

Introduction to Linux, I

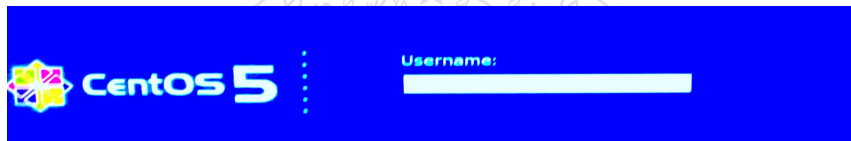
Introduction to Programming

EE231002

Sep. 16, 2019

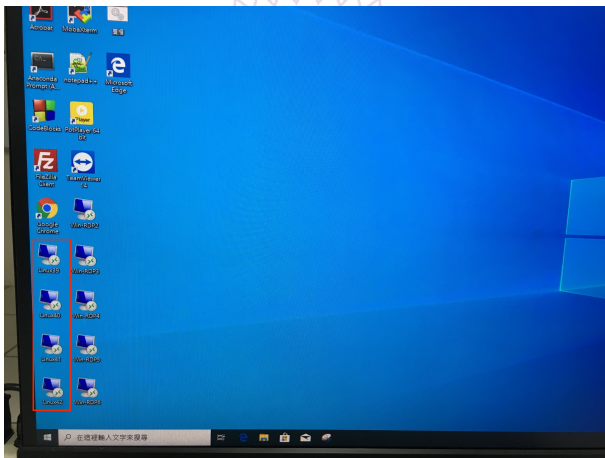
Login to EE Workstations (in EECS 406)

- To login to EE workstations
 - Type in your account and password
 - Username: **u** + **ID**
 - Password should have been mailed to you
 - Password will not shown while you are typing in



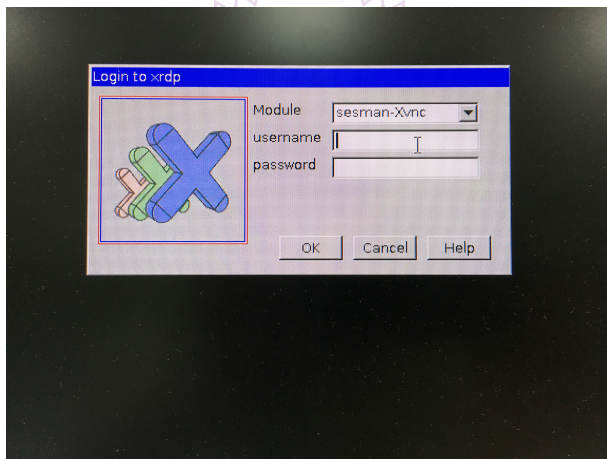
Login to EE Workstations (in EECS 407)

- Click on one of the icons [Linux39](#), [Linux40](#), [Linux41](#), [Linux42](#), or [Linux43](#).



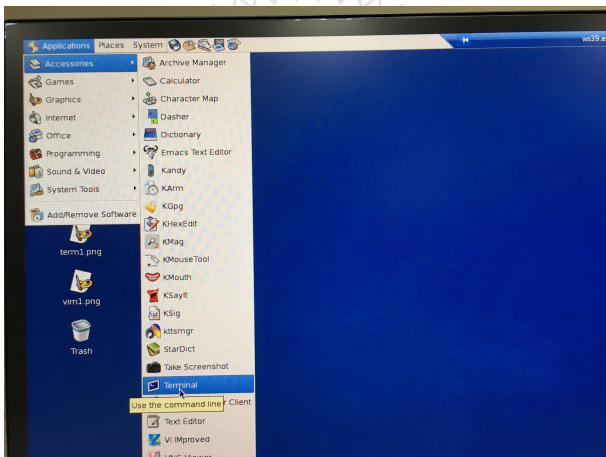
Login to EE Workstations (in EECS 407), II

- Enter **username** and **password**
- Then, you are in linux environment.



