



Lab Session 2

Linux/Unix Instructions

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Outline

- Pros and cons of Linux system
- Unix 指令
- Change email address on Moodle
- Homework

Pros and cons of Linux system

□ Advantage:

- 系統具高穩定性
- 多工且多使用者
- 方便管理群組
- 容易進行版本控制
- 業界常用的作業系統

□ Disadvantage:

- 圖形化介面不夠平易近人
- 需花時間學習使用指令

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ls (list)

□ % ls

- shows you all files and directories

□ % ls -a

- shows you all files, even files that are hidden

□ % ls -l

- shows you huge amounts of information (permissions, owners, size, and when last modified.)

-a : all

-l : long listing format

```
vlasicad5:/home/user2/ms104/patty% ls
local.cshrc  local.profile  ??????/  ??????/  ??????/  ??????/
local.login  ??????/  ??????/  ??????/  ??????/

vlasicad5:/home/user2/ms104/patty% ls -a
./          .gnote/      .synopsys_dc.setup~
../         .gnupg/      .xsession-errors
.ICEauthority .gstreamer-0.10/ .xsession-errors.old
.Xauthority .gtk-bookmarks local.cshrc
.abrt/      .gvfs/       local.login
.cache/     .history     local.profile
.config/    .imsettings.log ??????/
.cshrc      .local/      ??????/
.cshrc~     .nautilus/   ??????/
.dbus/      .profile     ??????/
.gconf/     .pulse-cookie ??????/
.gconfd/    .recently-used ??????/
.gnome/     .ssh/        ??????/
.gnome2/    .sunw/       ??????/
.gnome2_private/ .synopsys_dc.setup
vlasicad5:/home/user2/ms104/patty% ls -l
total 88
-rw-r--r--  1 patty stapdev 136 Jan 19 15:29 local.cshrc
-rw-r--r--  1 patty stapdev 157 Jan 19 15:29 local.login
-rw-r--r--  1 patty stapdev 174 Jan 19 15:29 local.profile
drwxr-xr-x  2 patty stapdev 512 Jan 19 15:53 ??????/
drwxr-xr-x  2 patty stapdev 512 Jan 19 15:53 ??????/
drwxr-xr-x  2 patty stapdev 512 Jan 19 15:53 ??????/
drwxr-xr-x  2 patty stapdev 512 Jan 19 15:53 ??????/
drwxr-xr-x  2 patty stapdev 512 Jan 19 15:53 ??????/
drwxr-xr-x  2 patty stapdev 512 Jan 19 15:53 ??????/
drwxr-xr-x  2 patty stapdev 512 Jan 19 15:53 ??????/
drwxr-xr-x  2 patty stapdev 512 Jan 19 15:53 ??????/
vlasicad5:/home/user2/ms104/patty%
```

mkdir (make directory)

- ❑ % mkdir Lab1
 - ❑ create a Lab1 directory

```
vlsicad5:/home/user2/ms104/patty% mkdir Lab1
vlsicad5:/home/user2/ms104/patty% ls
Lab1/      local.login  ???????/  ???????/  ???????/  ???????/
local.cshrc local.profile ???????/  ???????/  ???????/  ???????/
vlsicad5:/home/user2/ms104/patty% █
```

cd (change directory)

- ❑ % cd ..
 - ❑ go back to last directory
- ❑ % cd ~
 - ❑ go back to home directory
- ❑ % cd Lab1
 - ❑ go to Lab1 directory

```
vlsicad5:/home/user2/ms104/patty% cd ..  
vlsicad5:/home/user2/ms104/ cd ~  
vlsicad5:/home/user2/ms104/patty/ cd Lab1/  
vlsicad5:/home/user2/ms104/patty/Lab1/ █
```

pwd (print working directory)

