How to Install Cassandra on Windows 10

June 8, 2020 CASSANDRA NOSQL WINDOWS

Introduction

Apache Cassandra is a well-established wide-column NoSQL database. It uses a column-based storage model to capture large amounts of unstructured data.

Cassandra focuses on operating in a distributed cluster of commodity servers and boasts high-availability and flexible horizontal scaling.

This detailed tutorial shows you **how to install Apache Cassandra on Windows.**

Note: Guide on how to install Cassandra on Ubuntu is also available.

Dependencies

Apache Cassandra requires Java 8 to run on a Windows system. Additionally, the Cassandra command-line shell (**cqlsh**) is dependent on Python 2.7 to work correctly.

To be able to install Cassandra on Windows, first you need to:

1. Download and Install **Java 8** and set environment variables.
2. Download and install **Python 2.7** and set environment variables.

If you already have these dependencies installed, check your version of Python and Java. If you have Java 8 and Python 2.7. feel free to move on to the third section of this guide.

Step 1: Install Java 8 on Windows

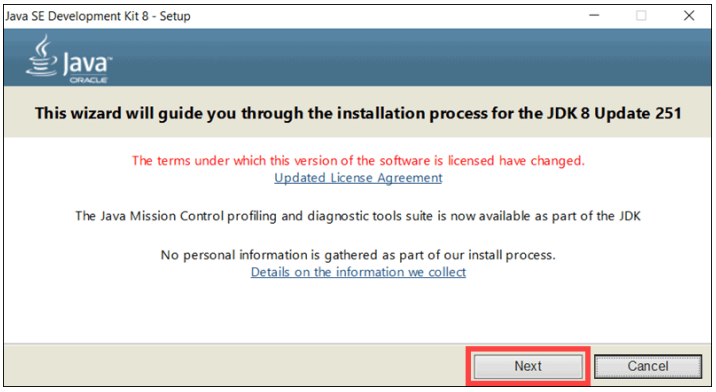
The Java development kit contains all the tools and software you need to run applications written in Java. It is a prerequisite for software solutions such as Apache Cassandra.

Download Oracle JDK 8 (Java Development Kit)

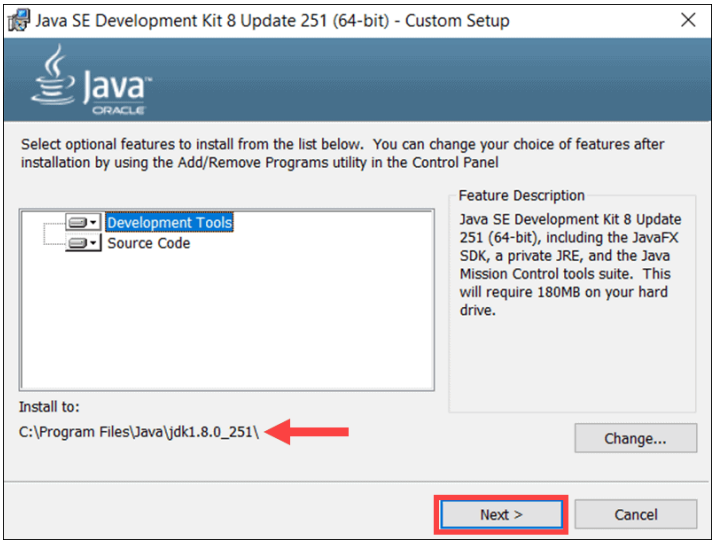
1. Visit the official Oracle download page and download the Oracle JDK 8 software package.

2. Scroll down and locate the **Java SE Development Kit 8u251** for Windows x64 download link. The Java 8 download starts automatically after signup.

Note: If you do not have an Oracle account, the website guides you through a quick signup process. Alternatively, you can download Java from a third-party website of your choosing. Always make sure to confirm the source of the download.



4. The following section allows you to select optional features and define the location of the installation folder. Accept the default settings and take note of the full path to the installation folder, **C: Program FilesJavajdk1.8.0_251.** Once you are ready to proceed with the installation, click **Next.**

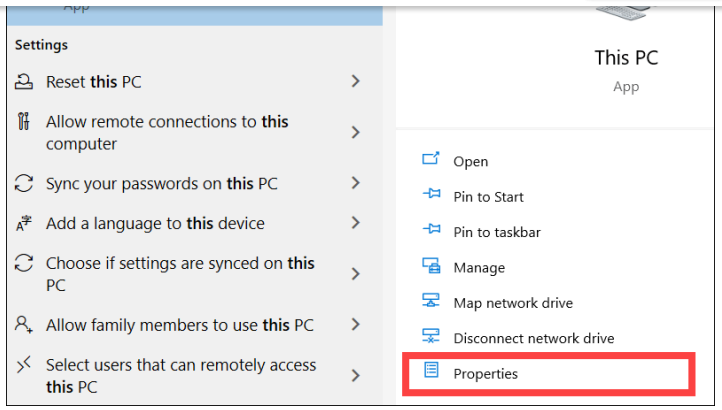


5. The installation process can take several minutes. Select **Close** once the process is completed.

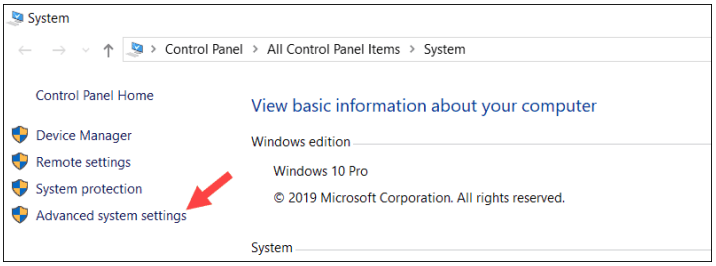
Configure Environment Variables for Java 8

It is vital to configure the environment variables in Windows and define the correct path to the Java 8 installation folder.

