

Operating System 112 Fall

Homework 0 - System Setup

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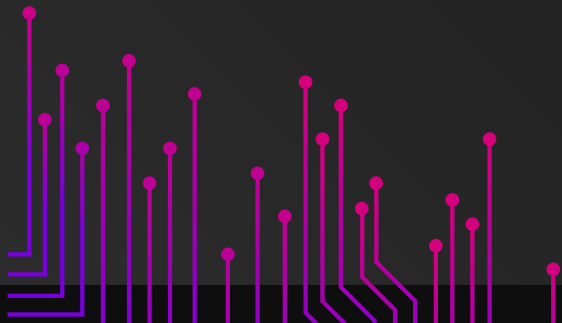
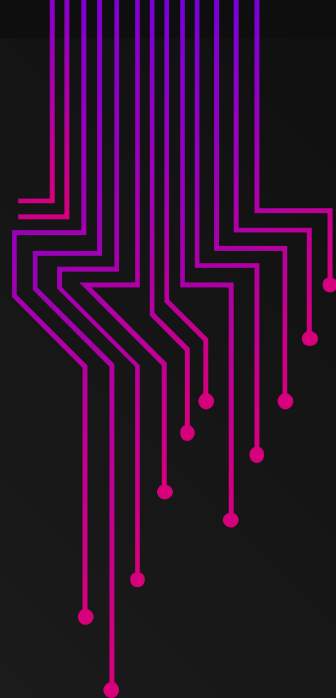


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Objective

In this homework, we are aimed to get familiar with linux-based operating system. Without such system, **you will not be able to accomplish each and every homework of this course.**

We will teach you 3 different ways to build Ubuntu OS, which is a classic linux-based system, you can pick any method you like.

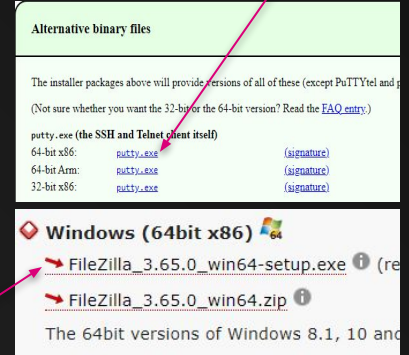
If you want to keep studying in CS domain or become a software engineer, you have to be familiar with such kind of system, so try to have fun learning it!



Method 1. PuTTY(1/3)

- Register NYCU CSCC(資工系計中) Account
 - Please follow this link :
<https://account.cs.nctu.edu.tw/>
 - It takes **7 days** to activate your account, so do it ASAP
- Download PuTTY for accessing workstation
 - Download from this link :
<https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>
- Download FileZilla
 - FileZilla can help you to download files from workstation
 - Download from this link :
https://filezilla-project.org/download.php?show_all=1

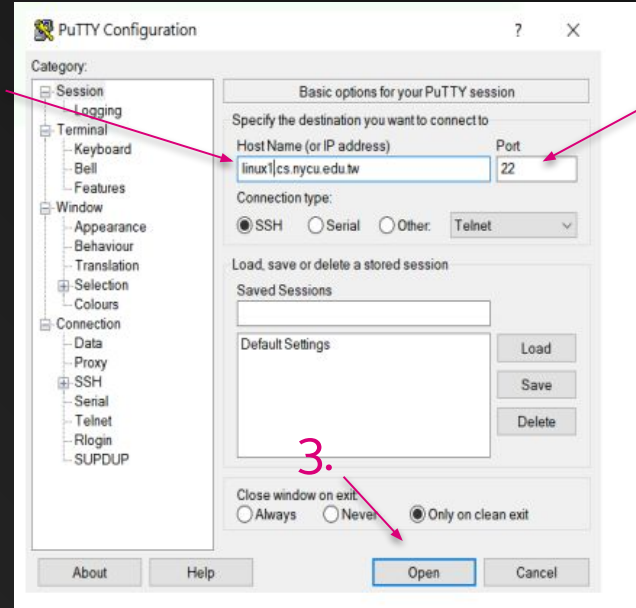
1.PuTTY



2.FileZilla

Method 1. PuTTY(2/3)

- PuTTY configuration for accessing workstation
 - The default SSH service port is **22**
 - There are four workstations for you to choose
 - Linux{1, 2, 3, 4}.cs.nycu.edu.tw
- For more information, you can refer to:
<https://it.cs.nycu.edu.tw/workstation-guide>



Method 1. PuTTY(3/3)

- FileZilla configuration for downloading files
 - 協定 : SFTP
 - 主機 : linux{1, 2, 3, 4}.cs.nycu.edu.tw
 - 連接埠 : 22
 - 登入型態 : 一般
 - 使用者 : 計中帳號
 - 密碼 : 計中密碼



Method 2. Virtual Machine

- We recommend you to download Ubuntu 20.04 ISO file from this website :
<https://www.ubuntu-tw.org/modules/tinydo/>
- Simply reference this website for Ubuntu installation on Virtual Machine:
<https://learningsky.io/install-ubuntu-on-oracle-virtualbox/>

The screenshot shows the 'Download Ubuntu' page with four numbered annotations:

- 1.** Points to the '發行版' (Release) tab.
- 2.** Points to the 'Ubuntu 桌面版本' (Ubuntu Desktop version) radio button.
- 3.** Points to the '64 位元版本' (64-bit version) radio button under '電腦架構' (Architecture).
- 4.** Points to the '開始下載' (Start Download) button.

