

# Neo4j Administration

## *Course preparation*

# Table of Contents

Overview.....	1
Step 2: Option 1: Install Neo4j and Docker on your laptop.....	2
Step 2: Option 2: Use an AWS EC2 instance .....	3
Using the AWS EC2 instance from OS X or Linux.....	3
Using the ASWS EC2 instance from Windows.....	3
Getting help .....	7

# Overview

You should bring a laptop to the class that is properly set up for the class.

You may choose to use your personal laptop rather than your work laptop for this course if:

- Your work laptop blocks or restricts Internet access.
- You want to install Neo4j and Docker and you do not have admin privileges for your work laptop.

When performing the hands-on exercises for this course, you have two options:

## Option 1: Install Neo4j and Docker on your laptop

- You must have at least 5G free disk space.
- You must have at least 2G RAM.
- You must have admin privileges to install software.
- You must have a laptop with Windows, OS X, and Linux (must be a 64-bit system).
- Neo4j Enterprise Edition can be used for free for 30 days.
- Docker is free to use.
- You must have unrestricted WiFi capability during the exercises to download files.

## Option 2: Use an AWS EC2 instance (ubuntu)

- You must be given access to an EC2 instance (EC2 IP address) for the duration of the course by your instructor.
- You must have SSH available for accessing the EC2 instance from your laptop.
- Your access to the AWS EC2 instance is free, but is temporary.
- You must have unrestricted WiFi capability during the exercises to access the EC2 instances.

To prepare your laptop for the hands-one exercises of this course, you must perform these two Steps:

**Step 1:** Download the Course Guide [Course Guide](#).

**Step 2:** Ensure your laptop is prepared for the class using either Option 1 or Option 2.

# Step 2: Option 1: Install Neo4j and Docker on your laptop

1. Download the latest Neo4j Enterprise Edition V 3.5.x bits for your type of system from here [here](#). (**Do not install**)

**Note:** When you download Neo4j Enterprise Edition, you will see installation instructions. Save these instructions as you will need them during the first Exercise of the class when you install Neo4j Enterprise Edition.

2. Ensure that the latest Docker Desktop (MAC/Windows) or Docker CE (Debian) is installed (**Hint:** `docker --version`).
  - Here is information about installing [Docker](#)
3. Download the [neo4j-docker.zip](#) file and unzip it to a folder that will be used for saving Neo4j configuration changes for clusters. This will be your working directory for the Causal Clustering Exercises in this training. **Hint:** `curl -O https://s3-us-west-1.amazonaws.com/data.neo4j.com/admin-neo4j/neo4j-docker.zip`
4. Download the Docker image for Neo4j (**`docker pull neo4j:3.5.0-enterprise`**).
5. Ensure that your user ID has docker privileges: **`sudo usermod -aG docker <username>`**. You will have to log in and log out to use the new privileges.

## Step 2: Option 2: Use an AWS EC2 instance

How you connect to the AWS EC2 instance will depend on your platform.

### Using the AWS EC2 instance from OS X or Linux

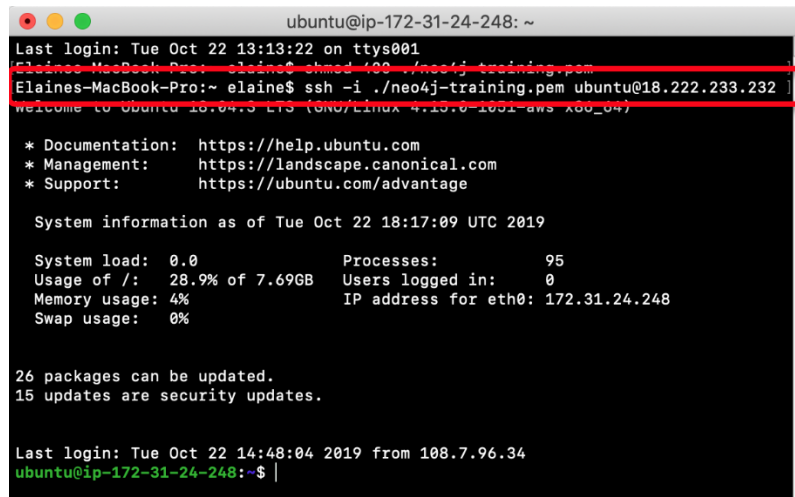
1. Download the private key file: [neo4j-training.pem](#) and place it in your home directory.
2. Ensure proper access permissions on the downloaded file:

```
chmod 400 ~/neo4j-training.pem
```

3. Open a terminal window.
4. Enter this command to connect to your VM via SSH:

```
ssh -i ~/neo4j-training.pem ubuntu@<EC2 IP address>
```