❑ % pwd

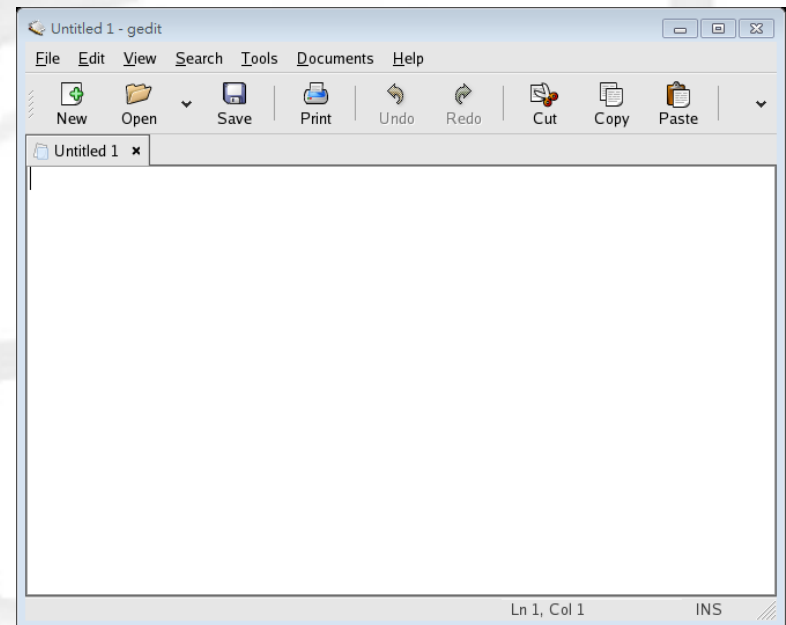
❑ show the path of the current working directory

```
||vlsicadb:/home/user2/ms104/patty/Lab1/ pwd  
||/home/user2/ms104/patty/Lab1  
||vlsicad5:/home/user2/ms104/patty/Lab1/ █
```

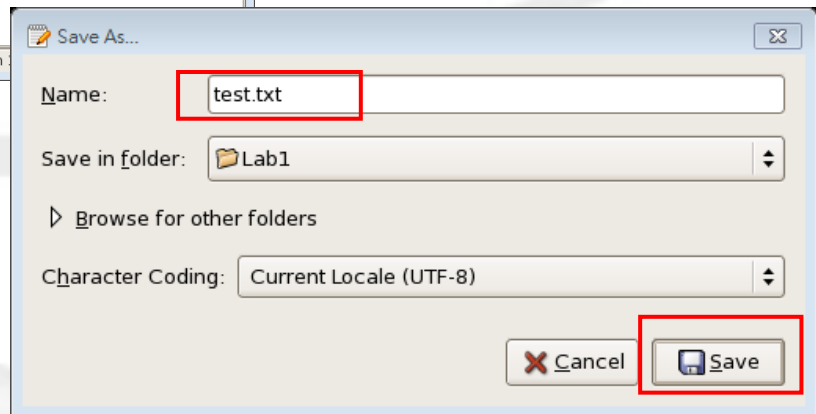
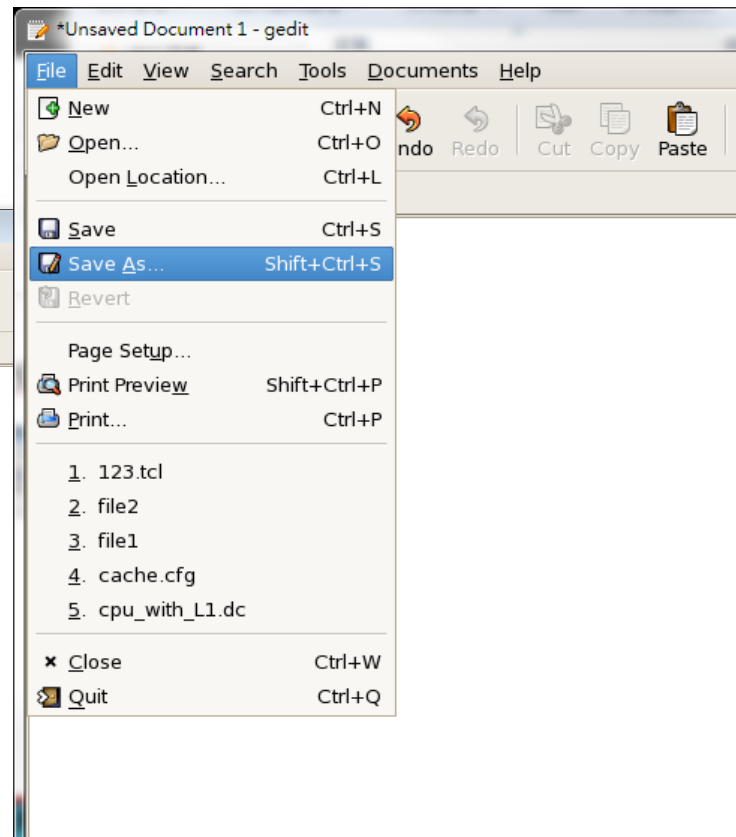
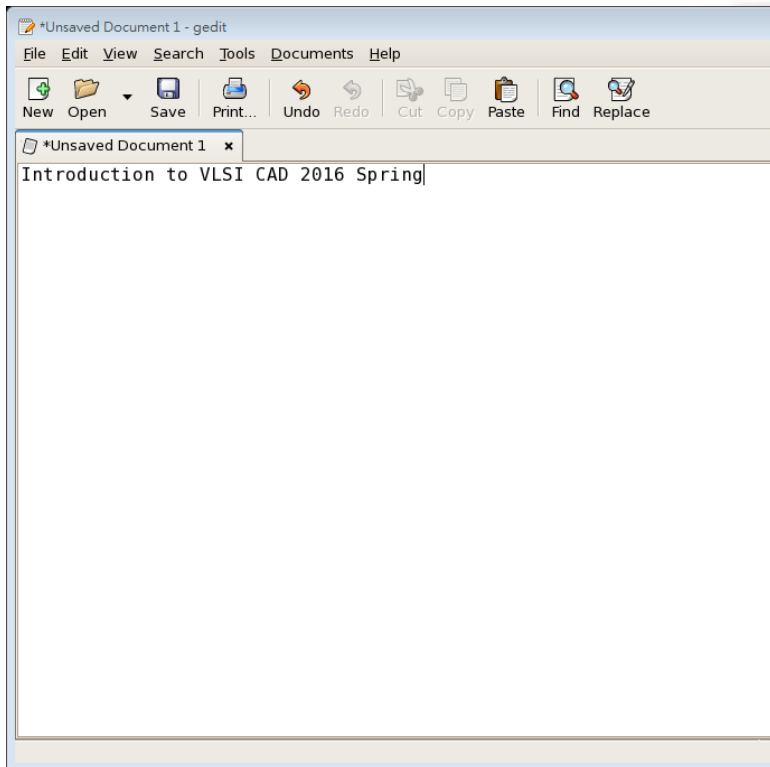

