Hands-on Lab: Using the CQL Shell (cqlsh)

Estimated time needed: **20** minutes

Objectives

After completing this lab, you will be able to:

- Access the Cassandra server with cqlsh, the command-line interface for using the Cassandra Query Language (CQL)
- Run commands to learn more about the server and session, such as server version and host details
- Determine the available keyspaces, which are objects similar to databases, on the server

This SN Labs Cloud IDE

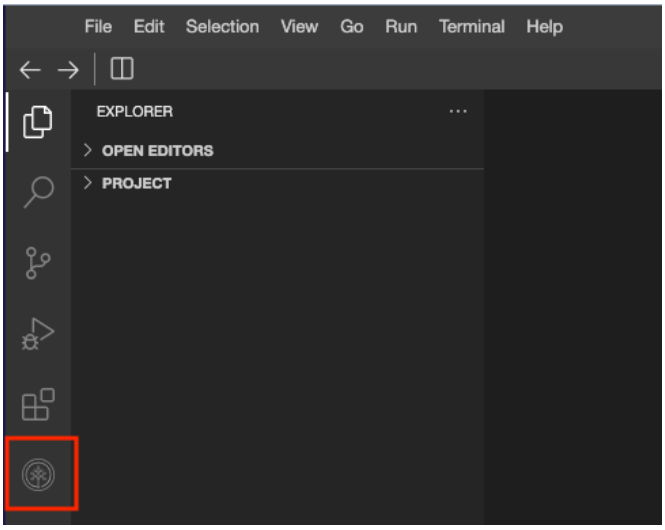
This Skills Network Labs Cloud IDE provides a hands-on environment for course and project-related labs. It utilizes Theia, an open-source IDE platform that can run on a desktop or the cloud. To complete this lab, you will use the Cloud IDE based on Theia and Cassandra running in a Docker container.

Important notice about this lab environment

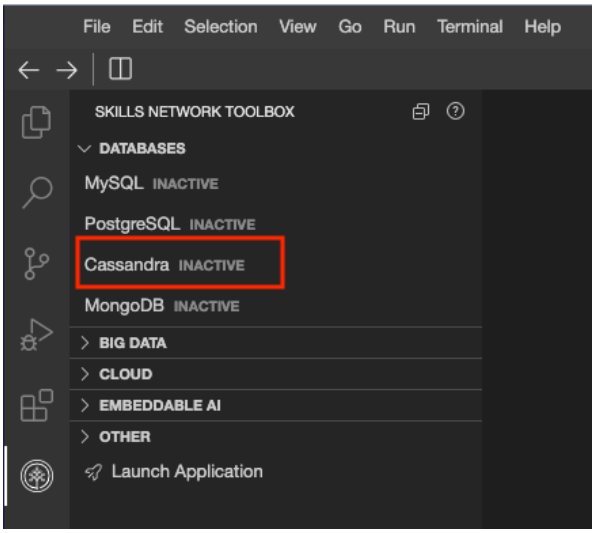
Please be aware that sessions for this lab environment do not persist. You will see a new environment every time you connect to this lab. Any data you may have saved in the earlier session would get lost. Plan to complete these labs in a single session to avoid losing your data.

