CSCI3170 Introduction to Database Systems

Tutorial 4 – Introduction to Linux and Sqlplus

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ACCOUNTS

Accounts (1)

- You would use 2 different accounts:
  - CSE Linux Account
    - CSE students: use your existing account
    - Non-CSE students: follow the guideline from techteam
    - For log onto Linux servers *(i.e. linuxXX)* in the CSE department network or PCs in the CSE Computer Labs *(i.e. SHB 924)*

Accounts (2)

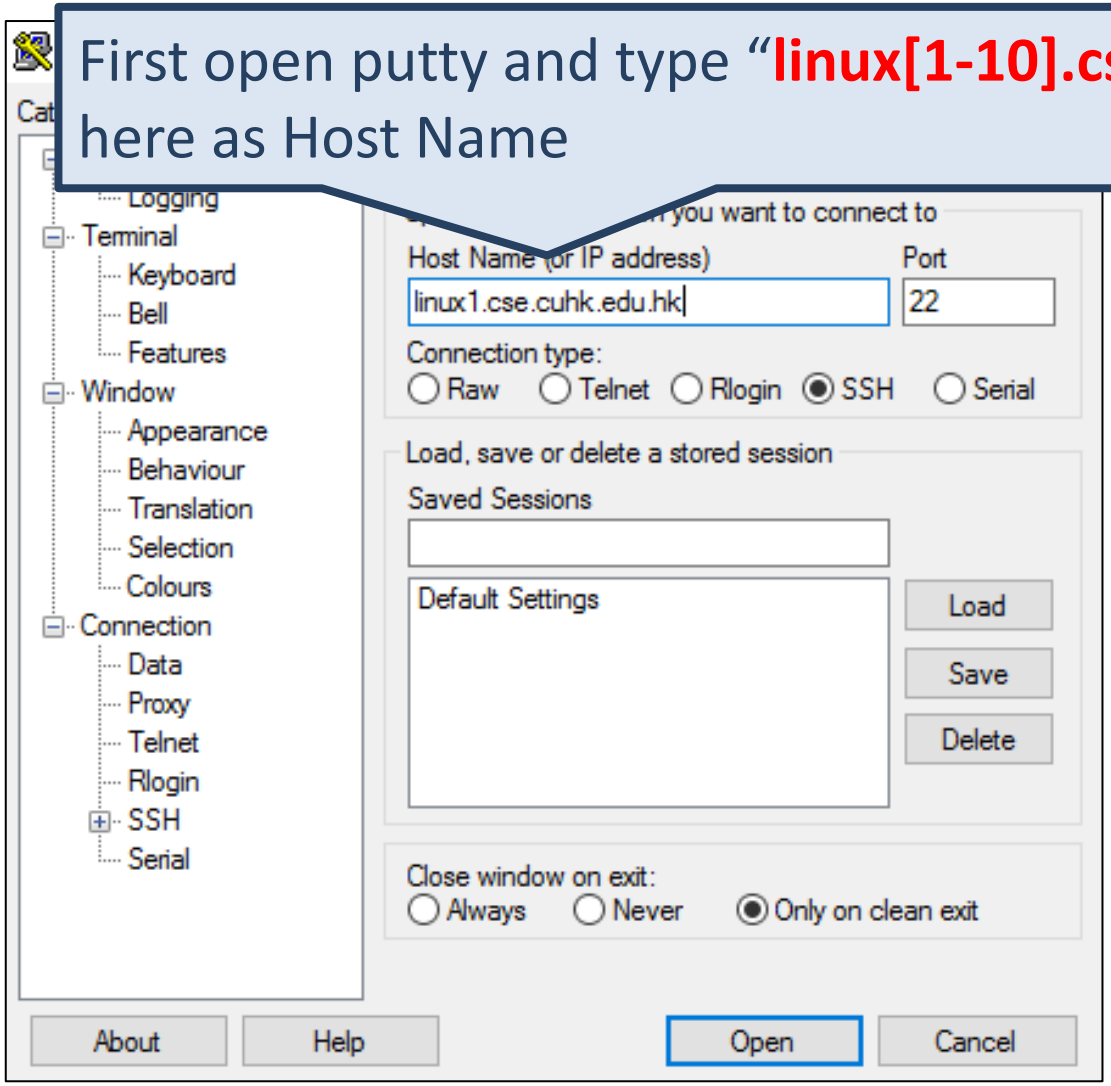
- You would use 2 different accounts:
  - Oracle Account
    - Username starts with `h` (e.g., h002)
    - Already distributed (check your link email)

CONNECTING TO CSE LINUX SERVERS

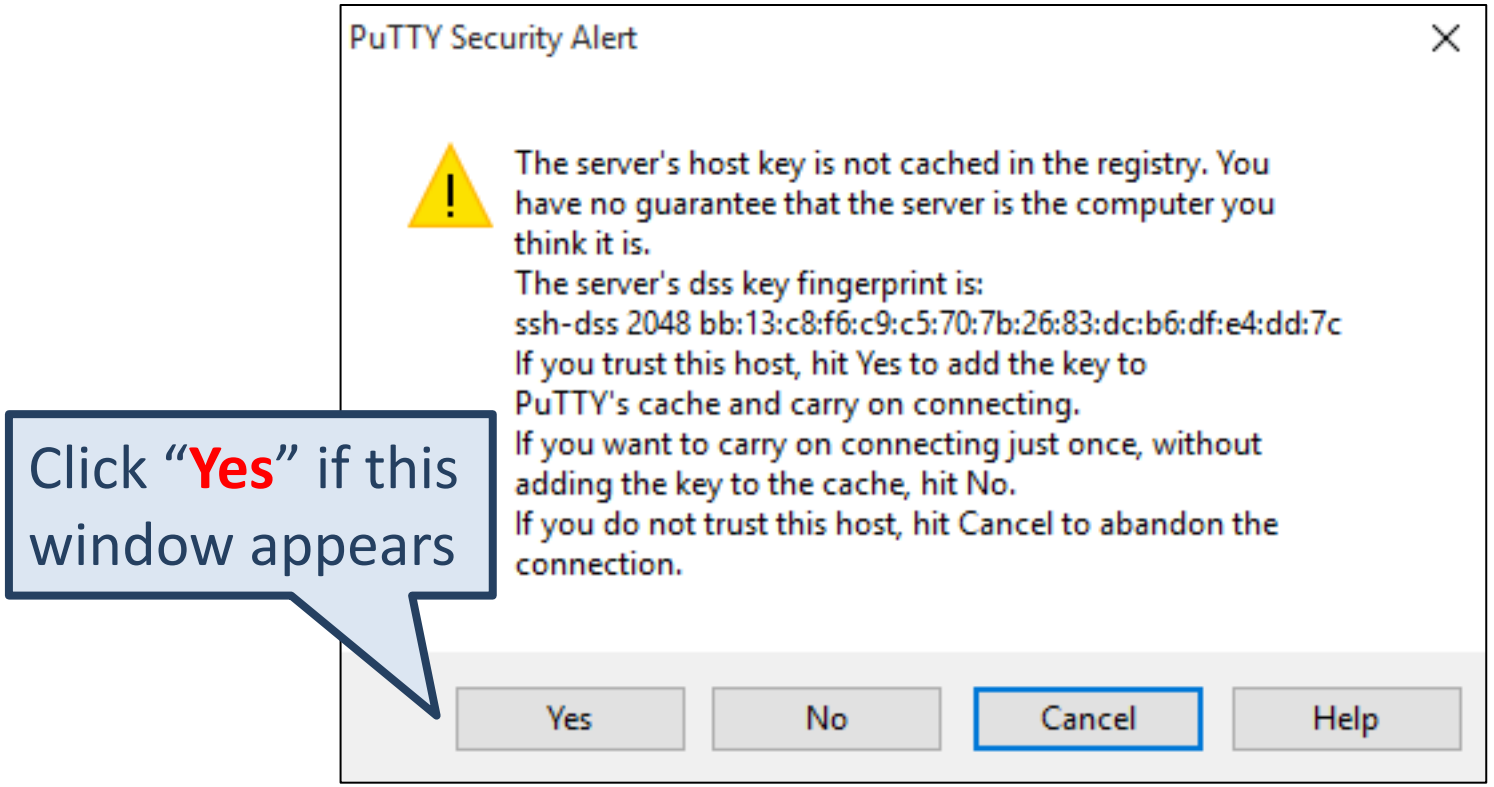
Install Putty and WinSCP

- Putty
  - SSH terminal client for accessing CSE Linux Servers
- WinSCP
  - FTP/SFTP client for transferring file between Local PC and CSE Linux Servers
- Any terminal client supports ssh is fine!

