Apache Cassandra Administrator Associate

Exam Practice Tests

by

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About the Book

Are you a system administrator or a DevOps looking for a valuable certification in the most popular NoSQL wide-column store? These two original practice tests will help you score big in your **Apache Cassandra Administrator Associate** certification exam.

This book contains two high-quality practice tests similar to the proctored exam. Just like the actual exam, each exam practice test has **60 questions** that you can try answer in **90 minutes** or less. You may also consider a **70% passing score**, just like for the real exam.

DataStax, the largest provider of a commercial version for Apache Cassandra, is also the company that offers these Administrator and Developer certification exams. DataStax cut down the price for a certification exam to **$145 US**. But you can qualify for a free voucher and pay nothing, if you complete a learning path watching three of their courses online.

This is not a brain dump, but the questions closely emulate those from the actual exam. All practice test questions are created by the author and do not repeat themselves. Each question has a detailed explanation and one or more references. The questions are divided in four categories: **Architecture, Operations, Data Modeling**, and **CQL**.

While both the Administrator and Developer paths have some common recommended courses, the practice tests include several questions from my previously published **Become a Certified Cassandra Developer: Practice Exams** book.

The exam has been updated in mid-2020, and we offer here the same level of difficulty as those latest exam questions. Most questions are single-select, with four possible choices. Few questions have multiple-choices. There are no True/False questions.

What you don't have at the actual exam are the questions you missed, and the correct answers. We provide detailed explanations with link references for every question.

The exam will test your administration skills for Apache Cassandra 3 and DataStax Enterprise 6. You should have some prior basic knowledge on the product. Go to their online documentation, and watch DataStax Academy's recommended videos for this certification exam, to know more.

An interactive version of this book has been implemented on Udemy: **Become a Certified Cassandra Administrator: Practice Exams**.

How to Use the Tests

- Start with the first practice test. Mark down each question number with your choice, on a separate piece of paper. Don't look at the answers yet.

- Use your own pace, or try to stay within the 90 minutes time limit of the actual exam – it's your choice.

- Stop anytime, if you are not patient enough to go over all 60 questions.

- After you finished a test, go to the ***Answers and Explanations*** section and check both the right and wrong choices for each question.

- Read the detailed **Explanation** for each question, as we tried to provide as much valuable information as we could.

- Click on the **References** links, to learn more from the online documentation and other sources.

- The passing score in the real exam is 70%. Don't worry if score below for the first time – you'll get much better in time.

- Go for the second practice test. Repeat the tests until you score 90% or more. Then you may be ready for the actual exam.

Practice Test 1

Question 1:

What can you tell about the following batch? (select one)

```
CREATE TABLE countries (
  country text,
  state text,
  pop int,
  PRIMARY KEY (country, state)
);


BEGIN BATCH
  INSERT INTO countries (country, state, pop) values ('USA', 'Oregon', 4200000);
  UPDATE countries SET pop=1700000 WHERE country='USA' AND state='Idaho' IF
pop=NULL;
APPLY BATCH;
```

   A) This is a single-partition batch that will be applied successfully.
   B) This is a multi-partition batch that will be applied successfully.
   C) This is a single-partition batch that will fail.
   D) This is a multi-partition batch that will fail.

Question 2:

Which is NOT a valid Cassandra distribution method? (select one)

   A) Installing the binary tarball.
   B) RPM build with YUM.
   C) Windows build with MSI.
   D) Debian build with APT.

Question 3:

What is NOT a use case for running `nodetool cleanup`? (select one)

   A) After adding a new node.
   B) To remove keyspaces that no longer belong to a node.

C) To trigger a major compaction.
D) To remove data from nodes that lose part of their partition range to a newly added node.

Question 4:

DSBulk creates log files in a /tmp/logs/LOAD_... operations directory.

Which is NOT a file saved there? (select one)

A) operation.log
B) positions.txt
C) mapping-errors.log
D) gc.log

Question 5:

What is *dynamic snitching*? (select one)

A) A method to dynamically determine rack and data center names.
B) A way to auto-detect when nodes moved to another rack.
C) A monitor for read latencies, to avoid reading from hosts that have slowed down.
D) A monitor for write latencies, to avoid writing to hosts that have slowed down.

Question 6:

You have one datacenter cluster with a replication factor of 3. You issue a read request with a consistency level of QUORUM that hits one single partition.

What is NOT possible? (select one)

A) Two replicas must respond to fulfill the read request.
B) The replica with the most recent version will return the requested data.
C) The third replica is checked for consistency with the first two.
D) A read repair will always take place at the end.

Question 7:

Which is a *linearizable* consistency level? (select one)

A) EACH_QUORUM
B) LOCAL_QUORUM

C) LOCAL_ONE

D) LOCAL_SERIAL

Question 8:

How is the *coordinator* node configured? (select one)

A) Could be any cluster node addressed by a client.

B) With coordinator_node setting in cassandra.yaml.

C) Only seed nodes can act as coordinators.

D) That's a special master node.

Question 9:

This is the trace of an INSERT statement:

```
activity                               | timestamp      | source      | source_elapsed
---------------------------------------+----------------+-------------+----------------
                   execute_cql3_query  | 00:02:37,015   | 127.0.0.1   |              0
                    Parsing statement  | 00:02:37,015   | 127.0.0.1   |             81
                  Preparing statement  | 00:02:37,015   | 127.0.0.1   |            273
   Determining replicas for mutation   | 00:02:37,015   | 127.0.0.1   |            540
     Sending message to /127.0.0.2     | 00:02:37,015   | 127.0.0.1   |            779

   Messsage received from /127.0.0.1   | 00:02:37,016   | 127.0.0.2   |             63
                   Applying mutation   | 00:02:37,016   | 127.0.0.2   |            220
                Acquiring switchLock   | 00:02:37,016   | 127.0.0.2   |            250
              Appending to commitlog   | 00:02:37,016   | 127.0.0.2   |            277
                  Adding to memtable   | 00:02:37,016   | 127.0.0.2   |            378
     Enqueuing response to /127.0.0.1  | 00:02:37,016   | 127.0.0.2   |            710
      Sending message to /127.0.0.1    | 00:02:37,016   | 127.0.0.2   |            888

   Messsage received from /127.0.0.2   | 00:02:37,017   | 127.0.0.1   |           2334
 Processing response from /127.0.0.2   | 00:02:37,017   | 127.0.0.1   |           2550
                    Request complete   | 00:02:37,017   | 127.0.0.1   |           2581
```

At what point in time can data be recovered if the node fails? (select one)

A) 2581

B) 888

C) 378

D) 277

Question 10:

What two row values are returned by the last SELECT query? (select one)

```
CREATE TABLE Countries (

  country text,

  state text,

  info text STATIC,

  PRIMARY KEY (country, state)

);


INSERT INTO Countries (country, state, info) VALUES ('USA', 'Oregon', 'nice
country');

INSERT INTO Countries (country, state, info) VALUES ('USA', 'Idaho', 'lovely
country');


SELECT info FROM Countries WHERE country='USA';
```

A) 'nice country' followed by 'lovely country'
B) 'lovely country' followed by 'nice country'
C) 'lovely country' followed by 'lovely country'
D) 'nice country' followed by 'nice country'