Set-up: Start Cassandra

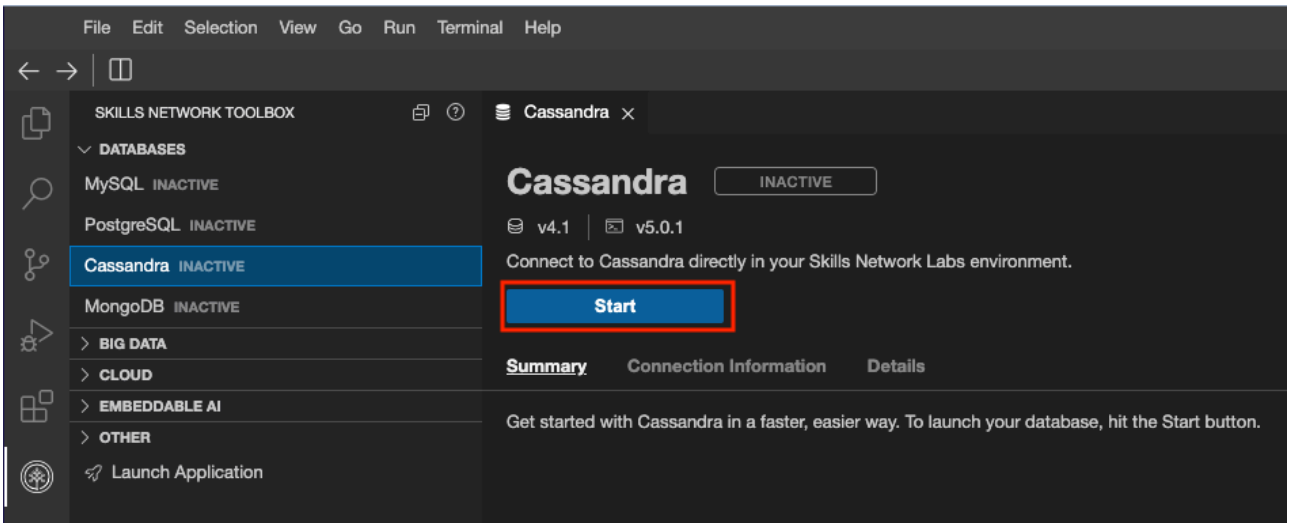
Navigate to Skills Network Toolbox.



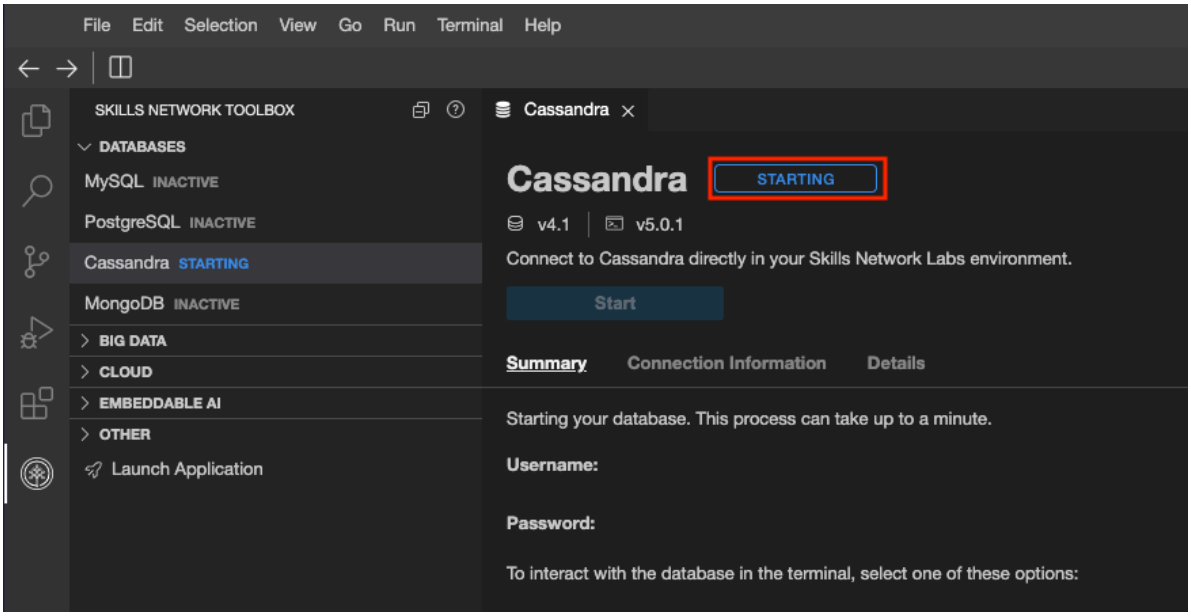
You will notice Cassandra is listed there but inactive. This means the database is not available for use.