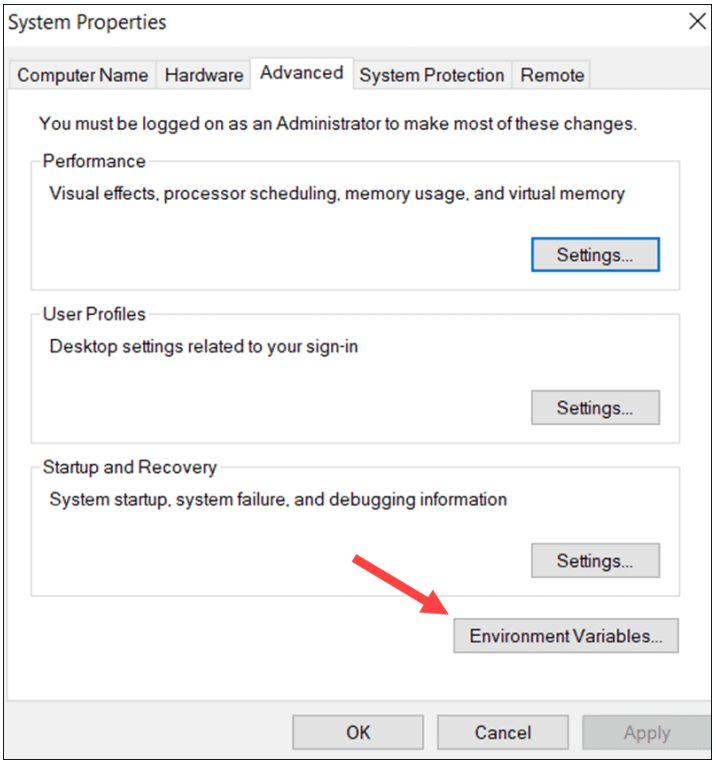
1. Navigate to **This PC > Properties**.



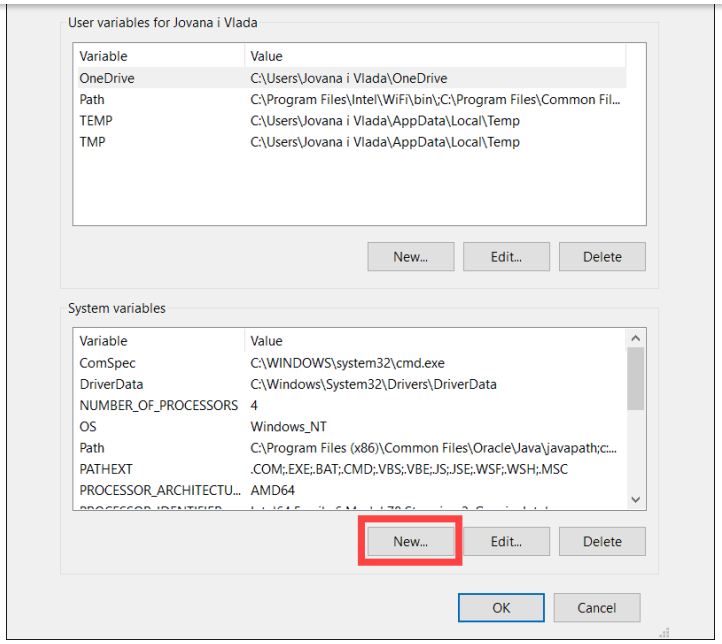
2. Select **Advanced system settings**.



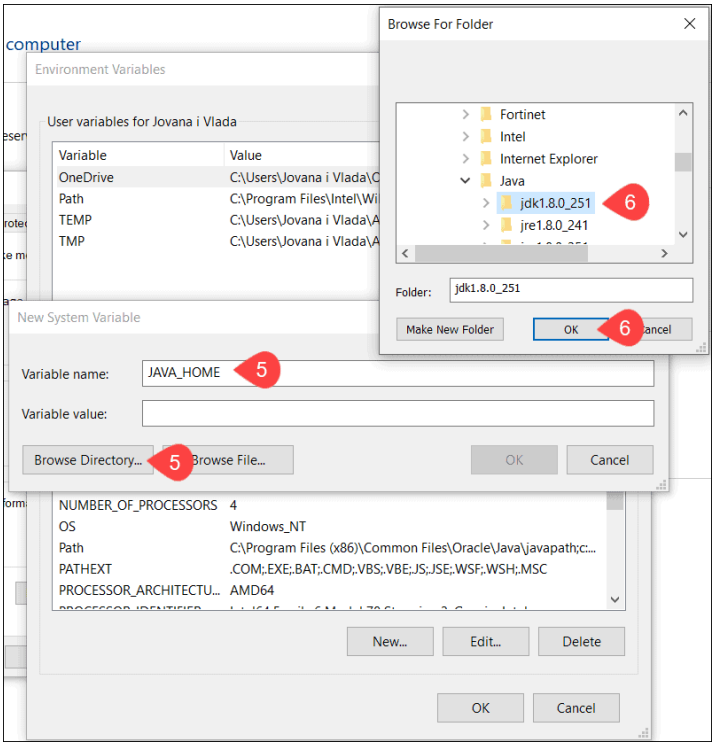
3. Click the **Environment Variables...** button.