**Note:** Use the EC2 IP address given to you for this course.

A screenshot of a terminal window on a Mac. The window title is 'ubuntu@ip-172-31-24-248: ~'. The terminal shows the command 'ssh -i ~/neo4j-training.pem ubuntu@18.222.233.232' being entered. The output is the Ubuntu 18.04.3 LTS login banner, which includes system information, package updates, and the user 'ubuntu' at the prompt. A red box highlights the command line in the terminal.

```
ubuntu@ip-172-31-24-248: ~
Last login: Tue Oct 22 13:13:22 on ttys001
Elaines-MacBook-Pro:~ elaine$ chmod 400 ~/neo4j-training.pem
Elaines-MacBook-Pro:~ elaine$ ssh -i ~/neo4j-training.pem ubuntu@18.222.233.232
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-1051-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Tue Oct 22 18:17:09 UTC 2019

System load:  0.0               Processes:    95
Usage of /:   28.9% of 7.69GB   Users logged in: 0
Memory usage: 4%               IP address for eth0: 172.31.24.248
Swap usage:   0%

26 packages can be updated.
15 updates are security updates.

Last login: Tue Oct 22 14:48:04 2019 from 108.7.96.34
ubuntu@ip-172-31-24-248:~$
```

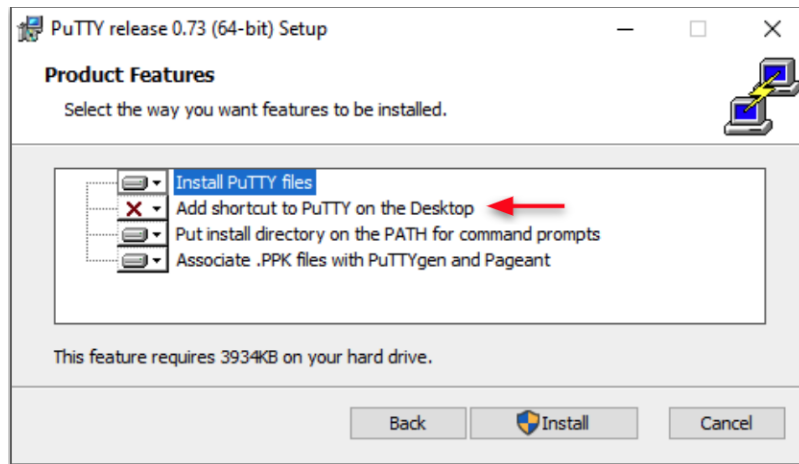
### Using the ASWS EC2 instance from Windows

1. Download [PuTTY](#).

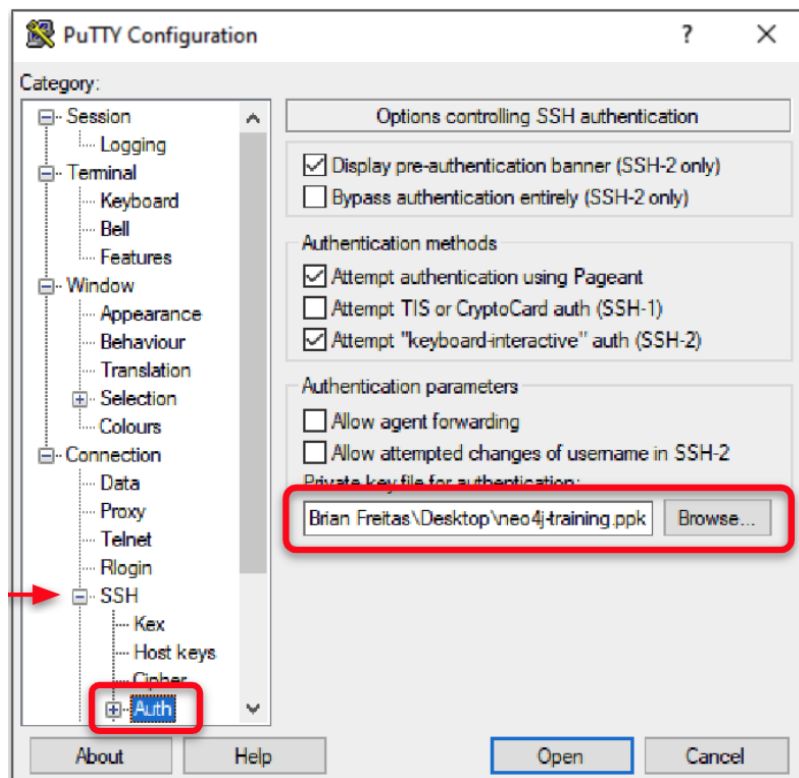
**Note:** Most modern laptops will use the 64-bit installer. Confirm by checking your system properties.

2. Install PuTTY by running the downloaded .exe file.

**Note:** Default settings should be fine. The only thing you might wish to change is that, by default, PuTTY does not create a desktop shortcut. We may open lots of sessions in class, so having a shortcut handy can save some time.