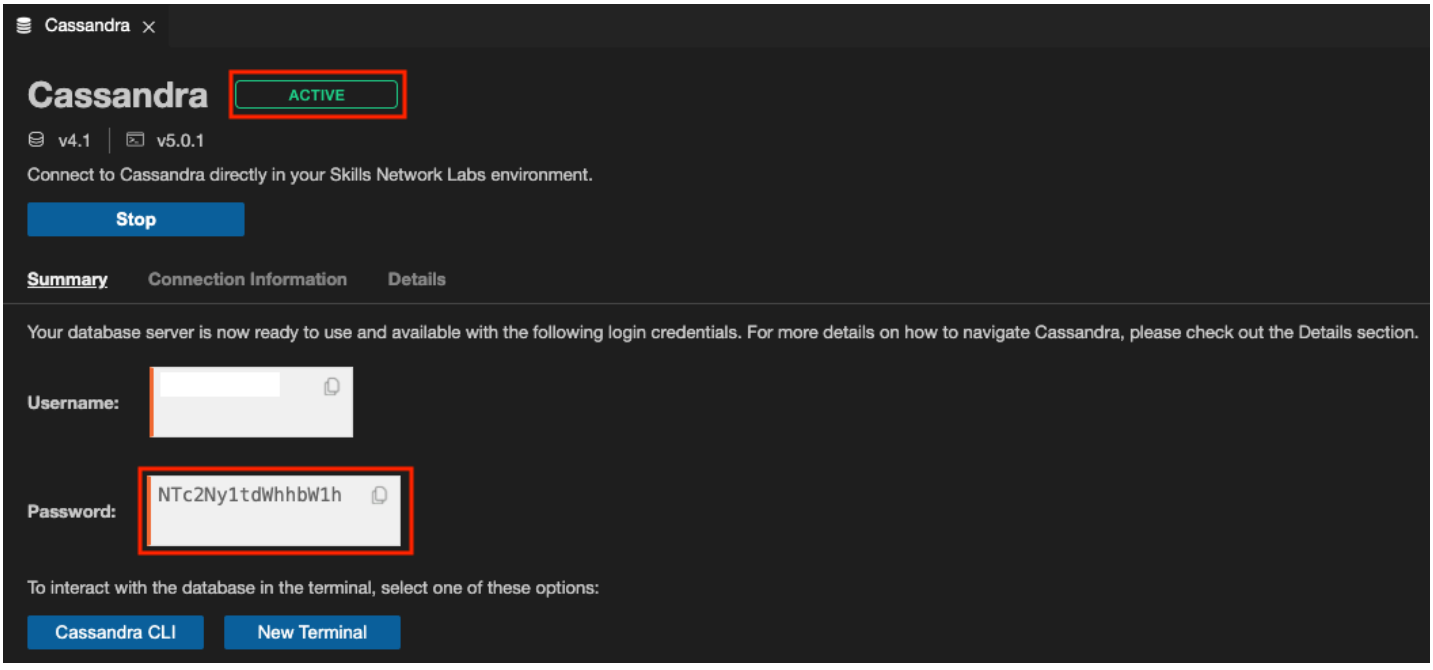
Once you select it, you will see more details and a button to start it.



