



Usman Institute of Technology
Department of Computer Science Fall 2022

Name: Muhammad Waleed

Roll no: 20B-115-SE

Course: Operating Systems (CS312)

Course Instructor: Ma'am Shabina Mushtaq

Date: 20-Oct-2022

Lab Exercises:

1. Write a command to copy all files of current directory to /home?

Command: cp * /home

```
Operating System sudo su
[sudo] password for notwld:
root@notwld:/home/notwld/Desktop/Operating System# ls
file1.txt file2.txt file3.txt
root@notwld:/home/notwld/Desktop/Operating System# cp * /home
root@notwld:/home/notwld/Desktop/Operating System# cd /home
root@notwld:/home# ls
file1.txt file2.txt file3.txt file.txt notwld
root@notwld:/home#
```

2. What is the difference between the permissions 777 and 775 of the chmod command?

Chmod is a command to grant permission for either write, edit, or execute a file or all to a user, group, and other user.

Syntax:

chmod 777 [file_name]

OR

chmod ugo+rwX [file_name]

For different permissions can be represented in numeric form

Read = 4, Write = 2, Execute = 1

To give all permissions to all users (root, group and other) we write 777 (read + write + execute) with chmod which means that numeric values for read, write, and execute are added to represent all permissions and it is written 3 time for different users i.e root, group and other.

To give specific permissions to different users like root can write, read and execute the file and same for group user but other user can only read and execute the file then we write 775 with chmod it means that numeric values are added for root user that is 7 to give all permissions and same with group user and for other user only read's and execute's numeric values are added to only give them r+w permission.

```
root@notwld:/home/notwld/Desktop/Operating System# ls
file1.txt  file2.txt
root@notwld:/home/notwld/Desktop/Operating System# chmod 777 file1.txt
root@notwld:/home/notwld/Desktop/Operating System# ls -l
total 0
-rwxrwxrwx 1 notwld notwld 0 16:04 21 اكتوبر file1.txt
-rw-rw-r-- 1 notwld notwld 0 16:04 21 اكتوبر file2.txt
root@notwld:/home/notwld/Desktop/Operating System# chmod 775 file2.txt
root@notwld:/home/notwld/Desktop/Operating System# ls
file1.txt  file2.txt
root@notwld:/home/notwld/Desktop/Operating System# ls -l
total 0
-rwxrwxrwx 1 notwld notwld 0 16:04 21 اكتوبر file1.txt
-rwxrwxr-x 1 notwld notwld 0 16:04 21 اكتوبر file2.txt
root@notwld:/home/notwld/Desktop/Operating System#
```

3. Write a command to remove all files with name containing text 'the'?

Command: `rm -f $(ls | grep -i "the")`

```
Operating System touch file_1.txt file_2.txt theFile.txt TheFile.txt
Operating System ls
file_1.txt file_2.txt theFile.txt TheFile.txt
Operating System rm -f $(ls | grep -i "the")
Operating System ls
file_1.txt file_2.txt
Operating System
```

4. Draw Linux Directory Structure (Tree Like structure).

