uCertify

Course Outline

Analyzing Data with Power BI and Power Pivot for Excel



27 Mar 2024

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Here's what you get

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1. Course Objective

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.

2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

3. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.



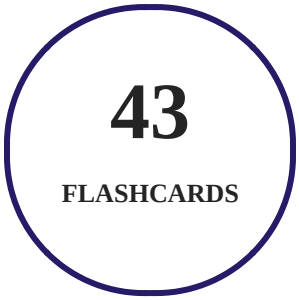
4. Quizzes

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.



5. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.



6. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



7. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

8. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

9. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

10. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been

recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
    1. Best Postsecondary Learning Solution

- **2015**
    1. Best Education Solution
    2. Best Virtual Learning Solution
    3. Best Student Assessment Solution
    4. Best Postsecondary Learning Solution
    5. Best Career and Workforce Readiness Solution
    6. Best Instructional Solution in Other Curriculum Areas
    7. Best Corporate Learning/Workforce Development Solution

- **2016**
    1. Best Virtual Learning Solution
    2. Best Education Cloud-based Solution
    3. Best College and Career Readiness Solution
    4. Best Corporate / Workforce Learning Solution
    5. Best Postsecondary Learning Content Solution
    6. Best Postsecondary LMS or Learning Platform
    7. Best Learning Relationship Management Solution

- **2017**
    1. Best Overall Education Solution
    2. Best Student Assessment Solution
    3. Best Corporate/Workforce Learning Solution
    4. Best Higher Education LMS or Learning Platform

- **2018**
    1. Best Higher Education LMS or Learning Platform

2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**
  1. Best Virtual Learning Solution
  2. Best Content Authoring Development or Curation Solution
  3. Best Higher Education Learning Management Solution (LMS)

- **2020**
  1. Best College and Career Readiness Solution
  2. Best Cross-Curricular Solution
  3. Best Virtual Learning Solution

11. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

Syllabus

Chapter 1: Introduction

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

Chapter 2: Introduction to data modeling

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

Chapter 3: Using header/detail tables

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

Chapter 4: Using multiple fact tables

- Using denormalized fact tables
- Filtering across dimensions
- Understanding model ambiguity
- Using orders and invoices

- Conclusions

Chapter 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

Chapter 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

Chapter 7: Using snapshots

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

Chapter 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

Chapter 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

Chapter 10: Working with different granularity

- Introduction to granularity
- Relationships at different granularity
- Conclusions

Chapter 11: Segmentation data models

- Computing multiple-column relationships
- Computing static segmentation
- Using dynamic segmentation
- Understanding the power of calculated columns: ABC analysis
- Conclusions

Chapter 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

Chapter 13: Appendix A. Data modeling 101

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

12. Practice Test

Here's what you get

37	38
PRE-ASSESSMENTS QUESTIONS	POST-ASSESSMENTS QUESTIONS

Features

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

13. Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations
- Access to the latest industry technologies
- Available anytime, anywhere on any device
- Break and Reset functionality

- No hardware costs

Lab Tasks

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

Here's what you get

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LIVE LABS	VIDEO TUTORIALS	HOURS

14. Post-Assessment

After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

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