Cassandra CRUD Operations

Estimated time needed: **15** minutes

Objectives

After completing this lab you will be able to:

- Insert data into a table with an INSERT command
- Read data from a table by querying from it
- Update and delete data from the table based on specific criteria

About This SN Labs Cloud IDE

This Skills Network Labs Cloud IDE provides a hands-on environment for course and project related labs. It utilizes Theia, an open-source IDE (Integrated Development Environment) platform, that can be run on desktop or on the cloud. To complete this lab, we will be using the Cloud IDE based on Theia and Cassandra running in a Docker container.

Important Notice about this lab environment

Please be aware that sessions for this lab environment are not persisted. Every time you connect to this lab, a new environment is created for you. Any data you may have saved in the earlier session would get lost. Plan to complete these labs in a single session, to avoid losing your data.

Exercise 1 - Getting the environment ready

1. Problem:

   Start the cassandra server.

▶ Click here for Hint
▶ Click here for Solution

    2. Problem:

        Connect to the cassandra server.

▶ Click here for Hint
▶ Click here for Solution

    3. Problem:

        *Create a keyspace named **training** using SimpleStrategy and replication factor of 3.*

▶ Click here for Hint
▶ Click here for Solution

    4. Problem:

        *Create a table named **movies** with columns 'movie_id' which is the primary key and integer type, 'movie_name' of type text, and 'year_of_release' of type integer.*

▶ Click here for Hint
▶ Click here for Solution

Exercise 2 - Insert data into a table

Let us insert a row into the table movies.

On cqlsh run the below command.

```
1. 1
2. 2
3. 3
```

```
1. INSERT into movies(
2. movie_id, movie_name, year_of_release)
3. VALUES (1,'Toy Story',1995);
```

Copied!

Verify that the data is saved.

```
1. 1
```

```
1. select * from movies;
```

Copied!

Insert the below movies into the table.

movie_id	movie_name	year_of_release
2	Jumanji	1995
3	Heat	1995
4	Scream	1995
5	Fargo	1996

▶ Click here for Solution

Exercise 3 - Read data from a table

In the previous exercise you have inserted some data into the table named **movies**.
Let us query the data in the **movies** table.

Query all rows.

```
1. 1
```

```
1. select * from movies;
```

Copied!

Query the movie name with movie_id 1.

```
1. 1
```

```
1. select movie_name from movies where movie_id = 1;
```

Copied!

Exercise 4 - Update data in a table

The movie_id for Scream is 4. It was released in 1996 and not 1995. Here is how you modify it.

```
1. 1
2. 2
3. 3
```

```
1. UPDATE movies
2. SET year_of_release = 1996
3. WHERE movie_id = 4;
```

Copied!

Verify that the update was successful.

```
1. 1
```

```
1. select * from movies where movie_id = 4;
```

Copied!

Exercise 5 - Delete data from a table

Delete the movie with the movie_id 5.

```
1. 1
2. 2
```

```
1. DELETE from movies
2. WHERE movie_id = 5;
```

Copied!

Verify using the below command.

```
1. 1
```

```
1. select * from movies;
```

Copied!

Practice exercises

1. Problem:

   Insert the below movie into the movies table.

movie_id	movie_name	year_of_release
6	Twister	1997

▶ Click here for Hint
▶ Click here for Solution

2. Problem:

   Modify the release year of Twister to 1996.

▶ Click here for Hint
▶ Click here for Solution

3. Problem:

   Delete the movie Twister.

▶ Click here for Hint
▶ Click here for Solution

4. Problem:

   *Drop the **training** keyspace.*

▶ Click here for Hint
▶ Click here for Solution

5. Problem:

   Disconnect from the cassandra server.

▶ Click here for Hint
▶ Click here for Solution

Authors

Ramesh Sannareddy

Other Contributors

Rav Ahuja

Change Log

Date (YYYY-MM-DD)	Version	Changed By	Change Description
2021-11-22	0.3	Kathy An	Updated lab instructions
2021-04-20	0.2	Steve Ryan	Review pass
2021-03-24	0.1	Ramesh Sannareddy	Created initial version of the lab