

Introduction to Linux, I

Introduction to Programming

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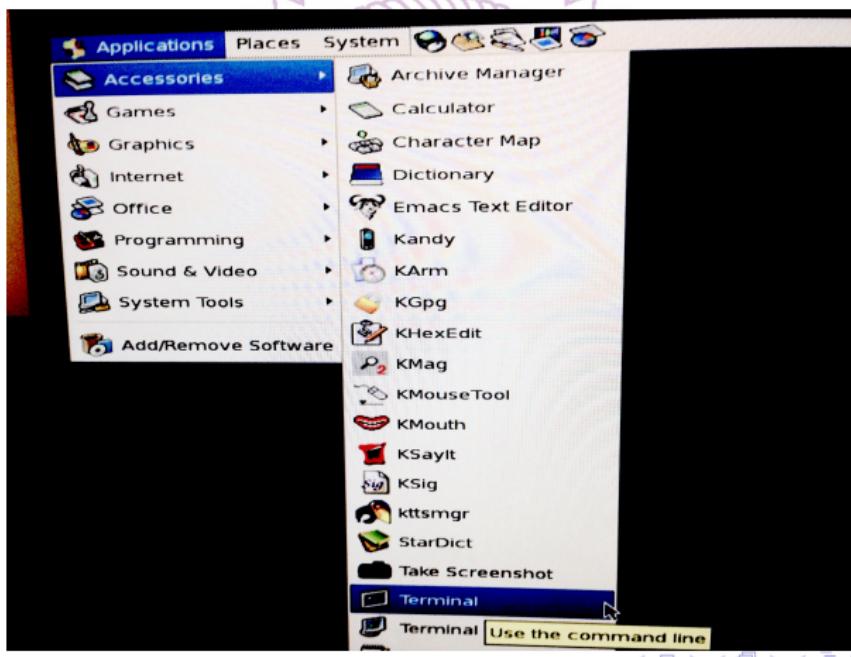
Login to EE Workstations

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



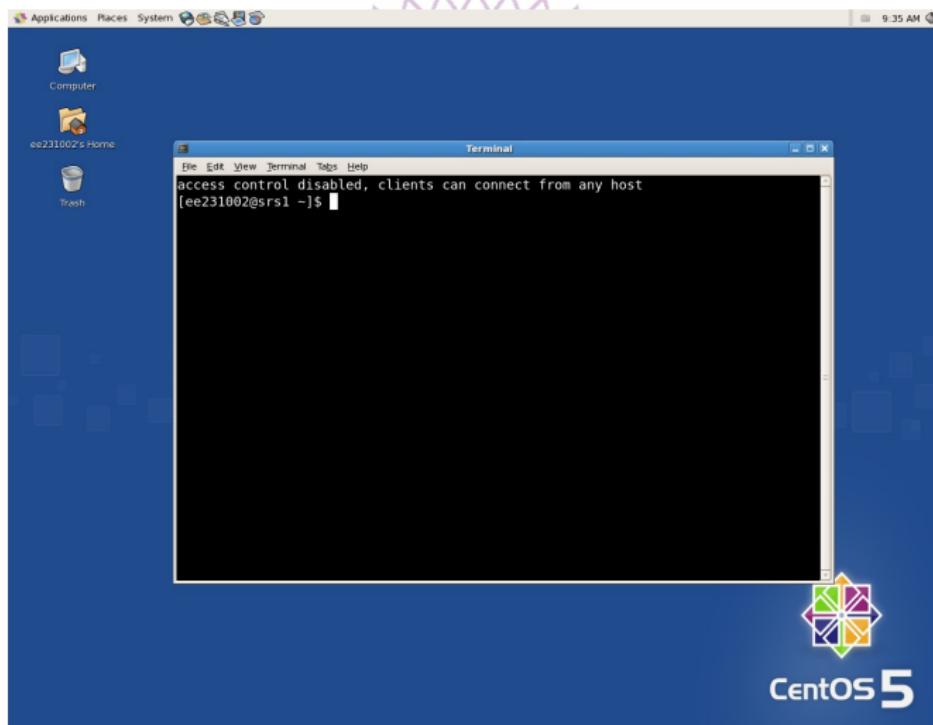
Open a Terminal

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



Open a Terminal, II

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



Change Password

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

```
[ee231002@ws38 ~]$ yppasswd
Changing NIS account information for ee231002 on brontosaurus.
Please enter old password: [REDACTED]
```