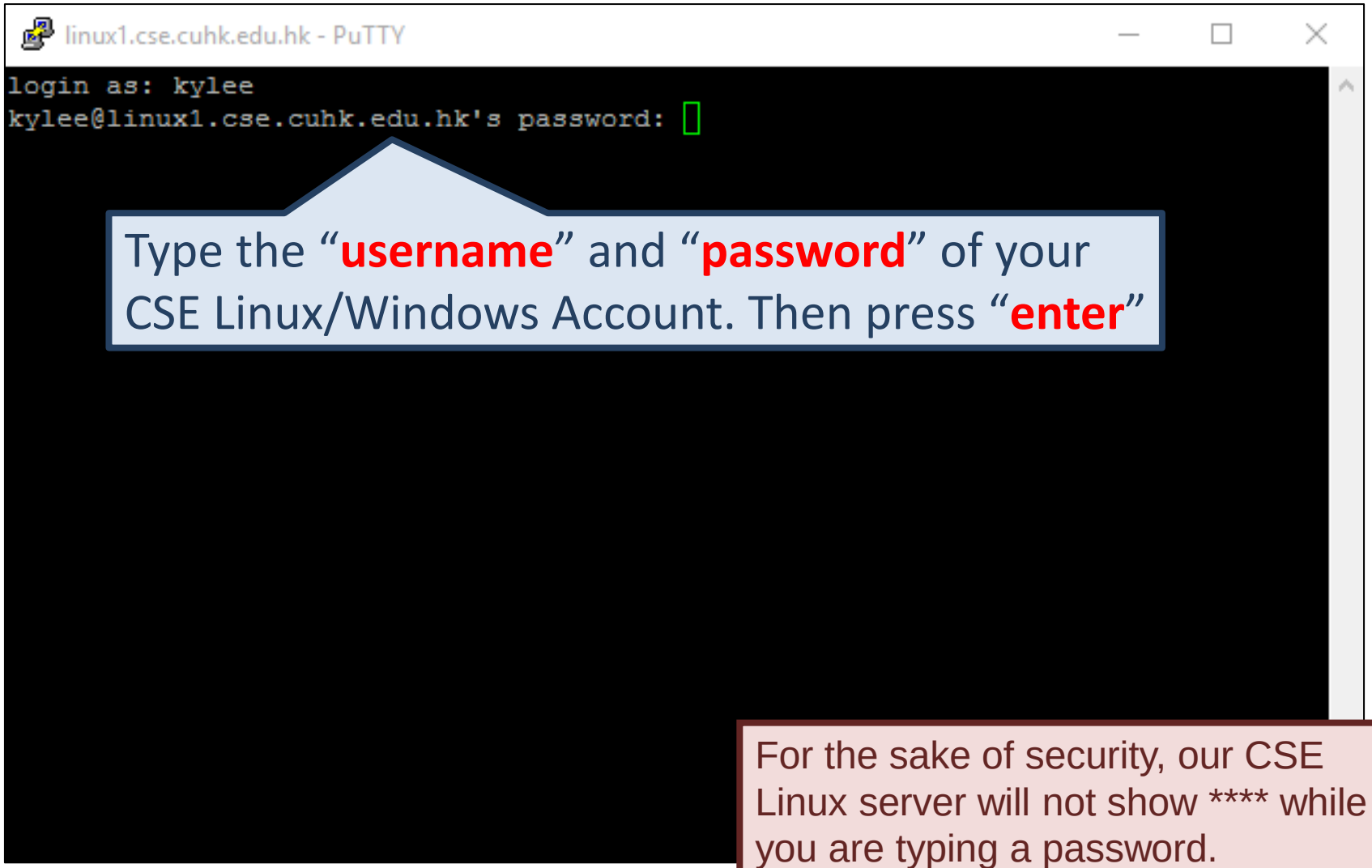
Connect to Linux Servers within CSE Lab via putty



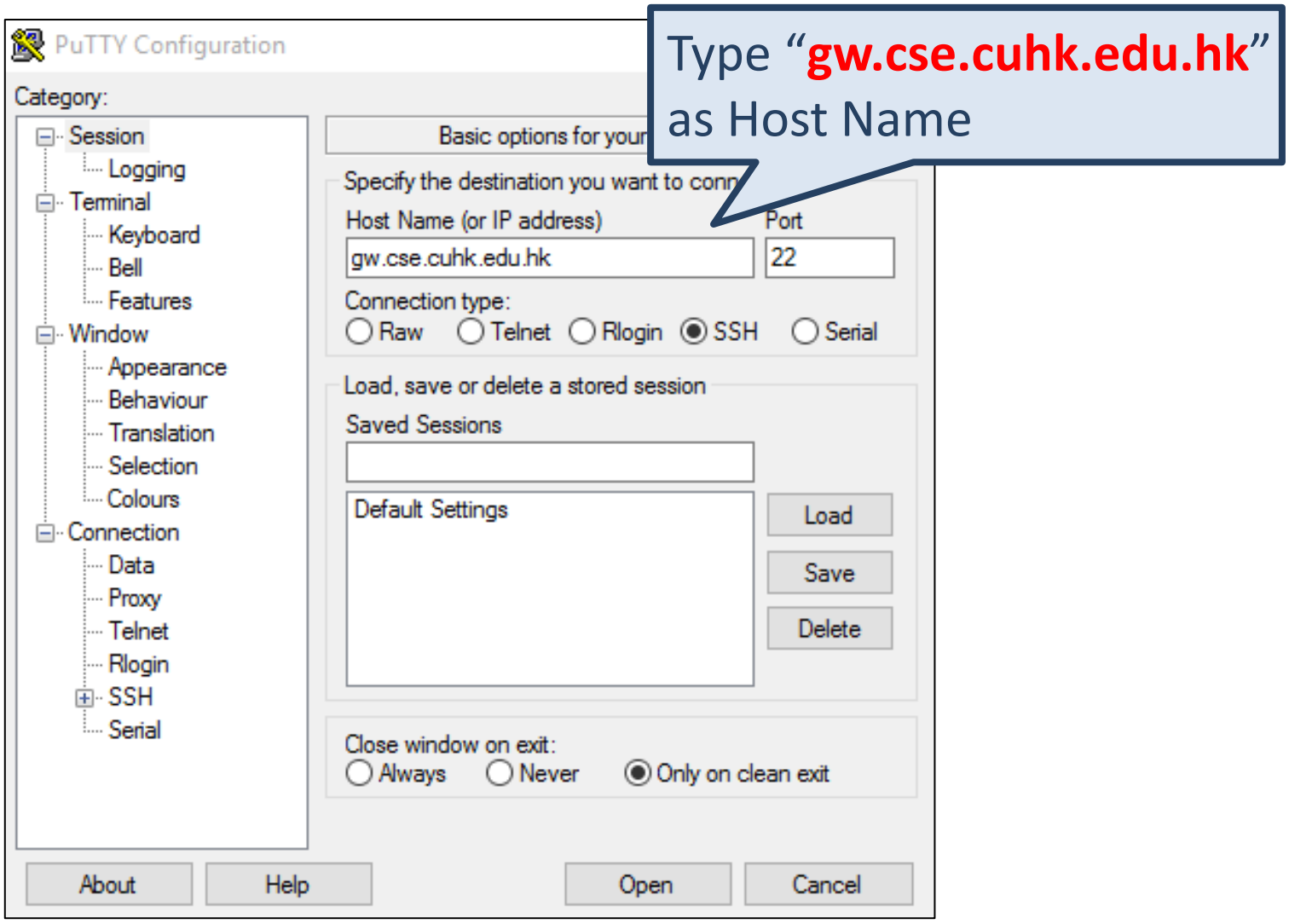
Connect to Linux Servers within CSE Lab via putty (2)



