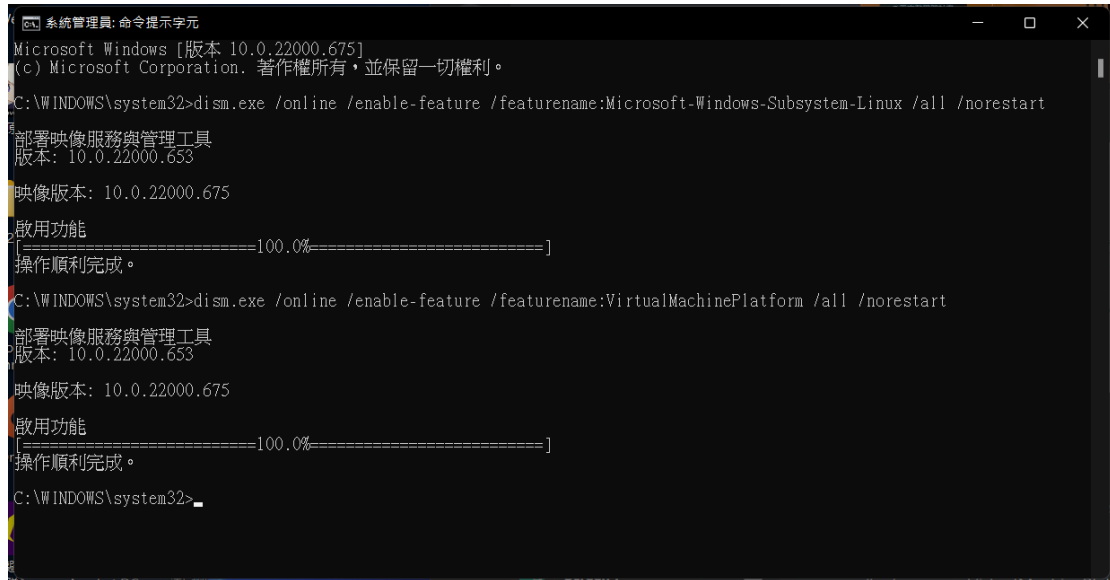


WSL

STEP1 安裝 WSL

啟用 Windows 子系統 Linux 版本



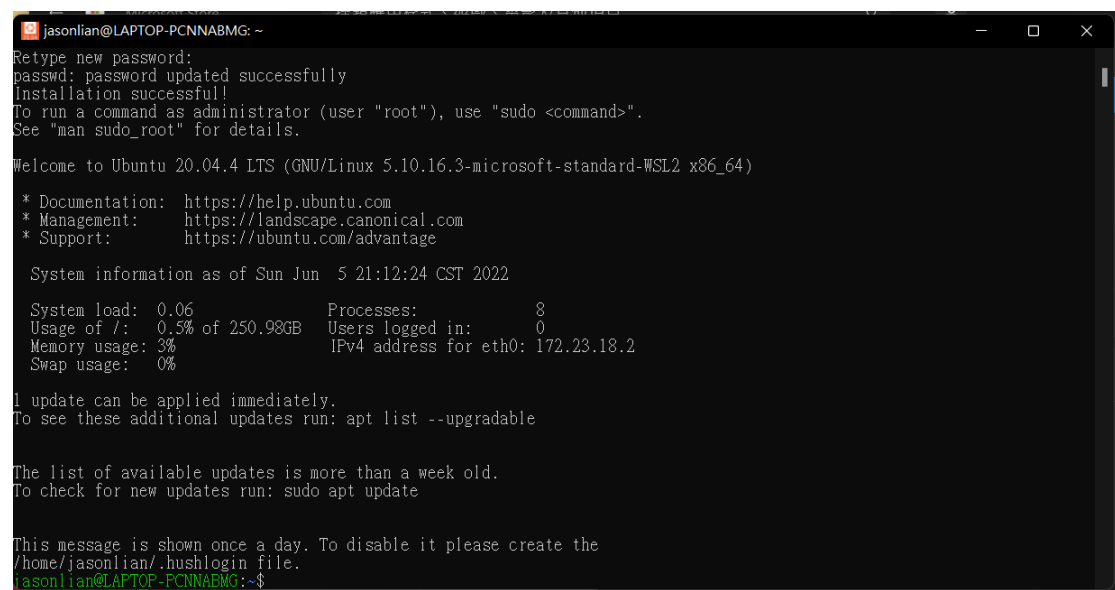
A screenshot of the Windows System Management console (System Management: Command Prompt) showing the installation of WSL features. The console displays the following text:

```
Microsoft Windows [版本 10.0.22000.675]  
(c) Microsoft Corporation. 著作權所有，並保留一切權利。  
C:\WINDOWS\system32>dism.exe /online /enable-feature /featurename:Microsoft-Windows-Subsystem-Linux /all /norestart  
部署映像服務與管理工具  
版本: 10.0.22000.653  
映像版本: 10.0.22000.675  
啟用功能  
[=====100.0%=====]  
操作順利完成。  
C:\WINDOWS\system32>dism.exe /online /enable-feature /featurename:VirtualMachinePlatform /all /norestart  
部署映像服務與管理工具  
版本: 10.0.22000.653  
映像版本: 10.0.22000.675  
啟用功能  
[=====100.0%=====]  
操作順利完成。  
C:\WINDOWS\system32>
```



A screenshot of a terminal window titled "jasonlian@LAPTOP-PCNNABMG: ~". The terminal shows a file named "derrick.sh" [New File] with a size of 0,0-1 and a type of All. The terminal is currently empty.

設帳號、密碼



```

jasonlian@LAPTOP-PCNNABMG: ~
Retype new password:
passwd: password updated successfully
Installation successful!
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.10.16.3-microsoft-standard-WSL2 x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Sun Jun  5 21:12:24 CST 2022

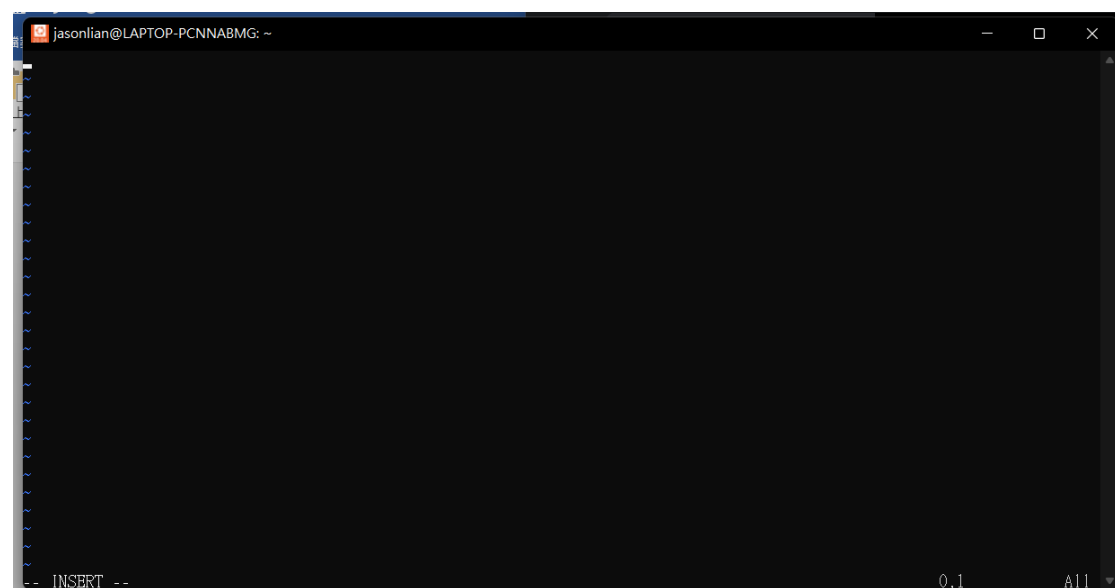
System load:  0.06               Processes:    8
Usage of /:   0.5% of 250.98GB   Users logged in: 0
Memory usage: 3%                IPv4 address for eth0: 172.23.18.2
Swap usage:   0%

1 update can be applied immediately.
To see these additional updates run: apt list --upgradable

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

This message is shown once a day. To disable it please create the
/home/jasonlian/.hushlogin file.
jasonlian@LAPTOP-PCNNABMG:~$
```

