OPERATING SYSTEM

Linux Basic Commands

mkdir

- This command creates directories with each given name if they do not already exist.
- **Example:**

```
~$ mkdir OS
```

```
~$ mkdir OS/lab1 OS/lab2
```

mkdir -v

This command prints a message for each created directory.

- **Example:**

```
~$ mkdir –v OS/lab3 OS/lab4
```

```
mkdir: created directory 'OS/lab3'
 mkdir: created directory 'OS/lab4'
```

mkdir -p

This command makes parent directories as needed. No error if existing.

- **Example:**

```
~$ mkdir -pv OS/A/B/C
```

```
mkdir: created directory 'OS/A'
mkdir: created directory 'OS/A/B'
mkdir: created directory 'OS/A/B/C'
```

rmdir

This command removes each given **empty** directory.

- **Example:**

```
~$ rmdir OS/lab1
~$ rmdir OS/lab2 OS/lab3
```

rmdir

- If any non-option argument does not refer to an existing empty directory, it is an error.
- **Example:**

```
~$ rmdir OS
rmdir: failed to remove 'OS': Directory not empty
```

rmdir -v

This command prints a message for each removed directory.

- **Example:**

```
~$ rmdir -v OS/lab4
~$ rmdir: removing directory, 'OS/lab4'
```

rmdir -p

This command removes directory and its ancestors.

- **Example:**

```
~$ rmdir -pv OS/A/B/C
```

```
rmdir: removing directory, 'OS/A/B/C'
rmdir: removing directory, 'OS/A/B'
rmdir: removing directory, 'OS/A'
rmdir: removing directory, 'OS'
```

cat >

-This command create a new file

Awaits input from the user, type desired text, and press **CTRL+D** (hold down **Ctrl key** and type '**d**') to exit

- **Example:**

```
~$  cat >sample.txt
```

- You can see the content of the file with the following **cat** command

```
~$  cat  sample.txt
```

cat -n

This command numbers all lines of each file.

- **Example:**

```
~$ cat -n OS/file1
~$ cat -n OS/file1 OS/file2
```

cat

- The **cat** command can display the content of a file in reverse order (by lines). To do this, use **tac** (cat in reverse)

Example:

~$ tac sample.txt

- Append Text to Existing File :

~$ cat >> test1.txt

- Append File Contents to Another File

~$ cat test1.txt >> test3.txt

Add a new line to the file , Hold **Ctrl** and hit **d**

rm

- This command removes each specified file. By default, it does not remove directories.
- **Example:**

```
~$ rm OS/file1
~$ rm -v OS/file2 OS/file3
removed 'OS/file2' removed 'OS/file3'
```

rm -i

This command prompts the user before any removal to prevent him from removing any file by mistake.

- **Example:**

```
~$ rm -i OS/file4
```

```
rm: remove regular empty file 'OS/file4'? y
```

rm -r or rm -R

- .This command removes directories and their contents recursively.

Example:

~$ rm -r OS

rm *

This command removes **all files** in the current directory. It does not remove directories.

- **Example:**

```
~$ cd OS
~/OS$ rm *
```

- To remove all files and directories:

```
~/OS$ rm -r *
```

rm *

To remove all files in a specific directory:

```
~$ rm OS/*
```

cp

This command copies files from one place to another. By default, it does not copy directories.

- **Example:**

- To copy a file to your home directory:

```
~$ cp OS/file1 /tmp
~$ cp OS/file1 ~
```

cp

- For making a copy of your file under a different name:

```
~$ cp OS/file1 OS/file2
```

```
~$ cp OS/file1 /tmp/file2
```

cp -i

This command prompts the user before overwrite. If the file already exists in the destination, it asks you before replacing it.

- **■Example:**

```
~$ cp -i OS/file1 /tmp
cp: overwrite '/tmp/file1'? no
```

cp -r or cp -R

- This command copies the entire directories.
- **Example:**

```
~$ cp -r OS /tmp
~$ cp -R OS /tmp/OS_copy
```

cp *

This command copies all files from the current directory to another place.

- **Example:**

```
~$ cp * /tmp/OS
```

- To copies all files and directories:

```
~$ cp -r * /tmp/OS
```

mv

- This command moves the files and directories from one place to another, or renames them.
- **Example:**

```
~$ mv OS/file1 /tmp
~$ mv OS /tmp
```

mv

- To rename files and directories:

```
~$ mv /tmp/file1 /tmp/file2
~$ mkdir Lab1
~$ mv Lab1 Lab2
```

- To move files and directories under a different name:

```
~$ mv /tmp/file2  OS/file1
~$ mv Lab2  /tmp/Lab1
```

mv -i

This command prompts the user before overwrite. If the moved file already exists in the destination, it asks you before replacing it.

- **Example:**

```
~$ mv -i OS/file1 /tmp
mv: overwrite '/tmp/file1'? y
```

mv *

- This command moves all files and directories from the current directory to another place.
- ■**Example:**

```
~$ cd /tmp
~/tmp$ mv * ~/OS
```