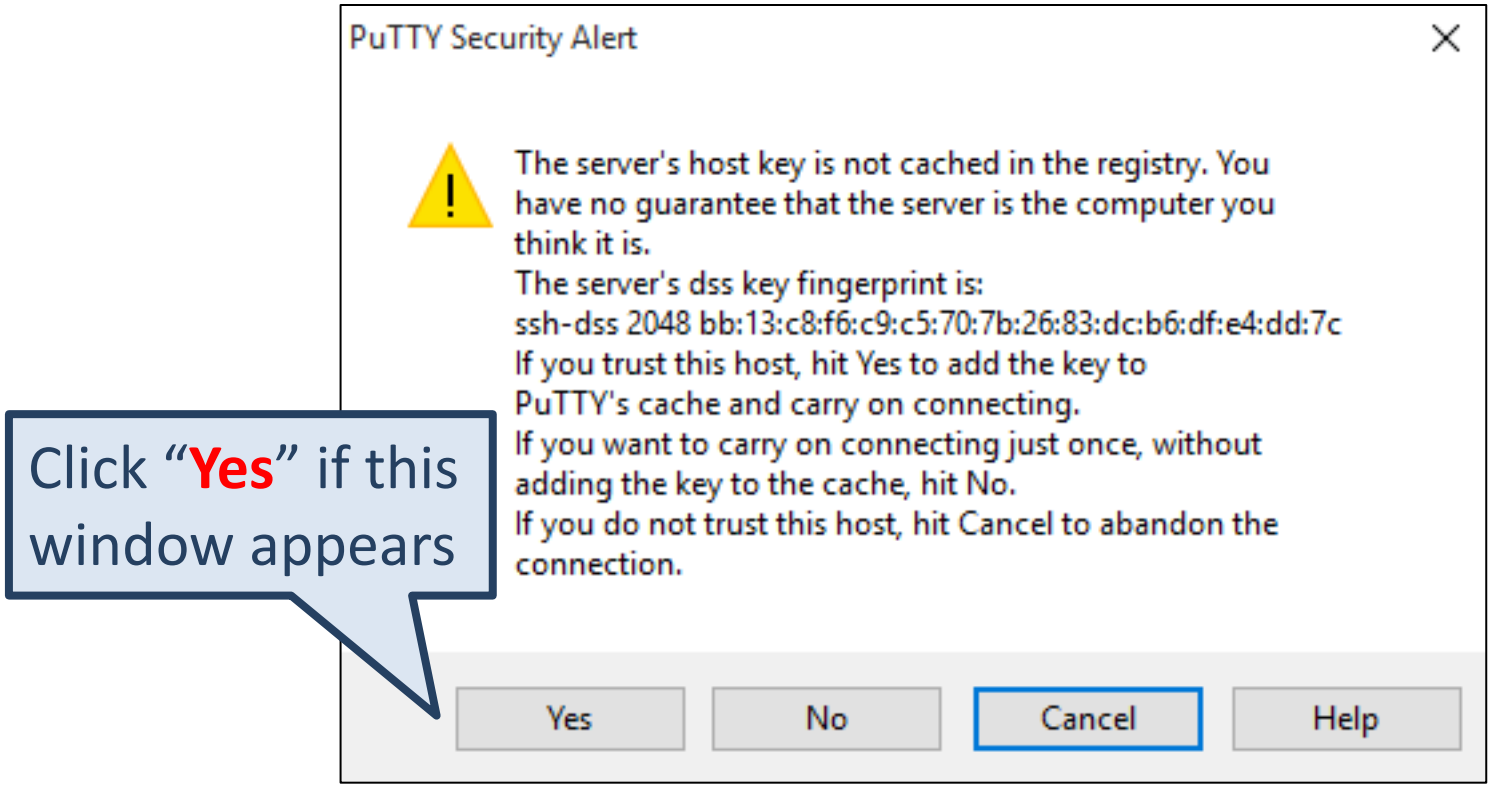
Connect to Linux Servers within CSE Lab via putty (3)



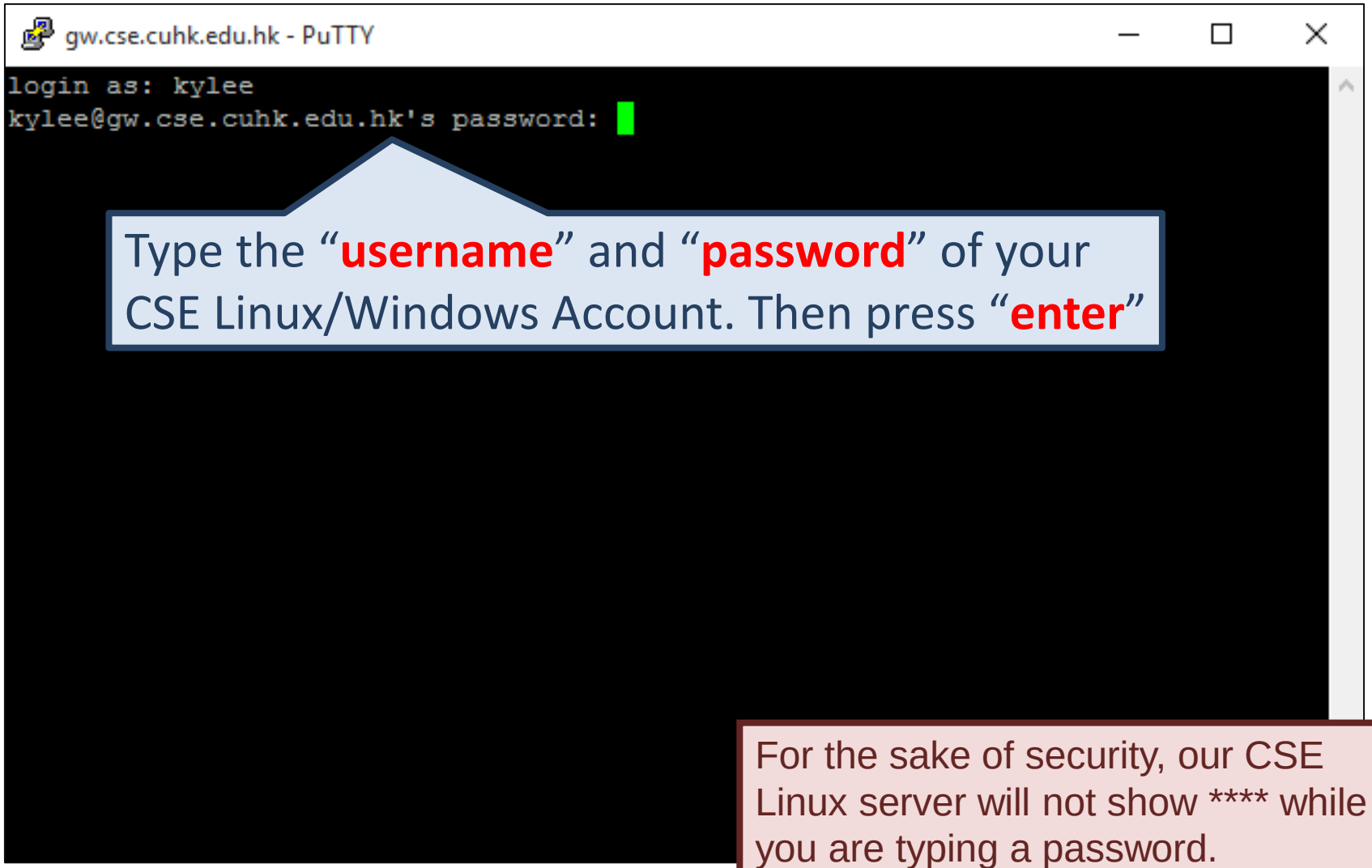
Connect to Linux Servers outside CSE Lab via putty