要先按 I 才可以輸入



```

jasonlian@LAPTOP-PCNNABMG: ~
-- INSERT --
```

常用指令:

cd = 切換當前所在位置

mkdir = 創建資料夾

touch = 建立新檔案

vim = 開啟編輯

創建資料夾

```
jasonlian@LAPTOP-PCNNA8MG: ~
Installation successful!
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.10.16.3-microsoft-standard-WSL2 x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Sun Jun  5 21:12:24 CST 2022

System load: 0.06          Processes:              8
Usage of /:  0.5% of 250.98GB Users logged in:          0
Memory usage: 3%          IPv4 address for eth0: 172.23.18.2
Swap usage:  0%

1 update can be applied immediately.
To see these additional updates run: apt list --upgradable

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

This message is shown once a day. To disable it please create the
/home/jasonlian/.hushlogin file.
jasonlian@LAPTOP-PCNNA8MG:~$ mkdir 資安作業
jasonlian@LAPTOP-PCNNA8MG:~$ vim derrick.sh
jasonlian@LAPTOP-PCNNA8MG:~$
```

打完指令按 **esc**，點擊左下角輸入:eq，表示儲存並退出

[illegible]

最後不知道為甚麼沒成功，但學到很多。

```
jasonlian@LAPTOP-PCNNABMG: ~/temp
Welcome to the VcXsrv X Server
Vendor: The VcXsrv Project
Release: 1.20.14.0

OS: Windows NT 6.2 build 9200 (64-bit)
Contact: marha@users.sourceforge.net

LoadPreferences: C:\Users\USER\AppData\Roaming\XWinrc not found
LoadPreferences: Loading C:\Program Files\VcXsrv\system.XWinrc
成功: PID 為 14700 (PID 為 2664 的子處理程序) 的處理程序已終止。
jasonlian@LAPTOP-PCNNABMG:~/temp$ cat gui.sh
#!/bin/bash
sudo service dbus restart
/mnt/c/Program\ Files/VcXsrv/vcxsrv.exe :0 -ac &
DISPLAY=:0 XDG_SESSION_TYPB=x11 gnome-session
/mnt/c/Windows/System32/taskkill.exe /IM vcxsrv.exe /T /F
jasonlian@LAPTOP-PCNNABMG:~/temp$ vim gui.sh
jasonlian@LAPTOP-PCNNABMG:~/temp$ sudo bash gui.sh
* Stopping system message bus dbus
* Starting system message bus dbus
gui.sh: line 4: gnome-session: command not found
Welcome to the VcXsrv X Server
Vendor: The VcXsrv Project
Release: 1.20.14.0

OS: Windows NT 6.2 build 9200 (64-bit)
Contact: marha@users.sourceforge.net

LoadPreferences: C:\Users\USER\AppData\Roaming\XWinrc not found
LoadPreferences: Loading C:\Program Files\VcXsrv\system.XWinrc
成功: PID 為 17736 (PID 為 2664 的子處理程序) 的處理程序已終止。
jasonlian@LAPTOP-PCNNABMG:~/temp$
```

Gui

更新 apt-get

```
jasonlian@LAPTOP-PCNNABMG: ~/temp
jasonlian@LAPTOP-PCNNABMG:~/temp$ sudo apt-get update
Hit:1 http://archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:3 http://archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:4 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [1491 kB]
Get:5 http://archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Get:6 http://archive.ubuntu.com/ubuntu focal/universe amd64 Packages [3628 kB]
Get:7 http://security.ubuntu.com/ubuntu focal-security/main Translation-en [257 kB]
Get:8 http://security.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metadata [10.4 kB]
Get:9 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [948 kB]
Get:10 http://security.ubuntu.com/ubuntu focal-security/restricted Translation-en [135 kB]
Get:11 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 c-n-f Metadata [520 B]
Get:12 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [705 kB]
Get:13 http://security.ubuntu.com/ubuntu focal-security/universe Translation-en [126 kB]
Get:14 http://security.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Metadata [14.5 kB]
Get:15 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 Packages [22.2 kB]
Get:16 http://security.ubuntu.com/ubuntu focal-security/multiverse Translation-en [5376 B]
Get:17 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 c-n-f Metadata [512 B]
Get:18 http://archive.ubuntu.com/ubuntu focal/universe Translation-en [5124 kB]
Get:19 http://archive.ubuntu.com/ubuntu focal/universe amd64 c-n-f Metadata [265 kB]
Get:20 http://archive.ubuntu.com/ubuntu focal/multiverse amd64 Packages [144 kB]
Get:21 http://archive.ubuntu.com/ubuntu focal/multiverse Translation-en [104 kB]
Get:22 http://archive.ubuntu.com/ubuntu focal/multiverse amd64 c-n-f Metadata [9136 B]
Get:23 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [1833 kB]
Get:24 http://archive.ubuntu.com/ubuntu focal-updates/main Translation-en [337 kB]
Get:25 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 c-n-f Metadata [15.4 kB]
Get:26 http://archive.ubuntu.com/ubuntu focal-updates/restricted amd64 Packages [1010 kB]
Get:27 http://archive.ubuntu.com/ubuntu focal-updates/restricted Translation-en [144 kB]
Get:28 http://archive.ubuntu.com/ubuntu focal-updates/restricted amd64 c-n-f Metadata [520 B]
Get:29 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [926 kB]
Get:30 http://archive.ubuntu.com/ubuntu focal-updates/universe Translation-en [208 kB]
Get:31 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 c-n-f Metadata [20.7 kB]
```