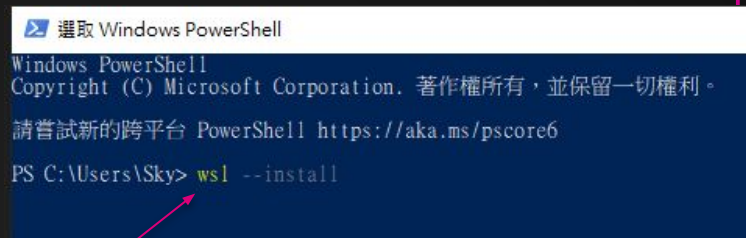
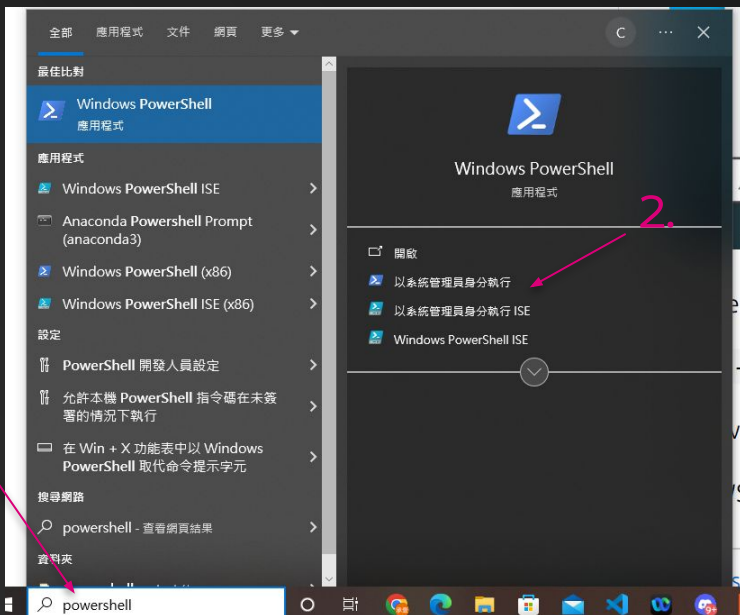
The page content includes:

- 發行版 (Release):** Radio buttons for 'Ubuntu 桌面版本' (selected) and 'Ubuntu 伺服器版本'.
- 版本 (Version):** Radio buttons for various LTS and non-LTS versions. The selected version is '22.04 LTS (5 + 5 年支援)'.
- 電腦架構 (Architecture):** Radio buttons for '32 位元版本' and '64 位元版本' (selected).
- 下載選項 (Download Options):** A checkbox for '下載 BitTorrent 種子' and a '開始下載' button.

Additional text on the page includes a note about different graphical environments for different releases, a link to download other versions, and information about LTS (Long Time Support) versions and their lifecycle.

Method 3. WSL(Linux Shell on Windows)(1/3)

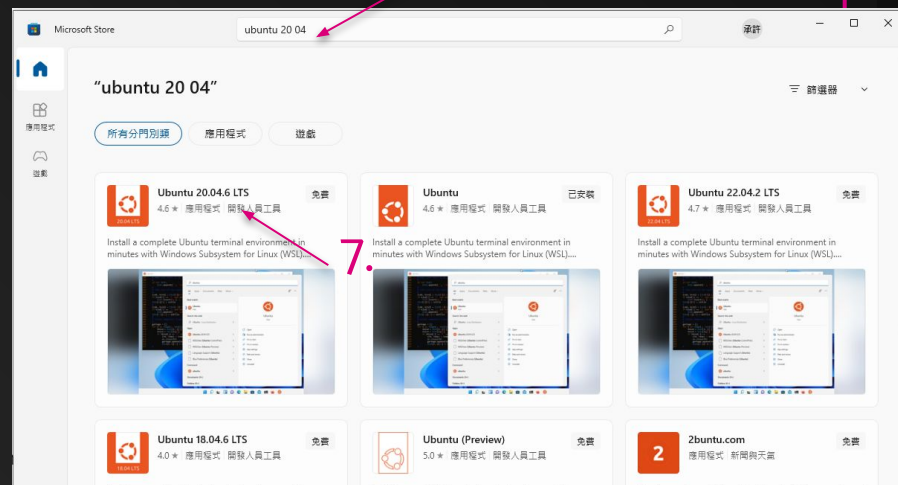
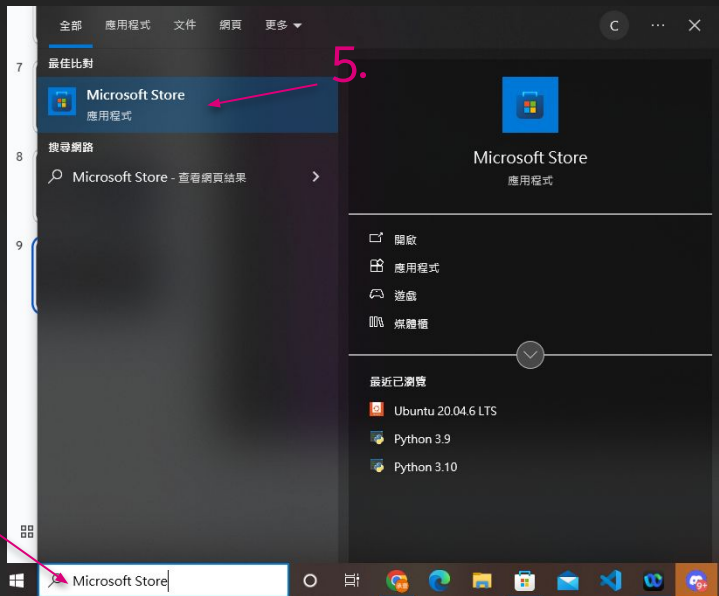
- This method is only for Windows operating system
- Please follow the procedures to install WSL



