

uCertify

Course Outline

Database Fundamentals



Lesson



Practice test



Lab

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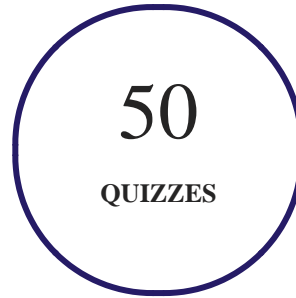
1. Pre-Assessment

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.

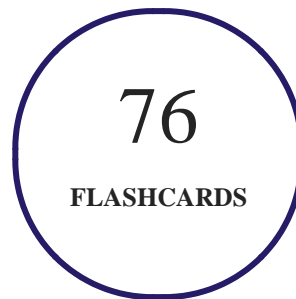
2. Quizzes

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.



3. 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.



4. 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.



5. 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.

6. 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.

7. 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.

8. 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

9. 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: Understand Core Database Concepts

- Understand How Data is Stored in Tables
- Understand Relational Database Concepts
- Understand Data Manipulation Language (DML)
- Understand Data Definition Language (DDL)
- Summary

Chapter 2: Create Database Objects

- Choose Data Types
- Understand Tables and How to Create them
- Create Views
- Create Stored Procedures and Functions
- Summary

Chapter 3: Manipulate Data

- Select Data
- Insert Data
- Update Data
- Delete Data
- Transaction Controls
- Summary

Chapter 4: Understand Data Storage

- Understand Normalization
- Understand Primary, Foreign, and Composite keys
- Understand Indexes
- Summary

Chapter 5: Administer a Database

- Understand Database Security Concepts
- Understand Database Backups and Restore

- Summary

Videos and How To

uCertify course includes videos to help understand concepts. It also includes How Tos that help learners in accomplishing certain tasks.

319

VIDEOS

06:03

HOURS

10. Practice Test

Here's what you get

50

PRE-ASSESSMENTS
QUESTIONS

2

FULL LENGTH TESTS

54

POST-ASSESSMENTS
QUESTIONS

Features

Full Remediation

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.

Learn, Test and Review Mode

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.

11. Performance Based Labs

uCertify's performance-based labs are Live Labs. Learn the real world skills using Live Labs. uCertify Labs are cloud-based, device-enabled and can be easily integrated with an LMS. Features of uCertify labs:

- Provide hands-on experience in a safe, online environment
- Labs simulate real world, hardware, software & CLI environment
- Flexible and inexpensive alternative to physical Labs
- Comes with well-organized component library for every task
- Highly interactive - learn by doing
- Explanations and remediation available
- Videos on how to perform

Lab Tasks

- Creating a Database
- Deleting a Database
- Adding a Column to a Table
- Renaming a Table
- Modifying a Column in a Table
- Dropping a Column from a Table
- Using the SELECT Command
- Creating an ER Diagram
- Using the CREATE Command
- Exceeding Data Type Limit
- Handling NULL Values
- Inserting Values into a Table using the Stored Procedure
- Creating an Inline Table-Valued Function
- Using the CREATE VIEW Syntax
- Using the ALTER VIEW Statement
- Creating a View using the WITH CHECK OPTION Clause
- Creating a Stored Procedure
- Altering a Stored Procedure
- Modifying Stored Proc Definitions
- Using the SELECT DISTINCT Statement
- Using the SELECT, FROM, and WHERE Clauses
- Using the ORDER BY Keyword
- Using the UNION Operator
- Using the INTERSECT Operator
- Using the EXCEPT Operator
- Using LEFT OUTER JOIN
- Using RIGHT OUTER JOIN
- Using FULL OUTER JOIN
- Using CROSS JOIN
- Using a Simple Inner Join
- Using a Complex Inner Join
- Using the INSERT statement
- Using the UPDATE Statement

- Using the DELETE Statement
- Using Transaction Controls
- Using Referential Integrity Constraints
- Creating a Function-Based Index
- Using a Function-Based Index
- Creating a Non-Clustered Index
- Adding a New Login
- Accessing the Database Roles
- Creating a Backup

Here's what you get



12. 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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