gedit (gui editor) (1/3)

- ❑ % gedit
- ❑ % gedit &
 - ❑ & -> executes in the background

```
vlsicad5:/home/user2/ms104/patty/Lab1/ gedit
vlsicad5:/home/user2/ms104/patty/Lab1/ gedit&
[1] 27417
vlsicad5:/home/user2/ms104/patty/Lab1/ █
```



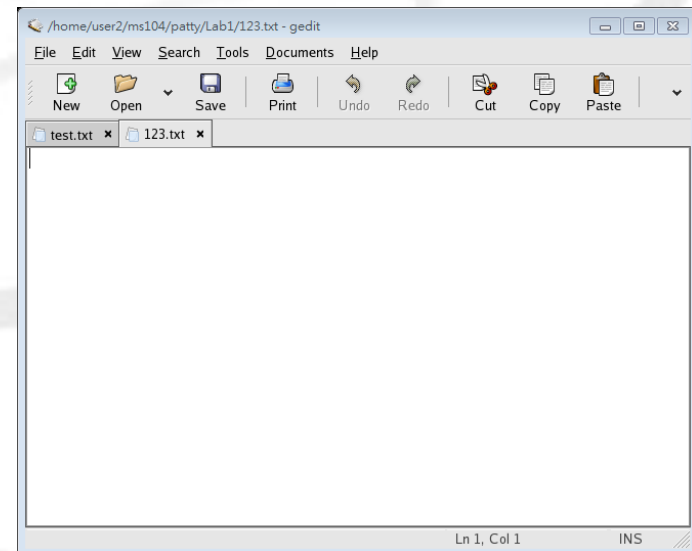
gedit (2/3)



gedit (3/3)

