

Cassandra Query Language by Examples

Puzzles with Answers

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About this Book

This book contains two original and high-quality practice tests of 50 questions each. They will help you learn and/or better understand Apache Cassandra, especially its CQL (Cassandra Query Language)

- Each practice test has **50 questions**. For more challenge, time them up for 60 minutes, and consider a 80% passing score.
- Domains: **Data Modeling, Data Definition, Data Types, Data Search, Data Modification, Functions, CQL Shell, Performance, Security**.
- Almost every question offers 3-4 choices. Most questions are single-select, a few with variable multi-selections.
- Every question is unique and original, elaborated, meant to teach you something essential, with no waste of time.
- Detailed explanations with external references for any possible choice, in each practice test question.
- Reference links to relevant pages from the Apache Cassandra Documentation, DataStax documentation, StackOverflow questions.
- While this will also help you pass DataStax certifications exams, the questions here may be very different from the exams.

The live interactive version of this e-book has been implemented on Udemy as a course, with the [Cassandra Query Language by Examples: Puzzles with Answers](#) title.

What you will learn or better understand

- How to properly design tables in CQL. Data modeling with Chebotko diagrams and proper key choices.
- How to properly query Cassandra tables without paying a price in performance.
- How to properly use the partition, clustering or primary keys, in WHERE and ORDER BY clauses.
- When and what keys you may skip in a filter expression or in an explicit query sort order.
- When to create a new denormalized table, secondary index or materialized view.
- Major differences between SQL and CQL, with plenty of examples.
- How to avoid traps, gotcha situations, hidden issues you may not know about.
- What the mysterious TTL actually does. When whole rows may suddenly disappear or not.

How you should use these tests

- Try first practice test. And do not worry about any time limit or if you fail. You are expected to fail, this is how you learn...
- Stop the exam anytime, if you're not patient enough to go over all 50 questions.
- We set the passing score at 80%, to make it even more challenging. Once you are done, go to the ***Answers and Explanations*** section for your test, and check both the right and wrong choices for each individual question.
- Read the detailed **Explanation** for each question.
- Repeat with the second practice test.
- Repeat these tests again and again, until you score at least 90% on each.

Practice Test 1

Question 1:

A typical search query on a table with partition keys and no cluster keys should return: (select one)

- A) one or more rows
- B) one single row
- C) at least one cluster key is mandatory

Question 2:

Which kind of key determines the sort order of stored data? (select one)

- A) partition key
- B) primary key
- C) cluster key
- D) compound partition key

Question 3:

How to remove all table rows? (select one)

A)

```
DELETE FROM table
```

B)

```
DELETE * FROM table
```

C)

```
TRUNCATE table
```

Question 4:

What is the potential problem of a conditional INSERT/UPDATE/DELETE operation? (select one)

- A) There might be a performance cost, because of Paxos.
- B) The query fails if the condition is false.

- C) The command is no longer supported in the last version.

Question 5:

What is NOT true about the DELETE statement? (select one)

- A) DELETE can also delete individual columns, leaving the rows in place.
- B) DELETE cannot use multiple partition key values.
- C) All deletions for the same partition key are applied atomically and in isolation.

Question 6:

What is the difference between text and varchar data types? (select one)

- A) For varchar you can and have to specify a size, for text you cannot.
- B) None, text is just an alias for varchar.
- C) Text is a blob data type, varchar is not.

Question 7:

What is Cassandra's equivalent of a sequence, or auto-incremented ID? (select one)

- A) counter data type
- B) UUID data type
- C) there is no direct equivalence

Question 8:

Which is NOT a method to get the total number of rows in a table? (select one)

- A) COUNT(1)
- B) COUNT(*)
- C) COUNT(table)
- D) nodetool

Question 9:

Which call generates a time-based unique identifier? (select one)

- A) id(), for a guid data type

- B) uuid(), for a uuid data type
- C) now(), for a timeuuid data type
- D) currentTimeUUID, for a guid data type

Question 10:

Table t1 has one single id partition key column, with the uuid data type.

Which query fails? (select one)

A)

```
INSERT INTO t1 (id)
VALUES ('c37d661d-7e61-49ea-96a5-68c34e83db3a');
```

B)

```
INSERT INTO t1 (id)
VALUES (c37d661d-7e61-49ea-96a5-68c34e83db3a);
```

C)

```
INSERT INTO t1 (id)
values (uuid());
```