

APPLIED OPERATING SYSTEM LABORATORY



FEU ALABANG



FEU DILIMAN



FEU TECH

Technology Driven by Innovation

MODULE 3

LINUX DIRECTORIES AND FILES CREATION



FEU ALABANG



FEU DILIMAN



FEU TECH

Technology Driven by Innovation

OBJECTIVES

Upon completion of this module, the student will be able to:

- Perform file and directory creation, and move between directories using LINUX commands

TOPIC OUTLINE

- **Directory commands**
 - Display directory content
 - Change directory
 - Make directory
 - Print working directory
 - Remove directory
- **File creation**
 - Display contents of single or multiple files
 - Create a file using **cat** command
- **Other commands**
 - **clear** command
 - **history** command
 - **date** command



DIRECTORY COMMANDS

Display directory content

- To display the contents of the current working directory

Syntax:

ls

Options that can be used with it.

- -a
- -A
- -d
- -l
- -r
- -R

```
vetcha@DESKTOP-U1V5HO4: ~  
vetcha@DESKTOP-U1V5HO4:~$ ls  
a.txt b.txt c.txt f1  
vetcha@DESKTOP-U1V5HO4:~$
```

```
vetcha@DESKTOP-U1V5HO4: ~  
vetcha@DESKTOP-U1V5HO4:~$ ls -l  
total 0  
-rw-rw-rw- 1 vetcha vetcha  0 Jul 23 19:33 a.txt  
-rw-rw-rw- 1 vetcha vetcha  0 Jul 23 19:33 b.txt  
-rw-rw-rw- 1 vetcha vetcha  0 Jul 23 19:33 c.txt  
drwxrwxrwx 1 vetcha vetcha 512 Jul 23 19:33 f1  
vetcha@DESKTOP-U1V5HO4:~$
```

DIRECTORY COMMANDS

Change directory

- To change directory

Syntax:

- **cd** <directory_name>
- **cd .** means the current directory
- **cd ..** means parent directory
- **cd** means will take you to your home directory
- **cd –** will take you to your previous directory
- **cd ~ username** will take you to the home directory of the user
- **cd** <directorypath>

vetcha@DESKTOP-U1V5H04: ~

```
vetcha@DESKTOP-U1V5H04:~$ cd f1
vetcha@DESKTOP-U1V5H04:~/f1$ cd .
vetcha@DESKTOP-U1V5H04:~/f1$ cd ..
vetcha@DESKTOP-U1V5H04:~$ cd
vetcha@DESKTOP-U1V5H04:~$ cd -
/home/vetcha
vetcha@DESKTOP-U1V5H04:~$ cd ~
vetcha@DESKTOP-U1V5H04:~$
```

vetcha@DESKTOP-U1V5H04: ~/f2/f3

```
vetcha@DESKTOP-U1V5H04:~$ cd f2/f3/
vetcha@DESKTOP-U1V5H04:~/f2/f3$
```



FEU ALABANG



FEU DILIMAN



FEU TECH

Technology Driven by Innovation

DIRECTORY COMMANDS

Make directory

- To make directory/directories

Syntax:

mkdir <directoryname>

- To create multiple directories
- To create directory name with spaces
- To create a subdirectory
/home/vetcha/folder1/folder2
(folder2 is not yet existing)
- To print or show the working directory

Syntax: **pwd**

vetcha@DESKTOP-U1V5HO4: ~

```
vetcha@DESKTOP-U1V5HO4:~$ mkdir folder1
vetcha@DESKTOP-U1V5HO4:~$ ls
a.txt b.txt c.txt folder1
vetcha@DESKTOP-U1V5HO4:~$
```

vetcha@DESKTOP-U1V5HO4: ~

```
vetcha@DESKTOP-U1V5HO4:~$ mkdir dir1 dir2 dir3
vetcha@DESKTOP-U1V5HO4:~$ ls
a.txt b.txt c.txt dir1 dir2 dir3 folder1
vetcha@DESKTOP-U1V5HO4:~$ mkdir my\ folder
vetcha@DESKTOP-U1V5HO4:~$ ls
a.txt b.txt c.txt dir1 dir2 dir3 folder1 'my folder'
vetcha@DESKTOP-U1V5HO4:~$
```

vetcha@DESKTOP-U1V5HO4: ~

```
vetcha@DESKTOP-U1V5HO4:~$ mkdir -p folder1/folder2
vetcha@DESKTOP-U1V5HO4:~$ ls folder1/
folder2
vetcha@DESKTOP-U1V5HO4:~$ cd folder1/folder2
vetcha@DESKTOP-U1V5HO4:~/folder1/folder2$ pwd
/home/vetcha/folder1/folder2
vetcha@DESKTOP-U1V5HO4:~/folder1/folder2$
```