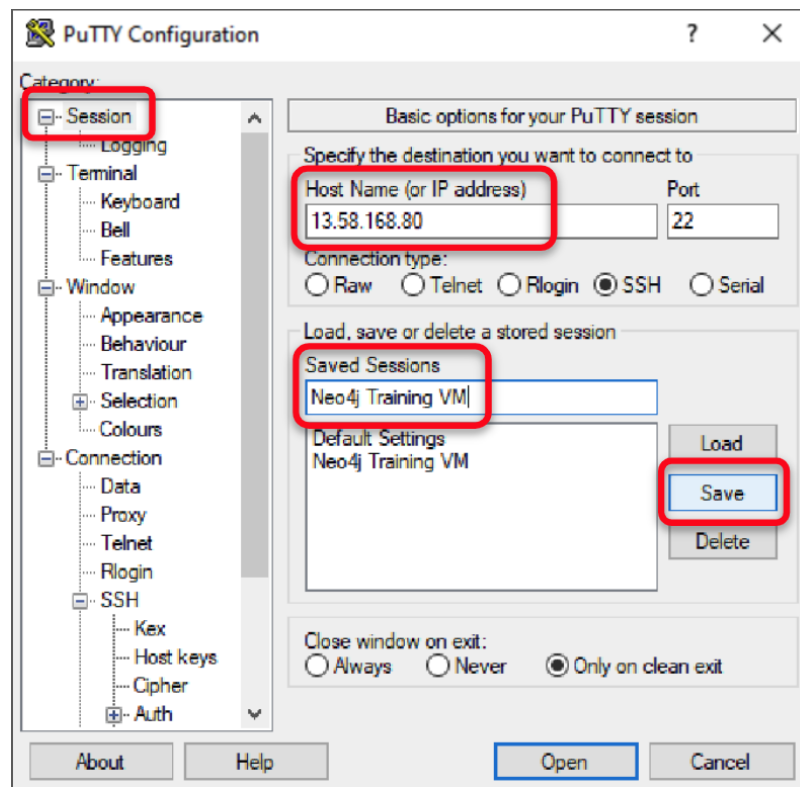


3. Download the private key file: [neo4j-training.ppk](#)
4. Open PuTTY.
5. In the left side menu, expand SSH and click **Auth**.
6. Enter the location where you downloaded the private key.

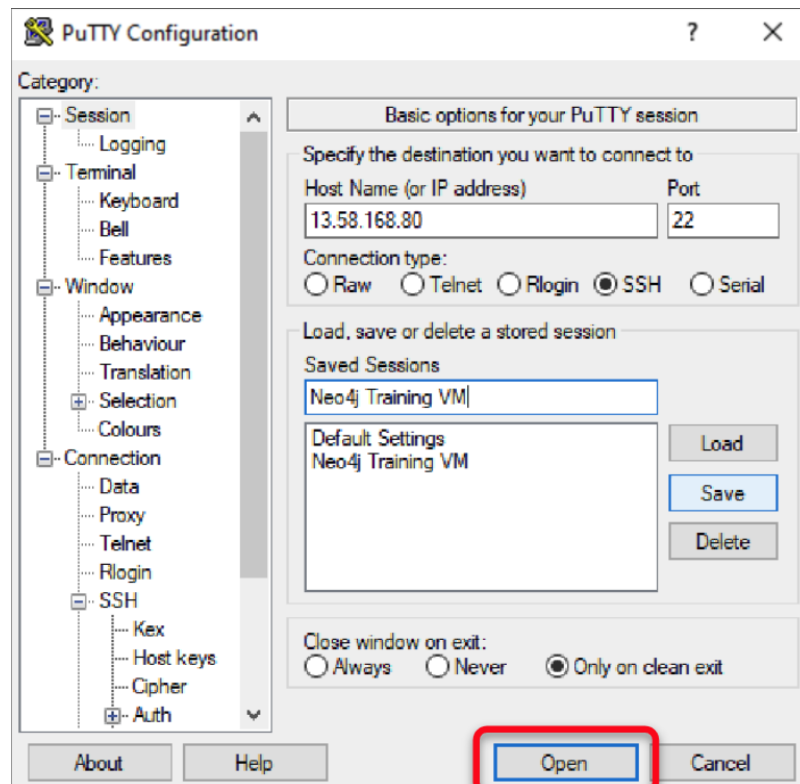


7. In the left menu, click **Session**.
8. Enter the EC2 IP address given to your for this course.
9. In the Saved Sessions box, enter a memorable name.
10. Click **Save**.

**Note:** Saving this configuration allows you to simply Load the connection parameters whenever you wish to open a new session, instead of retyping everything



11. Click **Open** to start a new session. A terminal window will appear.



12. Log in as user **ubuntu**.

```
ubuntu@ip-172-31-6-201: ~  
login as: ubuntu  
Authenticating with public key "imported-openssh-key"  
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-1051-aws x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:        https://ubuntu.com/advantage  
  
System information as of Tue Oct 22 15:58:40 UTC 2019  
  
System load:  0.0               Users logged in:  0  
Usage of /:   37.6% of 7.69GB   IP address for eth0: 172.31.6.201  
Memory usage: 6%               IP address for docker0: 172.17.0.1  
Swap usage:   0%               IP address for br-7541c7fadc04: 172.18.0.1  
Processes:   97  
  
26 packages can be updated.  
15 updates are security updates.  
  
Last login: Tue Oct 22 14:41:01 2019 from 108.7.96.34  
ubuntu@ip-172-31-6-201:~$
```



# Getting help

If you have problems installing Neo4j Desktop or preparing for this course, you can join [Neo4j Community](#) and ask a question [here](#).