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

About This SN Labs Cloud IDE

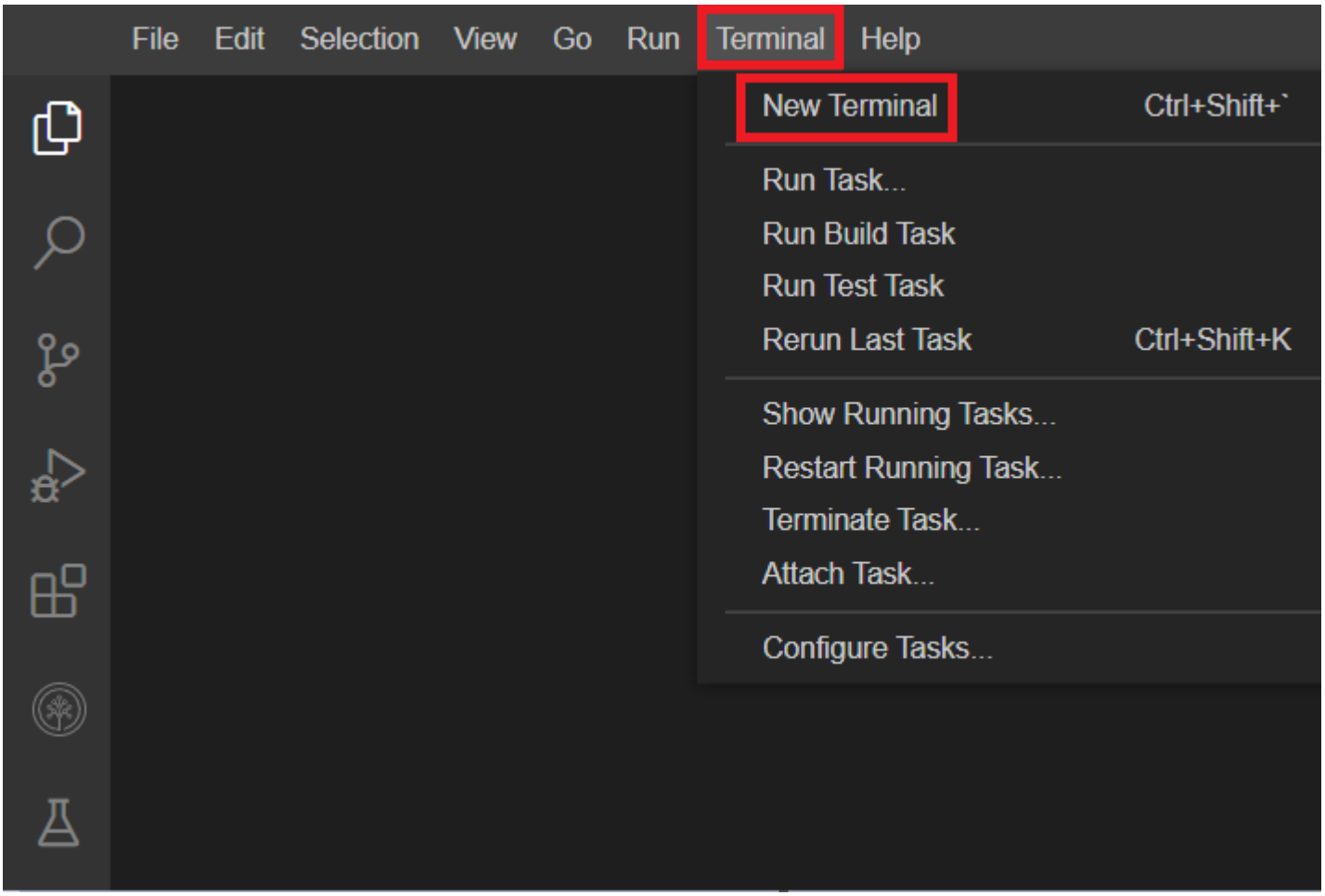
This Skills Network Labs Cloud IDE provides a hands-on environment for course and project related labs. It utilizes Theia, an open-source IDE (Integrated Development Environment) platform, that can be run on desktop or on the cloud. To complete this lab, we will be using the Cloud IDE based on Theia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