4. Select **New** in the *System Variable* section.

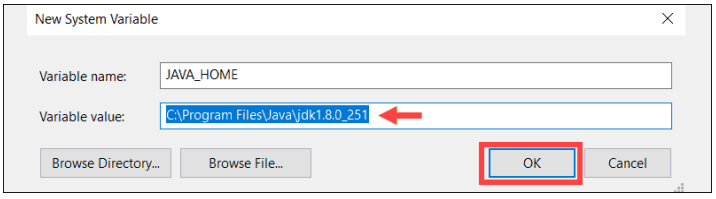


5. Enter **JAVA_HOME** for the new variable name. Select the *Variable value* field and then the **Browse Directory** option.

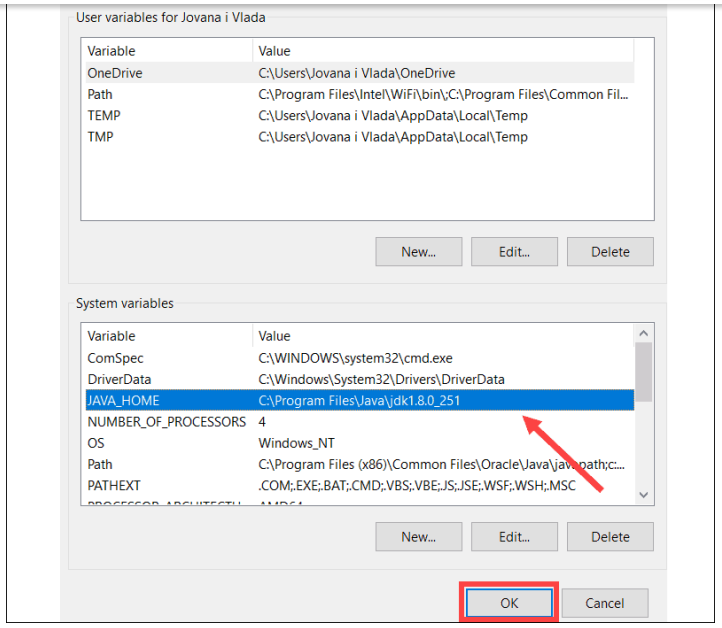


6. Navigate to **This PC > Local Disk C: > Program Files > Java > jdk1.8.0_251** and select **OK**.

7. Once the correct path to the JDK 8 installation folder has been added to the **JAVA_HOME** system variable, click **OK**.



8. You have successfully added the **JAVA_HOME** system variable with the correct JDK 8 path to the variable list. Select **OK** in the main *Environment Variables* window to complete the process.

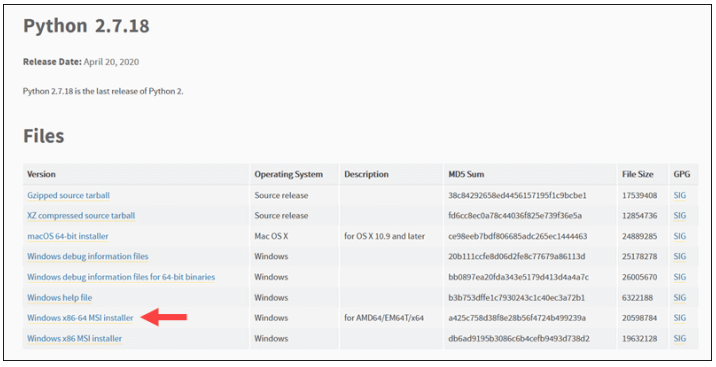


Step 2: Install and Configure Python 2.7 on Windows

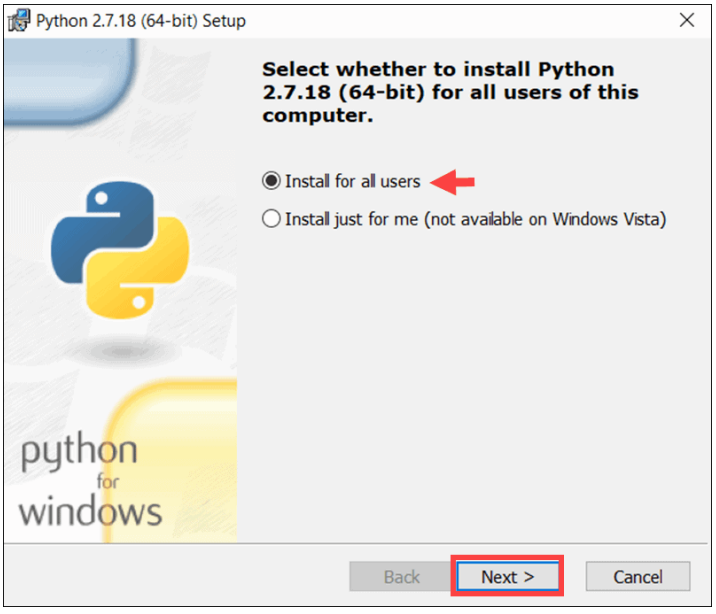
Users interact with the Cassandra database by utilizing the **cqlsh** bash shell. You need to install Python 2.7 for **cqlsh** to handle user requests properly.

