



**Couchbase**

**Professional Administrator  
Certification  
Exam Study Guide**



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## Welcome to Couchbase Professional Administrator Certification!

### What to Expect:

- ⇒ Use this Study Guide to prepare for the Couchbase Professional Administrator Certification Exam.

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## Certification Program and Exam Overview

This Study Guide is designed to help you prepare for the Couchbase Professional Administrator Certification exam. The 50-question certification exam is based on fundamental aspects of Couchbase 7.0+ and the CS300 Couchbase Administrator course. As with any certification, the most valuable parts are the learning process which leads to successful concept recognition.

We encourage you to take time to go through the CS300 Couchbase Administrator course which is offered regularly onsite and remotely. These materials are designed to walk you through essential topics, Couchbase features and benefits, as well as how Couchbase 7.0+ knowledge can be applied from the perspective of a System Administrator. However, taking the course is not a required prerequisite to taking the Certification Exam.

### Items to understand:

- ⇒ Topics in this Study Guide and aligned to the exam and are organized by subject area, where each topic contains a description of what you should make sure you know.
- ⇒ The list of topics can be used as a check-list.
- ⇒ The instructor-led CS300 course can be used for points of reference and explanation of key concepts covered in the exam.
- ⇒ Everything in the exam is covered somewhere in the course materials.

### Possible Preparation Path:

- ⇒ Attend the four-day CS300 course, onsite or remotely.
- ⇒ Make notes of key topics and call outs that align with the Study Guide topics listed.
- ⇒ Work through the lab exercises for practice with key concepts.
- ⇒ Please keep in mind that you are expected to have good working knowledge of all the topics listed.

### Certification Exam Logistics

When you are ready to test and validate your product knowledge, please visit [learn.couchbase.com/store](https://learn.couchbase.com/store) to purchase an industry-recognized Couchbase Professional Administrator Certification Exam.

- Certification exams may be taken from a location of your choosing, anywhere in the world,
- For help with your exam purchase, exam registration process, credentials verification, or other questions related to our certification program, process, and procedures, please visit [couchbase.com/academy/certification](https://couchbase.com/academy/certification).
- You have up to 90 minutes to answer the 50 multiple choice questions. You must answer at least 40 questions correctly (80%) in order to pass the exam.
- Read each question carefully, and provide the best answer. Questions can be skipped and returned to as you have the ability to review all selected answers before submitting the exam.

### Certification Exam Pass/Fail Scenarios

If you earn a passing score, you will be granted the Couchbase Certified Professional Administrator badge which is granted by Credly, our badging vendor.

- This badge can be socialized on LinkedIn, Twitter, Facebook, WhatsApp, or within your email signature.
- The skills you show with this certification have been validated as appropriate for the Professional-level Administrator, and have been attested to by many Subject Matter Experts within Couchbase, Inc.

If you do not earn a passing score, you will need to:

- Review the study guide materials.
- Purchase a new exam on the Couchbase Academy Store.

## Certification Exam Frequently Asked Questions (FAQs)

**1. Is there anything in the exam, which was not covered in the course?**

No, everything in the exam is derived from the course materials and Professional lab exercises.

**2. Do I have to know specific command argument details?**

No, however we expect you to be familiar with the tools that interface with Couchbase and their basic functionality.

**3. Who is eligible to take a certification exam?**

Our certification exam is available to Administrators seeking to attain the Professional Administrator Certification. We offer a corresponding course to help you prepare you for our certification exam. However, you may purchase and sit for a certification exam any time you like.

**4. Can I get certified without taking the training course?**

Our training course is the best way to gain the knowledge tested in our certification exam. However, course attendance is not a required step in the certification process.

**5. How do I purchase a certification exam?**

Exams are available for purchase on our [Couchbase Academy Store](#). Locate the exam and add to cart (*Couchbase Professional Administrator Certification Exam*) where you will be directed to log in if you have not already done so. Once logged in, you will complete the checkout.

**6. How long is my exam purchase good for?**

Once you have purchased the exam from the Couchbase Academy store, you can take your exam within the Couchbase Academy Learning Management System (LMS) at your leisure and on your honor within 90 calendar days or the exam expires. Once this exam has expired, you must purchase another if you wish to continue with the exam. Therefore we encourage you not to wait to take your exam date.

**7. What happens if I pass the exam?**

Within 72 hours of passing the exam, you will receive a notice to claim your digital badge through Credly. Once you accept your badge, you can share via LinkedIn, Twitter, and/or place in your email signature.

**8. What happens if I do not pass the exam?**

If you need another opportunity to take the exam, you may purchase again from our store. We encourage you to refresh your knowledge with the study guide material before re-attempting the exam.

**9. Do I have to create an account to take the exam or get the badge?**

In order to accept your badge, you ARE required to create an account with Credly.

As of August 1, 2023, Couchbase no longer requires a proctor to take a certification exam. Please take the exam at your leisure and on your honor within the Couchbase Academy LMS.