安裝 gedit

[illegible]

```
jasonlian@LAPTOP-PCNNABMG: ~/temp
Setting up libtepl-4.0:amd64 (4.4.0-1) ...
Setting up zenity (3.32.0-5) ...
Setting up gcr (3.36.0-2build1) ...
Setting up grl.2-peas-1.0:amd64 (1.26.0-2) ...
Setting up ekbd-capplet (3.26.1-1) ...
Setting up mutter (3.36.9-0ubuntu0.20.04.2) ...
update-alternatives: using /usr/bin/mutter to provide /usr/bin/x-window-manager (x-window-manager) in auto mode
Setting up grl.2-gcr-3:amd64 (3.36.0-2build1) ...
Setting up pinentry-gnome3 (1.1.0-3build1) ...
Setting up system-config-printer (1.5.12-0ubuntu1.1) ...
Setting up grl.2-gnomedesktop-3.0:amd64 (3.36.8-0ubuntu1) ...
Setting up gnome-startup-applications (3.36.0-0ubuntu1) ...
Setting up libdataserver-1.2-24:amd64 (3.36.5-0ubuntu1) ...
Setting up grl.2-gnomebluetooth-1.0:amd64 (3.34.3-0ubuntu1) ...
Setting up libclutter-gst-3.0-0:amd64 (3.0.27-1) ...
Setting up libecal-2.0-1:amd64 (3.36.5-0ubuntu1) ...
Setting up libebook-contacts-1.2-3:amd64 (3.36.5-0ubuntu1) ...
Setting up gnome-keyring (3.36.0-1ubuntu1) ...
Setting up gedit (3.36.2-0ubuntu1) ...
update-alternatives: using /usr/bin/gedit to provide /usr/bin/gnome-text-editor (gnome-text-editor) in auto mode
Setting up libdataserverui-1.2-2:amd64 (3.36.5-0ubuntu1) ...
Setting up yelp (3.36.2-0ubuntu1) ...
Setting up libebook-1.2-10:amd64 (3.36.5-0ubuntu1) ...
Setting up gstreamer1.0-clutter-3.0:amd64 (3.0.27-1) ...
Setting up libcheese8:amd64 (3.34.0-1ubuntu1) ...
Setting up libedata-cal-2.0-1:amd64 (3.36.5-0ubuntu1) ...
Setting up ubuntu-docs (20.04.3) ...
Setting up gnome-user-docs (3.36.2+git20200704-0ubuntu0.1) ...
Setting up libedata-book-1.2-26:amd64 (3.36.5-0ubuntu1) ...
Setting up libcheese-gtk25:amd64 (3.34.0-1ubuntu1) ...
Setting up libebook-1.2-20:amd64 (3.36.5-0ubuntu1) ...
Setting up gnome-control-center (1:3.36.5-0ubuntu4) ...
```

安裝 gimp

```

$ ./install-gimp-2.7-tempsudo apt-get install gimp -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  fonts-droid-fallback fonts-noto-fonts vora-base35 ghostscript gimp-data 965s-v-driver intel-media-via-driver libaacs0 libamd2 libaom0 libbathen-sasl-perl
  libbavcodec58 libbavformat58 libbavutil56 libbblb1-0-1 libbldp0 libblib3 libbluarray2 libbmad2 libbcolamd2 libbcolnol3 libbchromaprint1 libbcode2-0.9 libbcode2-1
  libbdata-dump-perl libbde265-0 libbencode-locale-perl libbe1v2-2 libbe1v3-2 libbe1v4-2 libbe1v5-2 libbe1v6-2 libbe1v7-2 libbe1v8-2 libbe1v9-2 libbe1v10-2 libbe1v11-2 libbe1v12-2
  libbe1v13-2 libbe1v14-2 libbe1v15-2 libbe1v16-2 libbe1v17-2 libbe1v18-2 libbe1v19-2 libbe1v20-2 libbe1v21-2 libbe1v22-2 libbe1v23-2 libbe1v24-2 libbe1v25-2 libbe1v26-2
  libbe1v27-2 libbe1v28-2 libbe1v29-2 libbe1v30-2 libbe1v31-2 libbe1v32-2 libbe1v33-2 libbe1v34-2 libbe1v35-2 libbe1v36-2 libbe1v37-2 libbe1v38-2 libbe1v39-2 libbe1v40-2
  libbe1v41-2 libbe1v42-2 libbe1v43-2 libbe1v44-2 libbe1v45-2 libbe1v46-2 libbe1v47-2 libbe1v48-2 libbe1v49-2 libbe1v50-2 libbe1v51-2 libbe1v52-2 libbe1v53-2 libbe1v54-2
  libbe1v55-2 libbe1v56-2 libbe1v57-2 libbe1v58-2 libbe1v59-2 libbe1v60-2 libbe1v61-2 libbe1v62-2 libbe1v63-2 libbe1v64-2 libbe1v65-2 libbe1v66-2 libbe1v67-2 libbe1v68-2
  libbe1v69-2 libbe1v70-2 libbe1v71-2 libbe1v72-2 libbe1v73-2 libbe1v74-2 libbe1v75-2 libbe1v76-2 libbe1v77-2 libbe1v78-2 libbe1v79-2 libbe1v80-2 libbe1v81-2 libbe1v82-2
  libbe1v83-2 libbe1v84-2 libbe1v85-2 libbe1v86-2 libbe1v87-2 libbe1v88-2 libbe1v89-2 libbe1v90-2 libbe1v91-2 libbe1v92-2 libbe1v93-2 libbe1v94-2 libbe1v95-2 libbe1v96-2
  libbe1v97-2 libbe1v98-2 libbe1v99-2 libbe1v100-2 libbe1v101-2 libbe1v102-2 libbe1v103-2 libbe1v104-2 libbe1v105-2 libbe1v106-2 libbe1v107-2 libbe1v108-2 libbe1v109-2
  libbe1v110-2 libbe1v111-2 libbe1v112-2 libbe1v113-2 libbe1v114-2 libbe1v115-2 libbe1v116-2 libbe1v117-2 libbe1v118-2 libbe1v119-2 libbe1v120-2 libbe1v121-2 libbe1v122-2
  libbe1v123-2 libbe1v124-2 libbe1v125-2 libbe1v126-2 libbe1v127-2 libbe1v128-2 libbe1v129-2 libbe1v130-2 libbe1v131-2 libbe1v132-2 libbe1v133-2 libbe1v134-2 libbe1v135-2
  libbe1v136-2 libbe1v137-2 libbe1v138-2 libbe1v139-2 libbe1v140-2 libbe1v141-2 libbe1v142-2 libbe1v143-2 libbe1v144-2 libbe1v145-2 libbe1v146-2 libbe1v147-2 libbe1v148-2
  libbe1v149-2 libbe1v150-2 libbe1v151-2 libbe1v152-2 libbe1v153-2 libbe1v154-2 libbe1v155-2 libbe1v156-2 libbe1v157-2 libbe1v158-2 libbe1v159-2 libbe1v160-2 libbe1v161-2
  libbe1v162-2 libbe1v163-2 libbe1v164-2 libbe1v165-2 libbe1v166-2 libbe1v167-2 libbe1v168-2 libbe1v169-2 libbe1v170-2 libbe1v171-2 libbe1v172-2 libbe1v173-2 libbe1v174-2
  libbe1v175-2 libbe1v176-2 libbe1v177-2 libbe1v178-2 libbe1v179-2 libbe1v180-2 libbe1v181-2 libbe1v182-2 libbe1v183-2 libbe1v184-2 libbe1v185-2 libbe1v186-2 libbe1v187-2
  libbe1v188-2 libbe1v189-2 libbe1v190-2 libbe1v191-2 libbe1v192-2 libbe1v193-2 libbe1v194-2 libbe1v195-2 libbe1v196-2 libbe1v197-2 libbe1v198-2 libbe1v199-2 libbe1v200-2
  libbe1v201-2 libbe1v202-2 libbe1v203-2 libbe1v204-2 libbe1v205-2 libbe1v206-2 libbe1v207-2 libbe1v208-2 libbe1v209-2 libbe1v210-2 libbe1v211-2 libbe1v212-2 libbe1v213-2
  libbe1v214-2 libbe1v215-2 libbe1v216-2 libbe1v217-2 libbe1v218-2 libbe1v219-2 libbe1v220-2 libbe1v221-2 libbe1v222-2 libbe1v223-2 libbe1v224-2 libbe1v225-2 libbe1v226-2
  libbe1v227-2 libbe1v228-2 libbe1v229-2 libbe1v230-2 libbe1v231-2 libbe1v232-2 libbe1v233-2 libbe1v234-2 libbe1v235-2 libbe1v236-2 libbe1v237-2 libbe1v238-2 libbe1v239-2
  libbe1v240-2 libbe1v241-2 libbe1v242-2 libbe1v243-2 libbe1v244-2 libbe1v245-2 libbe1v246-2 libbe1v247-2 libbe1v248-2 libbe1v249-2 libbe1v250-2 libbe1v251-2 libbe1v252-2
  libbe1v253-2 libbe1v254-2 libbe1v255-2 libbe1v256-2 libbe1v257-2 libbe1v258-2 libbe1v259-2 libbe1v260-2 libbe1v261-2 libbe1v262-2 libbe1v263-2 libbe1v264-2 libbe1v265-2
  libbe1v266-2 libbe1v267-2 libbe1v268-2 libbe1v269-2 libbe1v270-2 libbe1v271-2 libbe1v272-2 libbe1v273-2 libbe1v274-2 libbe1v275-2 libbe1v276-2 libbe1v277-2 libbe1v278-2
  libbe1v279-2 libbe1v280-2 libbe1v281-2 libbe1v282-2 libbe1v283-2 libbe1v284-2 libbe1v285-2 libbe1v286-2 libbe1v287-2 libbe1v288-2 libbe1v289-2 libbe1v290-2 libbe1v291-2
  libbe1v292-2 libbe1v293-2 libbe1v294-2 libbe1v295-2 libbe1v296-2 libbe1v297-2 libbe1v298-2 libbe1v299-2 libbe1v300-2 libbe1v301-2 libbe1v302-2 libbe1v303-2 libbe1v304-2
  libbe1v305-2 libbe1v306-2 libbe1v307-2 libbe1v308-2 libbe1v309-2 libbe1v310-2 libbe1v311-2 libbe1v312-2 libbe1v313-2 libbe1v314-2 libbe1v315-2 libbe1v316-2 libbe1v317-2
  libbe1v318-2 libbe1v319-2 libbe1v320-2 libbe1v321-2 libbe1v322-2 libbe1v323-2 libbe1v324-2 libbe1v325-2 libbe1v326-2 libbe1v327-2 libbe1v328-2 libbe1v329-2 libbe1v330-2
  libbe1v331-2 libbe1v332-2 libbe1v333-2 libbe1v334-2 libbe1v335-2 libbe1v336-2 libbe1v337-2 libbe1v338-2 libbe1v339-2 libbe1v340-2 libbe1v341-2 libbe1v342-2 libbe1v343-2
  libbe1v344-2 libbe1v345-2 libbe1v346-2 libbe1v347-2 libbe1v348-2 libbe1v349-2 libbe1v350-2 libbe1v351-2 libbe1v352-2 libbe1v353-2 libbe1v354-2 libbe1v355-2 libbe1v356-2
  libbe1v357-2 libbe1v358-2 libbe1v359-2 libbe1v360-2 libbe1v361-2 libbe1v362-2 libbe1v363-2 libbe1v364-2 libbe1v365-2 libbe1v366-2 libbe1v367-2 libbe1v368-2 libbe1v369-2
  libbe1v370-2 libbe1v371-2 libbe1v372-2 libbe1v373-2 libbe1v374-2 libbe1v375-2 libbe1v376-2 libbe1v377-2 libbe1v378-2 libbe1v379-2 libbe1v380-2 libbe1v381-2 libbe1v382-2
  libbe1v383-2 libbe1v384-2 libbe1v385-2 libbe1v386-2 libbe1v387-2 libbe1v388-2 libbe1v389-2 libbe1v390-2 libbe1v391-2 libbe1v392-2 libbe1v393-2 libbe1v394-2 libbe1v395-2
  libbe1v396-2 libbe1v397-2 libbe1v398-2 libbe1v399-2 libbe1v400-2 libbe1v401-2 libbe1v402-2 libbe1v403-2 libbe1v404-2 libbe1v405-2 libbe1v406-2 libbe1v407-2 libbe1v408-2
  libbe1v409-2 libbe1v410-2 libbe1v411-2 libbe1v412-2 libbe1v413-2 libbe1v414-2 libbe1v415-2 libbe1v416-2 libbe1v417-2 libbe1v418-2 libbe1v419-2 libbe1v420-2 libbe1v421-2
  libbe1v422-2 libbe1v423-2 libbe1v424-2 libbe1v425-2 libbe1v426-2 libbe1v427-2 libbe1v428-2 libbe1v429-2 libbe1v430-2 libbe1v431-2 libbe1v432-2 libbe1v433-2 libbe1v434-2
  libbe1v435-2 libbe1v436-2 libbe1v437-2 libbe1v438-
```