- Type in a new password twice

```
[ee231002@ws38 ~]$ yppasswd
Changing NIS account information for ee231002 on brontosaurus.
Please enter old password:
Changing NIS password for ee231002 on brontosaurus.
Please enter new password:
Please retype new password: [REDACTED]
```

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

```
[ee231002@ws38 ~]$ yppasswd
Changing NIS account information for ee231002 on brontosaurus.
Please enter old password:
Changing NIS password for ee231002 on brontosaurus.
Please enter new password:
Please retype new password:

The NIS password has been changed on brontosaurus.

[ee231002@ws38 ~]$ [REDACTED]
```

Directory

- Linux's file system consists of directories, like folders, and simple files
- `pwd`: print working directory

```
[u102061251@ws38 ~]$ pwd  
/home/u102/u102061251
```

- `ls`: list directory content

```
[u102061251@ws38 ~]$ ls  
Desktop  c_language  hspice    hw10_1  notes          sxcmd.log  yes  
a.out    circuit_lab hw01.pdf  m8.dat  numerical_analysis  testfile  yes.pub
```

Directory – Create Directory

- **mkdir:** make directory

```
[u102061251@ws38 ~/test]$ ls  
[u102061251@ws38 ~/test]$ mkdir burbur  
[u102061251@ws38 ~/test]$ ls  
burbur
```

- **cd:** change directory

```
[u102061251@ws38 ~/test]$ ls  
burbur  
[u102061251@ws38 ~/test]$ pwd  
/home/u102/u102061251/test  
[u102061251@ws38 ~/test]$ cd burbur  
[u102061251@ws38 burbur]$ pwd  
/home/u102/u102061251/test/burbur
```

- **rmdir:** remove directory

```
[u102061251@ws38 ~/test]$ ls  
burbur  
[u102061251@ws38 ~/test]$ rmdir burbur  
[u102061251@ws38 ~/test]$ ls
```

Directory – Copy

- General linux command format

COMMAND [OPTION1] [OPTION2] [ARGUMENT1] [ARGUMENT2] ...

- cp: copy files and directories

- Format: cp SOURCE ... DIRECTORY
- Purpose: copy SOURCE or multiple SOURCE(s) to DIRECTORY

```
[u102061251@ws38 ~/test]$ ls
bur.c burbur
[u102061251@ws38 ~/test]$ ls burbur/
[u102061251@ws38 ~/test]$ cp bur.c burbur/bur2.c
[u102061251@ws38 ~/test]$ ls burbur/
bur.c burbur
[u102061251@ws38 ~/test]$ ls burbur/
bur2.c
```

Directory – Move

- **mv**: move files and directories
 - Format: **mv SOURCE DIRECTORY**
 - Purpose: move SOURCE to DIRECTORY

