Installing Cassandra on Windows

Prerequisites

- Administrative access to your computer

- Download the latest Cassandra binary tarball from the official Apache Cassandra website.

Installation Steps

1. Install the Java Development Kit (JDK) 8 or above. You can download the latest JDK from the Oracle website: https://www.oracle.com/java/technologies/javase-downloads.html

2. Follow the installation wizard to install the JDK on your Windows machine.

3. Set the JAVA_HOME environment variable by following these steps:

   - Right-click on "This PC" and select "Properties".

   - Click on "Advanced system settings".

   - Click on the "Environment Variables" button.

   - Under "System Variables", click "New".

   - Set the variable name to JAVA_HOME and the variable value to the path to your JDK installation directory. For example, "C:\Program Files\Java\jdk1.8.0_291".

   - Click "OK" to close all windows.

4. Download the latest Python version from the official Python website: https://www.python.org/downloads/

5. Follow the installation wizard to install Python on your Windows machine.

6. Add Python to your system path by following these steps:

   - Open the Start menu and search for "Environment Variables".

   - Click on "Edit the system environment variables".

   - Click on the "Environment Variables" button.

   - Under "System Variables", scroll down and find the "Path" variable.

   - Click "Edit" and then click "New".

   - Enter the path to the "Scripts" folder of your Python installation. For example, "C:\Python39\Scripts".

   - Click "OK" to close all windows.

7. Extract the contents of the downloaded Cassandra tarball to a folder of your choice. You can do this by right-clicking the tarball file and selecting "Extract All".

8. Open a Command Prompt window and navigate to the folder where you extracted the Cassandra tarball.

9. Run the following command to start Cassandra: **bin\cassandra.bat -f**

    - This will start Cassandra in the foreground and output logs to the Command Prompt window.

    - Leave this window open while using Cassandra.

10. You can now connect to Cassandra using CQLSH (Cassandra Query Language Shell) by opening another Command Prompt window and running **bin\cqlsh.bat**.

Installing Cassandra on MacOS

Prerequisites

- Administrative access to your computer

- Download the latest Cassandra binary tarball from the official Apache Cassandra website.

Installation Steps

1. Install the Java Development Kit (JDK) 8 or above. You can download the latest JDK from the Oracle website: https://www.oracle.com/java/technologies/javase-downloads.html

2. Follow the installation wizard to install the JDK on your MacOS machine.

3. Set the JAVA_HOME environment variable by following these steps:

    - Open a Terminal window.

    - Type **nano ~/.bash_profile** and press Enter.

    - Add the following line at the end of the file: **export JAVA_HOME=/Library/Java/JavaVirtualMachines/jdk1.8.0_291.jdk/Contents/Home** (Replace the JDK path with the path to your installed JDK)

    - Press **Ctrl+O** to save the file, then **Ctrl+X** to exit nano.

    - Type **source ~/.bash_profile** and press Enter to apply the changes.

4. Download the latest Python version from the official Python website: https://www.python.org/downloads/

5. Follow the installation wizard to install Python on your MacOS machine.

6. Open a Terminal window and install pip (a package manager for Python) by typing the following command:

    sudo easy_install pip

7. Install the Cassandra driver for Python by typing the following command:

sudo pip install cassandra-driver

8. Extract the contents of the downloaded Cassandra tarball to a folder of your choice. You can do this by double-clicking the tarball file and selecting "Extract".

9. Open a Terminal window and navigate to the folder where you extracted the Cassandra tarball.

10. Run the following command to start Cassandra: **bin/cassandra -f**

- This will start Cassandra in the foreground and output logs to the Terminal window.

- Leave this window open while using Cassandra.

11. You can now connect to Cassandra using CQLSH (Cassandra Query Language Shell) by opening another Terminal window and running **bin/cqlsh**.

Installing Cassandra on UbuntuOS

Prerequisites

- Administrative access to your computer

- Ubuntu OS installed on your machine

- Download the latest Cassandra binary tarball from the official Apache Cassandra website.

Installation Steps

1. Update the apt package manager by running the following command in a terminal window:

    sudo apt update

2. Install the Java Development Kit (JDK) 8 or above by running the following command in a terminal window:

    sudo apt install default-jdk

3. Verify that the JDK was installed correctly by running the following command in a terminal window:

    java -version

    - This should output the version of the installed JDK.

4. Set the JAVA_HOME environment variable by running the following command in a terminal window:

    export JAVA_HOME=/usr/lib/jvm/java-8-openjdk-amd64/

5. Download the latest Python version by running the following command in a terminal window:

    sudo apt install python3 python3-pip

6. Verify that Python was installed correctly by running the following command in a terminal window:

   python3 --version

   - This should output the version of the installed Python.

7. Install the Cassandra driver for Python by running the following command in a terminal window:

   sudo pip3 install cassandra-driver

8. Extract the contents of the downloaded Cassandra tarball to a folder of your choice. You can do this by running the following command in a terminal window:

   tar -xvzf <path_to_cassandra_tarball> -C <path_to_extract_cassandra>

   - Replace **<path_to_cassandra_tarball>** with the path to the downloaded Cassandra tarball, and **<path_to_extract_cassandra>** with the path to the folder where you want to extract Cassandra.

9. Navigate to the bin directory of the extracted Cassandra folder by running the following command in a terminal window:

   cd <path_to_extract_cassandra>/apache-cassandra-<version>/bin/

   - Replace **<path_to_extract_cassandra>** with the path to the folder where you extracted Cassandra, and **<version>** with the version number of Cassandra that you downloaded.

10. Run the following command to start Cassandra: **./cassandra -f**

- This will start Cassandra in the foreground and output logs to the Terminal window.

- Leave this window open while using Cassandra.

11. You can now connect to Cassandra using CQLSH (Cassandra Query Language Shell) by opening another Terminal window and running **./cqlsh**.