安裝 Nautilus

```
jasonlan@LAPTOP-PCNNABMG: ~/temp$ sudo apt-get install nautilus -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  gvfs gvfs-backends gvfs-common gvfs-daemons gvfs-libc libcdio-cdda2 libcdio-paranoia2 libcdio18 libcue2 libdee-1.0-4 libexempi8 libgif7 libgsf-1-114 libgsf-1-common
  libgxps2 libatp-common libatp-runtime libatp9 libnautilus-extension1a libnfs13 libotem-plparser-common libotem-plparser18 libtracker-control-2.0-0
  libtracker-miner-2.0-0 libtracker-sparql-2.0-0 libunity-protocol-private0 libunity-scopes-json-def-desktop libunity9 nautilus nautilus-data tracker tracker-extract
  tracker-miner-fs
Suggested packages:
  libexempi8 samba-common unity-common eog evince | pdf-viewer gnome-sushi nautilus-extension-brasero nautilus-sendto totem | mp3-decoder
The following NEW packages will be installed:
  gvfs gvfs-backends gvfs-common gvfs-daemons gvfs-libc libcdio-cdda2 libcdio-paranoia2 libcdio18 libcue2 libdee-1.0-4 libexempi8 libgif7 libgsf-1-114 libgsf-1-common
  libgxps2 libatp-common libatp-runtime libatp9 libnautilus-extension1a libnfs13 libotem-plparser-common libotem-plparser18 libtracker-control-2.0-0
  libtracker-miner-2.0-0 libtracker-sparql-2.0-0 libunity-protocol-private0 libunity-scopes-json-def-desktop libunity9 nautilus nautilus-data tracker tracker-extract
  tracker-miner-fs
0 upgraded, 33 newly installed, 0 to remove and 78 not upgraded.
Need to get 3890 kB of archives.
After this operation, 16.2 MB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 gvfs-common all 1.44.1-1ubuntu1.1 [20.0 kB]
Get:2 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 gvfs-libc amd64 1.44.1-1ubuntu1.1 [97.4 kB]
Get:3 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 gvfs-daemons amd64 1.44.1-1ubuntu1.1 [118 kB]
Get:4 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 gvfs amd64 1.44.1-1ubuntu1.1 [115 kB]
Get:5 http://archive.ubuntu.com/ubuntu focal/main amd64 libcdio18 amd64 2.0.0-2 [58.6 kB]
Get:6 http://archive.ubuntu.com/ubuntu focal/main amd64 libcdio-cdda2 amd64 10.2+2.0.0-1 [17.6 kB]
Get:7 http://archive.ubuntu.com/ubuntu focal/main amd64 libcdio-paranoia2 amd64 10.2+2.0.0-1 [16.2 kB]
Get:8 http://archive.ubuntu.com/ubuntu focal/main amd64 libatp-runtime amd64 1.1-17-3 [27.8 kB]
Get:9 http://archive.ubuntu.com/ubuntu focal/main amd64 libatp9 amd64 1.1-17-3 [163 kB]
Get:10 http://archive.ubuntu.com/ubuntu focal/main amd64 libnfs13 amd64 4.0.0-1 [95.1 kB]
Get:11 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 gvfs-backends amd64 1.44.1-1ubuntu1.1 [344 kB]
Get:12 http://archive.ubuntu.com/ubuntu focal/main amd64 libcue2 amd64 2.2.1-2 [19.8 kB]
Get:13 http://archive.ubuntu.com/ubuntu focal/main amd64 libdee-1.0-4 amd64 1.2.7+17.10.20170616-4ubuntu6 [130 kB]
```