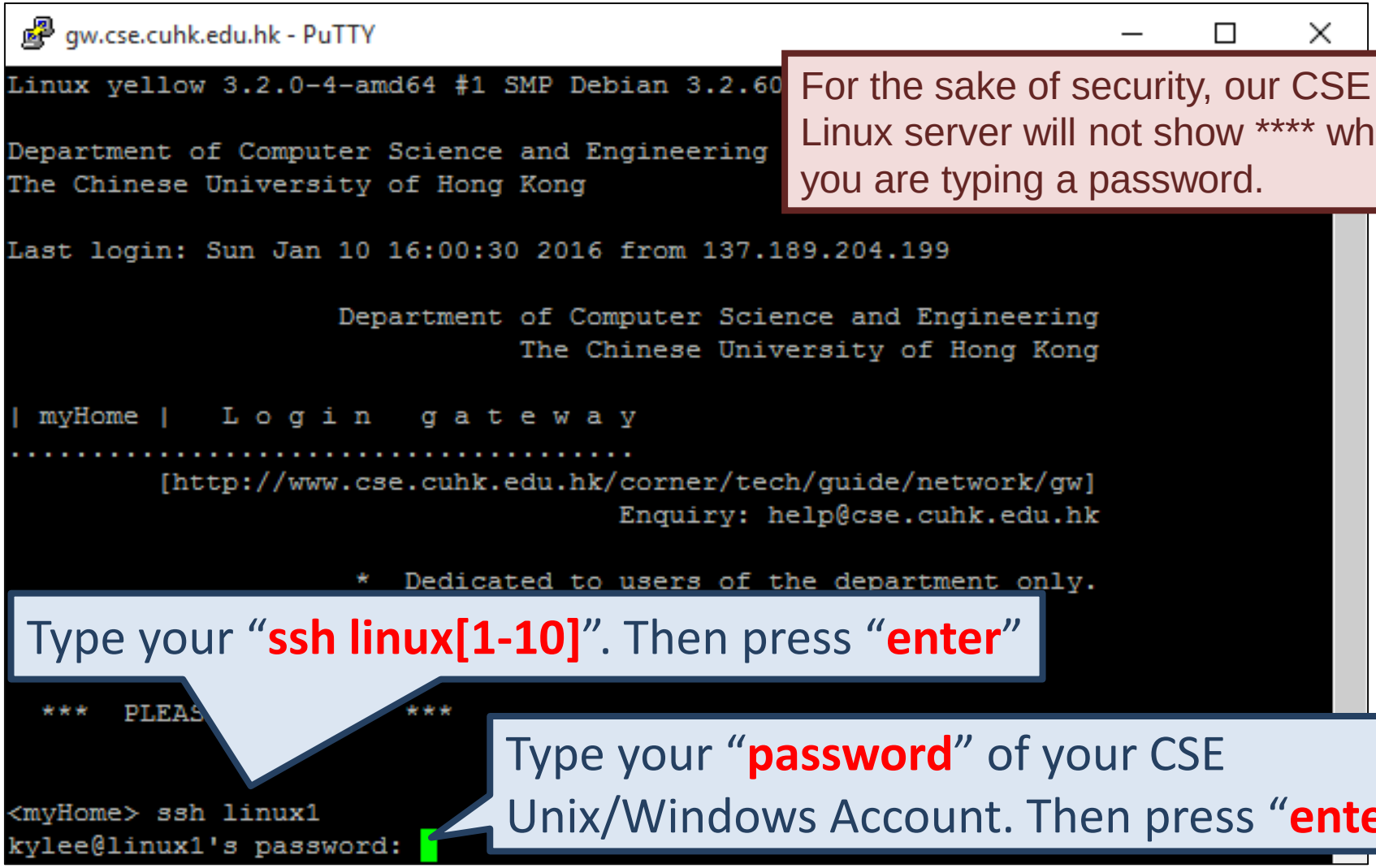
Connect to Linux Servers outside CSE Lab via putty (2)



Connect to Linux Servers outside CSE Lab via putty (3)

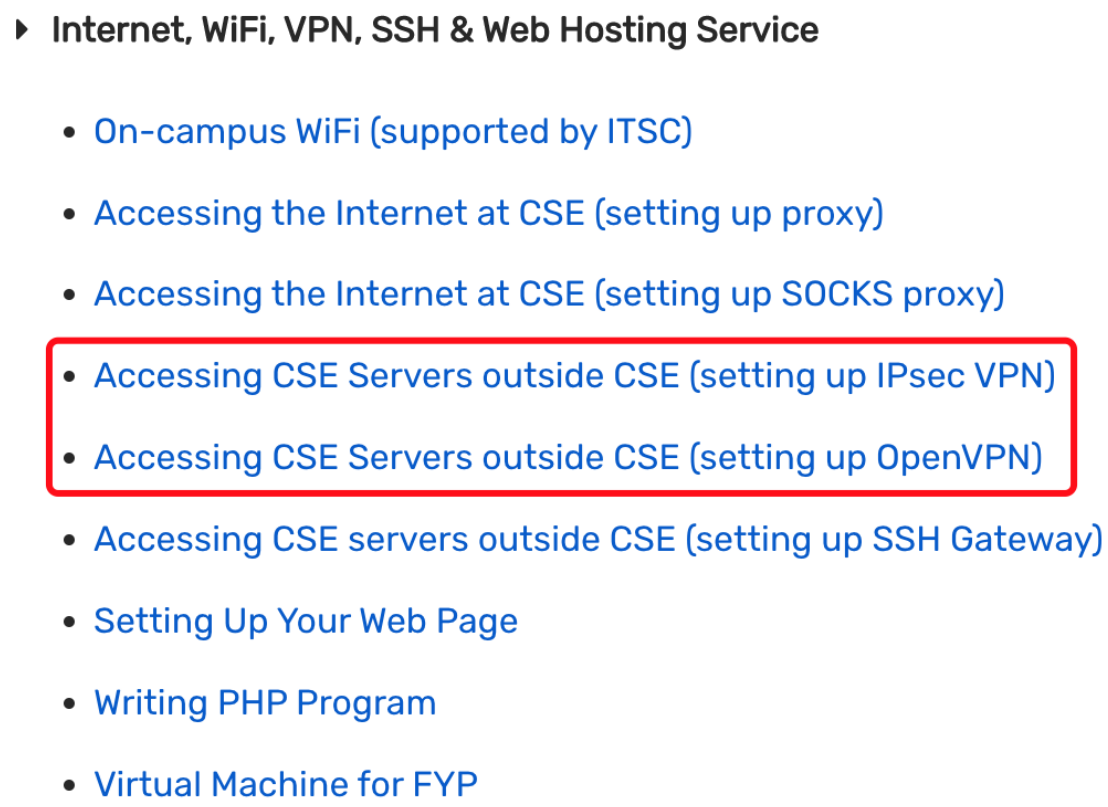


Connect to Linux Servers outside CSE Lab via putty (4)