FEU ALABANG



FEU DILIMAN



FEU TECH

Technology Driven by Innovation

DIRECTORY COMMANDS

Remove empty directory

- To remove empty directory/directories

Syntax:

rmdir [-option] <directoryname>

- To remove directory and its subdirectory

```
vetcha@DESKTOP-U1V5H04: ~  
vetcha@DESKTOP-U1V5H04:~$ ls  
a.txt  b.txt  c.txt  dir1  dir2  dir3  folder1  'my folder'  
vetcha@DESKTOP-U1V5H04:~$ rmdir dir1  
vetcha@DESKTOP-U1V5H04:~$ ls  
a.txt  b.txt  c.txt  dir2  dir3  folder1  'my folder'  
vetcha@DESKTOP-U1V5H04:~$
```

```
vetcha@DESKTOP-U1V5H04: ~  
vetcha@DESKTOP-U1V5H04:~$ ls dir2  
dir3  
vetcha@DESKTOP-U1V5H04:~$ rmdir -p dir2/dir3  
vetcha@DESKTOP-U1V5H04:~$ ls  
a.txt  b.txt  c.txt  dir3  folder1  'my folder'  
vetcha@DESKTOP-U1V5H04:~$
```


DIRECTORY COMMANDS

Remove directory that is not empty

- To remove directory that is not empty
Syntax:
rm -r <directoryname>
- **-r** means remove directories and their contents recursively

```
vetcha@DESKTOP-U1V5H04: ~  
vetcha@DESKTOP-U1V5H04:~$ ls dir2  
dir2  
vetcha@DESKTOP-U1V5H04:~$ rmdir -p dir2/dir3  
vetcha@DESKTOP-U1V5H04:~$ ls  
a.txt  b.txt  c.txt  dir3  folder1  'my folder'  
vetcha@DESKTOP-U1V5H04:~$  
  
vetcha@DESKTOP-U1V5H04: ~  
vetcha@DESKTOP-U1V5H04:~$ ls  
a.txt  b.txt  c.txt  folder1  'my folder'  
vetcha@DESKTOP-U1V5H04:~$ ls folder1  
a.txt  b.txt  c.txt  folder2  
vetcha@DESKTOP-U1V5H04:~$ rmdir folder1  
rmdir: failed to remove 'folder1': Directory not empty  
vetcha@DESKTOP-U1V5H04:~$ rm -r folder1  
vetcha@DESKTOP-U1V5H04:~$ ls  
a.txt  b.txt  c.txt  'my folder'  
vetcha@DESKTOP-U1V5H04:~$
```

FILE CREATION COMMAND

Create a file or files

- To create a file or files using **cat** command

Syntax:

cat > <filename>

type text

CTRL+D (to save and exit)

- **cat** means **concatenate**
- To view the content of file/files

Syntax:

cat <filename>

vetcha@DESKTOP-U1V5H04: ~

```
vetcha@DESKTOP-U1V5H04:~$ cat > file1.txt
```

```
First file
```

```
vetcha@DESKTOP-U1V5H04:~$ cat file1.txt
```

```
First file
```

```
vetcha@DESKTOP-U1V5H04:~$
```

OTHER LINUX COMMANDS

clear command

- To clear the screen.

Syntax: **clear**

history command

- To display previously entered commands. This information is stored in the `~/.bash_history` file located at the home directory of each user.

Syntax: **history**

```
vetcha@DESKTOP-U1V5H04: ~  
vetcha@DESKTOP-U1V5H04:~$ history  
1 clear  
2 ls  
3 touch a.txt b.txt c.txt  
4 ls  
5 mkdir f1  
6 ls  
7 clear  
8 ls  
9 clear  
10 ls -l  
11 clear  
12 cd f1  
13 cd .  
14 cd ..  
15 cd  
16 cd -  
17 cd ~  
18 ls  
19 mkdir f2  
20 cd f2  
21 mkdir f3  
22 cd  
23 clear  
24 cd f1/f2/f3  
25 clear  
26 cd f1\f3  
27 cd f1/f3  
28 ls  
29 clear
```



FEU ALABANG



FEU DILIMAN



FEU TECH

Technology Driven by Innovation

OTHER LINUX COMMANDS

date command

- To display the date and time.

Syntax: **date**

```
vetcha@DESKTOP-U1V5H04: ~  
vetcha@DESKTOP-U1V5H04:~$ date  
Tue Jul 28 20:03:02 PST 2020  
vetcha@DESKTOP-U1V5H04:~$ date +%d/%m/%Y  
28/07/2020  
vetcha@DESKTOP-U1V5H04:~$
```



FEU ALABANG



FEU DILIMAN



FEU TECH

Technology Driven by Innovation

REFERENCES

- Sobell, M., et al. (2017). A Practical Guide to Linux Commands, Editors, and Shell Programming, 4th Ed. Addison-Wesley Professional
- Cobbaut, P. (2016). Mastering Linux- Networking
- Blum, R., (2015). Linux Command Line and Shell Scripting Bible



FEU ALABANG



FEU DILIMAN



FEU TECH

Technology Driven by Innovation