安裝 vlc

```
jasonlan@LAPTOP-PCNNABMG: ~/temp$ sudo apt-get install vlc -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  fonts-freefont-ttf liba52-0.7.4 libaribb24-0 libasf9 libbasicusageenvironment1 libbcb2 libbcb1394-22 libbcb2 libbcb1394-22 libbcb2 libdouble-conversion3 libdvbpsi10 libdvbnav4 libdvread7
  libebml4v5 libfaad2 libgroupsock8 libixml10 libkate1 liblirc-client0 liblircvmedia77 liblua5.2-0 libmad0 libmatroska6v5 libmpdec6 libmpeg2-4 libmysofa1
  libopenapt-modplug1 libpcr2-16-0 libplacebo7 libpostproc55 libprotobuf-lite17 libproxy-tools libqt5core5a libqt5dbus5 libqt5gui5 libqt5network5 libqt5svg5
  libqt5widgets5 libqt5xml5 libresid-builder0c2a libSDL-image1.2 libSDL1.2debian libsidplay2 libsndio7.0 libspatialaudio0 libstr1 libssh2-1 libupnp13
  libusageenvironment5 libva-wayland2 libvlc-bin libvlccore9 libxcb-xinerama0 libxcb-xinput0 qt5-gtk-platformtheme qttranslations5-110n vlc-bin vlc-data vlc-110n
  vlc-plugin-base vlc-plugin-notify vlc-plugin-qt vlc-plugin-samba vlc-plugin-skins2 vlc-plugin-video-output vlc-plugin-video-splitter vlc-plugin-visualization
Suggested packages:
  libdvdc2s2 lirc qt5-image-formats-plugins qtwayland5 sndiod
The following NEW packages will be installed:
  fonts-freefont-ttf liba52-0.7.4 libaribb24-0 libasf9 libbasicusageenvironment1 libbcb2 libbcb1394-22 libbcb2 libbcb1394-22 libbcb2 libdouble-conversion3 libdvbpsi10 libdvnav4 libdvread7
  libebml4v5 libfaad2 libgroupsock8 libixml10 libkate1 liblirc-client0 liblircvmedia77 liblua5.2-0 libmad0 libmatroska6v5 libmpdec6 libmpeg2-4 libmysofa1
  libopenapt-modplug1 libpcr2-16-0 libplacebo7 libpostproc55 libprotobuf-lite17 libproxy-tools libqt5core5a libqt5dbus5 libqt5gui5 libqt5network5 libqt5svg5
  libqt5widgets5 libqt5xml5 libresid-builder0c2a libSDL-image1.2 libSDL1.2debian libsidplay2 libsndio7.0 libspatialaudio0 libstr1 libssh2-1 libupnp13
  libusageenvironment5 libva-wayland2 libvlc-bin libvlccore9 libxcb-xinerama0 libxcb-xinput0 qt5-gtk-platformtheme qttranslations5-110n vlc-bin vlc-data vlc-110n
  vlc-plugin-base vlc-plugin-notify vlc-plugin-qt vlc-plugin-samba vlc-plugin-skins2 vlc-plugin-video-output vlc-plugin-video-splitter vlc-plugin-visualization
0 upgraded, 68 newly installed, 0 to remove and 78 not upgraded.
Need to get 27.0 MB of archives.
After this operation, 125 MB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu focal/universe amd64 libdouble-conversion3 amd64 3.1.5-4ubuntu1 [37.9 kB]
Get:2 http://archive.ubuntu.com/ubuntu focal/main amd64 libpcr2-16-0 amd64 10.34-7 [131 kB]
Get:3 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 libqt5core5a amd64 5.12.8+dfsg-0ubuntu2.1 [2006 kB]
Get:4 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 libqt5dbus5 amd64 5.12.8+dfsg-0ubuntu2.1 [208 kB]
Get:5 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 libqt5network5 amd64 5.12.8+dfsg-0ubuntu2.1 [673 kB]
Get:6 http://archive.ubuntu.com/ubuntu focal/main amd64 libxcb-xinerama0 amd64 1.14-2 [3260 B]
Get:7 http://archive.ubuntu.com/ubuntu focal/main amd64 libxcb-xinput0 amd64 1.14-2 [29.3 kB]
Get:8 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 libqt5gui5 amd64 5.12.8+dfsg-0ubuntu2.1 [2971 kB]
Get:9 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 libqt5widgets5 amd64 5.12.8+dfsg-0ubuntu2.1 [2295 kB]
```

安裝 X11apps

```
jasonlan@LAPTOP-PCNNABMG:~/temp$ sudo apt install x11-apps -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  xbitmaps
Suggested packages:
  mesa-utils
The following NEW packages will be installed:
  x11-apps xbitmaps
0 upgraded, 2 newly installed, 0 to remove and 78 not upgraded.
Need to get 685 kB of archives.
After this operation, 2763 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu focal/main amd64 x11-apps amd64 7.7+8 [657 kB]
Get:2 http://archive.ubuntu.com/ubuntu focal/main amd64 xbitmaps all 1.1.1-2 [28.1 kB]
Fetched 685 kB in 2s (375 kB/s)
Selecting previously unselected package x11-apps.
(Reading database ... 68557 files and directories currently installed.)
Preparing to unpack .../x11-apps_7.7+8_amd64.deb ...
Unpacking x11-apps (7.7+8) ...
Selecting previously unselected package xbitmaps.
Preparing to unpack .../xbitmaps_1.1.1-2_all.deb ...
Unpacking xbitmaps (1.1.1-2) ...
Setting up x11-apps (7.7+8) ...
Setting up xbitmaps (1.1.1-2) ...
Processing triggers for man-db (2.9.1-1) ...
```