Connect to Linux Servers outside CSE Lab via VPN

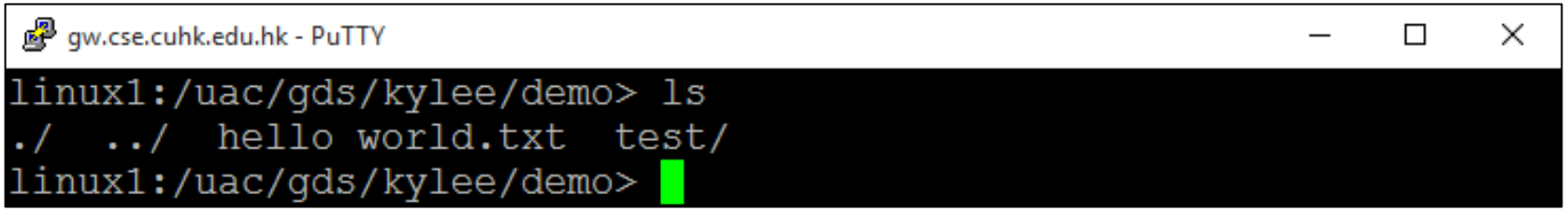
- https://i.cse.cuhk.edu.hk/technical/



INTRODUCTION TO LINUX TERMINAL COMMAND

Intro. to Linux Terminal Command

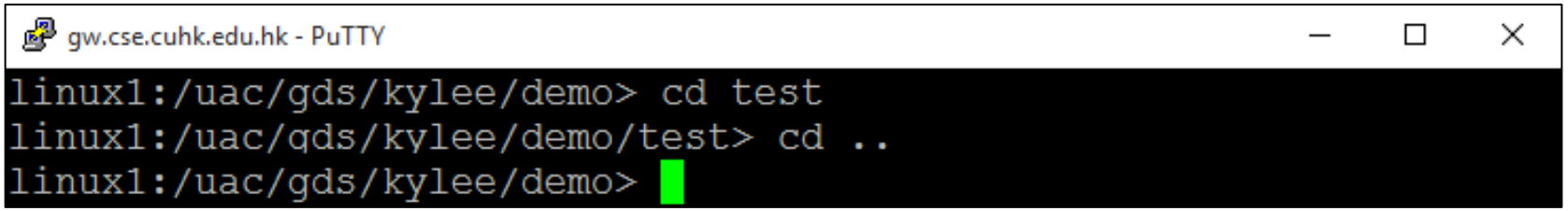
- **ls**
  - List out all the files in the current directory



"./" refers to the current directory
"../" refers to the parent directory

Intro. to Linux Terminal Command (2)

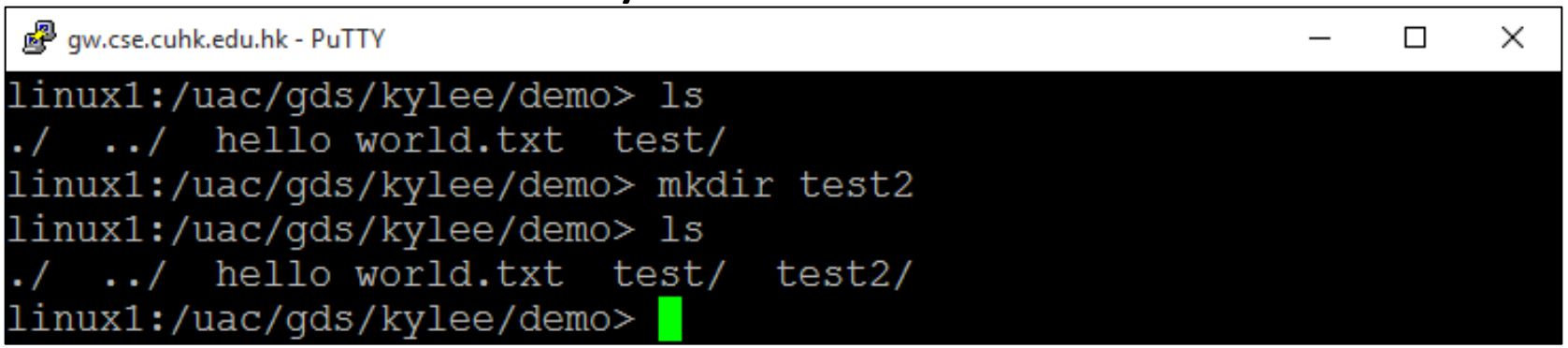
- **cd <directory>**
  - Change the working directory



Type "**cd ..**" if you want to change the working directory to the parent directory

Intro. to Linux Terminal Command (3)

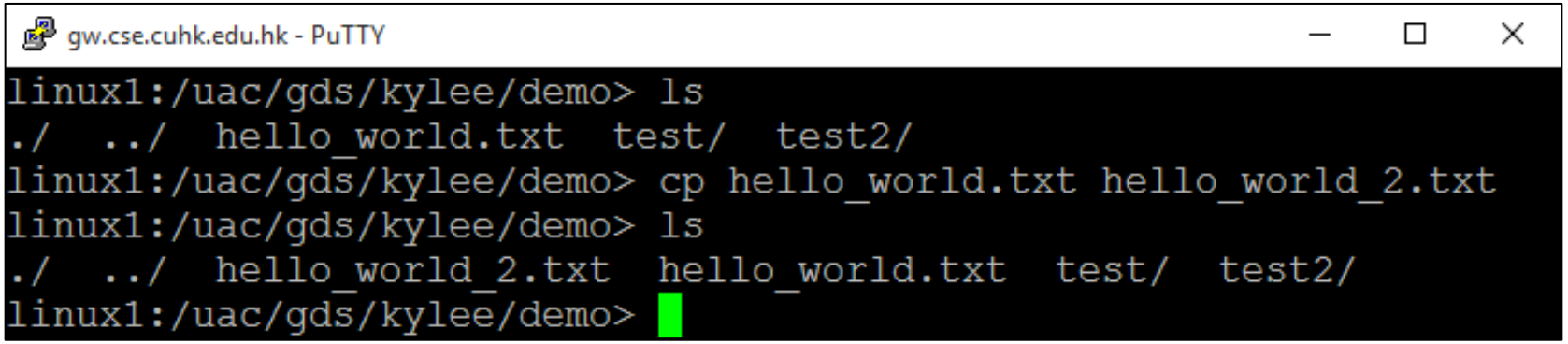
- **mkdir <directory>**
  - Create a directory



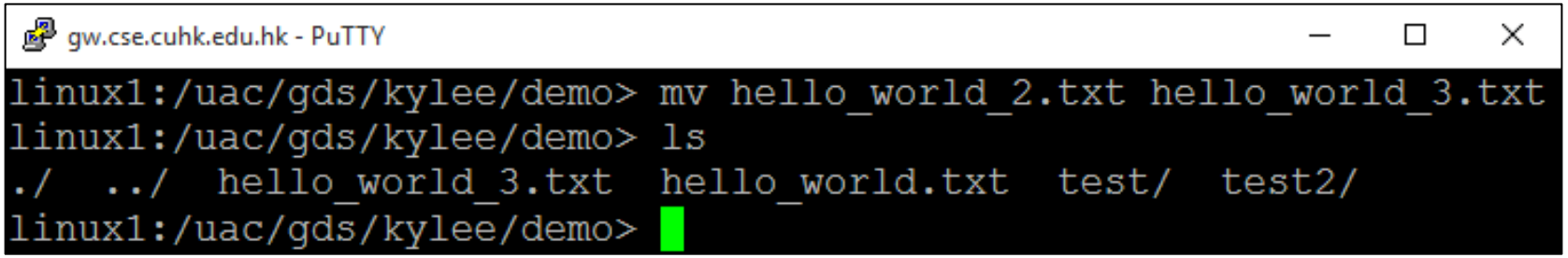
- **rmdir <directory>**
  - Remove an *empty* directory