Important Notice about this lab environment

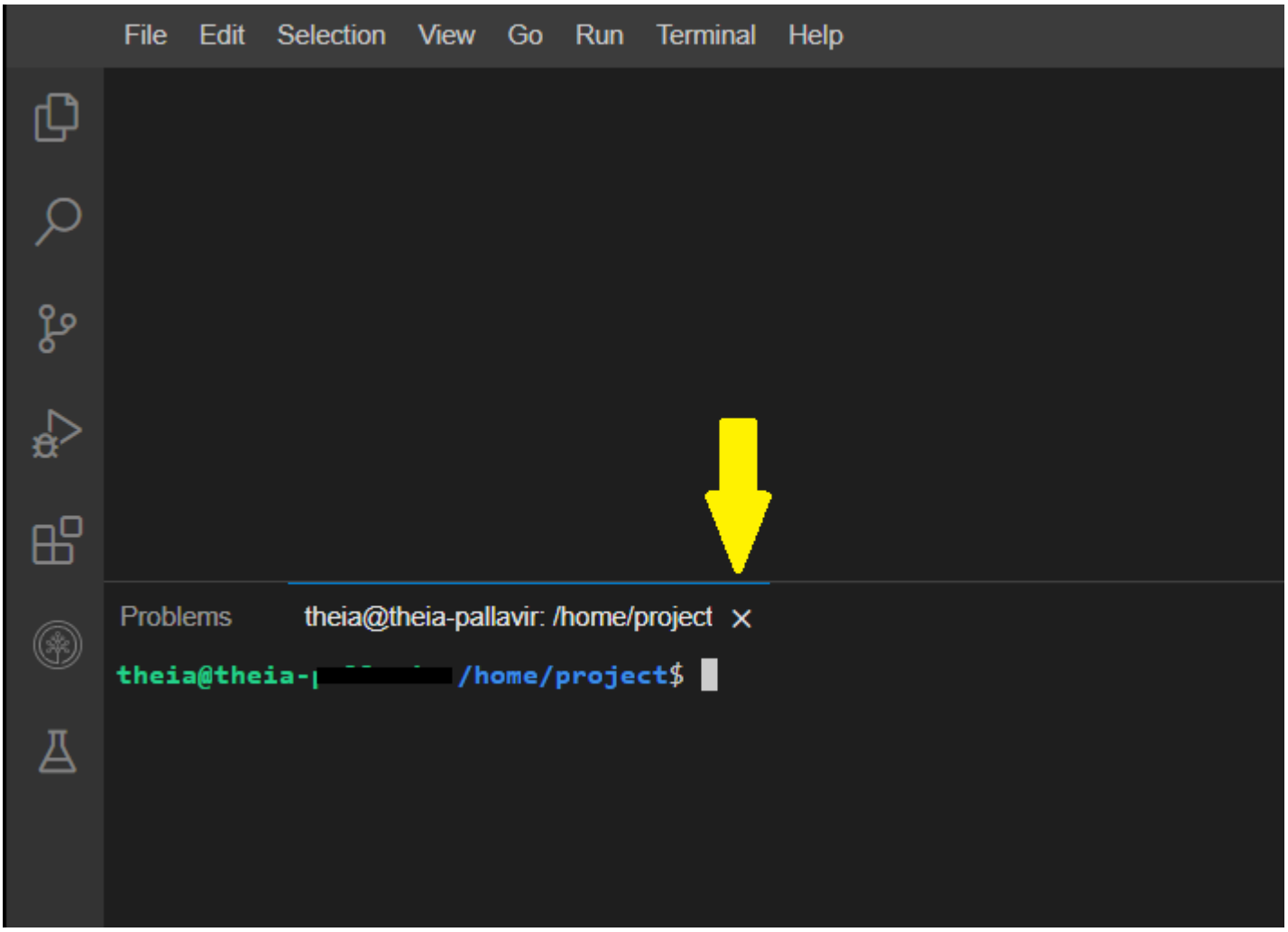
Please be aware that sessions for this lab environment are not persisted. Every time you connect to this lab, a new environment is created for you. Any data you may have saved in the earlier session would get lost. Plan to complete these labs in a single session, to avoid losing your data.

Exercise 1 - Start cassandra server

Open a new terminal, by selecting **Terminal->New Terminal** from the menu bar, as in the image below.



This will open a new terminal at the bottom of the screen as in the image below.