Install Python 2.7 on Windows

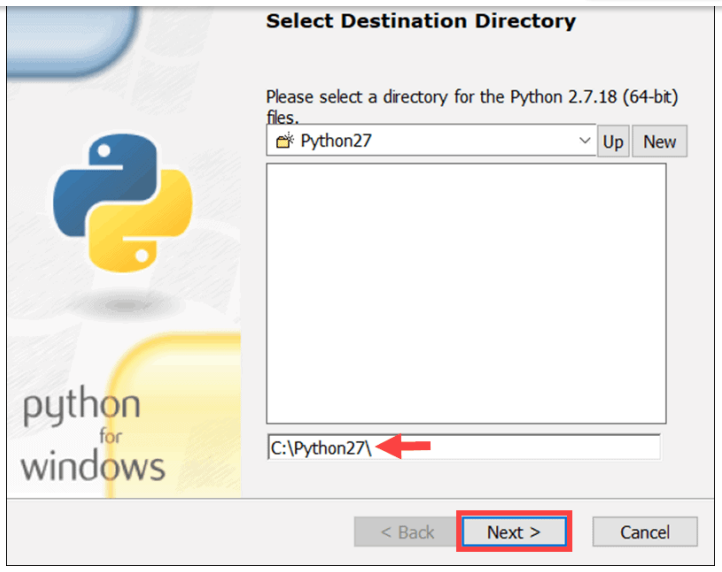
1. Visit the Python official download page and select the Windows x64 version link.



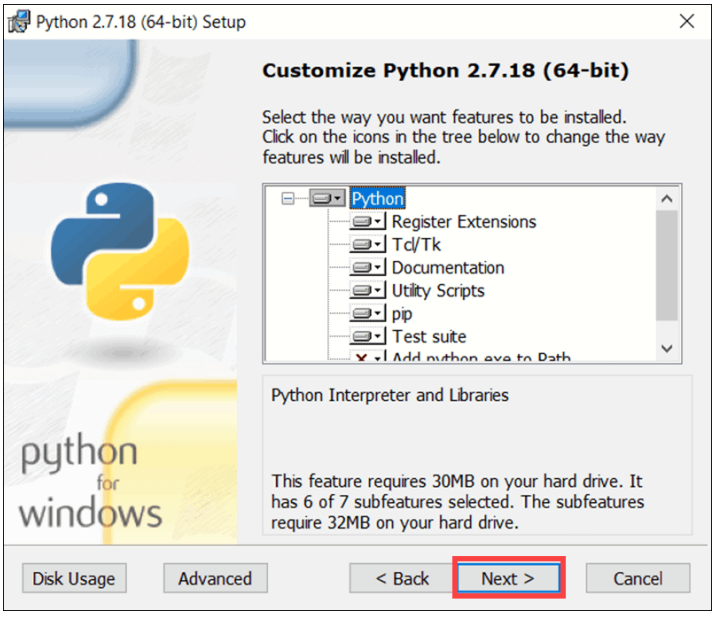
2. Define if you would like Python to be available to all users on this machine or just for your user account and select **Next**.



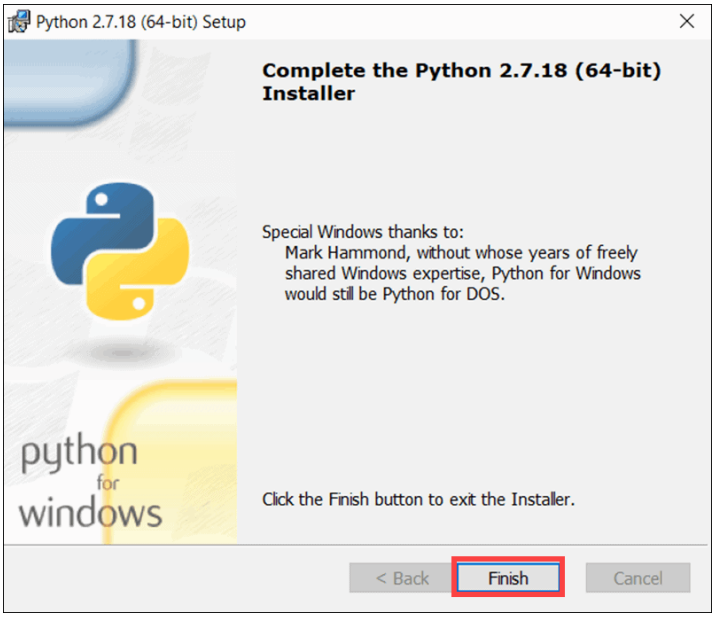
3. Specify and take note of the Python installation folder location. Feel free to leave the default location **C:Python27** by clicking **Next.**



4. The following step allows you to customize the Python installation package. Select **Next** to continue the installation using the default settings.

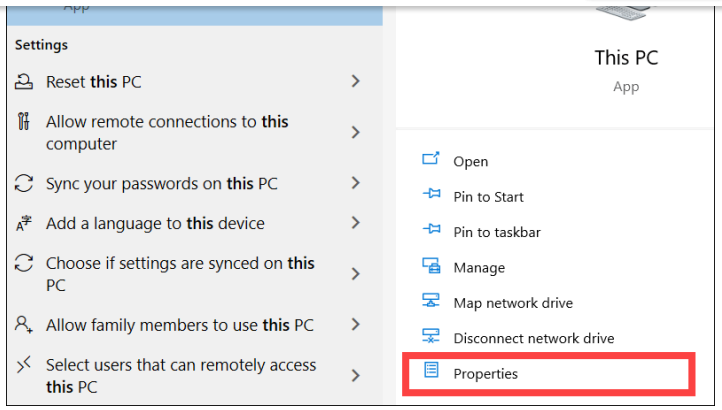


5. The installation process takes a few moments. Once it is complete, select **Finish** to conclude the installation process.