Intro. to Linux Terminal Command (4)

- **cp <source> <destination>**
  - Copy the source file to the destination file

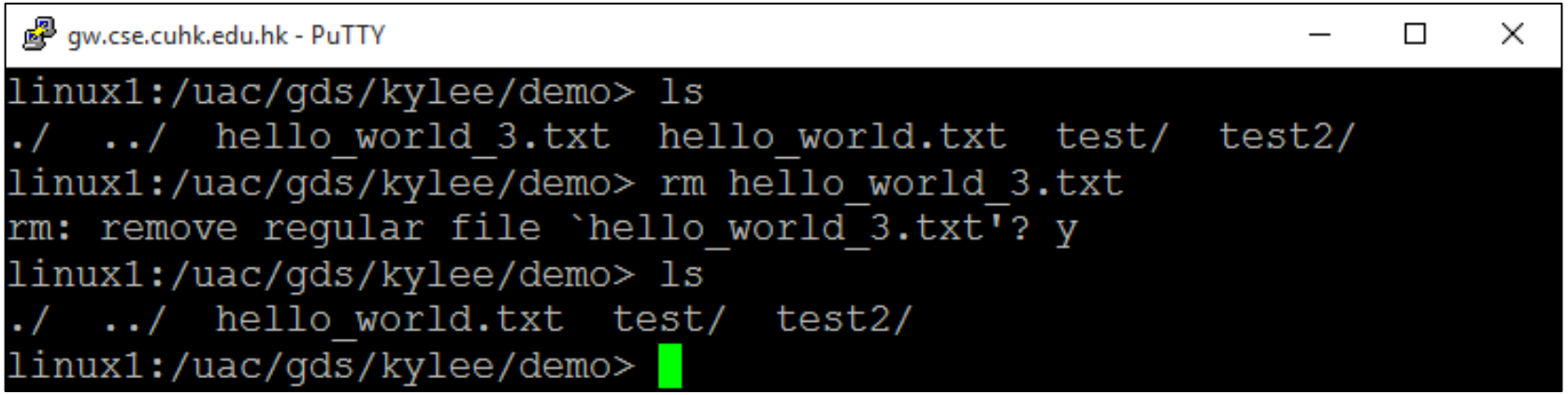


- **mv <source> <destination>**
  - Move the source file to the destination file



Intro. to Linux Terminal Command (5)

