

Basic Commands In Ubuntu

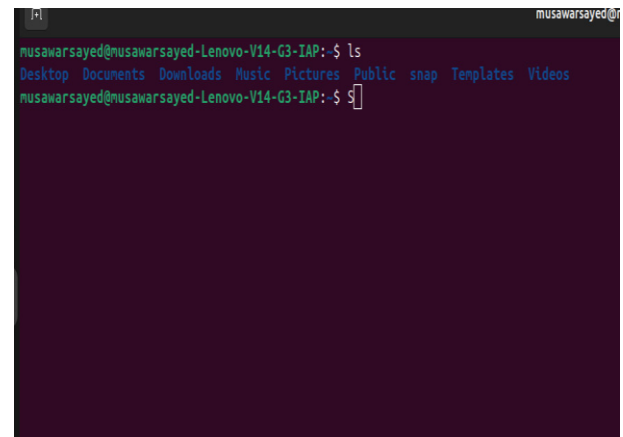
In this assignment we will perform following basic commands in Ubuntu Linux.

<u>Commands</u>	<u>Purpose</u>
ls	List files and directories
cd	Change directory
pwd	Print current working directory
mkdir	Create a new directory
touch	Create an empty file
cp	Copy files or directories
mv	Move or rename files or directories
rm	Remove files or directories
nano	Edit a file using nano text editor
Cat	Read or display file context

Now let's explain them one by one.

ls command:

ls command is used to show the list of files and directories in the current folder in the terminal.

A screenshot of a Linux terminal window. The title bar at the top right shows the username 'musawarsayed@'. The terminal prompt is 'musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~\$'. The user has entered the command 'ls'. The output of the command is displayed on the next line: 'Desktop Documents Downloads Music Pictures Public snap Templates Videos'. The prompt is now 'musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~\$' with a cursor at the end.

cd command:

```
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~$ ls
Desktop Documents Downloads Music Pictures Public snap Templates Videos
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~$ cd Desktop
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$
```

cd command can change the current directory to another

mkdir command:

mkdir commands creates a new folder or directory in current directory.

```
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~$ ls
Desktop Documents Downloads Music Pictures Public snap Templates Videos
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~$ cd Desktop
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ mkdir test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$
```

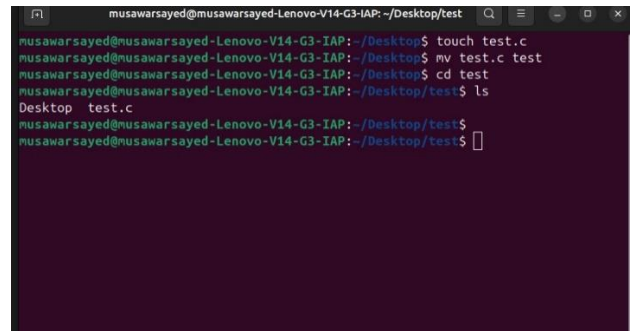
touch command:

```
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ ls
Desktop Documents Downloads Music Pictures Public snap Templates Videos
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ cd Desktop
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ mkdir test
mkdir: cannot create directory 'test': File exists
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ touch test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ touch test.c
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$
```

Touch command creates a new empty file. You have to specify the type of the file like text file, c or cpp.

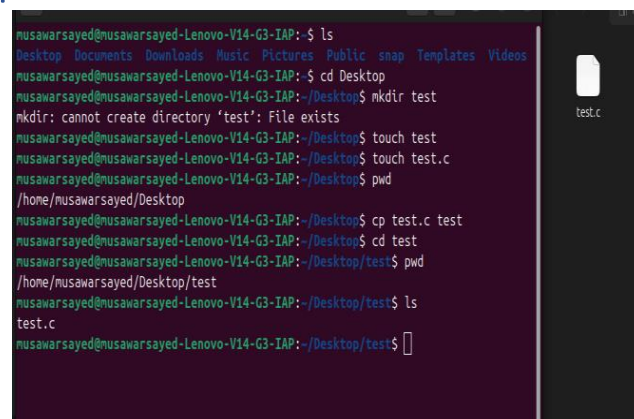
mv command:

mv command can move the file from one directory to another. To do that we have to type mv, then name of the file you want to move and then name of directory in which you want to move.

A terminal window showing a sequence of commands to create a file and move it. The user is in the Desktop directory. They create a file named test.c using the touch command. Then, they use the mv command to move test.c to a directory named test. Finally, they use the ls command to list the contents of the test directory, showing that test.c has been moved there.

```
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop/test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ touch test.c
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ mv test.c test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ cd test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop/test$ ls
Desktop  test.c
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop/test$
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop/test$
```

pwd command:

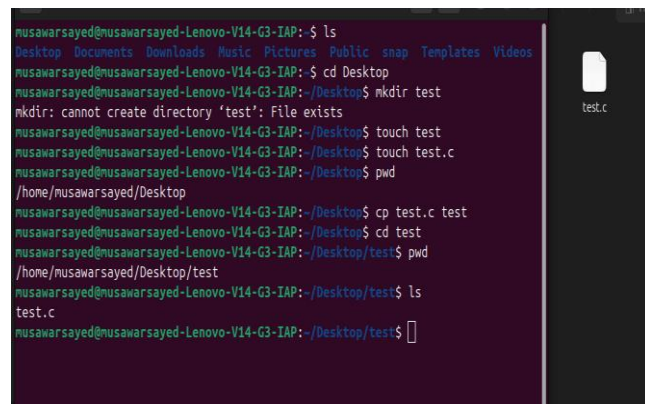
A terminal window showing a sequence of commands to create a directory and file, then navigate into them. The user is in the Desktop directory. They create a directory named test using the mkdir command. Then, they create a file named test.c using the touch command. Next, they use the pwd command to show the current directory is /home/musawarsayed/Desktop. Then, they use the cp command to copy test.c to the test directory. They use the cd command to navigate into the test directory. Finally, they use the pwd command to show the current directory is /home/musawarsayed/Desktop/test, and the ls command to show test.c is in the directory.

```
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: $ ls
Desktop Documents Downloads Music Pictures Public snap Templates Videos
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: $ cd Desktop
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ mkdir test
mkdir: cannot create directory 'test': File exists
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ touch test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ touch test.c
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ pwd
/home/musawarsayed/Desktop
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ cp test.c test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ cd test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop/test$ pwd
/home/musawarsayed/Desktop/test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop/test$ ls
test.c
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop/test$
```

Pwd command is used to print the directory in which you are currently working.

cv command:

cv command copy the file and paste the files in the directory

A terminal window showing a sequence of commands to create a directory and file, then copy a file into it. The user is in the Desktop directory. They create a directory named test using the mkdir command. Then, they create a file named test.c using the touch command. Next, they use the pwd command to show the current directory is /home/musawarsayed/Desktop. Then, they use the cv command to copy test.c to the test directory. They use the cd command to navigate into the test directory. Finally, they use the pwd command to show the current directory is /home/musawarsayed/Desktop/test, and the ls command to show test.c is in the directory.

```
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: $ ls
Desktop Documents Downloads Music Pictures Public snap Templates Videos
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: $ cd Desktop
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ mkdir test
mkdir: cannot create directory 'test': File exists
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ touch test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ touch test.c
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ pwd
/home/musawarsayed/Desktop
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ cv test.c test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ cd test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop/test$ pwd
/home/musawarsayed/Desktop/test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop/test$ ls
test.c
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop/test$
```

rm command:

```
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: $ ls
Desktop Documents Downloads Music Pictures Public snap Templates Videos
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~$ cd Desktop
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ mkdir test
mkdir: cannot create directory 'test': File exists
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ touch test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ touch test.c
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ pwd
/home/musawarsayed/Desktop
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ cp test.c test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ cd test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop/test$ pwd
/home/musawarsayed/Desktop/test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop/test$ ls
test.c
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop/test$ rm test.c
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop/test$ ls
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop/test$
```

rm command can remove the selected folder and delete it permanently from your pc.

nano command:

Nano command can be used to edit a file using a text editor provide by the terminal

```
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ cd ..
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ nano new.cpp
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ ls
new.cpp  test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$
```

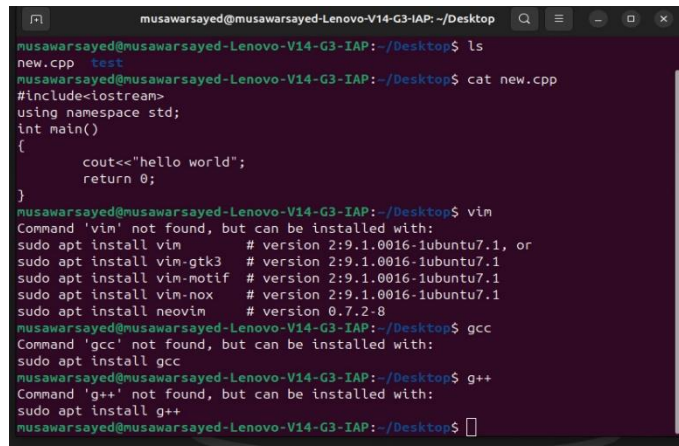
cat command:

```
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ cd ..
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ nano new.cpp
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ ls
new.cpp  test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$ cat new.cpp
#include<iostream>
using namespace std;
int main()
{
    cout<<"hello world";
    return 0;
}
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP:~/Desktop$
```

cat command can be used to print the text or material present inside a file.

Other commands:

Some other commands include gcc, g++ and vim etc. cannot be processed because it is not installed in our O.S. Therefore, it will soon upload by me along with its installation process.

A terminal window with a dark purple background and white text. The window title is 'musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop'. The user has created a file named 'new.cpp' containing C++ code for a 'hello world' program. They then attempt to run 'vim' and 'gcc', but receive messages that the commands are not found. Finally, they run 'g++' and receive a message that the command is not found. The terminal shows the following commands and their outputs:

```
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ ls
new.cpp  test
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ cat new.cpp
#include<iostream>
using namespace std;
int main()
{
    cout<<"hello world";
    return 0;
}
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ vim
Command 'vim' not found, but can be installed with:
sudo apt install vim          # version 2:9.1.0016-1ubuntu7.1, or
sudo apt install vim-gtk3     # version 2:9.1.0016-1ubuntu7.1
sudo apt install vim-motif    # version 2:9.1.0016-1ubuntu7.1
sudo apt install vim-nox      # version 2:9.1.0016-1ubuntu7.1
sudo apt install neovim       # version 0.7.2-8
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ gcc
Command 'gcc' not found, but can be installed with:
sudo apt install gcc
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$ g++
Command 'g++' not found, but can be installed with:
sudo apt install g++
musawarsayed@musawarsayed-Lenovo-V14-G3-IAP: ~/Desktop$
```