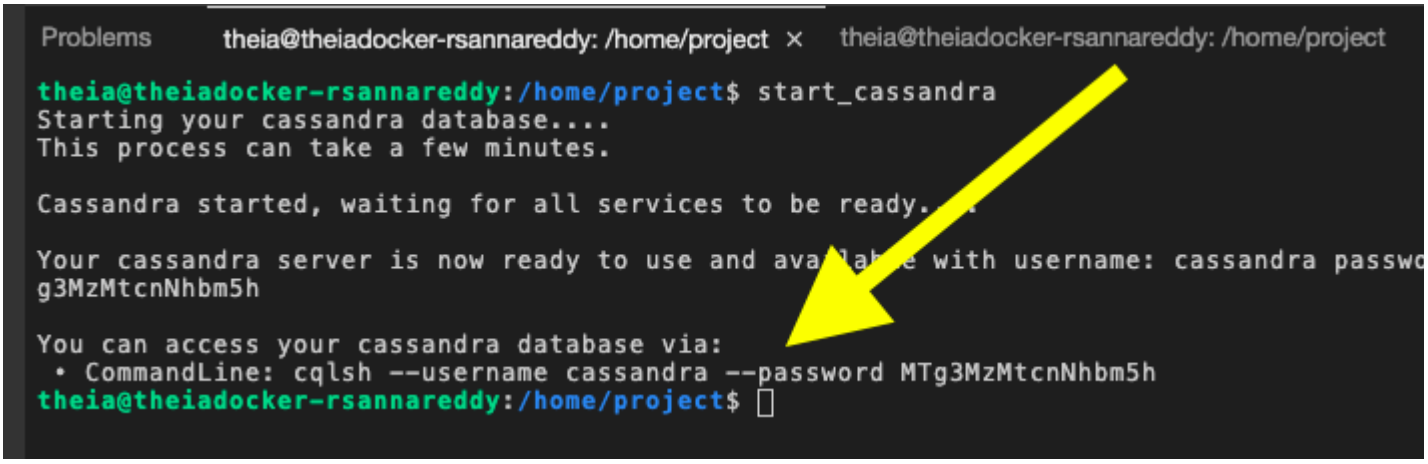


Run the below command on the newly opened terminal. (You can copy the code by clicking on the little copy button on the bottom right of the codeblock below and then paste it, wherever you wish.)

```
1. 1

1. start_cassandra
```

Copied!

This will start the cassandra server. It will also give you the command to connect to your instance of cassandra, as in the image below.



The command will look similar to the one given below.

