meet specific reporting requirements.

Advanced reporting concepts - part 1

Calculated fields, calculated explicit measures, DAX optimization.

Practice: Develop calculated fields and measures while optimizing DAX expressions to improve reporting efficiency and user experience.performance.

Advanced Reporting Concepts - part 2

Bookmarks, tooltips, analytic features, forecasting, clustering

Practice: Utilize bookmarks and analytic features in Power BI for advanced reporting, including forecasting and clustering techniques to analyze trends.

An introduction into DAX

DAX functions, SUM, AVERAGE, FILTER, explicit and implicit measures, calculated columns, calculated tables

Practice: Explore explicit measures and DAX functions like SUM, AVERAGE, and FILTER to perform calculations and data manipulation in your Power BI reports.





More on DAX

DAX functions, filter context, time intelligence, quick measures, CALCULATE

Practice: Deepen your understanding of DAX by applying various functions to create complex calculations that enhance your data analysis capabilities.

An introduction into M

M language, Power Query, ETL

Practice: Learn the M language in Power Query to execute ETL (Extract, Transform, Load) processes, preparing data for analysis in Power Bl..



Module 4 - DASHBOARDING AND REPORTING WITH TABLEAU

Introduction to Tableau: Data visualization and Business Intelligence Introduction, role and importance of Tableau in BI.

Getting started with Tableau Desktop

Tableau workbook, data connection, data cleaning, data pane, split, pivot, relationships, joins, performance optimization

Practice: Set up a new Tableau workbook, connect to a data source, clean and organize the data using the data pane, apply a split or pivot, and establish appropriate relationships or joins between tables based on performance needs.

Foundations of chart visualizations

Continuous fields, discrete fields, dimensions, measures, chart appearance, axis, labels, chart types, data fields, visualization

Practice: Create different types of charts in Tableau by using dimensions and measures, adjust chart appearance with axis and label options, and arrange data fields to explore different visualization formats

Sorting, grouping, and calculations

Sorting, grouping, filtering, alias, calculated fields, functions, sets, table calculations, data transformation

Practice: Use Tableau filters, sorting, and aliases to organize data, create new data fields with groups and sets, and apply calculated fields and table calculations to transform and analyze the data.





Working with maps and adding customizations to your view

Maps, spatial data, map types, Tableau marks card, workbook customization, trend lines, reference lines, formatting

Practice: Create and customize map visualizations in Tableau, applying different map types and customizing the view with the Marks card.

Dashboards - Combining views

Tableau dashboard, combining views, worksheets, Tableau story

Practice: Combine multiple views to create a Tableau dashboard and a story.



NUMBERS & FACTS

Language: English Max. Participants: 8 Time: 4+ weeks

Scope: 120 Hours / 160 lessons Expense: 10-40h per week

Price: € 2.240,00

Cancellation: Cancellation free of charge up to 14 days before start. Satisfaction Guarantee: up to 14 days after the start without risk.

BILDUNGSGUTSCHEIN

100% financed with a Bildungsgutschein according to AZAV

• Price with a Bildungsgutschein: 0€

CERTIFICATE

For completing the seminar participants receive the certificate "Business Intelligence with Power BI & Tableau" by the XDi – Experience Design Institut.

INCLUDED SERVICES

- · International recognized certificate
- · Practice with mentor
- · Own project with portfolio
- · Personalized mentoring
- 10 hours of video material
- High-quality training documents in digital form
- Numerous templates for daily work
- Loads of best practices and online resources
- · Community for exchange and discussions with other participants
- Links, literature and tool-tips



MENTOR



Prof. Dr. Thomas MählmannData Scientist and Python Coach, Professor of ABWL, Finance and Banking

Thomas teaches at the Faculty of Economics at the KU Eichstätt-Ingolstadt. In addition to research and teaching, Thomas is successfully active in consulting and professional development. He has over 20 years of experience as a data scientist, both in research and in the project business. Today, he implements all projects in research and for external clients in Python and the corresponding Python libraries. As a mentor and trainer, Thomas stands for lively, interactive teaching that is characterized by variety between content transfer and independent work.

MENTOR



Manuel BordaschData scientist, Data Analyst, Data Engineer, Al Specialist

Manuel Bordasch is CTO of CompAn Labs GmbH, which specializes in Al-based and conventional data analysis. In his day-to-day work, he plays a leading role in the development and support of customer projects. Another focus is the further development of his self-designed and developed data intelligence platform Dashlake®. Over the past 15 years, he has held numerous lectures and seminars in the field of artificial intelligence. This teaching experience is combined with a wide range of professional experience – from start-ups to SMEs and corporations. He manages to make abstract theories vivid and tangible. His goal as a trainer and mentor: maximum knowledge growth for the participants.



YOUR BENEFITS

- First-class instructors with a strong practical knowledge and extensive experience in the international context.
- Didactically prepared and creatively implemented learning content.
- Practically applied and solid theoretical knowledge
- Use the latest results of brain-research.
- Integrated coaching and mental training methods.
- Umfangreiche Seminarunterlagen mit vielen weiteren Tipps, Tricks & Links.
- Personal, informal handling.
- Recognized as educational leave.

OUR ADDED VALUE

The XDi works with new and interactive education programs based on current findings in brain research. Our credo is "learning by doing" – our participants learn the application of relevant methods and techniques using practicals exercises in small groups.





CERTIFICATIONS







REVIEWS









FEEDBACK

"I am glad I decided to take the course. The course has provided a tremendous amount of up-to-date knowledge, and has far exceeded my personal expectations. The course is without question challenging, but quickly rewards with a steep and presentable learning curve. I felt optimally supported by XDi at all times "

- Denis Sarcevic

"A demanding, intensive seminar. The training leadership could not be better - all participants are integrated and come out of the seminar with a big method box.

- Daniel Pott

REFERENCES

More references and feedback on www.xd-i.com/en/institute/references/









DAIMLER











MEMBERSHIPS