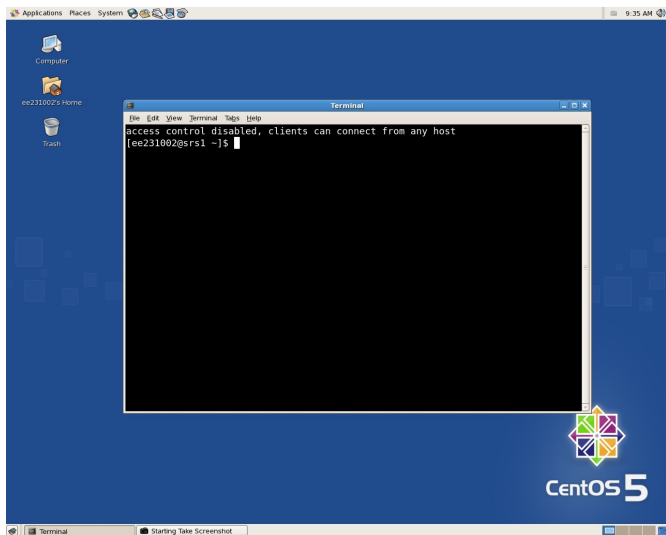
Open a Terminal

- To open a terminal, use the **Applications** menu on the top-left corner
 - **Applications -> Accessories -> Terminal**



Open a Terminal, II

- A **terminal** accepts and processes commands
 - Multiple terminals can be opened



Change Password

- To change password: `yppasswd`
- Type in the original password

```
~ /u2019/PL/labs/linux1/test — vi t1 — bash — 70x10
[u102061251@ws38 ~]$ yppasswd
Changing NIS account information for u102061251 on brontosaur.
Please enter old password: [ ]
```

- Type in a new password twice

```
~ /u2019/PL/labs/linux1/test — vi t1 — bash — 70x10
[u102061251@ws38 ~]$ yppasswd
Changing NIS account information for u102061251 on brontosaur.
Please enter old password:
Changing NIS password for u102061251 on brontosaur.
Please enter new password:
Please retype new password: [ ]
```

- Choose a password that is easy to remember and difficult to break

```
~ /u2019/PL/labs/linux1/test — vi t1 — bash — 70x12
[u102061251@ws38 ~]$ yppasswd
Changing NIS account information for u102061251 on brontosaur.
Please enter old password:
Changing NIS password for u102061251 on brontosaur.
Please enter new password:
Please retype new password:

The NIS password has been changed on brontosaur.

[u102061251@ws38 ~]$ [ ]
```

Directory

- Right after you logged-in, you are at your home directory.
- `pwd`: print working directory

```
~/.2019/PL/labs/linux1/test — vi t1 — bash — 70x12
[u102061251@ws38 ~]$ pwd
/home/u102/u102061251
[u102061251@ws38 ~]$
```

- `mkdir`: make directory

```
~/.2019/PL/labs/linux1/test — vi t1 — bash — 70x12
[u102061251@ws38 ~]$ pwd
/home/u102/u102061251
[u102061251@ws38 ~]$ mkdir C_program
[u102061251@ws38 ~]$ ls
C_program
```

- `cd`: change directory

```
~/.2019/PL/labs/linux1/test — vi t1 — bash — 70x12
[u102061251@ws38 ~]$ pwd
/home/u102/u102061251
[u102061251@ws38 ~]$ mkdir C_program
[u102061251@ws38 ~]$ ls
C_program
[u102061251@ws38 C_program]$ cd C_program
[u102061251@ws38 C_program]$ pwd
/home/u102/u102061251/C_program
[u102061251@ws38 C_program]$
```


- Continue to create directory for **lab01**

```
~/.2019/PL/labs/linux1/test — vi t1 — bash — 70x14
[u102061251@ws38 ~]$ pwd
/home/u102/u102061251
[u102061251@ws38 ~]$ mkdir C_program
[u102061251@ws38 ~]$ ls
C_program
[u102061251@ws38 C_program]$ cd C_program
[u102061251@ws38 C_program]$ pwd
/home/u102/u102061251/C_program
[u102061251@ws38 C_program]$ mkdir lab01
[u102061251@ws38 C_program]$ cd lab01
[u102061251@ws38 lab01]$ cd lab01
[u102061251@ws38 lab01]$
```

- cp**: copy files and directories

```
~/.2019/PL/labs/linux1/test — vi t1 — bash — 70x14
[u102061251@ws38 lab01]$ cp ~/ee2310/lab01.pdf .
[u102061251@ws38 lab01]$ ls
lab01.pdf
[u102061251@ws38 lab01]$
```

- ls**: list directory content

```
~/.2019/PL/labs/linux1/test — vi t1 — bash — 70x14
[u102061251@ws38 lab01]$ cp lab01.pdf new.pdf
[u102061251@ws38 lab01]$ ls
lab01.pdf new.pdf
[u102061251@ws38 lab01]$
```

mv and rm

- General linux command syntax
`COMMAND [OPTION1] [OPTION2] [ARGUMENT1] [ARGUMENT2] ...`
- **cp**: copy files and directories
 - Syntax: `cp SOURCE ... DIRECTORY`
 - Purpose: copy SOURCE or multiple SOURCE(s) to DIRECTORY
- **mv**: move a file to a different name
 - Can move files and directories also
 - Syntax: `mv SOURCE DIRECTORY`

```
[u102061251@ws38 lab01]$ ls
lab01.pdf new.pdf
[u102061251@ws38 lab01]$ mv new.pdf old.pdf
[u102061251@ws38 lab01]$ ls
lab01.pdf old.pdf
[u102061251@ws38 lab01]$
```