- ❑ `% gedit test.txt &`
 - ❑ open the exist file test.txt by gedit
- ❑ `% gedit 123.txt &`
 - ❑ open a new file named 123.txt by gedit

```
vlsicad5:/home/user2/ms104/patty/Lab1/ gedit test.txt &  
[1] 27434  
vlsicad5:/home/user2/ms104/patty/Lab1/ █
```



more

- ❑ **% more test.txt**
 - ❑ displays content in the file on the terminal

```
vlsicad5:/home/user2/ms104/patty/Lab1/ more test.txt
Introduction to VLSI CAD 2016 Spring
vlsicad5:/home/user2/ms104/patty/Lab1/ █
```

cp (copy)

❑ **% cp test.txt homework.txt**

❑ copy file from test.txt to homework.txt

❑ **% cp -r Lab1 Lab2**

-r : recursive

❑ copy all subdirectories and files under Lab1 directory to Lab2 directory

```
vlsicad5:/home/user2/ms104/patty/Lab1/ cp test.txt homework.txt
vlsicad5:/home/user2/ms104/patty/Lab1/ ls
homework.txt  test.txt
vlsicad5:/home/user2/ms104/patty/Lab1/ cd ..
vlsicad5:/home/user2/ms104/patty/ cp -r Lab1 Lab2
vlsicad5:/home/user2/ms104/patty/ ls
Lab1/         local.login   ???????/   ???????/   ???????/
Lab2/         local.profile ???????/   ???????/
local.cshrc   ???????/    ???????/   ???????/
vlsicad5:/home/user2/ms104/patty/ █
```


mv (move)

- ❑ % mv test.txt hw1.txt
 - ❑ modify test.txt to hw1.txt
- ❑ % mv hw1.txt ../Lab2
 - ❑ move hw1.txt to Lab2 directory
- ❑ % mv Lab2 Lab3
 - ❑ modify Lab2 directory to Lab3 directory

```

vlsicad5:/home/user2/ms104/patty/ cd Lab1
vlsicad5:/home/user2/ms104/patty/Lab1/ mv test.txt hw1.txt
vlsicad5:/home/user2/ms104/patty/Lab1/ ls
homework.txt hw1.txt
vlsicad5:/home/user2/ms104/patty/Lab1/ mv hw1.txt ../Lab2
vlsicad5:/home/user2/ms104/patty/Lab1/ cd ..
vlsicad5:/home/user2/ms104/patty/ cd Lab2
vlsicad5:/home/user2/ms104/patty/Lab2/ ls
homework.txt hw1.txt test.txt
vlsicad5:/home/user2/ms104/patty/Lab2/ cd ..
vlsicad5:/home/user2/ms104/patty/ mv Lab2 Lab3
vlsicad5:/home/user2/ms104/patty/ ls
Lab1/      local.login  ???????/  ???????/  ???????/
Lab3/      local.profile  ???????/  ???????/
local.cshrc  ???????/    ???????/  ???????/
vlsicad5:/home/user2/ms104/patty/ █

```

rm (remove)

- ❑ % rm homework.txt
 - ❑ delete homework.txt file
- ❑ % rm -r Lab3
 - ❑ delete Lab3 directory

```

vlsicad5:/home/user2/ms104/patty/ cd Lab3
vlsicad5:/home/user2/ms104/patty/Lab3/ rm homework.txt
rm: remove regular file `homework.txt'? yes
vlsicad5:/home/user2/ms104/patty/Lab3/ ls
hw1.txt  test.txt
vlsicad5:/home/user2/ms104/patty/Lab3/ cd ..
vlsicad5:/home/user2/ms104/patty/ rm -r Lab3
rm: descend into directory `Lab3'? yes
rm: remove regular file `Lab3/test.txt'? yes
rm: remove regular file `Lab3/hw1.txt'? yes
rm: remove directory `Lab3'? yes
vlsicad5:/home/user2/ms104/patty/ ls
Lab1/      local.login      ??????/  ??????/  ??????/  ??????/
local.cshrc local.profile    ??????/  ??????/  ??????/  ??????/
vlsicad5:/home/user2/ms104/patty/ █

```

rmdir (remove directory)