安裝 Google Chrome

```
jasonlian@LAPTOP-PCNNAEMG:~/temp$ mkdir temp2
jasonlian@LAPTOP-PCNNAEMG:~/temp$ cd temp2
jasonlian@LAPTOP-PCNNAEMG:~/temp/temp2$ sudo wget https://dl.google.com/linux/direct/google-chrome-stable_current_amd64.deb
--2022-06-05 23:05:45-- https://dl.google.com/linux/direct/google-chrome-stable_current_amd64.deb
Resolving dl.google.com (dl.google.com)... 142.251.42.238, 2404:6800:4012:3::200e
Connecting to dl.google.com (dl.google.com)|142.251.42.238|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 84701968 (81M) [application/x-debian-package]
Saving to: 'google-chrome-stable_current_amd64.deb'

google-chrome-stable_current_amd64.deb 100%[=====] 80.78M 35.5KB/s in 2.3s
2022-06-05 23:05:47 (35.5 MB/s) - 'google-chrome-stable_current_amd64.deb' saved [84701968/84701968]
```

```
jasonlian@LAPTOP-PCNNAEMG:~/temp/temp2$ sudo dpkg -i google-chrome-stable_current_amd64.deb
Selecting previously unselected package google-chrome-stable.
(Reading database ... 68758 files and directories currently installed.)
Preparing to unpack google-chrome-stable_current_amd64.deb ...
Unpacking google-chrome-stable (102.0.5005.61-1) ...
dpkg: dependency problems prevent configuration of google-chrome-stable:
 google-chrome-stable depends on fonts-liberation; however:
  Package fonts-liberation is not installed.

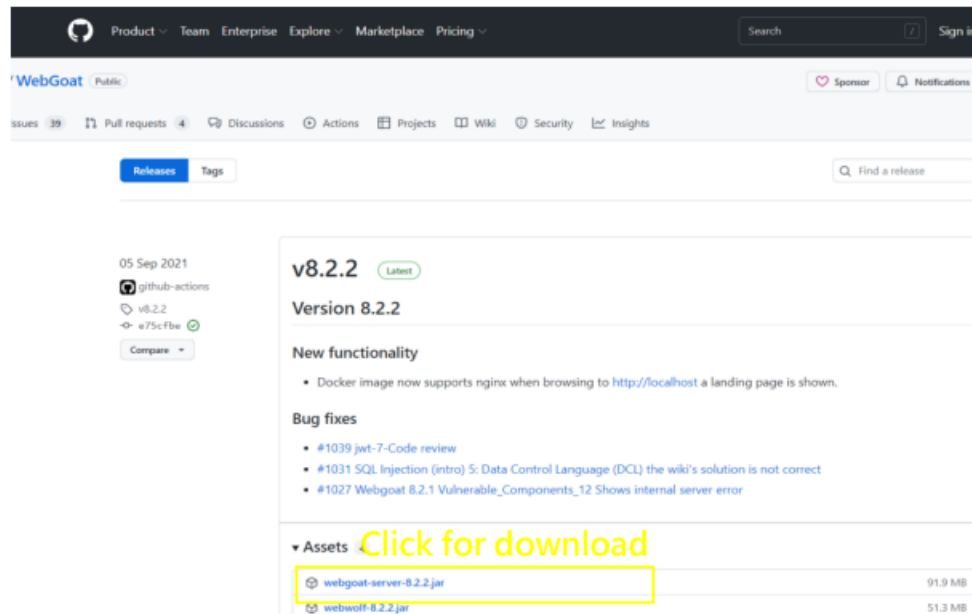
dpkg: error processing package google-chrome-stable (--install):
 dependency problems - leaving unconfigured
Processing triggers for gnome-menus (3.36.0-lubuntul) ...
Processing triggers for desktop-file-utils (0.24-lubuntu3) ...
Processing triggers for mime-support (3.64ubuntu1) ...
Processing triggers for man-db (2.9.1-1) ...
Errors were encountered while processing:
 google-chrome-stable
```

```
jasonlian@LAPTOP-PCNNAEMG:~/temp/temp2$ sudo apt install --fix-broken -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
Correcting dependencies... Done
The following additional packages will be installed:
 fonts-liberation
The following NEW packages will be installed:
 fonts-liberation
0 upgraded, 1 newly installed, 0 to remove and 78 not upgraded.
1 not fully installed or removed.
Need to get 822 kB of archives.
After this operation, 2139 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu focal/main amd64 fonts-liberation all 1:1.07.4-11 [822 kB]
Fetched 822 kB in 2s (427 kB/s)
Selecting previously unselected package fonts-liberation.
(Reading database ... 68872 files and directories currently installed.)
Preparing to unpack .../fonts-liberation_1%3a1.07.4-11_all.deb ...
Unpacking fonts-liberation (1:1.07.4-11) ...
Setting up fonts-liberation (1:1.07.4-11) ...
Setting up google-chrome-stable (102.0.5005.61-1) ...
update-alternatives: using /usr/bin/google-chrome-stable to provide /usr/bin/x-www-browser (x-www-browser) in auto mode
update-alternatives: using /usr/bin/google-chrome-stable to provide /usr/bin/gnome-www-browser (gnome-www-browser) in auto mode
update-alternatives: using /usr/bin/google-chrome-stable to provide /usr/bin/google-chrome (google-chrome) in auto mode
Processing triggers for fontconfig (2.13.1-2ubuntu3) ...
```

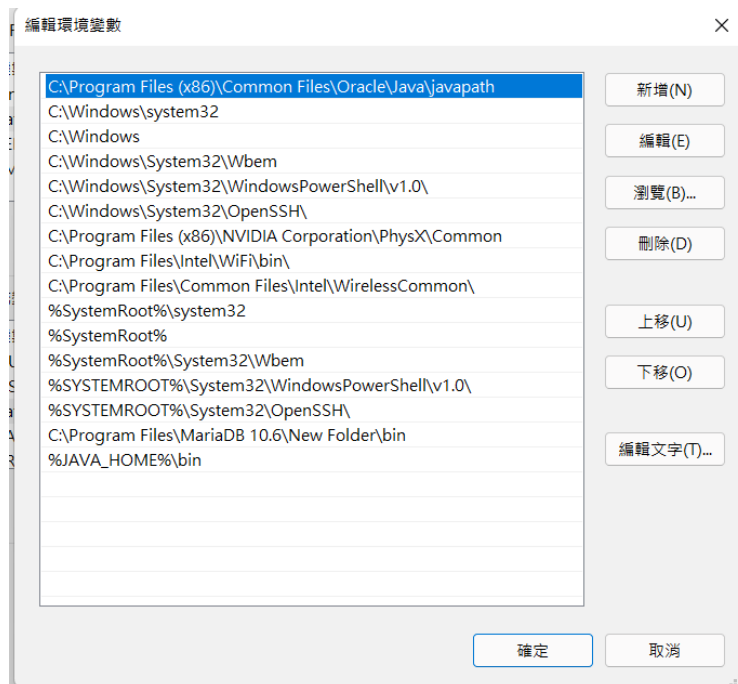
```
Processing triggers for fontconfig (2.13.1-2ubuntu3) ...
jasonlian@LAPTOP-PCNNAEMG:~/temp/temp2$ sudo dpkg -i google-chrome-stable_current_amd64.deb
(Reading database ... 68895 files and directories currently installed.)
Preparing to unpack google-chrome-stable_current_amd64.deb ...
Unpacking google-chrome-stable (102.0.5005.61-1) over (102.0.5005.61-1) ...
Setting up google-chrome-stable (102.0.5005.61-1) ...
Processing triggers for gnome-menus (3.36.0-lubuntul) ...
Processing triggers for desktop-file-utils (0.24-lubuntu3) ...
Processing triggers for mime-support (3.64ubuntu1) ...
Processing triggers for man-db (2.9.1-1) ...
```

Webgoat

1. 要先裝 JRE
2. 下載 WebGoat
3. 去 Command Prompt 輸入指令 `java -jar webgoat-server-8.2.2.jar`

