SingleStore™ EDUCATION

SingleStore Certified Helios Administrator

Exam Guide

2025

Awarded Credentials

Candidates who pass this exam receive SingleStore Certified Helios Administrator certification. This certification is active for one year.



SingleStore Certified Helios Administrator Badge

Target Audience

A candidate for this certification is an information technology (IT) professional responsible for implementing a SingleStore Organization with SingleStoreDB Cloud infrastructure (Workspace Groups, Workspaces, and databases) meeting architectural requirements.

They provide subject matter expertise on SingleStoreDB Cloud architecture, operations, maintenance, and security.

See the **Domain Objectives section** for a description of the testing scope.

What does this exam measure?

This exam measures a candidate's knowledge and skills related to:

- The SingleStoreDB architecture
- Security of SingleStore Cloud organizations
- Maintenance, monitoring, and automating workspace operations
- SingleStore Cloud authentication and authorization
- Cloud troubleshooting

We also expect that candidates taking this exam have 6-12 months of experience regularly using SingleStoreDB.

What is not included in this exam?

This exam should not be used to assess SQL (Structured Query Language) proficiency. While candidates do need to have working SQL knowledge, the exam cannot be considered a sufficient measurement for general SQL knowledge.

Exam Guide Disclosure

This document describes the structure of the exam and includes practical information on how to prepare to take an online, proctored exam. It also includes suggestions on how to prepare for the exam. This exam guide alone will not prepare you for the exam and should not be considered an exhaustive list of content covered in the exam.

Learning Resources

There are many ways to prepare for this exam, including:

- Regular use of SingleStoreDB.
- Taking an instructor-led class from a SingleStore instructor or a third-party instructor. For information on instructor-led classes, visit singlestore.com/training
- Consuming the self-paced SingleStore training available on the company's site. Visit training.singlestore.com and create an account.
- Review SingleStore Documentation.

Exam Format

Time Limit:	3 hours
Check-in for Exam:	10 minutes before or up to 20 minutes after scheduled time
Question Format:	Multiple choice, Multiple response
Number of Questions:	100
Scoring:	Pass/Fail based on an overall score. Candidates will see percentage results for each domain area.
Language(s) Offered:	English
Exam Delivery Provider:	Kryterion
Exam Delivery Method:	All exams are delivered in an online, proctored environment

For information about the online, proctored experience, review the videos here:
Online Proctored Exams

System Preparation and Technical Requirements

We recommend that you ensure your computer, network, and physical environment are prepared for the exam.

Review system requirements

Online Testing Requirements: What You Need to Know

Troubleshoot issues related to the exam experience

Go to Support and click the Chat with an Expert button (shown below) located in the bottom right corner of the page.



Content Outline

Domain	% of Exam Content
Understand SingleStore Architecture	35%
Secure a SingleStoreDB Cloud Workspace	12%
Maintain, Monitor, and Automate Workspace Operations	23%
Authentication and Authorization	18%
Troubleshoot a SingleStoreDB Cloud Workspace	12%
Total	100%

When you receive your exam results, you can see the percentage you got correct for each domain. These percentages are provided so you will know where you might need to improve if you fail the exam, but note that each domain has a different weight in the final score (see above). A lower score in a domain that makes up a higher percentage of the exam content can outweigh higher scores in domains with a lower percentage of content.

Exam Guide Disclosure

This is not a comprehensive list of content for the exam.

1. Understand SingleStore Architecture

1.1. Explain storage concepts

- 1.1.1. Describe three-tier storage
- 1.1.2. Explain how data moves through three-tier storage (CRUD)
- 1.1.3. Describe columnstore segmentation
- 1.1.4. Describe rowstore tables concepts and use
- 1.1.5. Describes reference tables concepts and use

1.2. Use tables

- 1.2.1. Create and use different types of tables

1.3. Use partitions

- 1.3.1. Choose appropriate number of partitions
- 1.3.2. Set the number of partitions in a database
- 1.3.3. Explain partitioning concepts

1.4. Explain sharding and shard keys

- 1.4.1. Explain how sharding works
- 1.4.2. Understanding data skew (finding and addressing)

1.5. Understand SingleStoreDB Cloud Infrastructure

- 1.5.1. Describe the SingleStore Shared Responsibility
- 1.5.2. Differentiate between Cloud editions
- 1.5.3. Recommend appropriate sizing
- 1.5.4. Outline key infrastructure components and services

2. Secure a SingleStoreDB Cloud Workspace

2.1. Configure IP Address Filtering

- 2.1.1. Describe, implement, and explain use cases for different index types
- 2.1.2. Select a shard key
- 2.1.3. Select a sort key

2.2. Create and use connection links

- 2.2.1. Explain what different query operations are
- 2.2.2. Make changes to schema based on visual profile

- 2.2.3. Make changes to queries based on visual profile
- 2.2.4. Use table statistics
- 2.2.5. Explain the types of queries in SingleStore
- 2.2.6. Explain database performance terms
- 2.2.7. Describe what Explain and Profile do

2.3. Configure a password and lockout policy

- 2.3.1. Set FAILED_LOGIN_ATTEMPS
- 2.3.2. Set PASSWORD_LOCK_TIME
- 2.3.3. For password expiration, reuse, and complexity