❑ % rmdir Lab4

❑ delete **empty** directory Lab4

```
vlsicadb1:/home/user2/ms104/patty/ mkdir Lab4
vlsicad5:/home/user2/ms104/patty/ ls
Lab1/      local.login  ???????/  ???????/  ???????/
Lab4/      local.profile ???????/  ???????/
local.cshrc ???????/  ???????/  ???????/
vlsicad5:/home/user2/ms104/patty/ rmdir Lab4
vlsicad5:/home/user2/ms104/patty/ ls
Lab1/      local.login  ???????/  ???????/  ???????/  ???????/
local.cshrc local.profile ???????/  ???????/  ???????/  ???????/
vlsicad5:/home/user2/ms104/patty/ █
```

tar

❑ % tar -cvf Lab1.tar Lab1

❑ compress Lab1 to Lab1.tar

❑ % tar -xvf Lab1.tar

❑ decompress Lab1.tar to the original directory

-c : create file
-v : show the info.
-f : following is the file name
-x : decompress file

```

vlsicad5:/home/user2/ms104/patty/ tar -cvf Lab1.tar Lab1
Lab1/
Lab1/homework.txt
vlsicad5:/home/user2/ms104/patty/ ls
Lab1/      local.login      ???????/  ???????/  ???????/
Lab1.tar   local.profile    ???????/  ???????/
local.cshrc ???????/      ???????/  ???????/
vlsicad5:/home/user2/ms104/patty/ rm -r Lab1
rm: descend into directory `Lab1'? yes
rm: remove regular file `Lab1/homework.txt'? yes
rm: remove directory `Lab1'? yes
vlsicad5:/home/user2/ms104/patty/ tar -xvf Lab1.tar
Lab1/
Lab1/homework.txt
vlsicad5:/home/user2/ms104/patty/ ls
Lab1/      local.login      ???????/  ???????/  ???????/
Lab1.tar   local.profile    ???????/  ???????/
local.cshrc ???????/      ???????/  ???????/
vlsicad5:/home/user2/ms104/patty/ █

```

passwd

- ❑ % passwd
 - ❑ change password

```
#####
# Welcome to SoCLab-I !                                     #
# Available Workstations(Solaris): vlsicad1, vlsicad2, vlsicad3 #
# Tools: HSPICE, Laker, Verdi, SOCE, ModelSim, verilogXL, Calibre, #
#       DesignVision                                         #
# Available Workstations(Linux): vlsicad6                     #
# Tools: MathLab, ColWare2005, verilogXL, gcc/g++            #
#                                                             #
# Quota: 100 MB for each account!                             #
# When leaving, LOGOUT and SHUTDOWN the computer please!    #
# If there r any problem, contact Room 95316 please, thx!    #
# Email: soclab01@lpvlsi.ee.ncku.edu.tw                      #
#####
vlsicad2:/home/user2/ms104/patty% passwd
passwd: Changing password for patty
Enter existing login password:
New Password:
Re-enter new Password:
passwd: password successfully changed for patty
vlsicad2:/home/user2/ms104/patty% █
```


Useful Tips (1/2)

- ❑ **Ctrl + c**
 - ❑ Terminate current task
- ❑ **Tab**
 - ❑ Autocomplete your command
- ❑ **↑**
 - ❑ show previous command

Useful Tips (2/2)

❑ --help

❑ show you the usage of the command

❑ % rm --help

```
vlsicad5:/home/user2/ms104/patty/ rm --help
Usage: rm [OPTION]... FILE...
Remove (unlink) the FILE(s).

  -d, --directory      unlink FILE, even if it is a non-empty directory
                        (super-user only; this works only if your system
                        supports 'unlink' for nonempty directories)
  -f, --force          ignore nonexistent files, never prompt
  -i, --interactive    prompt before any removal
                        --no-preserve-root do not treat '/' specially (the default)
                        --preserve-root  fail to operate recursively on '/'
  -r, -R, --recursive  remove the contents of directories recursively
  -v, --verbose        explain what is being done
                        --help         display this help and exit
                        --version      output version information and exit
```

To remove a file whose name starts with a '-', for example '-foo',
use one of these commands:

```
rm -- -foo
```

```
rm ./-foo
```

Outline

- Pros and cons of Linux system
- Unix 指令
- Change email address on Moodle
- Homework

Change email address on Moodle (1/2)

成功大學
數·位·學·習·平·台
National Cheng Kung University
您以 [] 登入 (登出)
正體中文 (zh_tw)

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我的課程 [] []
1071

平台使用提醒

操作教學(Guidance) [] []
一分鐘快速上手 / Quick start guide
課程報表全攻略(Course report)
加入旁聽生(Assign auditor)
開放校外人士瀏覽(Guest access)
課程匯入(Course import)
成績匯入(Grade import)
... 更多影片 (more) ...

