Lab Environment Connection Guide for DEV and DA Courses

August 2016

Overview

This guide provides information on how to connect to a MapR cluster to complete lab exercises for Developer (DEV-xxxx) and Data Analyst (DA-xxxx) courses offered by MapR Academy.

- For instructor-led and virtual training, MapR provides clusters for students.
- On-demand training students will have the best results using the appropriate MapR-provided sandboxes (see the **Sandbox** section, next).

Note: This guide, and the course lab guides, only provide information for the lab environments that are provided by MapR.

On-demand training students can complete labs on other types of clusters (for example, AWS or GCP clusters, or physical clusters), but will need to install any required components and will likely have to make adjustments to the lab instructions.

Download the Course Sandbox

Use the links in the table below to download the appropriate sandbox for your course.

Caution! For best results, use the sandboxes referred to in the table below – do not use the sandboxes available from the mapr.com website. The sandboxes on the mapr.com website are always updated to the latest versions of MapR core and ecosystem components, and some labs may not work correctly if the course was developed with an older version of the software.

Courses	Sandbox for VMware	Sandbox for VirtualBox
DEV 320, DEV 325, DEV 330, DEV 335, DEV 340, DEV 351, DEV 360, DEV 361, DEV 362, DA 440, DA450	Standard Sandbox (VMware)	Standard Sandbox (VirtualBox)
DA 410, DA 415	Sandbox with Drill (VMware)	Sandbox with Drill (VirtualBox)

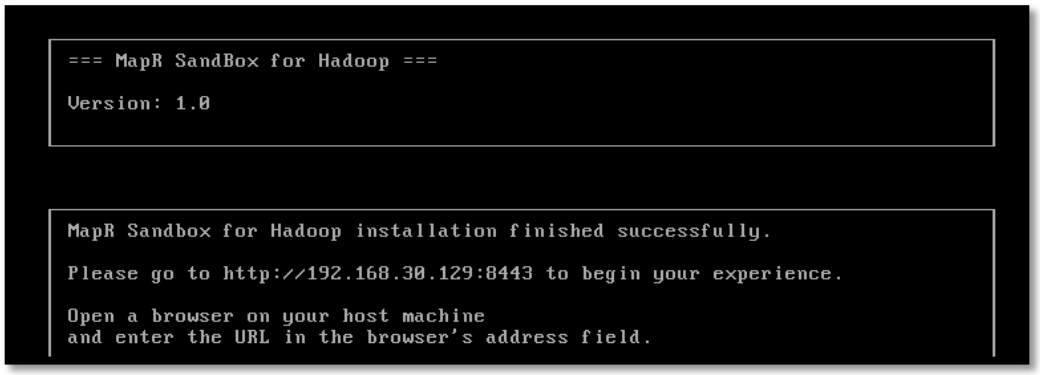
Determine Your User Name and IP Address

Instructor-Led Students

For classroom or virtual instructor-led training, your instructor will provide you with a user name and IP address. The password for all users is **`mapr`**. Once you have these, proceed to the appropriate section for instructions on connecting to your node.

On-Demand Training Students

For all on-demand students, your user name will be **`user01`**, and the password is **`mapr`**. Install and run the sandbox to determine your IP address. When it has finished initializing, it will indicate the IP address you should use to connect. Follow the instructions in the appropriate section below to connect.



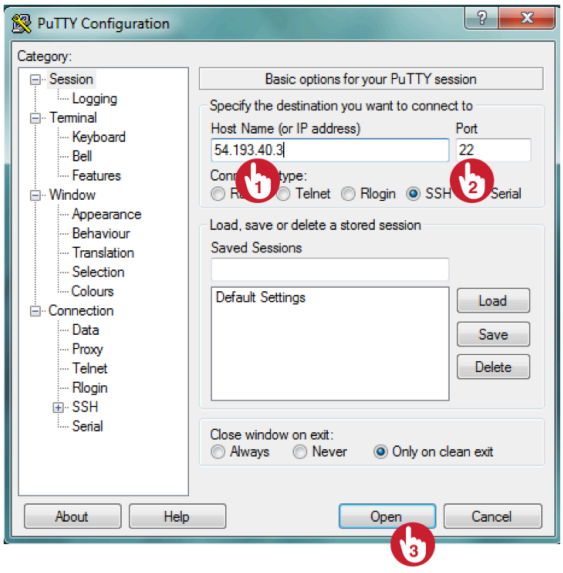
Connect to Your Node

Option 1: Use PuTTY on Windows

1. Open a PuTTY window. In the **Host Name (or IP address)** field, enter the IP address of the cluster node.

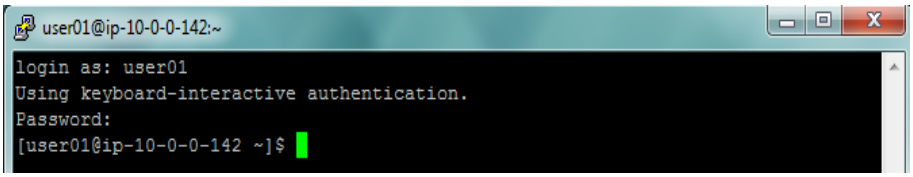
2. If you are connecting to a VirtualBox MapR Sandbox cluster, enter **2222** in the **Port** field. For VMware clusters, leave the **Port** field at the default of **22**.