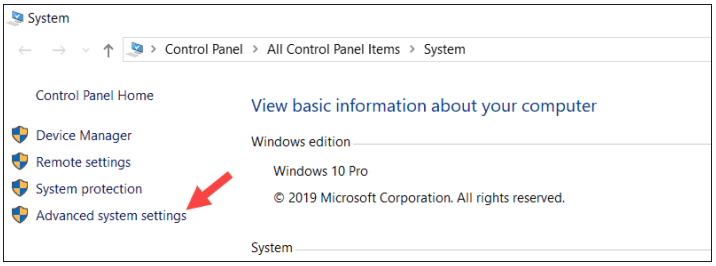


Edit Environment Variable for Python 2.7

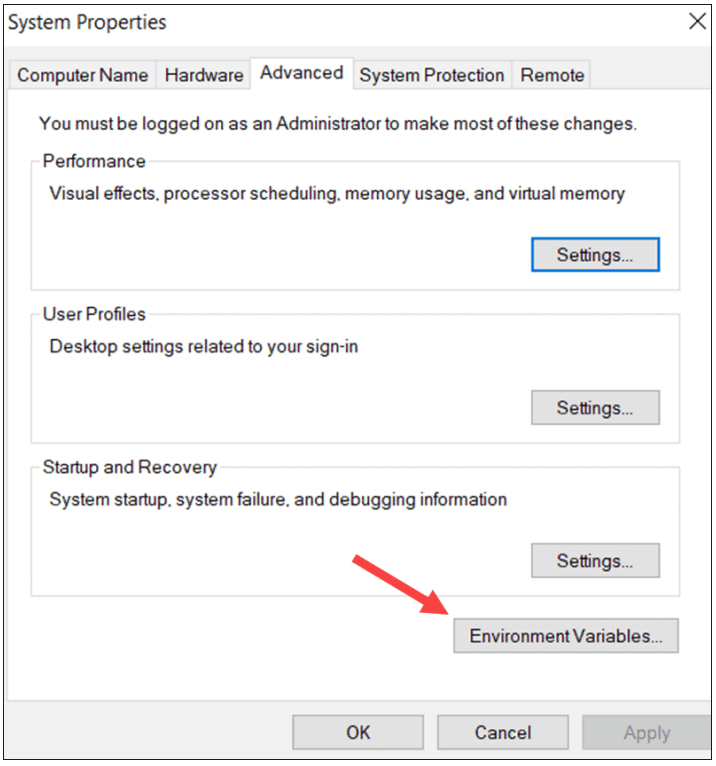
1. Navigate to **This PC** > **Properties**.



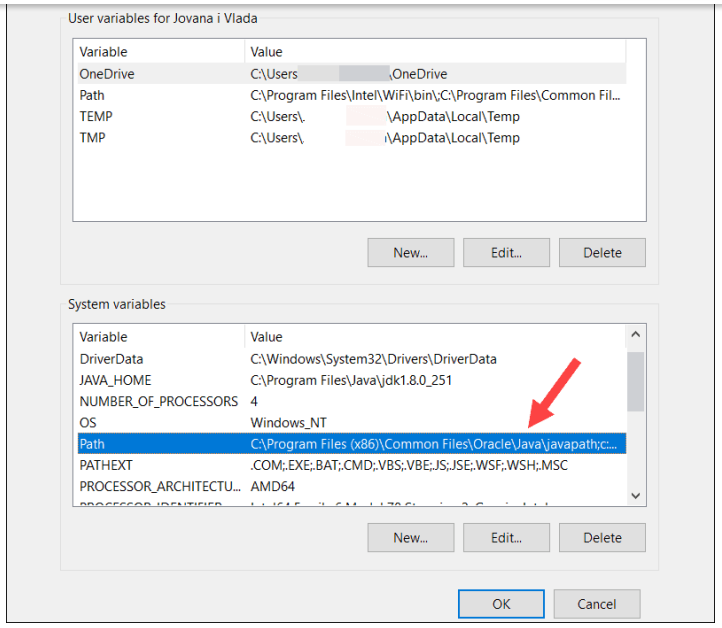
2. Select the **Advanced system settings** option.



