Those who do not have the Linux environment in your computer, you can log into a department Linux server using your department account (the one you use for the top floor lab)

You can log in to your account from anywhere in the world if you have an Internet connection and then work as if you were there. This is facilitated by Secure Shell (SSH). There are two servers in the department currently which you can use to do remote login.

1. **High-Performance Server - Aiken**

The high-performance server which is named as ***aiken.ce.pdn.ac.lk*** has an Intel Xeon CPU E5-2670 processor (32 threads) and a RAM capacity of 256 GB. This server can be used for all your high-performance computing needs. You can connect to it from either lab machines via the local network or any other computer via the Internet. You will log on to your same user account despite where you log in.

2. **NVIDIA Tesla Server**

This server named ***tesla.ce.dpn.ac.lk*** consists of a graphics card designed for high-performance computing called NVIDIA Tesla C2075. This graphics card has 448 cores and 6GB of memory. Soon this server will also be equipped with a more powerful graphic card called Tesla K40 having 2880 cores and 12GB of memory.

Since your windows PC/laptop doesn't have an SSH client by default, you need to install one. Three such programs and their links are given below.

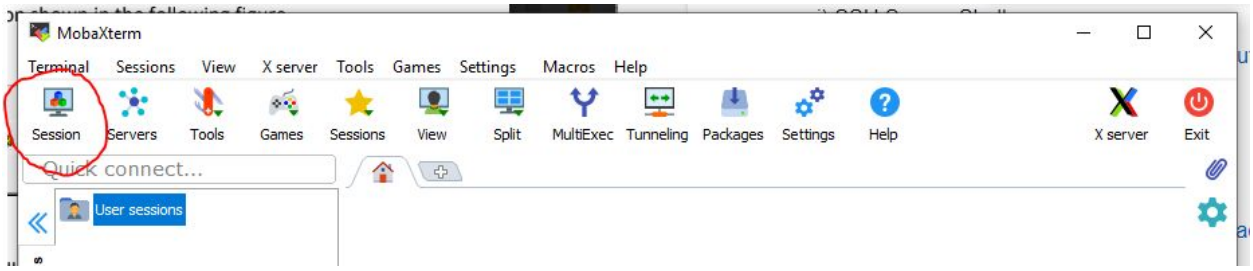
i) SSH Secure Shell :
http://www.ohlone.edu/org/webcenter/sftptutorial/windowssftp-downloadinstall.html

ii) MobaXterm :
http://mobaxterm.mobatek.net/

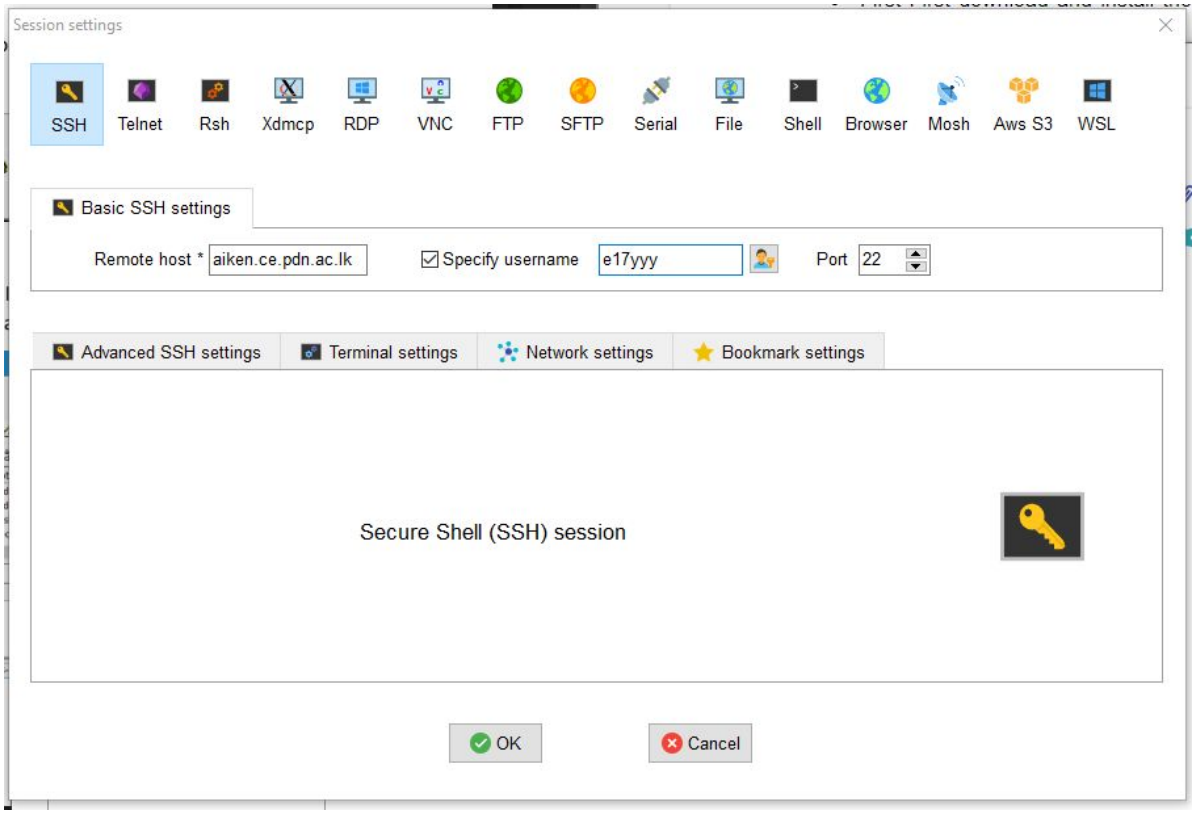
iii) Bitvise SSH client :
https://www.bitvise.com/ssh-client-download

