Tutorial 1
Linux/Unix Instructions

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LPHPLAB
VLSI Design LAB

Outline

- Pros and cons of Linux system

- Unix 指令

- Change email address on Moodle

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

Outline

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

ls (list)

-a : all
-l : long listing format

- **% 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.)**

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

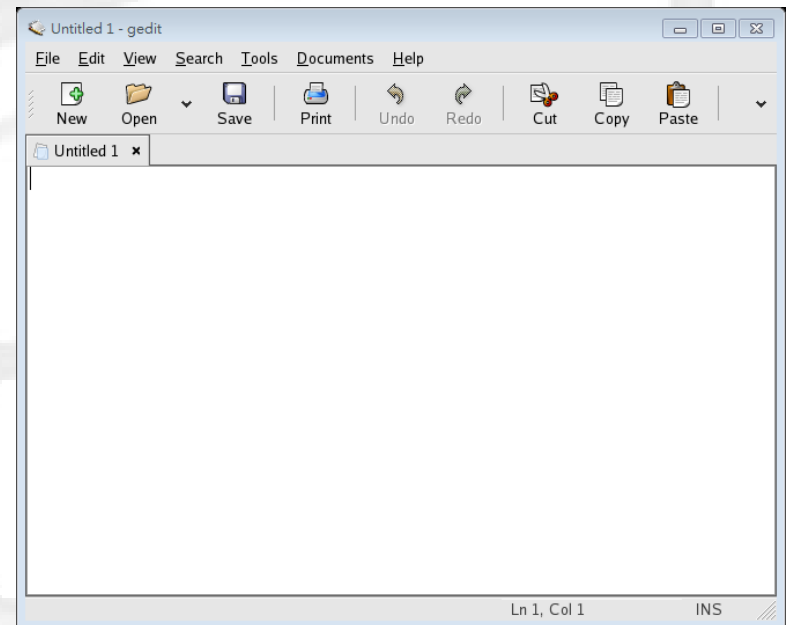❑ **% pwd**

    ❑ **show the path of the current working directory**

```
vlsicad5:/home/user2/ms104/patty/Lab1/ pwd
/home/user2/ms104/patty/Lab1
vlsicad5:/home/user2/ms104/patty/Lab1/ █
```
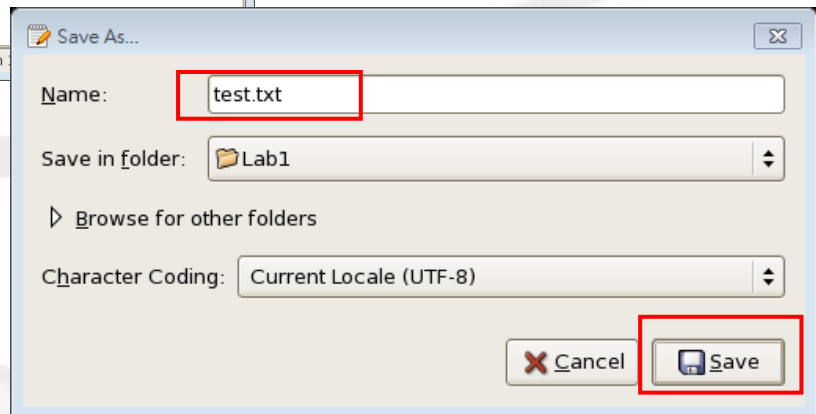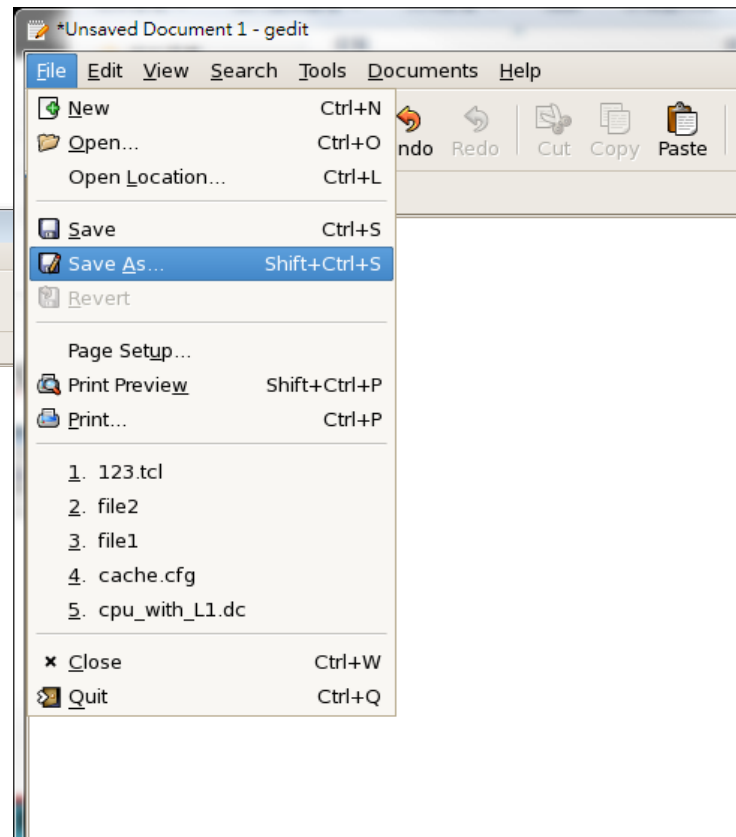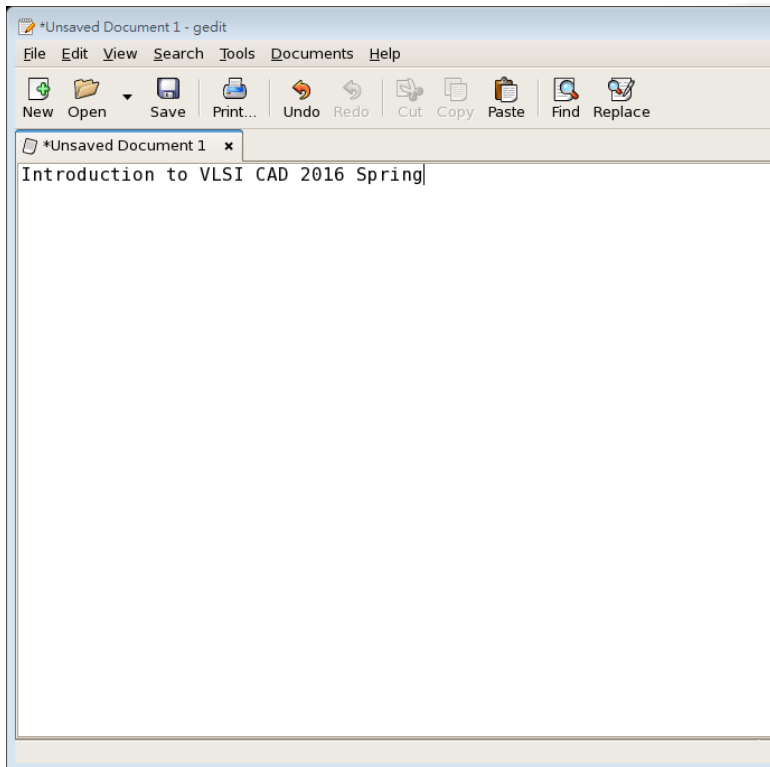
gedit (gui editor) (1/3)