- **rm**: remove a file from a directory

```
[u102061251@ws38 lab01]$ ls
lab01.pdf old.pdf
[u102061251@ws38 lab01]$ rm old.pdf
[u102061251@ws38 lab01]$ ls
lab01.pdf
[u102061251@ws38 lab01]$
```


Special Directories – Usages

- Example of using special directories

```
~/.2019/PL/labs/linux1/test — vi t1 — bash — 70x16
[u102061251@ws38 lab01]$ pwd
/home/u102/u102061251/C_program/lab01
[u102061251@ws38 lab01]$ cd .
[u102061251@ws38 lab01]$ pwd
/home/u102/u102061251/C_program/lab01
[u102061251@ws38 lab01]$ cd ..
[u102061251@ws38 C_program]$ pwd
/home/u102/u102061251/C_program
[u102061251@ws38 C_program]$ cd ~
[u102061251@ws38 ~]$ pwd
/home/u102/u102061251
[u102061251@ws38 ~]$ cd C_program/lab01
[u102061251@ws38 lab01]$ pwd
/home/u102/u102061251/C_program/lab01
[u102061251@ws38 lab01]$
```

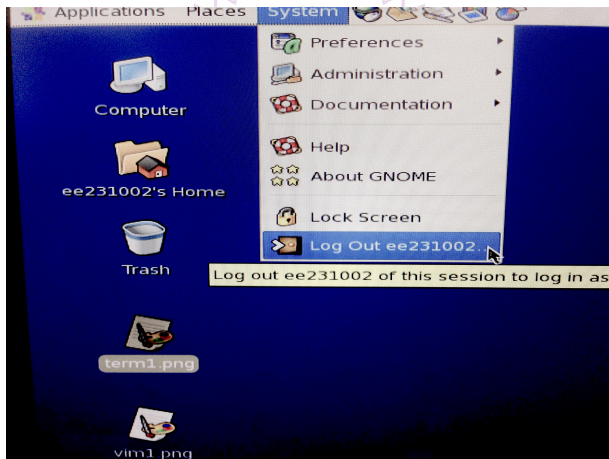
- Note that a file path can consist of multi-levels.

Command Summary

Command	Usage	Comments
<code>yppasswd</code>	<code>yppasswd</code>	Change password.
<code>mkdir</code>	<code>mkdir dir</code>	Create a directory <code>dir</code> .
<code>cd</code>	<code>cd dir</code>	Change to directory <code>dir</code> .
<code>pwd</code>	<code>pwd</code>	Show current working directory.
<code>ls</code>	<code>ls</code>	List current directory.
<code>rmdir</code>	<code>rmdir dir</code>	Remove directory <code>dir</code> .
<code>rm</code>	<code>rm file</code>	Remove file <code>file</code> .
<code>cp</code>	<code>cp file1 file2</code> <code>cp file dir</code>	Copy <code>file1</code> to <code>file2</code> . Copy <code>file</code> to directory <code>dir</code> .
<code>mv</code>	<code>mv file1 file2</code> <code>mv file dir</code>	Rename <code>file1</code> to <code>file2</code> . Move <code>file</code> to directory <code>dir</code> .

Logout

- Please make sure to logout of the workstation after class
 - Use the menu on the top of the screen.
 - System -> Log Out



- 使用規則

1. 嚴禁關閉工作站電源。
2. 請勿攜帶飲料、食物進入。
3. 離開時請確實 logout，關閉螢幕電源，並將椅子靠好。
4. 當機時，請由別台工作站伺服器 login 至當掉的伺服器，然後將自己的 process 殺掉。
5. 重要資料請隨時自行備份。

Quick Start for Lab01

- login
- open a terminal then in that terminal

```
$ yppasswd
$ mkdir C_program
$ cd C_program
$ mkdir lab01
$ cp ~ee2310/lab01/*
$ kpdf linux1.pdf &
$ kpdf vim1.pdf &
$ kpdf lab01.pdf &
```
- After reviewing those materials, you can start working on your lab01.c.

