



# **Associate Architect Certification Exam Study Guide**

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## Welcome to Couchbase Associate Architect Certification!

### What to Expect:

- ⇒ Use this Study Guide to prepare for the Couchbase Associate Architect Certification Exam.

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## Certification Program and Exam Overview

This Study Guide is designed to help you prepare for the Couchbase Associate Architect Certification exam. The 40-question certification exam is based on fundamental aspects of Couchbase 7.0+ and various Couchbase SDKs. 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 Couchbase Associate Architect Certification courses which are offered free and online in a self-paced learning environment. 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 an Application or Solutions Architect. 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 CB131 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:

- ⇒ Register for and take the 8 courses of CB131: Couchbase Associate Architect Certification.
- ⇒ 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. Use labs to experiment with anything you need to spend more time on.
- ⇒ Please keep in mind that you are expected to have good working knowledge of all the topics listed. Most of the preparation questions will be very general; however, you will be asked a few advanced questions.

## 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 CB131: Couchbase Associate Architect Certification Exam.

- Certification exams may be taken from a location of your choosing, anywhere in the world, provided you meet the basic system and test environment requirements. ***Please read these instructions thoroughly.*** [See here for requirements.](#) *Mac users should pay specific attention here as setting changes may be required.* All users will need to bring a photo ID to the exam.
- 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).
- The exam itself is computer-based and must be purchased from Couchbase and scheduled with the vendor ProctorU in order to take it.
- The proctor will require 10-25 minutes of setup before you begin the exam. You will receive general instructions from the proctor.
- It is **IMPORTANT** that you ***do not start the exam until you are told to do so by the proctor, who must type in a password before you begin.*** Starting the exam without the proctor can invalidate your exam.
- You have up to 60 minutes to answer the 40 multiple choice questions. You must answer at least 32 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 Associate Architect 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 Associate-level Architect, and have been attested to by many Subject Matter Experts within Couchbase, Inc.

If you do not earn a passing score, you are encouraged to:

- Review the CB131: Couchbase Associate Architect Certification course and study guide at no additional cost.
- ***Purchase a new exam on the Couchbase Academy Store.***
- Schedule a time to take the exam with ProctorU.

## 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 associated lab exercises.

**2. Do I have to know class names and method signatures?**

No, however we expect you to be familiar with the basic method structure of the APIs in question and to evaluate if the given methods are written correctly or not.

**3. Do I have to write, complete or rearrange source code?**

No. The only thing you should be able to do is read a snippet of code and understand what it's doing.

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

Our certification exam is available to individuals seeking to attain the Couchbase Associate Architect 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.

**5. 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.

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

Exams are available for purchase on our [Couchbase Academy Store](#). Locate the exam and add to cart (*CB131: Couchbase Associate Architect 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. Once purchase has completed, you will receive several emails from ProctorU inviting you to set up your account and schedule your exam.

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

Once you have purchased the exam from the Couchbase Academy store, you must schedule and take your exam through ProctorU 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 schedule your exam date.

**8. 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.

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

ONE exam purchase offers you **ONE opportunity** to take the exam, whether you pass or fail. 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 material in the associated course before re-attempting the exam.

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

In order to take the exam, you ARE required to create a ProctorU account. In order to accept your badge, you ARE required to create an account with Credly.

### Couchbase Overview

1. What is SQL and what are its features and benefits?
2. What is NoSQL and what are its features and benefits?
3. How do Relational (SQL) databases compare to NoSQL database benefits?
4. Compare and contrast Vertical and Horizontal scaling.
5. What are the services Couchbase provides and what are the benefits of each?
6. How do different document types impact database storage plans?
7. Describe the important considerations when selecting Keys for Documents in a Key/Value Store.
8. Define JSON, the essentials of JSON syntax, and the capabilities of JSON documents.
9. How do JSON documents work with Key/Value pairs?

### Getting and Setting Up Couchbase

10. How can you download Couchbase and what are the benefits of downloading on a local machine, using Docker, and using a Public Cloud options?
11. What type of Cluster would a user create for prototyping and application? How might that approach change when creating a production-ready application?
12. What are the key considerations when allocating Memory upon initial set-up in Couchbase?
13. How do Couchbase Clusters, Buckets, Collections, and Scopes compare to similar concepts in Relational databases? For example, a Couchbase Cluster is similar to \_\_\_\_\_ in a Relational database.
14. When and how are Bucket replicas created in Couchbase?
15. What are Scopes, Collections, Default Scopes, and Default Collections, and how do they function in Couchbase?
16. What is a Flush setting and when might it be enabled?
17. Given data amounts and restrictions, be able to allocate memory correctly for a Couchbase Bucket.
18. What are the steps a user would follow to create a new Couchbase Cluster?
19. What are the steps a user would follow to connect Couchbase to data?

### How to Store and Access Data Using the Couchbase SDKs

20. Be prepared to evaluate Cluster, Bucket, Scope, and Collection code for accuracy in order to complete pertinent operations.
21. Explain how the storage of data and its format can contribute to getting the most out of Couchbase.
22. List the different exceptions or errors that can be thrown and what each exception or error means.
23. What are the basic Key/Value operations and what does each achieve?
24. Explain what a Scope and Collection are and how they impact data storage.
25. How would a user connect to Couchbase using Java, Node.js, or .NET SDKs?
26. What permissions should a new user have in order to access a Couchbase Cluster?

### How Document Design Impacts Application Behavior

27. Which attributes of Couchbase would contribute to an application's performance?
28. What is the difference between a natural key and surrogate key?
29. What are the interconnected factors that impact data modeling?
30. What are the phases of data modeling, and how can each phase impact application performance?
31. What are common Domain Object patterns used? What are the pros and cons of each pattern?
32. What are the rationales for isolating or aggregating data in distinct documents?
33. What are the document storage requirements for Couchbase Collections?



### How to Query Using Couchbase's N1QL

34. Define and describe the following indexes: Primary, Secondary, Composite, Partial, Partial Composite Indexes.
35. What are the key elements of the Query Workbench and what do they show?
36. Define N1QL, its capabilities, and its key syntax elements.
37. Be prepared to identify valid N1QL query statements.
38. Which values are returned by the META function in N1QL?
39. What operations can be completed with basic N1QL filtering?
40. How does N1QL compare to SQL?

### How to Utilize Couchbase Full Text Search

41. What does an inverted index allow an Architect to see?
42. What are the steps a text analyzer takes when evaluating search data?
43. What principles are used to create a fuzzy search in Couchbase FTS?
44. In what search conditions might an Architect elect to query using N1QL over FTS and FTS over N1QL?
45. How can simple test search results be displayed in the Couchbase Workbench for FTS?
46. What are the fuzziness capabilities within FTS and what does each setting mean?
47. Where can SDK call be found in Couchbase FTS?
48. How does ETL impact data accuracy in relation to Search?
49. How might a user get more information from search results?



### Next Steps

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

### Exam

The exam must be purchased at the Couchbase Academy Store and scheduled with ProctorU, our testing vendor, in order to be taken. Once you have scheduled your exam time, your exam will contain 40 questions. You will be given 60 minutes to complete the exam, 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).