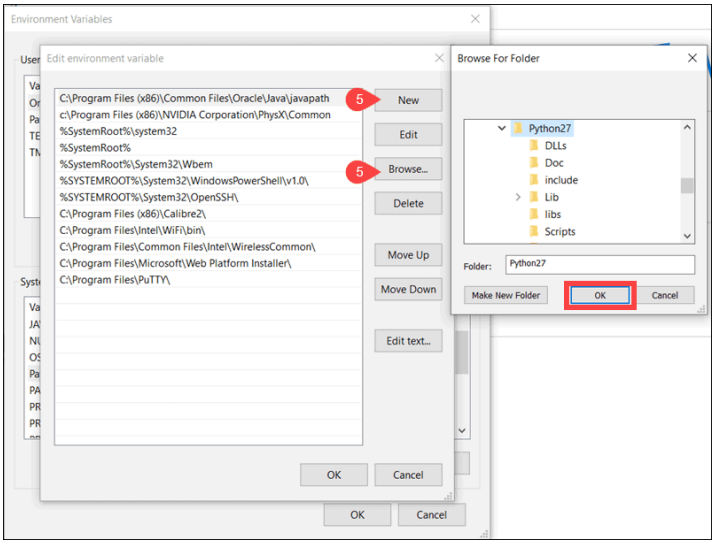
3. Click **Environment Variables...**



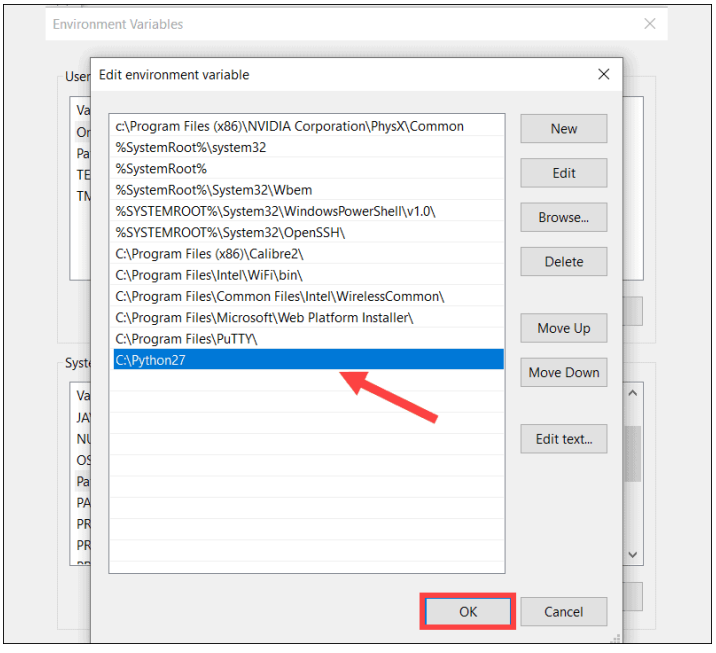
4. Double-click on the existing **Path** system variable.



5. Select **New** and then **Browse** to locate the Python installation folder quickly. Once you have confirmed that the path is correct, click **OK**.



6. Add the Python 2.7 path to the **Path** system variable by selecting **OK**.



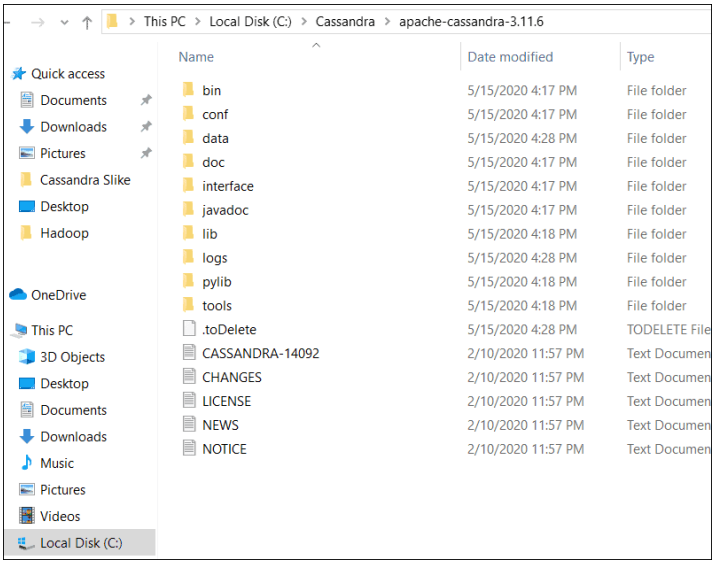
Step 3: Download and Set Up Apache Cassandra

download. Currently, the latest available version is 3.11.6.

2. Click the suggested **Mirror download link** to start the download process.

Note: It is always recommended to verify downloads originating from mirror sites. The instructions for using GPG or SHA-512 for verification are usually available on the official download page.

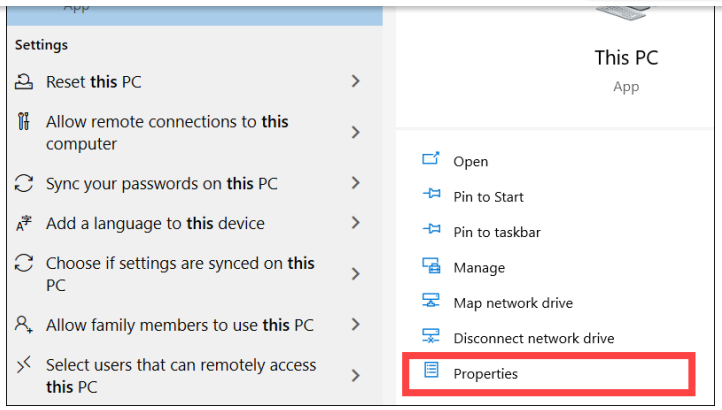
4. Unzip the compressed tar.gz folder using a compression tool such as 7-Zip or WinZip. In this example, the compressed folder was unzipped, and the content placed in the **C:Cassandraapache-cassandra-3.11.6** folder.



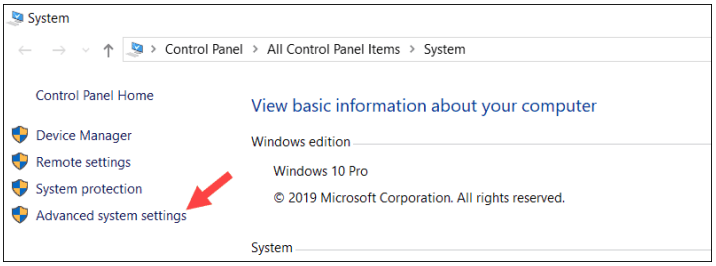
Configure Environment Variables for Cassandra

Set up the environment variables for Cassandra to enable the database to interact with other applications and operate on Windows.

