



MICROSOFT TRAINING

Power Bi Data Modeling

Learn to design and optimize Power BI data models for powerful analytics and reporting.

DURATION

8 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

This intermediate-level "Power BI Data Modeling" course from Microsoft, offered by Computer Pride, is meticulously designed to equip professionals with the essential skills to transform raw data into powerful, insightful, and actionable business intelligence. Over 8 intensive hours, participants will delve deep into the art and science of structuring data effectively within Power BI Desktop. You will learn to establish robust relationships, create calculated columns and measures using Data Analysis Expressions (DAX), and optimize data models for performance and scalability.

Mastering Power BI Data Modeling is crucial for anyone looking to move beyond basic report creation and unlock the full potential of their data. This course focuses on building semantic models that facilitate intuitive analysis, enhance report accuracy, and drive informed decision-making across an organization. By developing strong data modeling competencies, you will be able to handle complex datasets with confidence, ensuring your reports are not only visually appealing but also statistically sound and highly performant. This skill set is invaluable for elevating your role in any data-driven environment.

Duration	8 hours
Level	Intermediate
Vendor	Microsoft

COURSE CURRICULUM

01 Module 1: Introduction to Data Modeling in Power BI

- Understanding the Data Modeling Lifecycle
- Star Schema vs. Snowflake Schema Principles
- Key Data Modeling Concepts (Facts, Dimensions, Granularity)
- Navigating the Power BI Desktop Data Model View Interface

02 Module 2: Data Loading and Transformation for Modeling

- Connecting to Diverse Data Sources (Databases, Files, Web APIs)
- Advanced Data Cleansing and Shaping with Power Query Editor
- Creating Custom Columns and Applying M-Language Transformations
- Effective Handling of Data Types, Errors, and Missing Values

03 Module 3: Establishing Relationships and Cardinality

- Understanding Relationship Types (One-to-Many, Many-to-Many, One-to-One)
- Active vs. Inactive Relationships and Their Implications
- Configuring Cross Filter Direction and Bidirectional Filtering
- Best Practices for Relationship Management and Troubleshooting

04 Module 4: DAX Fundamentals for Data Models

- Introduction to DAX (Data Analysis Expressions) Syntax and Concepts
- Distinguishing Between Calculated Columns and Measures
- Understanding Evaluation Context (Row Context, Filter Context)
- Essential DAX Functions (SUM, AVERAGE, COUNT, RELATED, RELATEDTABLE, CALCULATE)

05 Module 5: Advanced DAX and Time Intelligence

- Leveraging Variables in DAX for Readability and Performance
- Utilizing ITERATOR Functions (SUMX, AVERAGEX, MAXX) for Row-Level Operations
- Advanced Usage of CALCULATE Function for Context Modification

- Implementing Time Intelligence Functions (TOTALYTD, DATESBETWEEN, SAMEPERIODLASTYEAR)

06 Module 6: Data Model Optimization and Best Practices

- Strategies for Enhancing Data Model Performance and Responsiveness
- Techniques for Reducing Model Size and Improving Refresh Times
- Organizing and Hiding Columns for User Experience and Security
- Implementing Row-Level Security (RLS) within Data Models

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Business Intelligence Developer**
- > **Senior Data Analyst (Specializing in BI Platforms)**
- > **Power BI Consultant**

FREQUENTLY ASKED QUESTIONS

Q: What foundational Power BI skills should I possess before enrolling in this Data Modeling course?

This intermediate course assumes you have a solid understanding of Power BI Desktop basics, including connecting to various data sources, performing simple data transformations in Power Query, and creating fundamental visualizations and reports. Familiarity with core relational database concepts, even at a high level, would also be beneficial as it provides context for data relationships, though foundational data modeling concepts will be covered.

Q: How will mastering Power BI Data Modeling specifically enhance the performance and accuracy of my existing reports and dashboards?

By optimizing your data model, you will significantly improve report performance through efficient data storage, reduced query times, and faster data refreshes. Proper relationship management and well-crafted DAX measures ensure calculations are accurate and consistent across all visualizations, eliminating discrepancies and building trust in your data. A well-designed model also makes reports easier to maintain, scale, and comprehend for end-users, leading to more reliable and impactful business insights.

Q: Will this course cover how to implement complex business logic using DAX, beyond basic aggregations?

Absolutely. While we start with DAX fundamentals, a significant portion of this course is dedicated to advanced DAX concepts crucial for complex business logic. You will learn to write sophisticated measures using functions like CALCULATE for modifying evaluation context, utilize iterator functions (e.g., SUMX) for row-by-row calculations, and apply powerful time intelligence functions to derive insights such as year-to-date totals, moving averages, or period-over-period comparisons, enabling you to build robust, analytical solutions directly within your data model.

ABOUT COMPUTER PRIDE

**computerpride*****East Africa's Premier IT Training Center***

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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