2.4. Explain auditing tasks

- 2.4.1. Set log level
- 2.4.2. Read log output

3. Maintain, Monitor, and Automate Workspace Operations

3.1. Explain monitoring tasks

- 3.1.1. Identify components to monitor
- 3.1.2. Configure monitoring
- 3.1.3. Configure alerts
- 3.1.4. Use workload profiling
- 3.1.5. Use SingleStore Portal

3.2. Explain tasks supporting workspace operation automation

- 3.2.1. Use Management Rest API
- 3.2.2. Use Workload Manager

3.3. Describe disaster recovery tasks

- 3.3.1. Explain use cases for backup and restore
- 3.3.2. Use PITR (Point in Time Recovery)

4. Authentication and Authorization

4.1. Configure RBAC (Role-based access control)

- 4.1.1. Create and configure groups
- 4.1.2. Create and configure users
- 4.1.3. Assign fine grained permissions
- 4.1.4. Create roles for separation of duties
- 4.1.5. Use SHOW GRANTS
- 4.1.6. Use SET PASSWORD

4.1.7. Use DROP USERS
4.1.8. Use GRANT to add users

4.2. Understand authentication

4.2.1. Describe authentication options available for SingleStore CloudDB

5. Troubleshoot a SingleStoreDB Cloud Workspace

5.1. Describe tasks that support troubleshooting

5.1.1. Identify and resolve network issues
5.1.2. Identify and resolve operational issues
5.1.3. Identify and resolve pipeline issues

5.2. Use Visual Explain

5.2.1. Perform query tuning
5.2.2. Identify memory usage issues

5.3. Identify and rectify expensive queries, including:

5.3.1. Queries waiting
5.3.2. Resource overuse
5.3.3. Other operational activities interfering with performance
5.3.4. Data skew

Exam Structure

The SingleStore Cloud Administrator exam includes questions from each of the four domains. These questions are presented in random order. Candidates will get the opportunity to review all questions before final submission of the exam. Candidates can mark specific questions for review, although all questions can be reviewed. Questions marked for review display with an asterisk (*).

Item Types

Multiple Choice: Select only one answer to a question.

Multiple Response: Select two or more answers to a question.

Sample Questions

The following questions are typical of what you might see on the exam. Correct answers are located at the end of this document.

1. **Which of the following TWO (2) statements about data skew are true? Choose TWO (2).**
    a. Data skew happens when database partitions have an unbalanced amount of data.
    b. Data skew results in higher throughput for a Workspace.
    c. Data skew increases the speed of distributed queries.
    d. Data skew can be reduced by using high cardinality data fields as shard keys.
    e. Data skew allows a Workspace to handle greater concurrency.

2. How many partitions will result from a restore of a backup that was created with the “WITH SPLIT PARTITIONS” clause when the original database has 8 partitions?

    a. Any multiplier of 8 partitions
    b. 16 partitions
    c. Any number of partitions that is desired
    d. 4 partitions
    e. Any number of partitions that is greater than 8 partitions

3. Which error occurs when a resource pool’s memory is exhausted?

    a. OOP error
    b. ERROR 2408
    c. ERROR 1158
    d. OOM error
    e. ERROR 2625

4. How does a SingleStoreDB Cloud Organization generate an API key?

    a. Via the SingleStore SQL Editor
    b. Via the SingleStore Client
    c. Via the SingleStore Portal
    d. Via a SingleStore Support request
    e. Via the Access tab for a Workspace Group

General Exam FAQs

Exam Prep

How do I know if I am ready for the exam?
Only you can know for sure if you are ready, but a successful candidate will likely have done some training or self-study to get started and will have been using the product regularly for at least 6 months. Even candidates who are relatively new to SingleStoreDB will probably have relevant experience from other products.

Taking the Exam

Why is this exam timed?
Completing a task effectively and efficiently is a standard expected by organizations. Our exam is timed as a means to demonstrate this competency.

Why are results for the beta exam delayed?
We use the data from the beta exam results to determine where we want to establish the cut score, and which questions, if any, should be removed from the final score. Unlike our live exams, which release results to the candidate immediately, the beta exam results will not be available until all exams are complete and this analysis is done. The beta exams are then graded based on that analysis. So, be prepared to wait for the results.

I passed the beta exam. What's next?
After you pass the exam, you will receive your Credly badge, which you can share on social media platforms such as LinkedIn.

What happens if I fail the exam?
You are not limited on number of retakes, but each attempt requires a waiting period between exams:

- 10 days after first attempt
- 30 days after second attempt
- 60 days after third and subsequent attempts

As a participant in our beta exam, you will be eligible to retake the exam once at no cost after the exam goes live. Any subsequent retakes will require an exam fee.

Can I get information on the questions I got wrong?
We do not provide specific information about questions you missed, but we do provide information on your performance in each domain, which will help guide your study for a later attempt.

Exam Feedback

Where can I share feedback about a question?
We want feedback on the exam experience and about questions. Direct your comments on questions, the exam experience, or any other certification issues to: certification@singlestore.com

Sample question answers:

1. A, D
2. B
3. D
4. C