uCertify

Course Outline

Administering MS SQL Server 2012/2014 Databases(70-462)

26 Apr 2024

1. Course Objective
2. Pre-Assessment
3. Exercises, Quizzes, Flashcards & Glossary

   Number of Questions
4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
6. State of the Art Educator Tools
7. Award Winning Learning Platform (LMS)
8. Chapter & Lessons

   Syllabus

   Chapter 1: Introduction

   Chapter 2: Planning and Installing SQL Server

   Chapter 3: Implementing a Migration Strategy

   Chapter 4: Configuring SQL Server Components

   Chapter 5: Managing SQL Server Agent

   Chapter 6: Managing and Configuring Databases

   Chapter 7: Configuring SQL Server Instances

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   Chapter 9: Identifying Concurrency Problems and Troubleshooting Data

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   Chapter 15: Clustering and AlwaysOn

   Chapter 16: Implementing Replication

   Videos and How To
9. Practice Test

Here's what you get

Features

10. Live labs

Lab Tasks

Here's what you get

11. Post-Assessment

1. Course Objective

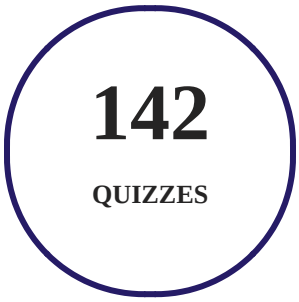
Prepare for the MCSA 70-462 exam with the Administering Microsoft SQL Server 2012/2014 Databases course and lab. The lab can be mapped to any course, textbook, or training, therefore, adding value and hands-on components to training. The SQL certification course provides complete coverage of the MCSA 70-462 exam objectives and helps you master the skills required for installing SQL server, implementing migration strategies, configuring SQL server components, managing SQL server, managing, and configuring databases, and more.

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.

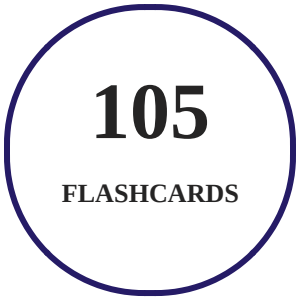
3. Quizzes

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.



4. 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.



5. 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.

6. 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.

7. 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.

8. 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.

9. 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

10. 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

Chapter 2: Planning and Installing SQL Server

- Evaluating Installation Requirements
- Designing Installation of SQL Server
- Installing Extra Features
- Identifying Windows Level Security and Service Level Security
- Benchmarking a Server
- Selecting the Right Hardware

- Testing Connectivity to SQL Server
- Understanding Integration Services
- Summary

Chapter 3: Implementing a Migration Strategy

- Attaching and Detaching Databases
- Migrating Logins
- Understanding Migrations
- Migrating to New Hardware
- Migrating Data from Other Sources
- Summary

Chapter 4: Configuring SQL Server Components

- Configuring Analysis Services
- Configuring Reporting Services
- Configuring SharePoint Integration
- Configuring SSIS Security
- Configuring Full-Text Indexing
- Configuring FILESTREAM

- Configuring FileTables
- Summary

Chapter 5: Managing SQL Server Agent

- Creating a Job using SQL Server Management Studio
- Creating T-SQL Jobs
- Creating and Using Operators
- Creating and Using Alerts
- Summary

Chapter 6: Managing and Configuring Databases

- Designing Filegroups
- Configuring and Standardizing Databases
- Configuring Contained Databases
- Using Data Compression
- Configuring Transparent Data Encryption
- Partitioning Tables and Indexes
- Managing Log Files

- Using Database Console Commands
- Summary

Chapter 7: Configuring SQL Server Instances

- Installing Default and Named Instances
- Configuring SQL Server CPU Utilization
- Configuring SQL Server
- Virtualizing SQL Server
- Configuring MSDTC in a Cluster
- Setting a Fixed Amount of Memory
- Setting up Database Mail
- Introducing Fillfactor
- Introducing sp_configure
- Summary

Chapter 8: Managing SQL Server Instances

- Installing a Cluster
- Removing an Installation
- Monitoring and Managing a SQL Server Cluster

- Patching Strategies for SQL Server
- Managing Resource Utilization using Resource Governor
- Cycling the SQL Server Error Log
- Summary

Chapter 9: Identifying Concurrency Problems and Troubleshooting Data

- Understanding Locks
- Identifying Blocking
- Detecting and Correcting Deadlocks
- Monitoring via DMV
- Monitoring via SQL Server Profiler
- Monitoring Performance with System Monitor
- Identifying Transactional Replication Problems
- Working with Performance Monitor
- Using SQL Server Data Collector
- Summary