Moodle Mobile [] []
ANDROID APP ON Google play
APP安裝教學影片
行動版網頁介紹影片

研討會訊息 [] []
2018-9-14~11/23
大數據分析&機器學習課程(共6堂,可單堂報名)
相關系統及支援服務 [] []

導覽 [] []
首頁
個人化首頁
個人資料
管理 [] []
個人資料設定
編輯個人資料
更改密碼
安全密鑰
傳訊息
主選單 [] []
舊學期課程平臺
最新公告

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全部縮合
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線上補強英文與研究所英文 (7)
行政單位(Administrative) (8)
試用課程 (10)
航太系IPSA Abroad Semester Program (4)
中大醫院

Change email address on Moodle (2/2)



The screenshot shows the Moodle user profile page. The header features a banner with the text '成功大學' (National Cheng Kung University) and '數位學習平台' (Digital Learning Platform). Below the banner, the user is logged in as '您以 [redacted] 登入 (退出)' and the language is set to '正體中文 (zh_tw)'. The left sidebar contains navigation links: '首頁' (Home), '個人化首頁' (Personalized Home), '個人資料' (Personal Information), '瀏覽個人資料' (View Personal Information), '簡訊' (Messages), '管理' (Manage), '個人資料設定' (Personal Information Settings), '編輯個人資料' (Edit Personal Information), '更改密碼' (Change Password), '安全密碼' (Security Password), and '傳訊息' (Send Message). The main content area is titled '一般' (General) and contains the following fields:

- 名字*** (Name): [redacted]
- 電子郵件信箱*** (Email): [redacted]
- 顯示電子郵件信箱** (Show email address): ☐ 只允許課程同學看到我的電子郵件信箱 (Only allow course students to see my email address)
- 電子郵件格式** (Email format): 美化的HTML格式 (Formatted HTML)
- 電子郵件摘要型** (Email summary type): 無摘要(每次張貼就發送一封郵件) (No summary (send one email each time you post))
- 討論區自動訂閱** (Discussion forum auto-subscribe): 不: 不要自動訂閱討論區 (No: Do not auto-subscribe to discussion forums)
- 討論區追蹤** (Discussion forum tracking): 好: 把新張貼的文章突顯出來 (Yes: Highlight new posts)
- 文字編輯器** (Text editor): 預設編輯器 (Default editor)
- 縣/市** (County/City): [redacted]
- 選擇一個國家** (Select a country): 台灣 (Taiwan)
- 時區** (Time zone): 伺服器當地的時間 (Server local time)
- 偏好的語言** (Preferred language): 正體中文 (zh_tw)
- 個人簡介** (Bio): [redacted]

At the bottom of the form, there is a toolbar with icons for text formatting (bold, italic, underline, list, link, unlink, image, etc.) and a '儲存' (Save) button.

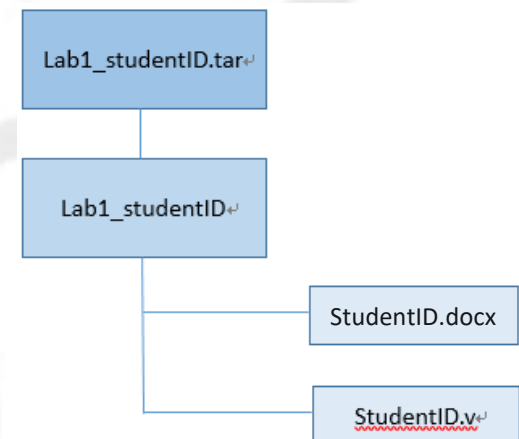
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HW1 description

1. Use “mkdir” to create a Lab1_studentID folder
2. Use “gedit” to create a Lab1_studentID.v file in your Lab1_studentID folder and write down your studentID in Lab1_studentID.v file .
3. Create a studentID.docx file and write the lessons learned from this lab session, or some suggestions for this lab session.
4. Use “tar” to archive your Lab1_studentID folder
5. Upload your **Lab1_studentID.tar** to moodle (<http://moodle.ncku.edu.tw/>)

Due date : 2021/03/03 16:00



**Thanks for your
participation and
attendance !**