

Guide on using LinuxPool

COMP 201 - Spring 2021

Introduction

In this document we tried to demonstrate how you can connect, upload contents, or download them from the LinuxPool. Please read all steps and notes carefully and let us know in case of any problem.

Note on Terminal

Linux or Mac OS users can directly use their provided terminals on their machines. However, **Windows** user must download and install whether [GitBash](#) or [MobaXterm](#) terminals and use it for following the steps below.

How to connect?

In order to connect to LinuxPool machines, you need to establish a secure connection. You can use the same commands for all operating systems (Windows users should make sure they read "Note on Terminal" section).

1. For security reasons, you can only reach the LinuxPool service while you are connected to the school's network. So, the first step is to connect to the school's network using the [VPN connection that school is provided](#).
2. After you have successfully connected to the School's network, you can connect to the LinuxPool machines using "SSH" connection. You need to run command below by replacing the USERNAME with your username.

```
$ ssh USERNAME@linuxpool.ku.edu.tr
```

Below an example is demonstrated where you can see after entering the password, you see your username on the LinuxPool machine with the hostname "linuxXX" (X may be different numbers).

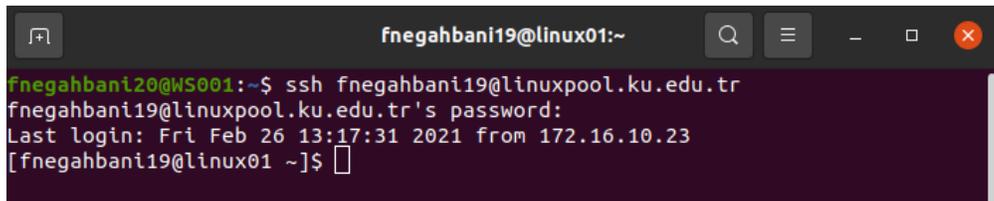
A terminal window screenshot showing an SSH connection. The window title is 'fnegahbani19@linux01:~'. The terminal text shows a user 'fnegahbani120@WS001' running the command 'ssh fnegahbani19@linuxpool.ku.edu.tr'. The terminal then shows the password prompt, the login message 'Last login: Fri Feb 26 13:17:31 2021 from 172.16.10.23', and the prompt '[fnegahbani19@linux01 ~]\$'.

Figure 1: How to connect to LinuxPool

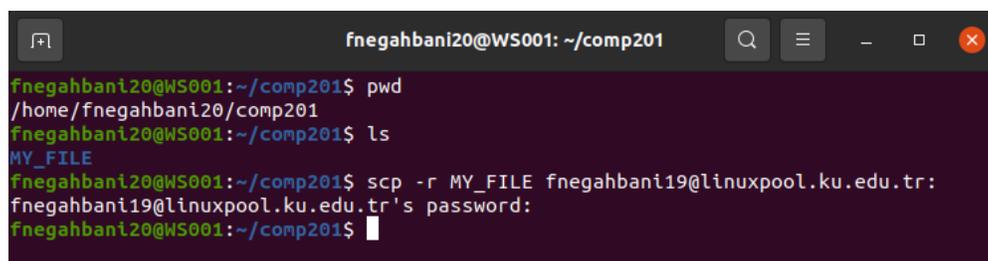
How to upload to LinuxPool

In this part, copying a file or folder from your local machine to the LinuxPool machines using "scp" command is demonstrated. Don't forget that, you don't need to connect to the LinuxPool for uploading files.

1. In order to upload contents from your local machine to LinuxPool, you need to make sure that you are connected to the school's network using a VPN connection. If not, [check the IT's guide on VPN connection](#).
2. Next, open a terminal (Windows users should make sure they read "Note on Terminal" section) where your file exists otherwise you need to give relative path to your file. You can check your terminal's working directory using "pwd" command or check the list of the files and folders using "ls". After executing the "ls" command, you should see your file in the output. If not, you should change the working directory using the "cd" command.
3. Finally, you can use the "scp" command to upload files to your LinuxPool users by replacing the MY_FILE with your file/folder name and the USERNAME with your username on the LinuxPool machines. Don't forget the ":" in the end.

```
$ scp -r MY_FILE USERNAME@linuxpool.ku.edu.tr:
```

Below is a demonstration:

A terminal window titled 'fnegahbani20@WS001: ~/comp201' with standard window controls. The terminal shows the following commands and output:

```
fnegahbani20@WS001:~/comp201$ pwd
/home/fnegahbani20/comp201
fnegahbani20@WS001:~/comp201$ ls
MY_FILE
fnegahbani20@WS001:~/comp201$ scp -r MY_FILE fnegahbani19@linuxpool.ku.edu.tr:
fnegahbani19@linuxpool.ku.edu.tr's password:
fnegahbani20@WS001:~/comp201$
```

Figure 2: How to verify the file exists and upload to LinuxPool

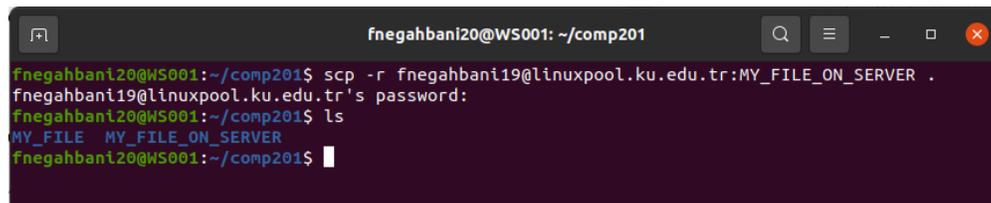
How to download from LinuxPool

In the end of lab exercise you may want to download your data from the LinuxPool to your local machine. Again don't forget that, you shouldn't be connected to the LinuxPool for downloading files.

1. In order to download contents from LinuxPool to your local machine, you need to make sure that you are connected to the school's network using a VPN connection. If not, [check the IT's guide on using VPN](#).
2. Next, open a terminal (Windows users should make sure they read "Note on Terminal" section) where you want your file to be downloaded (otherwise you need to give a relative address instead of "." in the command below).
3. Finally, you can use the "scp" command to download files to your local machine by replacing the MY_FILE_ON_SERVER with your file/folder name on the LinuxPool and the USERNAME with your username on the LinuxPool machines. Don't forget the ":" in the end.

```
$ scp -r USERNAME@linuxpool.ku.edu.tr:MY_FILE_ON_SERVER .
```

Below is a demonstration of download using the "scp" command:



```
fnegahbani20@WS001: ~/comp201
fnegahbani20@WS001:~/comp201$ scp -r fnegahbani19@linuxpool.ku.edu.tr:MY_FILE_ON_SERVER .
fnegahbani19@linuxpool.ku.edu.tr's password:
fnegahbani20@WS001:~/comp201$ ls
MY_FILE  MY_FILE_ON_SERVER
fnegahbani20@WS001:~/comp201$
```

Figure 3: How to download from the LinuxPool