3. Type command `wsl --install`
Then restart your computer after installation

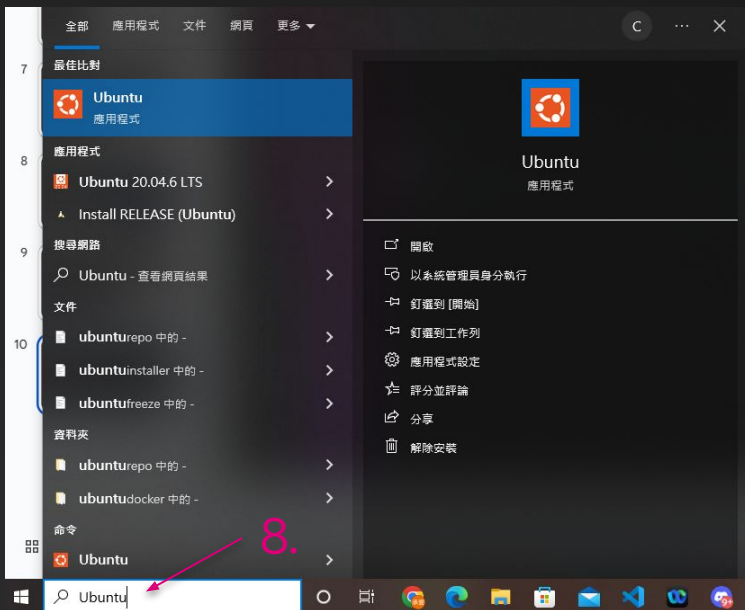
Method 3. WSL(Linux Shell on Windows)(2/3)

- Install Ubuntu 20.04 from Microsoft Store(Remind again : Please Remember to reboot your computer after procedure 3)

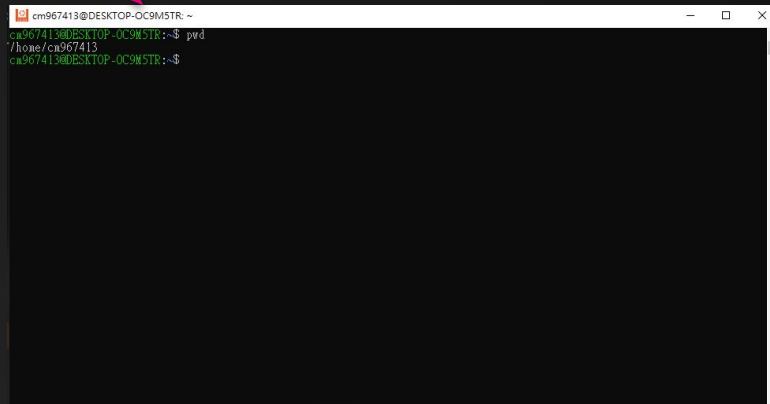


Method 3. WSL(Linux Shell on Windows)(3/3)

- After Installation, you will be able to open Ubuntu terminal in Windows menu.



9. Your Ubuntu terminal on Windows!



Basic Linux Commands and Concept Reference

- There are a lot of basic commands and concepts for you to learn, read the reference and try it by yourself!
- Also try to get familiar with file system of Ubuntu, you will appreciate if you want to be a system administrator
- <https://dylan237.github.io/linux-basic.html>
- 鳥哥的Linux指令私房菜

How likely are you to recommend Windows 10 to a friend or colleague?

☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Not at all likely

Extremely likely

Please explain why you gave this score.

I need you to understand that people don't have conversations where they randomly recommend operating systems to one another



ProgrammerHumor.io

Easter Egg

- When you try to install any package in Ubuntu, remember to execute **'sudo apt update'**
- Let's play with the following commands!

A.

```
1. sudo apt update  
2. sudo apt install sl  
3. sl
```

B.

```
1. sudo apt install cowsay  
2. cowsay -f fox -W 100 It is time to showcase some real music https://www.youtube.com/watch?v=UwrflvJabNo
```