The steps to connect to *aiken* or *tesla* from your home Windows computer is as follows: Demonstration using MobaXterm

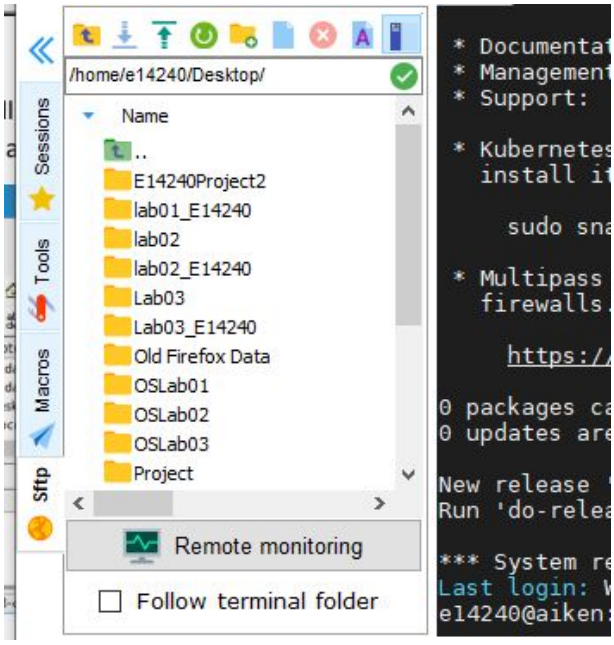
- First download and install the software as you usually install any software on Windows.
- Open the program and click the session option.



- Select SSH as the session type. Fill in the hostname and username appropriately as shown in the figure below and click OK



- Then the password prompt will appear where you should enter the correct password and press ENTER *(Your department machine password)*. Then you will be on the server. Any command you enter in the prompt will execute on the server. Note that all the files residing in your *home* directory are accessible through this.