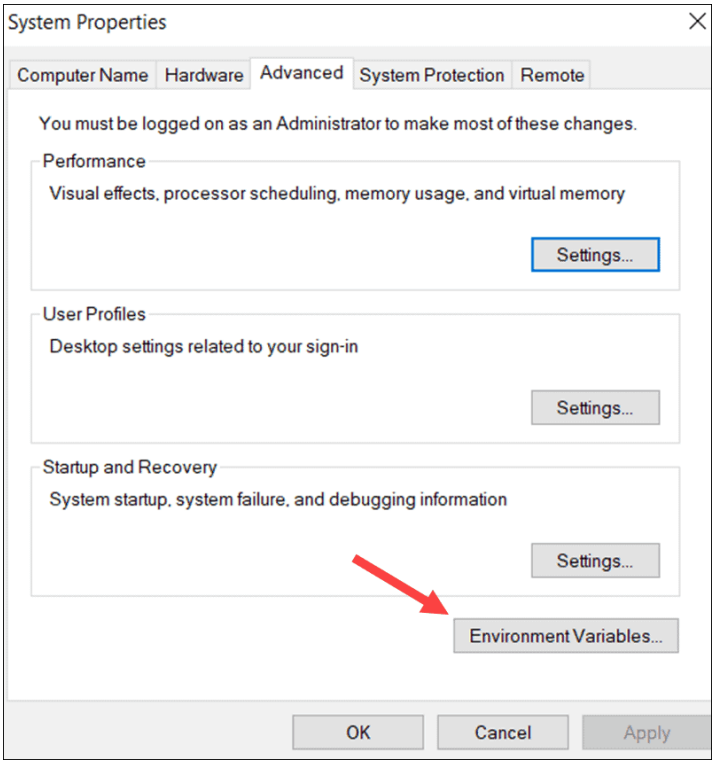
1. Go to **This PC** > **Properties.**



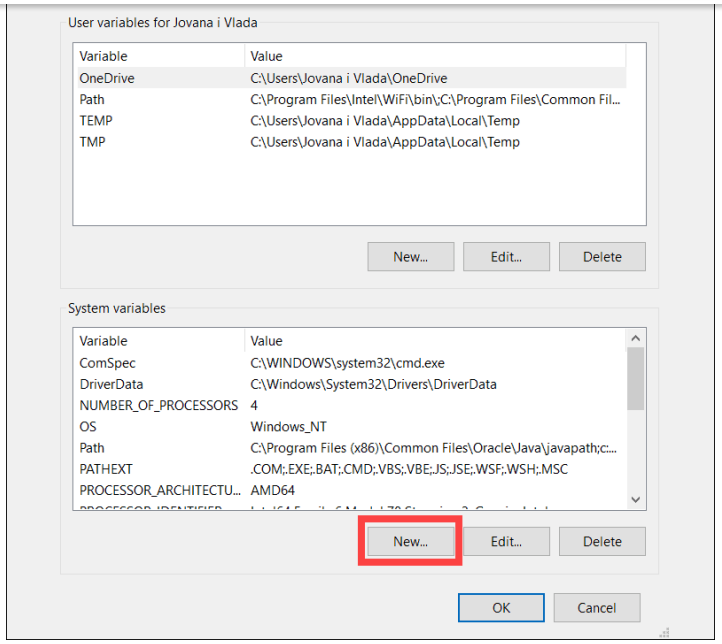
2. Go to **Advanced system settings**.



3. Click the **Environment Variables...** button.

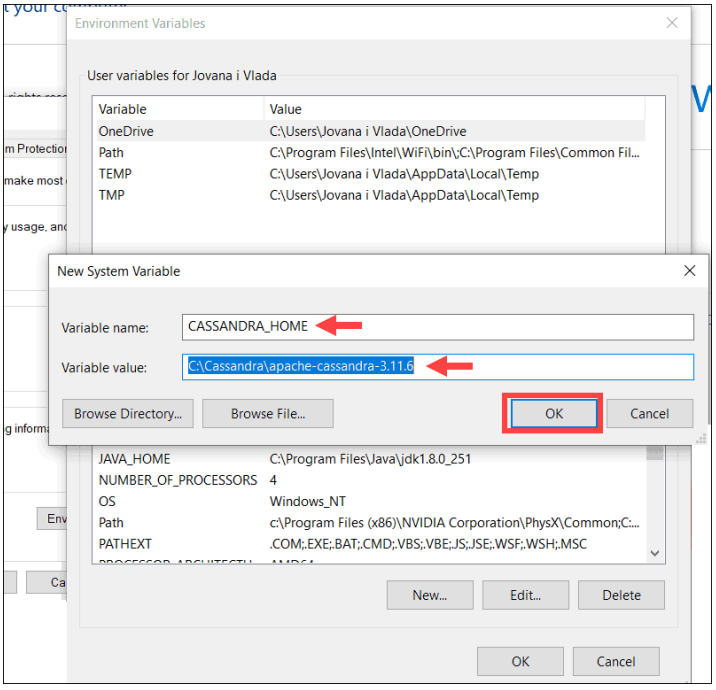


4. Add a completely new entry by selecting the **New** option.

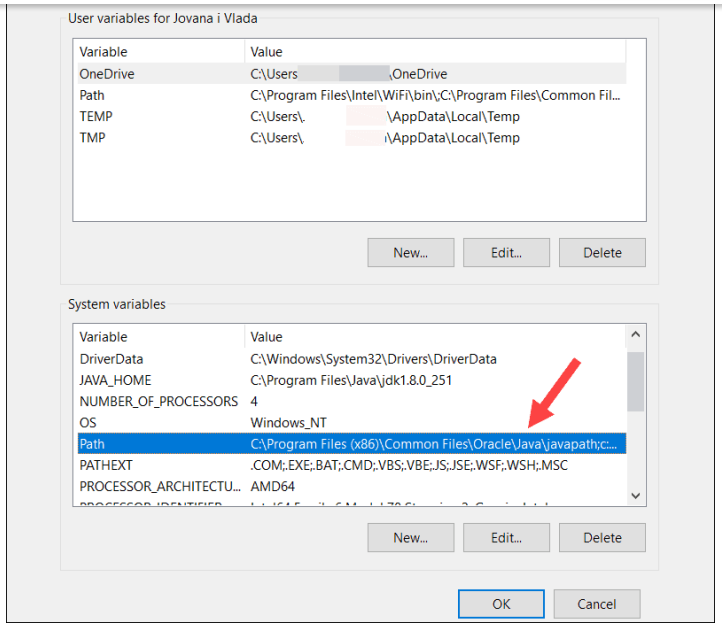


5. Type **CASSANDRA_HOME** for *Variable name*, then for the*Variable value* column select the location of the unzipped **Apache Cassandra** folder.