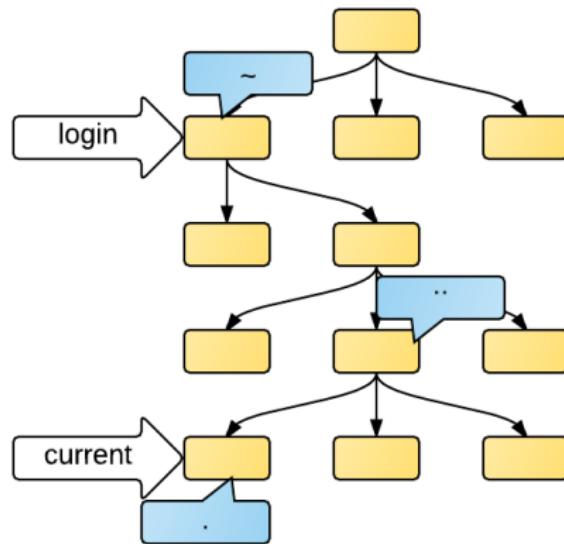
```
[u102061251@ws38 ~/test]$ ls  
bur.c burbur  
[u102061251@ws38 ~/test]$ mv bur.c burbur/  
[u102061251@ws38 ~/test]$ ls  
burbur  
[u102061251@ws38 ~/test]$ ls burbur/  
bur.c
```

- Special usage – Rename file

Special Directories

- Linux file structure

- : current directory
- : directory one-level up
- : home directory



Special Directories – Examples

```
[u102061251@ws38 burbur]$ pwd  
/home/u102/u102061251/test/burbur  
[u102061251@ws38 burbur]$ cd .  
[u102061251@ws38 burbur]$ pwd  
/home/u102/u102061251/test/burbur  
[u102061251@ws38 burbur]$ cd ..  
[u102061251@ws38 ~]/test]$ pwd  
/home/u102/u102061251/test
```

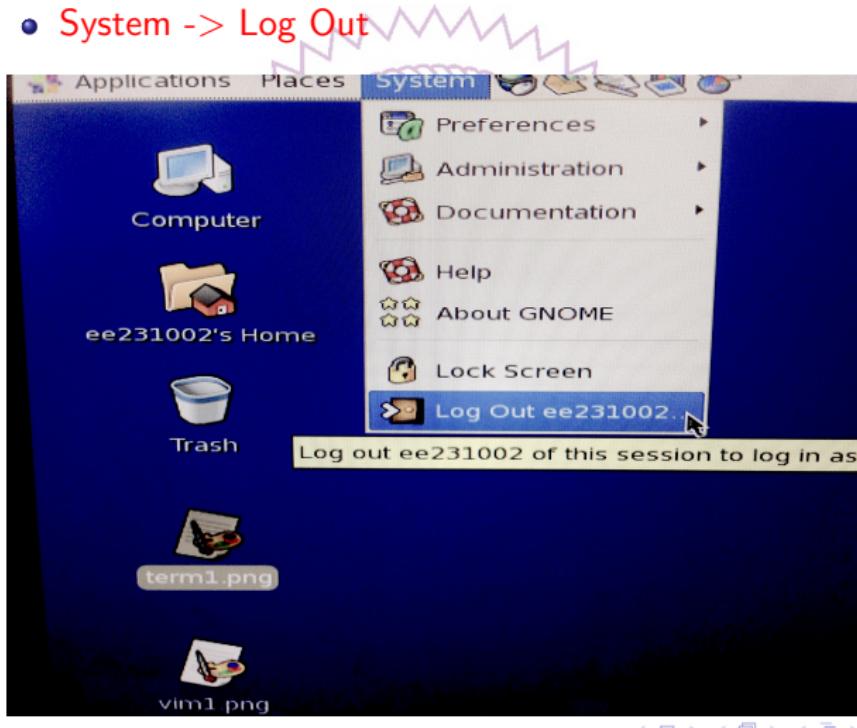
```
[u102061251@ws38 burbur]$ pwd  
/home/u102/u102061251/test/burbur  
[u102061251@ws38 burbur]$ cd ~  
[u102061251@ws38 ~]$ pwd  
/home/u102/u102061251
```

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>	Copy <code>file1</code> to <code>file2</code> .
	<code>cp file dir</code>	Copy <code>file</code> to directory <code>dir</code> .
<code>mv</code>	<code>mv file1 file2</code>	Rename <code>file1</code> to <code>file2</code> .
	<code>mv file dir</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



Workstation Rules

- 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。