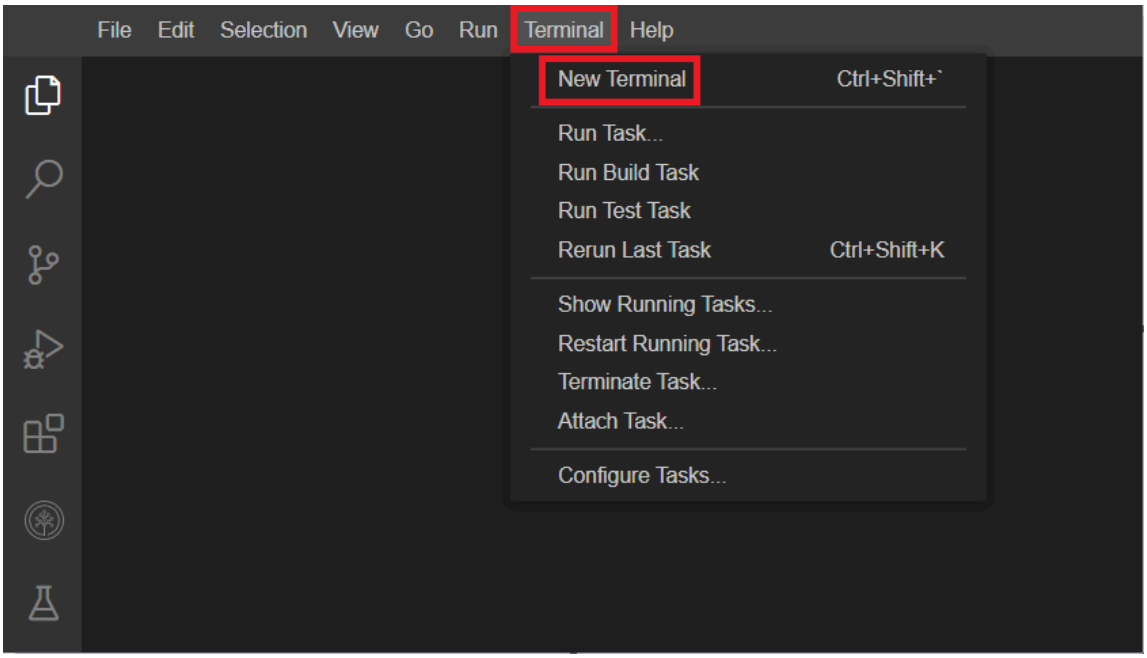
Clicking the start button will run a background process to configure and start your Cassandra server.



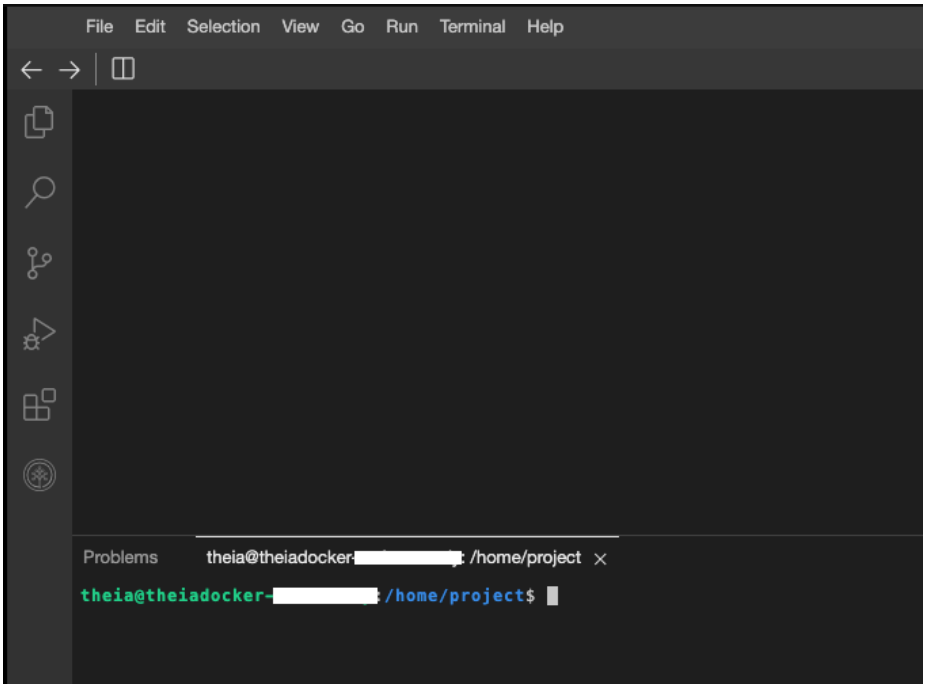
Shortly after that, your server is ready for use. This deployment has access control enabled, and Cassandra enforces authentication. So, take note of the password, as you will need it to log in as a `Cassandra` user.



You can now open the terminal and enter details yourself.



This action will open a new terminal at the end of the screen, as in the image below.