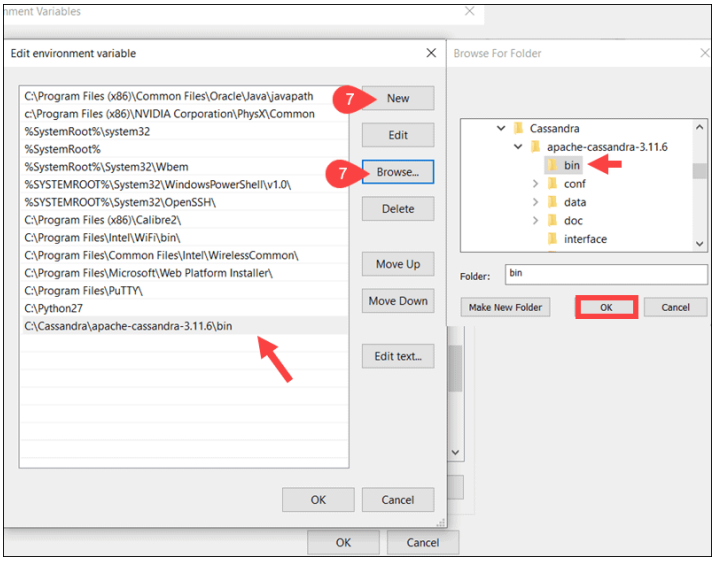
Based on the previous steps, the location is **C:Cassandraapache-cassandra-3.11.6.** Once you have confirmed that the location is correct, click **OK.**



6. Double click on the **Path** variable.



7. Select **New** and then **Browse**. In this instance, you need to add the full path to the **bin** folder located within the Apache Cassandra folder, **C:Cassandraapache-cassandra-3.11.6bin**.

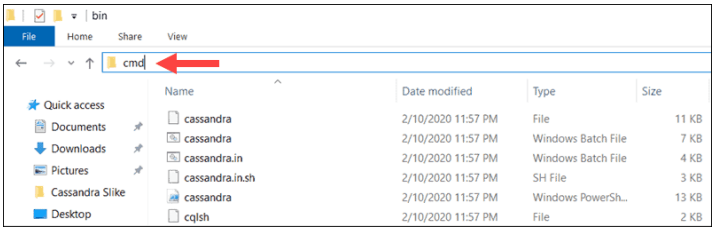


8. Hit the **OK** button and then again **OK** to save the edited variables.

Note: Check out our article to learn more about the difference between MongoDB and Cassandra.

Step 4: Start Cassandra from Windows CMD

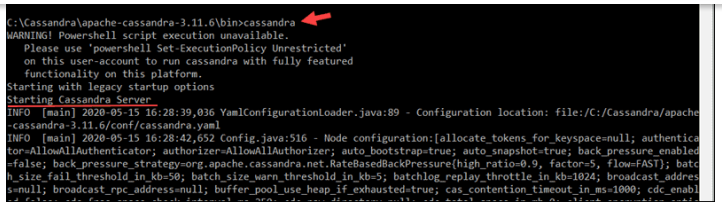
Navigate to the Cassandra bin folder. Start the Windows Command Prompt directly from within the bin folder by typing ***cmd*** in the address bar and pressing **Enter**.



Type the following command to start the Cassandra server:

```
cassandra
```

The system proceeds to start the Cassandra Server.



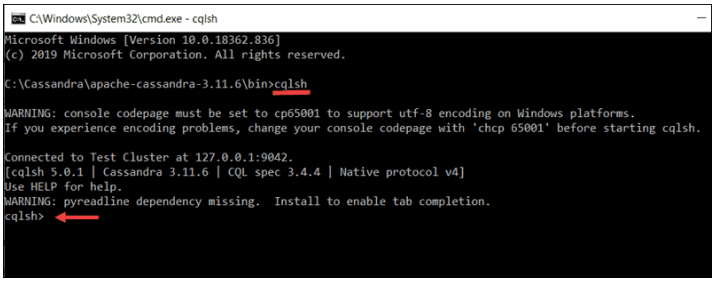
Do not close the current ***cmd*** session.

Step 5: Access Cassandra cqlsh from Windows CMD

While the initial command prompt is still running open a new command line prompt from the same bin folder. Enter the following command to access the Cassandra **cqlsh** bash shell:

```
cqlsh
```

You now have access to the Cassandra shell and can proceed to issue basic database commands to your Cassandra server.



Conclusion

You have successfully installed Cassandra on Windows.

Large volumes of unstructured data can be an issue for traditional relational databases. This popular NoSQL database solution is going to allow you to capture and store a lot more of increasingly valuable data.

Learn more about how to use Cassandra in our guide on how to create, drop, alter and truncate Cassandra tables.

Vladimir Kaplarevic

Vladimir is a resident Tech Writer at phoenixNAP. He has more than 7 years of experience in implementing e-commerce and online payment solutions with various global IT services providers. His articles aim to instill a passion for innovative technologies in others by providing practical advice and using an engaging writing style.

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