### Couchbase Installation

1. What are the minimum system requirements for Couchbase Server?
2. How would an Administrator verify Couchbase Server is up and functional?
3. Which platforms support Couchbase Server for production?
4. How is RAM configured when completing a new installation within a given Couchbase Service?
5. How does Couchbase respond when the data in-memory is greater than available memory?
6. What actions are important to complete when using customized port settings?
7. How does Couchbase enable encrypted or non-encrypted data communication?
8. Which protocols are used to avoid conflict when communicating via XDCR?

### Couchbase Data Platform

9. Which database storage models does Couchbase offer?
10. What are some of the key characteristics of a production-ready Service deployment of Couchbase configured for High Availability?
11. What are vBuckets in Couchbase and what are the different vBucket statuses available?
12. What steps must be taken in order to enable sub-millisecond response time?
13. What data is included in a document's metadata in Couchbase?
14. Explain the concerns associated with co-locating different Services on a single node, especially the Data Service, Index Service, and Query Service.
15. Describe the processes of Eventing.
16. For which data format is Couchbase optimized?
17. What does Multi-dimensional Scaling enable in Couchbase?
18. How does Couchbase manage document ejection via the LRU?
19. Compare Analytics querying with N1QL/SQL++ querying. What are the benefits of each?

### Bucket Management in Couchbase

20. Define vBuckets and how they are treated within Couchbase Server.
21. How do active and replica vBuckets distributed and how many replicas are allowed?
22. What can be edited on a Couchbase Bucket and what cannot be edited?
23. Define a Couchbase Bucket, an Ephemeral Bucket, and a Memcached Bucket.
24. What are the Bucket maximum and minimum allowances and how does existing data react when Buckets are added or removed?
25. What are the benefits of Test Compression when working with data overages?
26. What do cbc-pillowfight, cbimport, and cbworloadgen allow an Administrator to do?

### Node Management in Couchbase

27. What is requirement for the number of Couchbase Services needed for auto-failover to function?
28. For which Services can Couchbase automatically failover? For which Services can Couchbase never automatically failover?
29. Define the steps of auto-failover.
30. Which automatic action does Couchbase perform after an Index Service failure?
31. What happens during a Rebalance and what are some of the best practices when rebalancing?
32. Define the steps and benefits of Graceful failover.
33. What is achieved through the Couchbase Compaction process?
34. What does Full Recovery achieve in Couchbase?
35. How does suspecting corrupted data impact your data recovery strategy?
36. Under which circumstances can auto-failover occur or timeout?
37. How does rebalancing Nodes impact the existing Services when new Nodes are added?
38. What is a Server Group and what does enabling Server Groups achieve?
39. How does setting auto-failover time to the smallest or the largest value impact Service resources?
40. How does Delta Recovery function in Couchbase?



[Cross Data Center Replication \(XDCR\)](#)

41. What are the XDCR features and capabilities within Couchbase?
42. How does Advanced Filtering impact XDCR?
43. How does Revision-based Conflict Resolution function within Couchbase?
44. How is XDCR set up in Couchbase?
45. For what operations are replicated documents sent for the first time? For what operations are replicated documents resent?
46. What is XDCR unable to replicate?
47. What are three common reasons for XDCR to stop replicating in Couchbase?
48. How does XDCR impact a desire for High Availability of data?
49. When there is a Node disconnect between XDCR Nodes, what events can an Administrator expect?
50. What is the capability enabled by XDCR exchanging Cluster Maps?

### Security in Couchbase

51. What is an External Lightweight Directory Access Protocol (LDAP) group affiliation?
52. How are User privileges grouped in Couchbase?
53. How do auditing, encryption, authorization, and authentication function within Couchbase Server?
54. Which authority factors are labeled as authentication, and which authority factors are labeled as authorization (e.g. policies vs. passwords)?
55. What are the benefits of Authenticating Couchbase Server Administrators with LDAP?
56. What is Privileged Access Management, and how does it work with Couchbase?

### Monitoring and Logging in Couchbase

57. Which statistics are available in Couchbase Monitoring?
58. Describe what “Active Resident Ratio” and “Disk Queue Size” refer to and where they can be found in Couchbase.
59. What email alerts are available to an Administrator, and how often can they be sent?
60. For what reason would an Administrator use the cblogredaction tool?
61. How can Couchbase Server logs be collected?
62. What information is redacted from collected Couchbase Server log files? Which information cannot be redacted from Couchbase logs?
63. Where can Couchbase logs be viewed and stored?
64. When sending logs to Couchbase Support, which details are important to provide?
65. What are some best practices for Couchbase OS and Basic Input/Output System (BIOS) settings?
66. What troubleshooting steps might you take if the client SDK cannot connect with Couchbase after initial installation?



## **Next Steps**

Now that you have completed this Study Guide, we hope you feel prepared to take the Couchbase Professional Administrator Certification exam.

## **Exam**

The exam must be purchased at the Couchbase Academy Store in order to be taken. Your exam will contain 50 questions. You will be given 90 minutes to complete the exam within the Couchbase Academy, and no feedback will be provided at the question level. Once you have completed the exam, you will be given your score.

## **Questions? Concerns?**

Please send all inquiries to [training@couchbase.com](mailto:training@couchbase.com).