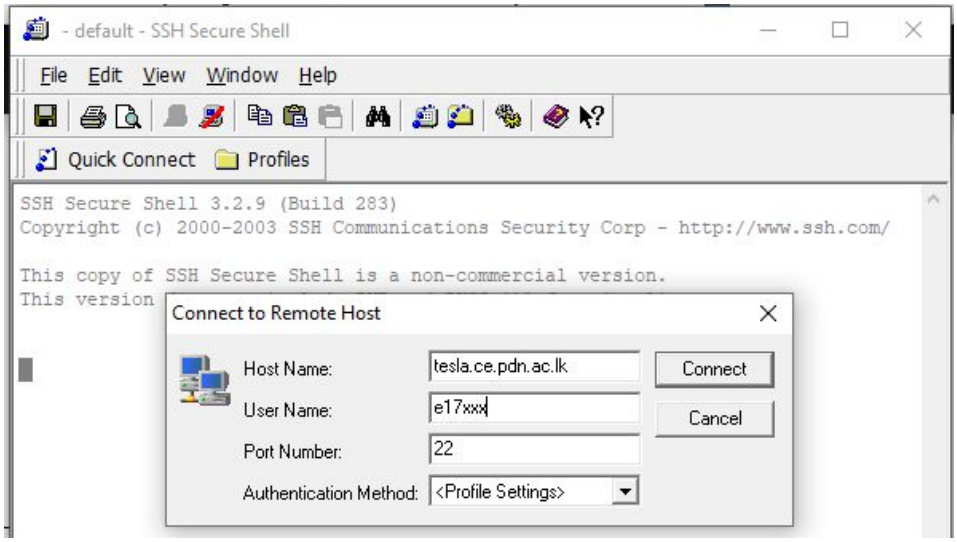


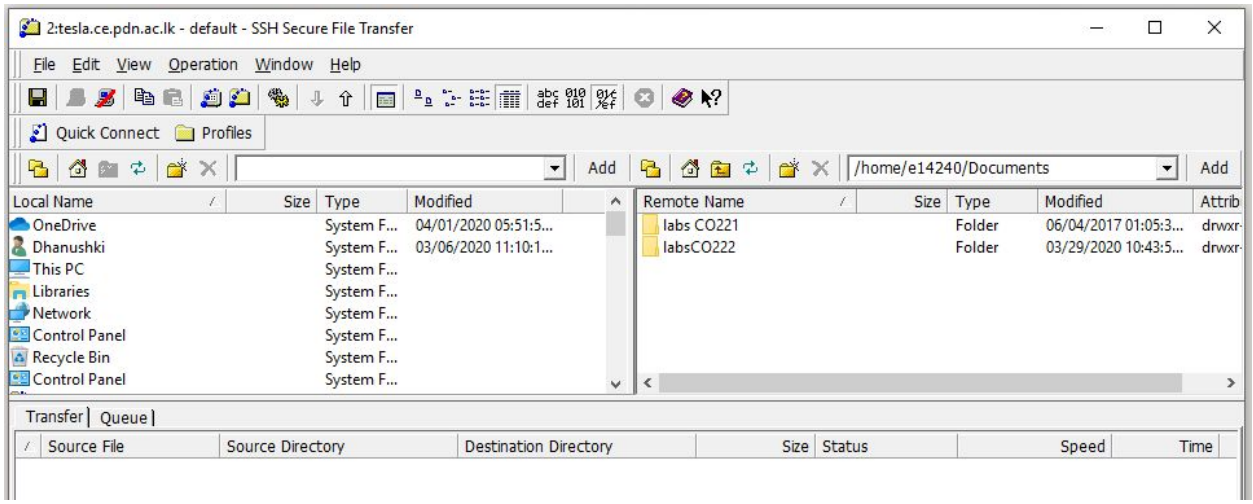
- You can drag and drop files from your machine to server and vice versa.

Replace host from **aiken.ce.pdn.ac.lk** to **tesla.ce.pdn.ac.lk** to connect to tesla server using MobaXterm.

The steps to connect to *tesla* from your home Windows computer is as follows: Demonstrate using SSH Secure Shell

- First download and install the software as you usually install any software on Windows.
- Open the program, click "*Quick Connect*", fill in the hostname and username appropriately as shown in the figure below and click connect.
- Then the password prompt will appear where you should enter the correct password and click *OK (Your department machine password)*. Then you will be on the server. Any command you enter in the prompt will execute on the server. Note that all the files residing in your *home* directory are accessible through this.
- To copy files to and from first click on the button shown in the following figure.
- Then the SSH Secure File Transfer Windows will appear and you can easily drag and drop files to copy from your computer to the server and vice versa.





Few other options to create your own Linux environment

- If you have Windows 10 you can enable the **"Windows Subsystem for Linux"** feature. (There are 2 separate options for windows 10 older version and newer version)
  Refer: https://itsfoss.com/install-bash-on-windows/
- Or else you can use a Linux virtual machine.
- Another option is having a Linux bootable device https://www.howtogeek.com/howto/linux/create-a-bootable-ubuntu-usb-flash-drive-the-easy-way/

Use the safest possible option when creating your Linux environment without messing your system! After all you are going to be a computer engineer so don’t think of this as a burden. :)