Run the following command on the newly opened terminal. (You can copy the code by clicking on the little copy button on the right end of the code block and then paste it wherever you wish)

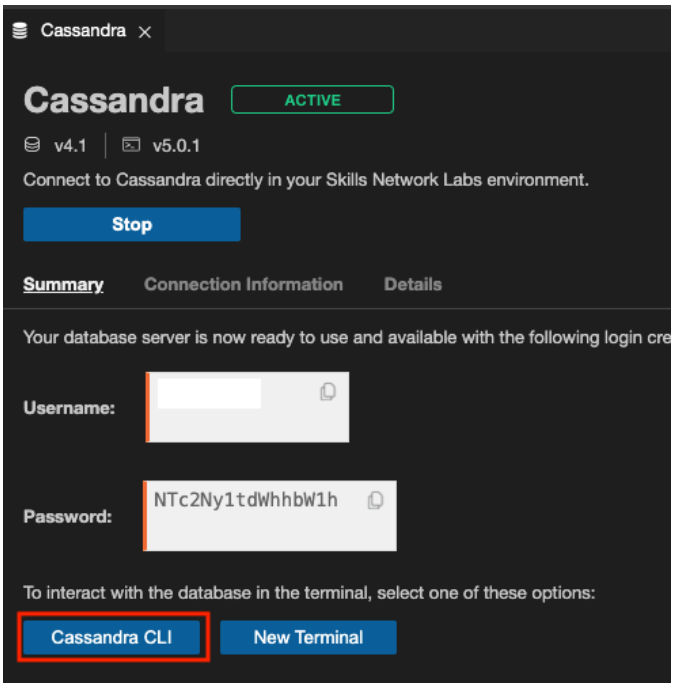
```
1. 1
```

```
1. cqlsh --username cassandra --password PASSWORD
```

Copied! Executed!

The command contains the username and password to connect to the Cassandra server. Your output could be different from the one shown here. Copy the command given to you, and keep it near you. You will need it in the next step.

Or you can click on Cassandra CLI, which does that for you.



Exercise 1: Find host details

On the cqlsh, run the following command.

```
1
```

```
show host
```

Copied!

This command will show the details of the server you have connected to.

Exercise 2: Find server version

On the cqlsh, run the following command.

```
1
```

```
show version
```

Copied!

This command will show the version of the Cassandra server.

Exercise 3: List keyspaces

Use the following command to list keyspaces in cqlsh.

> A keyspace is an outermost object in a Cassandra cluster that controls how data replicates on nodes.

```
1
```

```
describe keyspaces
```

Copied!

This command will print a list of the keyspaces present on the server.

Exercise 4: Clear the screen

On the cqlsh, run the below command.

```
1
```

```
cls
```

Copied!

This command will clear the cqlsh screen.

Exercise 5: Disconnect from Cassandra server

On the cqlsh run the below command.

```
1. 1
```

```
1. exit
```

Copied!

Practice exercises

1. Problem: Connect to the Cassandra server.

   ▼ Click here for hint

   Use the `cqlsh` command with correct username and password.

   ▼ Click here for solution

   Use the command with the user name and password generated on your terminal window when you start the Cassandra server using the start_cassandra command.

   ```
   1. 1
   1. cqlsh --username cassandra --password MTg3MzMtcnNhbm5h
   ```

   Copied!

2. Problem: Find the version of the server.

   ▼ Click here for hint

   Use the `show` command.

   ▼ Click here for solution

   ```
   1. 1
   1. show version
   ```

   Copied!

3. Problem: Find the host details.

   ▼ Click here for hint

   Use the `show` command with the host option.

   ▼ Click here for solution

   ```
   1. 1
   1. show host
   ```

   Copied!

4. Problem: Show keyspaces.

   ▼ Click here for hint

   Use the `describe` command with the keyspaces option.

   ▼ Click here for solution

   ```
   1. 1
   1. describe keyspaces
   ```

   Copied!

5. Problem: Disconnect from the server.

   ▼ Click here for solution

   ```
   1. 1
   1. exit
   ```

   Copied!

Summary

In this lab, you have gained an understanding of basic CQLSH syntax and usage.

Author(s)

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