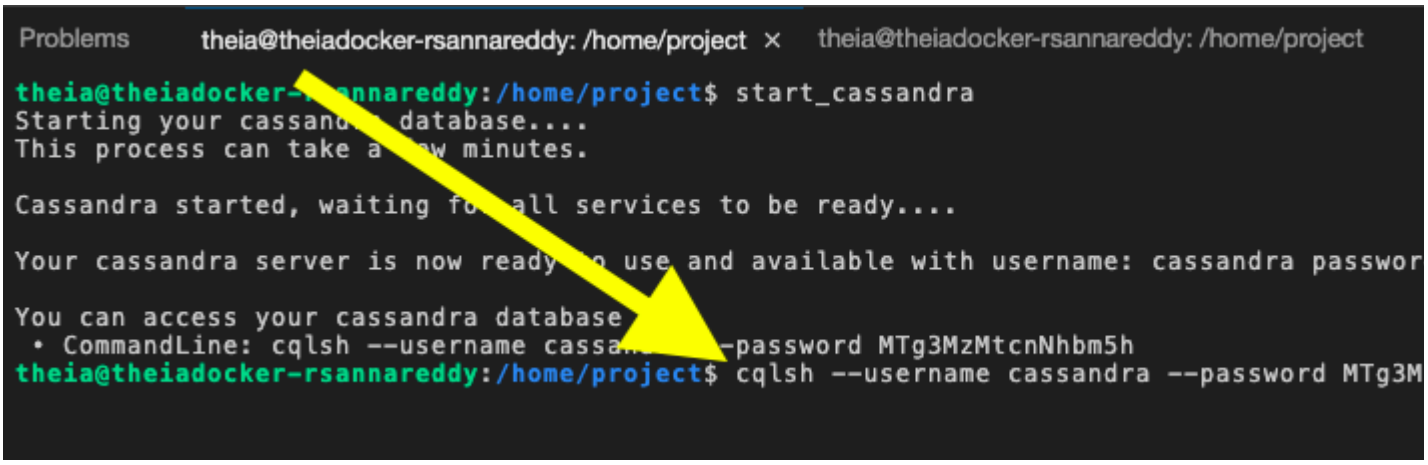
```
1. 1

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

Copied!

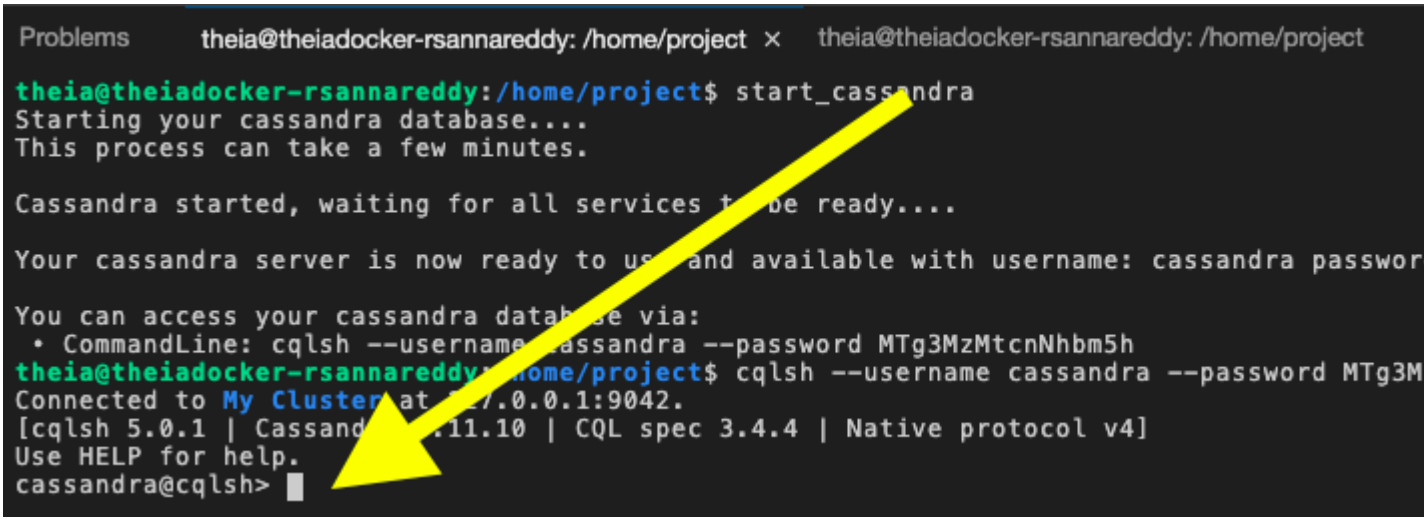
The command contains the username and password to connect to cassandra server. Your output would be different from the one shown above. Copy the command given to you, and keep it handy. You will need it in the next step.

Exercise 2 - Connect to cassandra server

On the terminal paste or type the command you copied in the previous step, as in the image below.



You should now get connected to the cassandra server, and see an output as in the figure below.



Exercise 3 - Find host details

On the cqlsh run the below command.

```
1. 1
```

```
1. show host
```

Copied!

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

Exercise 4 - Find the version of the server

On the cqlsh run the below command.

```
1. 1
```

```
1. show version
```

Copied!

This will show the version of the cassandra server.

Exercise 5 - List keyspaces

On the cqlsh run the below command.

```
1. 1
```

```
1. describe keyspaces
```

Copied!

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

Exercise 6 - Clear the screen

On the cqlsh run the below command.

```
1. 1
```

```
1. cls
```

Copied!

This will clear the cqlsh screen.

Exercise 7 - Disconnect from cassandra server

On the cqlsh run the below command.

```
1. 1
```

```
1. exit
```

Copied!

Practice exercises

1. Problem:

   Start the cassandra server.

▼ Click here for Hint

   Use the ‘start_cassandra’ command.

▼ Click here for Solution

```
1. 1
```

```
1. start_cassandra
```

Copied!

2. Problem:

   Connect to cassandra server.

▼ Click here for Hint

   Use the ‘cqlsh’ command with correct username and password.

▼ Click here for Solution

Use the below command with the user name and password generated on your terminal window, when you started the cassandra server using start_cassandra command.

```
1. 1
```

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

Copied!

3. 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!

4. 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!

5. 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 Hint

exit

▼ Click here for Solution

```
1. 1
```

```
1. exit
```

Copied!

Authors

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Change Log

Date (YYYY-MM-DD)	Version	Changed By	Change Description
2021-10-22	0.3	Kathy An	Updated learning objectives
2021-04-20	0.2	Steve Ryan	Review pass
2021-03-22	0.1	Ramesh Sannareddy	Created initial version of the lab