Chapter 10: Auditing SQL Server Instances

- Implementing a Security Strategy in SQL Server
- Configuring SQL Server Audit
- Tracking Changes in SQL Server
- Introducing Policy-Based Management
- Summary

Chapter 11: Backing Up and Restoring Databases

- Backing Up a Database
- Backing Up the Environment
- Backing Up System Databases
- Restoring a Database
- Summary

Chapter 12: Implementing and Maintaining Indexes

- Understanding Indexes
- Implementing Basic Indexes
- Understanding Statistics
- Managing Indexes
- Summary

Chapter 13: Exporting and Importing Data

- Using bcp
- Using BULK INSERT
- Using SQL Server Integration Services
- Summary

Chapter 14: Implementing Security

- Understanding SQL Server Roles
- Managing Logins, Users, and Roles
- Understanding Encryption
- Auditing SQL Server Activity
- Summary

Chapter 15: Clustering and AlwaysOn

- Introducing AlwaysOn Availability Groups
- Deploying AlwaysOn Availability Groups
- Using Availability Groups on Failover Cluster Instances
- Understanding Failover Clustering

- Installing a SQL Server Failover Cluster
- Summary

Chapter 16: Implementing Replication

- Understanding Replication Architecture
- Understanding Replication Types
- Controlling Replication Behaviour
- Monitoring Replication
- Summary

11. Practice Test

Here's what you get

50	2	50
PRE-ASSESSMENTS QUESTIONS	FULL LENGTH TESTS	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.

12. 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

Planning and Installing SQL Server

- Installing SQL Server Integration Services

Implementing a Migration Strategy

- Detaching the Database in the GUI
- Attaching the Database in the GUI
- Using the Enable Contained Database Feature
- Migrating a Database to a New Version of SQL Server
- Migrating Data from Other Sources

Configuring SQL Server Components

- Installing SQL Server Analysis Services
- Configuring SharePoint Integration
- Configuring SSIS Security
- Configuring Full-Text Indexing
- Configuring Filestream

Managing SQL Server Agent

- Defining a SQL Server Operator using SSMS
- Defining a SQL Server Operator using Transact-SQL

Managing and Configuring Databases

- Designing Multiple Filegroups
- Configuring and Standardizing Databases
- Implementing Contained Databases

Configuring SQL Server Instances

- Configuring CPU and Memory Allocation
- Creating a Database User
- Configuring SQL Server Engine
- Enabling MSDTC in SQL Server 2014

Managing SQL Server Instances

- Managing Resource Utilization Using Resource Governor

Identifying Concurrency Problems and Troubleshooting Data

- Examining Deadlock Issues
- Monitoring via DMV
- Installing the System Monitor in a Custom MMC
- Gathering Performance Metrics Using Activity Monitor
- Monitoring Data and Server Access

Auditing SQL Server Instances

- Enabling C2 Auditing
- Creating a New Server Audit and Configuring a Server Audit Specification
- Tracking Changes in the SQL Server
- Determining Read-Only Properties of the Facets
- Creating Custom Categories for Policies
- Creating the conDatabaseSize Condition
- Creating the conPasswordRules Condition
- Creating the conSurfaceArea Condition
- Creating the polDatabaseSizeScheduled Policy
- Creating the polPasswordRulesPrevent Policy
- Creating the polSurfaceAreaLog Policy

Backing Up and Restoring Databases

- Managing Backups
- Performing a Differential Backup
- Performing a System Database Backup

Implementing and Maintaining Indexes

- Inspecting the Physical Characteristics of Indexes
- Creating a LastName Nonclustered Index
- Creating a City Nonclustered Index
- Setting a Primary Key
- Creating a Column-Store Index

- Disabling and Enabling Indexes

Exporting and Importing Data

- Performing Bulk Copy Using the bcp utility
- Exporting Data with the Import/Export Wizard

Implementing Security

- Creating a SQL Login
- Configuring Local Password Policies
- Creating a Database Role with SSMS
- Creating a Database User Using T-SQL Commands
- Managing Access to the Server
- Managing Logins and Server Roles
- Managing Certificate Logins
- Configuring Database Security
- Protecting Objects from Being Modified
- Creating a SQL User without Login
- Reviewing Certificates and Keys
- Enabling a SQL Server Audit

Here's what you get

60	57	01:14
LIVE LABS	VIDEO TUTORIALS	HOURS

13. 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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