3. Click **Open**.



4. You may get a PuTTY security alert. If so, click **Yes** to continue to log in.

5. At the terminal window, log in with your username and password.



Option 2: Use a Terminal SSH Client (Mac, Linux, Cygwin)

1. Bring up a terminal window on a Mac or Linux machine, or open a terminal window using the Cygwin program.
2. Log in using the following command, substituting the appropriate user name and IP address.

```
$ ssh -p <port> <username>@<IP address>
```

Note: If you are logging into a VirtualBox MapR cluster, the **<port>** is **2222**. If you are logging into a VMware MapR Sandbox, the port is **22** by default and the **-p <port>** option does not need to be used.

For example, use this to log into a VirtualBox MapR cluster:

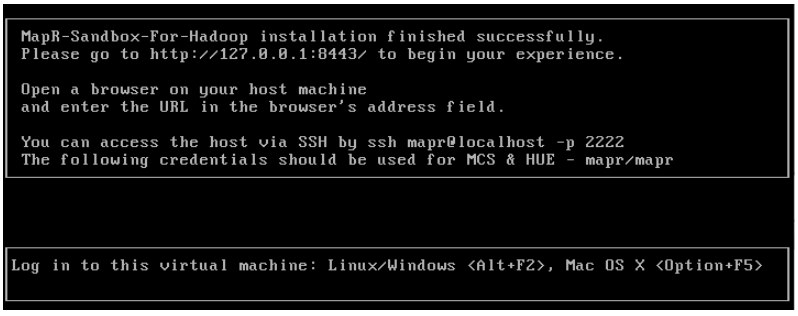
```
$ ssh -p 2222 user01@54.193.40.3
```

or this to log into a VMware cluster:

```
$ ssh user01@54.193.40.3
```

Option 3: Use the Virtual Machine Console (MapR Sandbox Only)

If you are using the MapR Sandbox, you can also log in directly to the console. Once the sandbox has initialized, the screen should list the appropriate keystrokes required to log in:



At the prompt, log in as the user **user01** with the password **mapr**.

Copying Files Into the Cluster

Consult your lab guide for a list of files or folders you will need to complete your labs. If you are running the MapR Sandbox on a Windows machine, use a tool such as WinSCP to copy the files over. Otherwise, use **scp** to copy the files from your laptop to a MapR Sandbox.

Using SCP

The general syntax for the command is:

```
$ scp -P <port> <file to copy> <user name>@<IP address>:<destination path>
```

Note: If you are using the MapR Sandbox running in VirtualBox, the **<port>** is **2222**. If you are logging into a VMware MapR Sandbox, the **-p <port>** option does not need to be used.

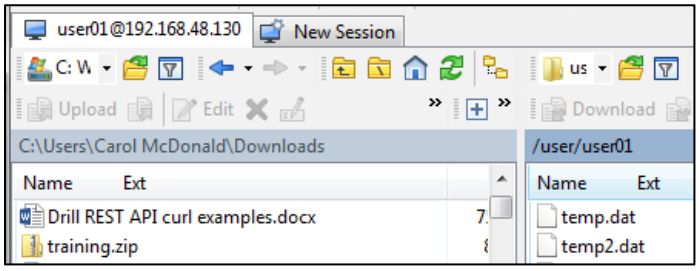
For example, if your user name is **user01**, and your IP address if 54.193.40.3, you would use this for the Sandbox on VirtualBox:

```
$ scp -P 2222 ./downloads/labfiles.zip user01@54.193.40.3:/user/user01
```

When prompted, the password is `mapr`.

Using WinSCP (Windows only)

Open the WindSCP interface, and find the location of your lab files on your machine as well as the location of the home directory on your Sandbox. Copy the file from your machine to the Sandbox.



Connect to the MapR Control System

To connect to the MapR Control System (MCS), use a browser to open the following URL:

```
https://<your IP address>:8443
```

Your browser will display a security warning that indicates the web server is using a self-signed certificate. Click the equivalent of "proceed despite this security warning," and you will see the login page of the MapR Control System. Log in with the user name **mapr** and password **mapr**.