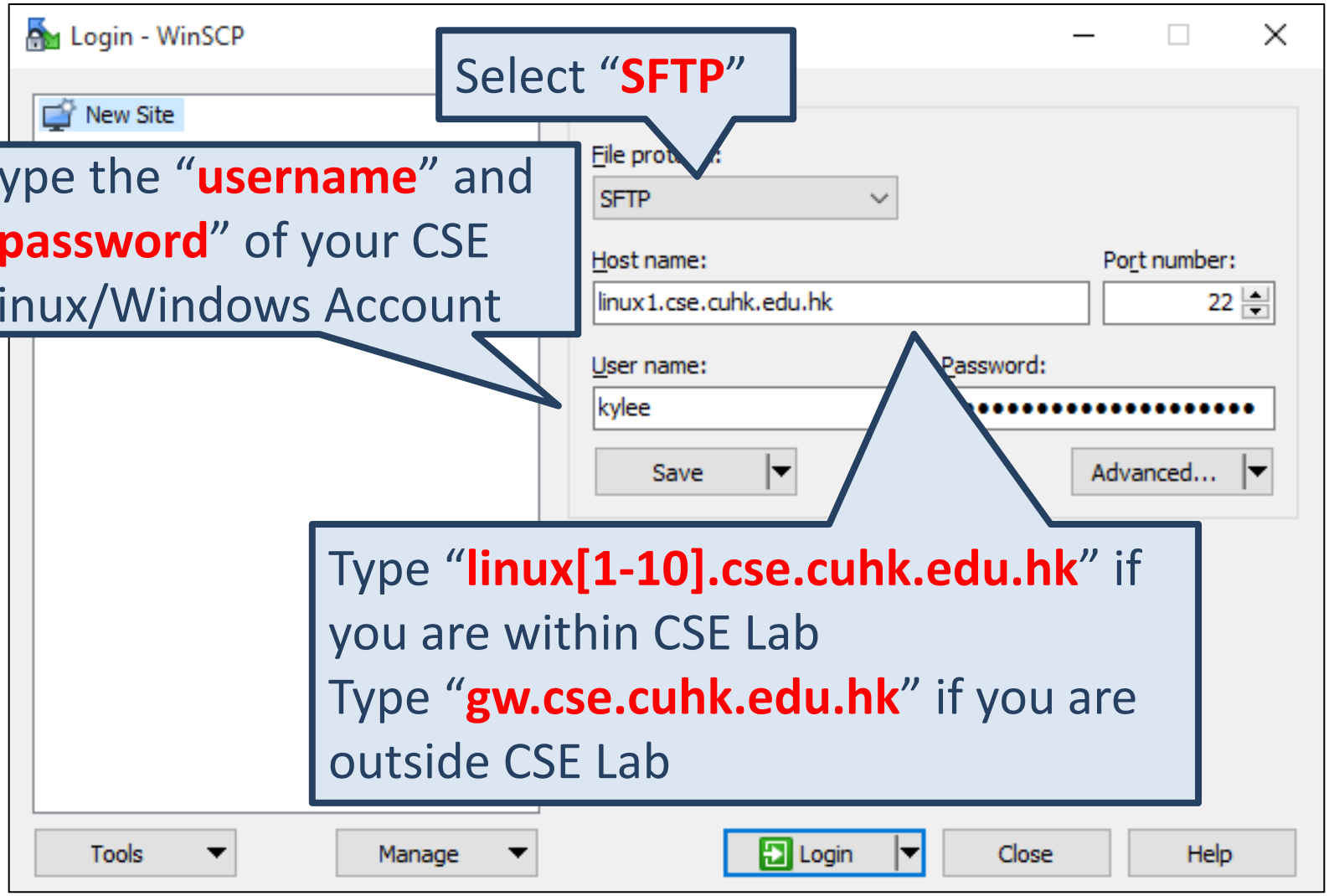
- **rm <filename>**
  - Remove a file



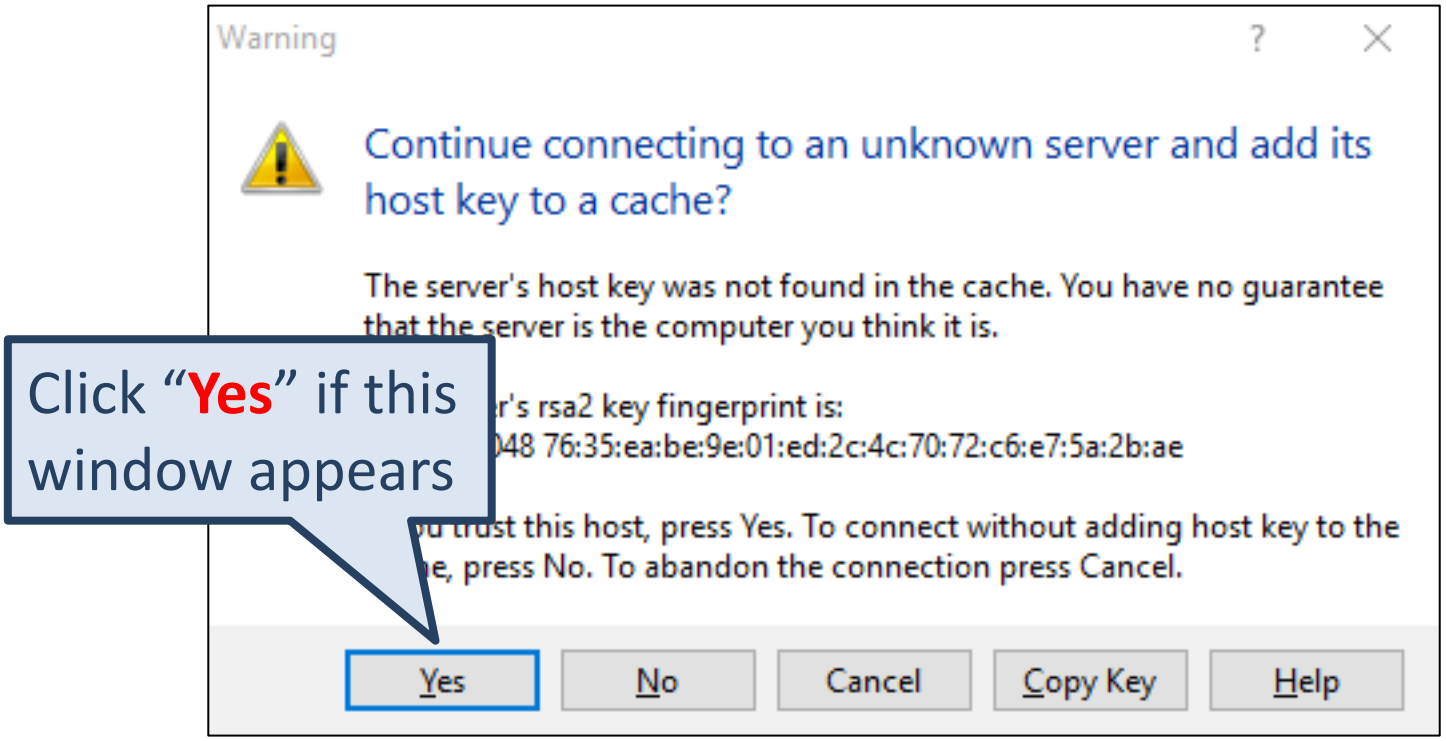
- **rm –rf <directory>**
  - Remove the directory and recursively remove all the files and sub-directories within the directory

FILE TRANSFER BETWEEN LINUX SERVERS & LOCAL PC

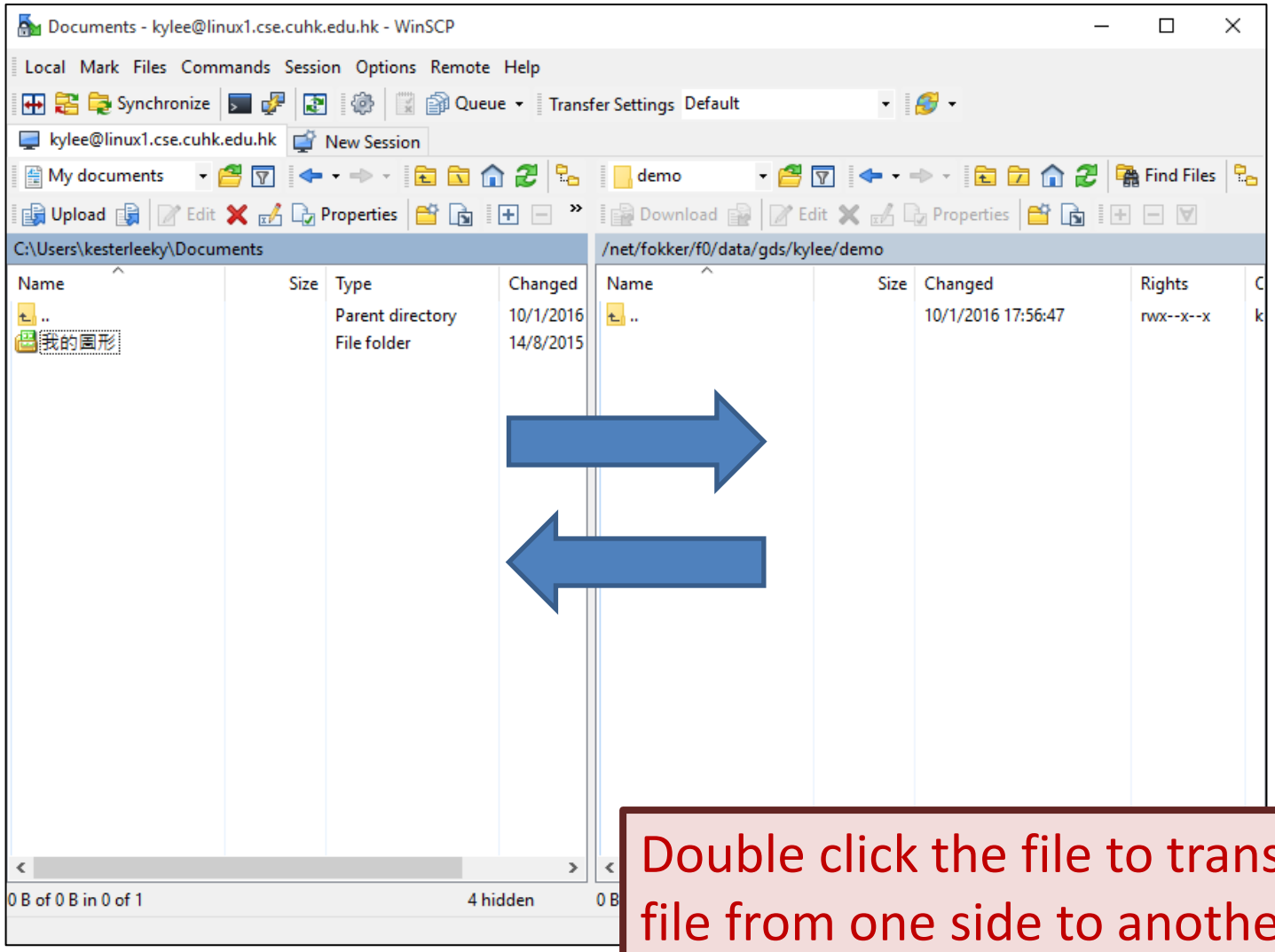
File Transfer between Linux Servers & Local PC via WinSCP



File Transfer between Linux Servers & Local PC via WinSCP (2)



File Transfer between Linux Servers & Local PC via WinSCP (3)



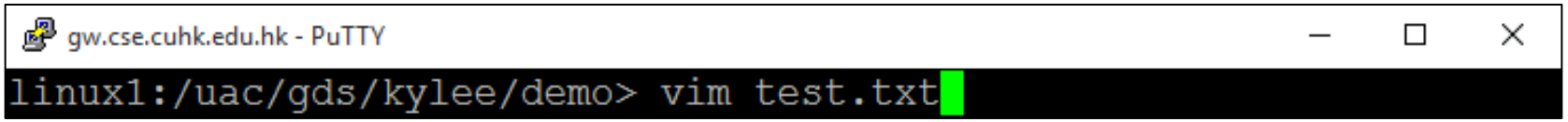
File Transfer between Linux Servers & Local PC via SCP/PSCP

- WinSCP is intuitional but not recommended
- Use ‘scp’ in terminal client instead
- Use ‘pscp’ in Windows