- ☐ **% 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/ ▯
```
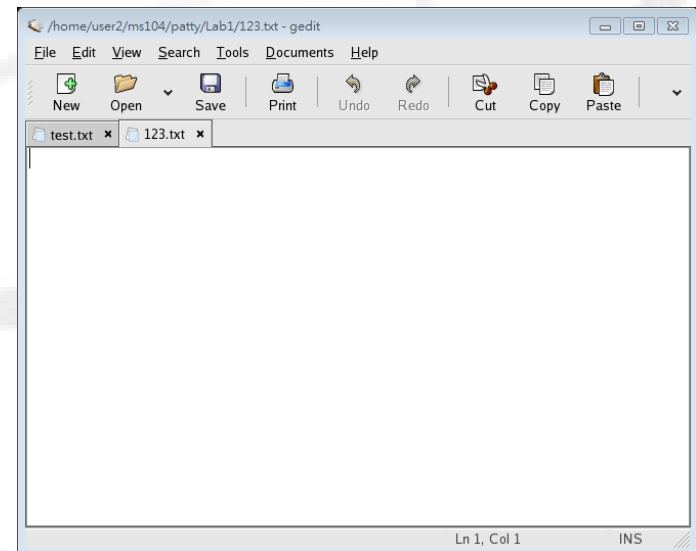
gedit (2/3)

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**
  - **copy all subdirectories and files under Lab1 directory to Lab2 directory**

-r : recursive

```
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**

```
vlsicad5:/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, CoWare2005, 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

Change email address on Moodle (1/2)

Change email address on Moodle (2/3)

偏好

用戶帳號

編修個人資料
更改密碼
偏愛的語言
討論區偏好
編輯器偏好
課程偏好
行事曆偏好設定
安全密鑰
訊息偏好
通知提醒的偏好

學習歷程檔案

設定
匯出紀錄

Change email address on Moodle (3/3)

- ☐ Email address
    - ☐ Default: School Gsuite email address
    - ☐ Suggestion: Email address that you won't lose any important notification

Thanks for your participation and attendance !