

uCertify

Analyzing Data with Power BI and Power Pivot for Excel



Lesson



Practice test



Live-Lab

08 Jun 2023

8. 1 Introduction
- 2 Introduction to data modeling
- 3 Using header/detail tables
- 4 Using multiple fact tables
- 5 Working with date and time
- 6 Tracking historical attributes
- 7 Using snapshots
- 8 Analyzing date and time intervals
- 9 Many-to-many relationships
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Gain a hands-on experience in Power BI and Power Pivot for Excel and learn how to analyze data with the Analyzing Data with Power BI and Power Pivot for Excel course and lab. This course aims to teach you the basic concepts of data modeling through practical examples that you are likely to encounter in your daily life. This course will be beneficial for an Excel user who uses Power Pivot for Excel, a data scientist using Power BI, or even for those who want to read an introduction to the topics of data modeling.

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- 2014
 - 1.
- 2015
 - 3.
- 2016
 - 3.
- 2017
 - 4.
- 2018
 - 3.
- 2019
 - 3.
- 2020
 - 3.

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1: Introduction

- Who this course is for?
- Organization of this course
- Conventions

2: Introduction to data modeling

- Working with a single table
- Introducing the data model
- Introducing star schemas
- Understanding the importance of naming objects
- Conclusions

3: Using header/detail tables

- Introducing header/detail
- Aggregating values from the header
- Flattening header/detail
- Conclusions

4: Using multiple fact tables

- Using denormalized fact tables
- Filtering across dimensions
- Understanding model ambiguity

- Using orders and invoices
- Conclusions

5: Working with date and time

- Creating a date dimension
- Understanding automatic time dimensions
- Using multiple date dimensions
- Handling date and time
- Time-intelligence calculations
- Handling fiscal calendars
- Computing with working days
- Handling special periods of the year
- Working with weekly calendars
- Conclusions

6: Tracking historical attributes

- Introducing slowly changing dimensions
- Using slowly changing dimensions

- Loading slowly changing dimensions
- Rapidly changing dimensions
- Choosing the right modeling technique
- Conclusions

7: Using snapshots

- Using data that you cannot aggregate over time
- Aggregating snapshots
- Understanding derived snapshots
- Understanding the transition matrix
- Conclusions

8: Analyzing date and time intervals

- Introduction to temporal data
- Aggregating with simple intervals
- Intervals crossing dates
- Modeling working shifts and time shifting
- Analyzing active events

- Mixing different durations
- Conclusions

9: Many-to-many relationships

- Introducing many-to-many relationships
- Cascading many-to-many
- Temporal many-to-many
- Using the fact tables as a bridge
- Conclusions

10: Working with different granularity

- Introduction to granularity
- Relationships at different granularity
- Conclusions

11: Segmentation data models

- Computing multiple-column relationships
- Computing static segmentation

- Using dynamic segmentation
- Understanding the power of calculated columns: ABC analysis
- Conclusions

12: Working with multiple currencies

- Understanding different scenarios
- Multiple source currencies, single reporting currency
- Single source currency, multiple reporting currencies
- Multiple source currencies, multiple reporting currencies
- Conclusions

13: Appendix A. Data modeling 101

- Tables
- Data types
- Relationships
- Filtering and cross-filtering
- Different types of models
- Measures and additivity

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PRE-ASSESSMENTS QUESTIONS

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POST-ASSESSMENTS QUESTIONS

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Introduction to data modeling

- Exploring a Dataset

Using header/detail tables

- Aggregating Values from the Header Table

Using multiple fact tables

- Analyzing Denormalized Fact Tables
- Understanding Model Ambiguity

Working with date and time

- Creating a Date Dimension

Tracking historical attributes

- Analyzing Slowly Changing Dimensions

Using snapshots

- Analyzing Snapshots
- Analyzing Derived Snapshots
- Understanding the Transition Matrix

Analyzing date and time intervals

- Understanding Temporal Data
- Analyzing Events that Cross Dates
- Analyzing Active Events
- Mixing Different Durations

Many-to-many relationships

- Exploring Many-to-Many Relationships
- Exploring a Temporal Many-to-Many Relationship

Working with different granularity

- Analyzing Relationships at Different Granularity

Segmentation data models

- Analyzing Calculated Physical Relationships
- Analyzing Dynamic Segmentation
- Understanding ABC Analysis

Working with multiple currencies

- Producing a Report Containing Information With a Single Type of Currency
- Producing a Report in Multiple Currencies

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LIVE LABS

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VIDEO TUTORIALS

01:48
HOURS