INTRODUCTION TO COMMAND LINE TEXT EDITOR VIM

Text Editor

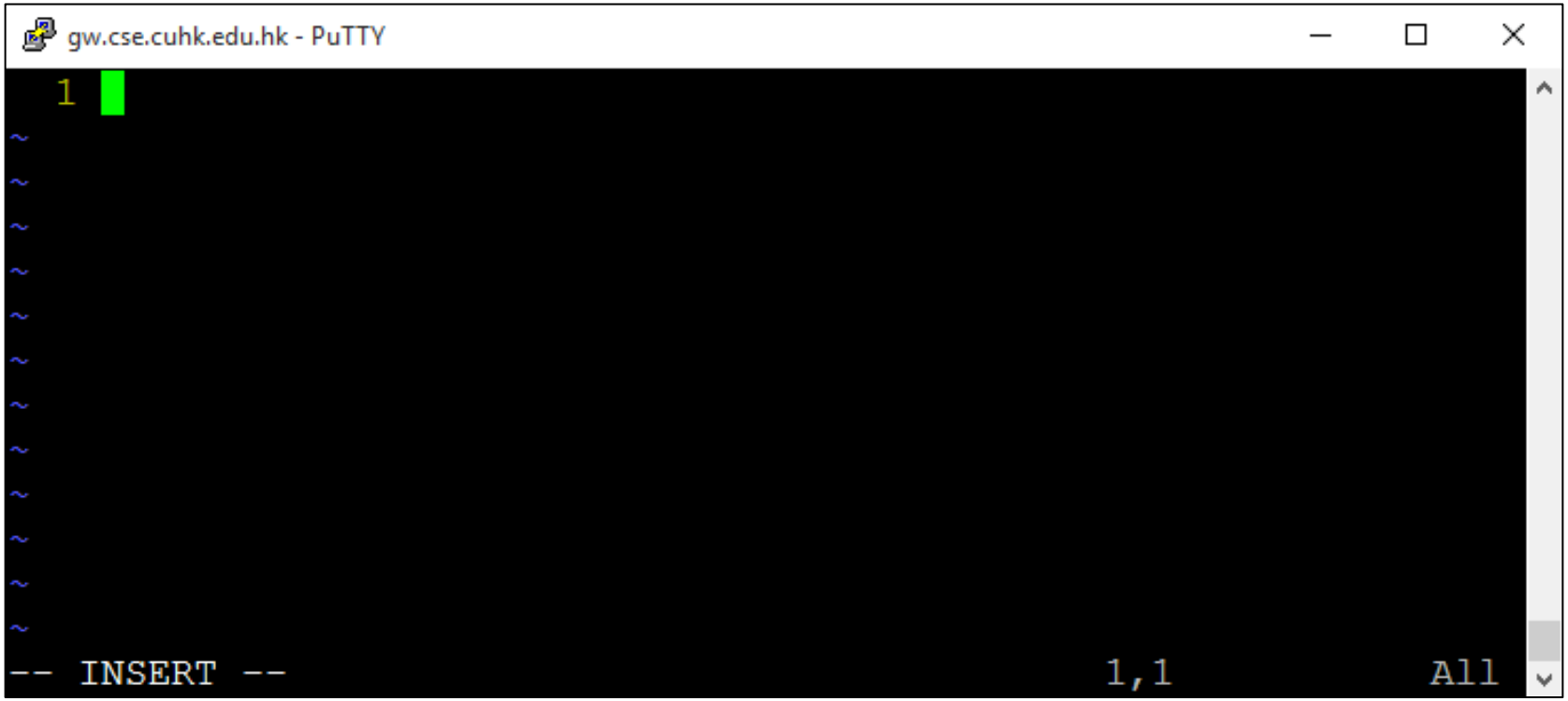
- **vim <filename>**
  - Open a file using test editor “vim”
  - Create a new file if the file does not exist



To make your editor with color and line number, you may change the file “**.vimrc**”

Text Editor (2)

- Press “**i**” to change the mode to “**insert mode**”



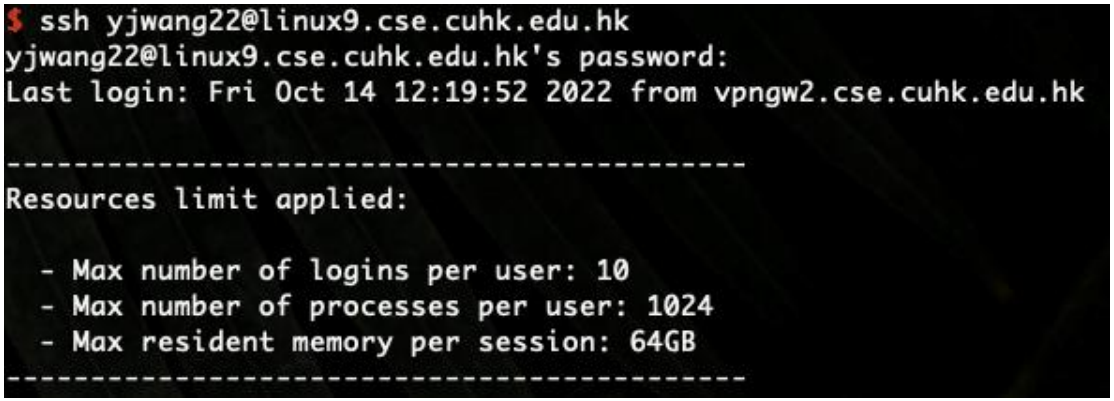
Text Editor (3)

- Press "**Esc**" to change the mode back to "**normal mode**". Then, type "**:wq**" to save and close the file

INTRODUCTION TO ORACLE SQLPLUS

Connect to Oracle (1)

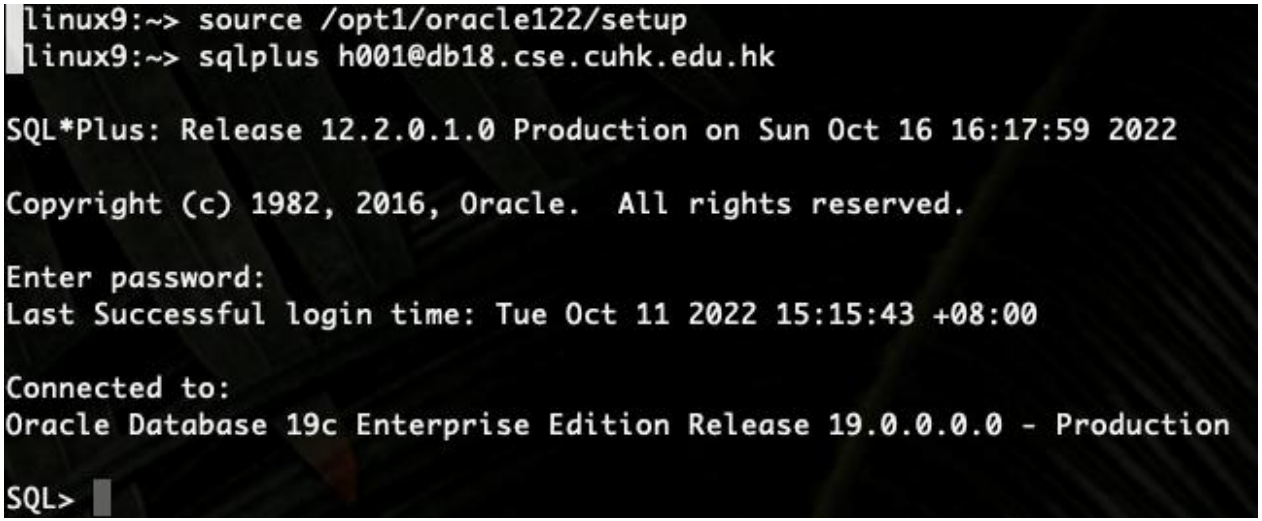
- First, type "**ssh [account]@Linux[ID].cse.cuhk.edu.hk**" to get into the Linux server
- Type "**csh**" to change the shell



Reminder: DO NOT get multiple logon onto the same Oracle account through sqlplus as commands typed in one sqlplus will not take effect immediately on other clients until you log out.

Connect to Oracle (2)

- Type "**source /opt1/oracle122/setup**" to setup the environment
- Type "**sqlplus [oracle account]@db18.cse.cuhk.edu.hk**" to connect to Oracle account



For *tutorial* questions, please contact yjwang22@cse.cuhk.edu.hk

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THANKS