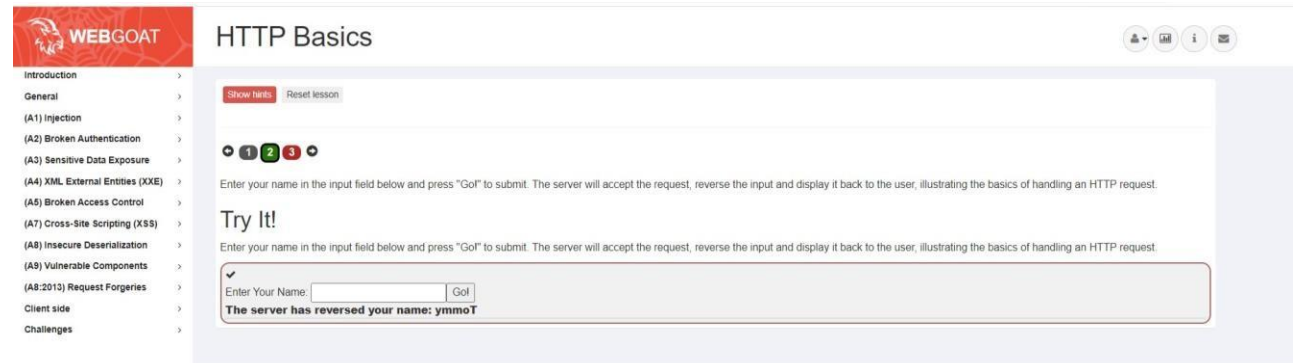


4. 設定環境變數

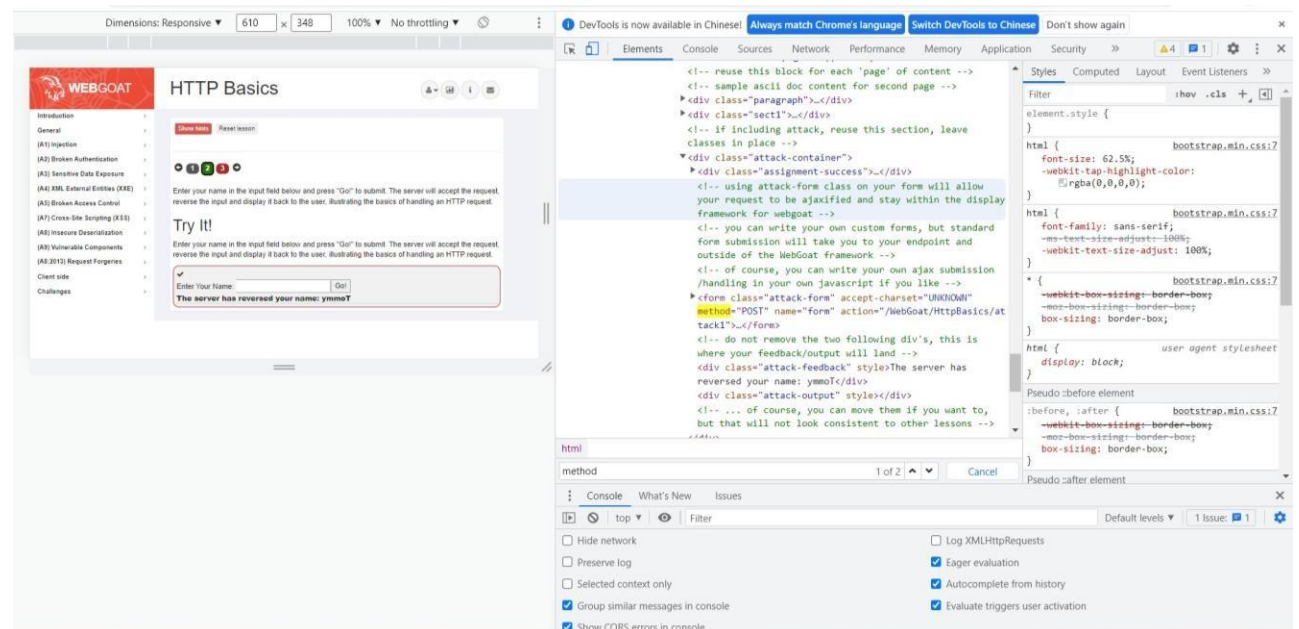


使用流程:

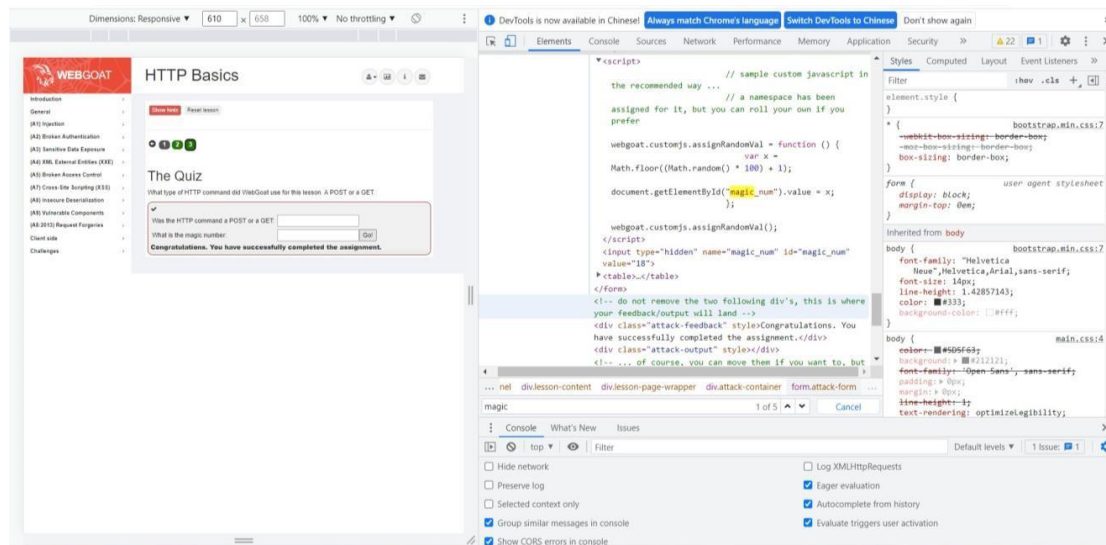
1. 開啟瀏覽器
2. 輸入名稱



3. 傳送方式為 POST



4. request 裡面有一個 magic num 的參數，這個參數的值在隱藏的表單欄位裡。



Markdown

H1 = #文字

H3 = ##文字

H6 = ###文字

斜體 = *文字*

粗體 = **文字**

刪除線 = ~文字~

小區間 = `文字`

大區間 = /Callout

程式碼 = /code

清單 = -文字

+文字

*文字

數字清單 = 照片 = /image

字體顏色 = /color

超連結 = /web

目錄 = /toc

失敗的實作成品

安裝 unity-tweak-tool

```
jasonlian@LAPTOP-PCNNAEMG:~$ sudo apt-get install unity-tweak-tool
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  accountsservice-ubuntu-schemas activity-log-manager bamfdaemon bluez-obeex cinnamon-desktop-data cinnamon-llOn
  compiz compiz-core compiz-gnome compiz-plugins-default cups cups-browsed cups-client cups-common cups-core-driver
  cups-daemon cups-filters cups-filters-core-drivers cups-ipp-utils cups-ppdc cups-server-common file-roller
  fonts-lato girdl.2-dbusmenu-glib-0.4 girdl.2-gst-plugins-base-1.0 girdl.2-gstreamer-1.0 girdl.2-javascriptcoregtk-4.0
  girdl.2-rb-3.0 girdl.2-webkit2.4.0 gist gnome-blutooth gnome-disk-utility gnome-power-manager gnome-screensaver
  gnome-system-monitor gsettings-ubuntu-schemas gtk3-nocsd gvfs-fuse hddtemp hud hwdata indicator-application
  indicator-appmenu indicator-bluetooth indicator-common indicator-datetime indicator-keyboard indicator-messages
  indicator-power indicator-printers indicator-session indicator-sound inxi javascript-common jayatana
  libaccounts-glib0 libappstream-glib8 libatkmm-1.6-lv5 libbamf3-2 libcairomm-1.0-lv5 libcinnamon-desktop4
  libcolombusl-common libcolombuslv5 libcompositorgl0 libcupsfilters2 libdbus-glib-1.2 libdbusmenu-qt5-2
  libdecor0 libdmapsharing-3.0-2 libfcitx-config4 libfcitx-gclient libfcitx-utills libfontembed1 libframe6
  libgail-3.0 libgeisl libgeonames-common libgeonames0 libglewmx1.13 libglbmm-2.4-lv5 libglul-mesa libgnome-menu-3
  libgnopod-common libgnopd4 libgrail6 libgrilo-0.3-0 libgsettings-qt1 libgtk3-nocsd libgtkmm-3.0-lv5 libido3-0.1-0
  libindicator3-7 libjs-jquery liblightdm-gobject-1-0 liblouis-data liblouis20 liblouisutdl-bin liblouisutdl-data
  liblouisutdl9 libmessaging-menu0 libmetacity1 libnemo-extension1 libnux-4.0-0 libnux-4.0-common libpangomm-1.4-1
  libpoppler-cpp0v5 libpqd26 libqt5sql5 libqt5sql5-sqlite librhythmbox-core0 libruby2.7 libsigc++-2.0-0v5
  libtimelepathy-glib0 libtimezonemap-data libtimezonemap1 libunity-control-center1 libunity-core-6.0-9
  libunity-gtk2-parser0 libunity-gtk3-parser0 libunity-misc4 libunity-settings-daemon1 liburl-dispatcher1 libwnck-3
  libwnck-3-common libxapian30 libxappl libxres libzeitgeist-2.0-0 lm-sensors media-player-info mesa-utils
  metacity-common nemo nemo-data nemo-fileroller notify-osd notify-osd-icons nux-tools policykit-1-gnome poppler-ut
  python3-mako python3-xdg rake rhythmbox rhythmbox-data rhythmbox-plugin-alternative-toolbar
  rhythmbox-plugin-zeitgeist rhythmbox-plugins ruby ruby-json ruby-minitest ruby-net-telnet ruby-power-assert
  ruby-test-unit ruby-xmlrpc ruby2.7 rubygems-integration session-shortcuts ssl-cert thunderbird
  thunderbird-gnome-support tree ubuntu-system-service ubuntu-touch-sounds unity unity-asset-pool unity-control-cen
  unity-greeter unity-gtk-module-common unity-gtk2-module unity-gtk3-module unity-schemas unity-scope-home
```

安裝 Flatabulous 主題

```
jasonlian@LAPTOP-PCNNABMG:~$ sudo add-apt-repository ppa:noobslab/themes
 themes uploaded on http://www.NoobsLab.com PPA
For exact theme version and support visit on site and see themes page
More info: https://launchpad.net/~noobslab/+archive/ubuntu/themes
Press [ENTER] to continue or Ctrl-c to cancel adding it.

Hit:1 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:2 http://security.ubuntu.com/ubuntu focal-security InRelease
Ign:3 http://ppa.launchpad.net/noobslab/themes/ubuntu focal InRelease
Hit:4 http://archive.ubuntu.com/ubuntu focal InRelease
Hit:5 http://archive.ubuntu.com/ubuntu focal-updates InRelease
Err:6 http://ppa.launchpad.net/noobslab/themes/ubuntu focal Release
  404 Not Found [IP: 185.125.190.52 80]
Hit:7 http://archive.ubuntu.com/ubuntu focal-backports InRelease
Reading package lists... Done
E: The repository 'http://ppa.launchpad.net/noobslab/themes/ubuntu focal Release' does not have a Release file.
N: Updating from such a repository can't be done securely, and is therefore disabled by default.
N: See apt-secure(8) manpage for repository creation and user configuration details.

jasonlian@LAPTOP-PCNNABMG:~$ sudo apt-get install flatabulous-theme
Reading package lists... Done
Building dependency tree
Reading state information... Done
E: Unable to locate package flatabulous-theme
```

安裝 Flatabulous 主題的配套圖示

```
U: Unable to locate package flatabulous-theme
jasonlian@LAPTOP-PCNNAEMG:~$ sudo add-apt-repository ppa:noobslab/icons
This PPA contains different icons from different creators but available by http://www.NoobsLab.com
More info: https://launchpad.net/~noobslab/+archive/ubuntu/icons
Press [ENTER] to continue or Ctrl-c to cancel adding it.

Hit:1 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:2 http://archive.ubuntu.com/ubuntu focal InRelease
Hit:3 http://security.ubuntu.com/ubuntu focal-security InRelease
Hit:4 http://archive.ubuntu.com/ubuntu focal-updates InRelease
Ign:5 http://ppa.launchpad.net/noobslab/icons/ubuntu focal InRelease
Hit:6 http://archive.ubuntu.com/ubuntu focal-backports InRelease
Ign:7 http://ppa.launchpad.net/noobslab/themes/ubuntu focal InRelease
Err:8 http://ppa.launchpad.net/noobslab/icons/ubuntu focal Release
      404 Not Found [IP: 185.125.190.52 80]
Err:9 http://ppa.launchpad.net/noobslab/themes/ubuntu focal Release
      404 Not Found [IP: 185.125.190.52 80]
Reading package lists... Done
E: The repository 'http://ppa.launchpad.net/noobslab/icons/ubuntu focal Release' does not have a Release file.
N: Updating from such a repository can't be done securely, and is therefore disabled by default.
N: See apt-secure(8) manpage for repository creation and user configuration details.
E: The repository 'http://ppa.launchpad.net/noobslab/themes/ubuntu focal Release' does not have a Release file.
N: Updating from such a repository can't be done securely, and is therefore disabled by default.
N: See apt-secure(8) manpage for repository creation and user configuration details.
```

參考連結:

十分鐘快速掌握 Markdown

<https://www.casper.tw/development/2019/11/23/ten-mins-learn-markdown/>

ubuntu 常用指令

<https://www.itread01.com/article/1528683614.html>

實作教學

[學習筆記（一）ubuntu 必備軟體安裝及主題優化 - 程式人生 \(796t.com\)](#)

心得

NFT:

我個人是沒有玩 NFT，因為我覺得現在太多有關 NFT 的詐騙，所以不敢碰這類的東西，但我個人對 NFT 是很有興趣的，只是不太自己下去玩。

期末心得:

這次我自己做的實作不是很順利，指令打完之後，不知道為甚麼沒辦法安裝，剛開始顧著打指令都沒注意有出錯，在網路上也找不到解決辦法，嘗試其他人的方法也不行