

LAB-1

PART-2

→ How to run?

- Type : `g++ shell.cpp`
- Followed by `./a.out`
- Dependencies needed :
g++ Compiler
Libreadlines and if this library doesn't exist on your device you can install it using :

`sudo apt-get install libreadline-dev`

→ `shell.cpp` is a simple executable shell that has been built using c++ language and relevant libraries.

→ Features added are:

- `help`: display the command list.
- `hello`: display greets and asks to type any function and if you don't know type `help`.
- `history`: history of commands typed by the user.
- `env`: Environment Information
- `ls`: lists of directories present in the current directory
- `exit`: exits
- `mkdir`: create a new directory
- `rmdir`: delete an existing directory
- `cd`: change directory

- pwd: current directory
- clear: clears
- Colored outputs: escape sequences have been used to produce colored outputs

→ **Special feature:**

- In order to make outputs attractive, colors have been added using escape sequences.

→ **Execution Status:**

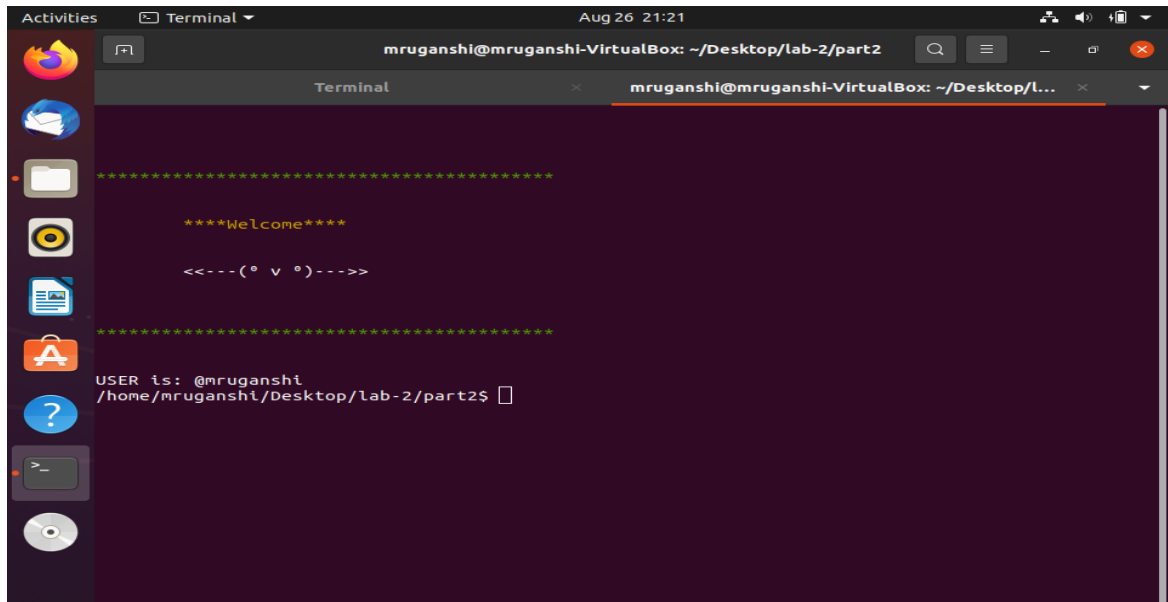
- Returns 0 on pass and 1 on error.

→ **Exception handling**

- cd: if the directory is not present, no action is performed.
- mkdir: If a directory is already present then no action is performed and the exception displays a message that the file is already present.
- rmdir: If the directory is not present, the exception returns the message that the directory can't be removed.

→ **Outputs after executing the commands**

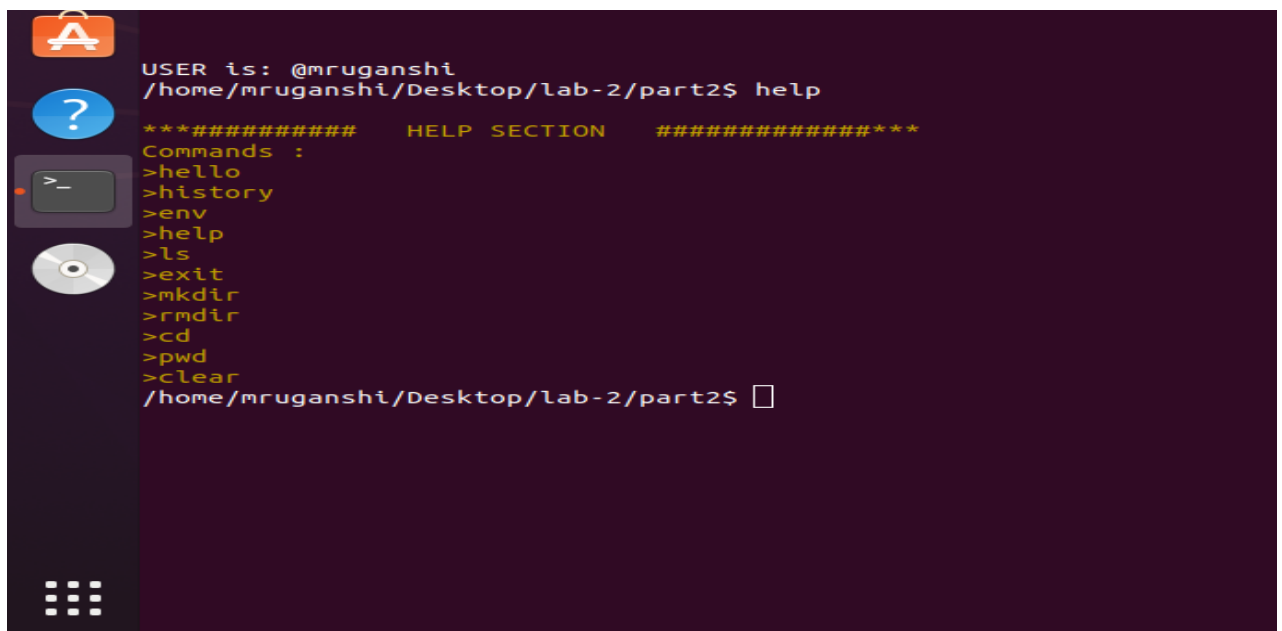
- welcome message



A terminal window titled "mruganshi@mruganshi-VirtualBox: ~/Desktop/lab-2/part2". The terminal displays a welcome message: "*****", "****Welcome****", and "<<---(° v °)--->>". It then prompts "USER is: @mruganshi" and shows the current directory as "/home/mruganshi/Desktop/lab-2/part2\$".

```
*****
****Welcome****
<<---(° v °)--->>
*****
USER is: @mruganshi
/home/mruganshi/Desktop/lab-2/part2$
```

- help



A terminal window showing the output of the "help" command. It lists various commands available in the environment: "hello", "history", "env", "help", "ls", "exit", "mkdir", "rmdir", "cd", "pwd", and "clear".

```
USER is: @mruganshi
/home/mruganshi/Desktop/lab-2/part2$ help
***##### HELP SECTION #####***
Commands :
>hello
>history
>env
>help
>ls
>exit
>mkdir
>rmdir
>cd
>pwd
>clear
/home/mruganshi/Desktop/lab-2/part2$
```

- hello

```
/home/mruganshi/Desktop/lab-2/part2$ hello

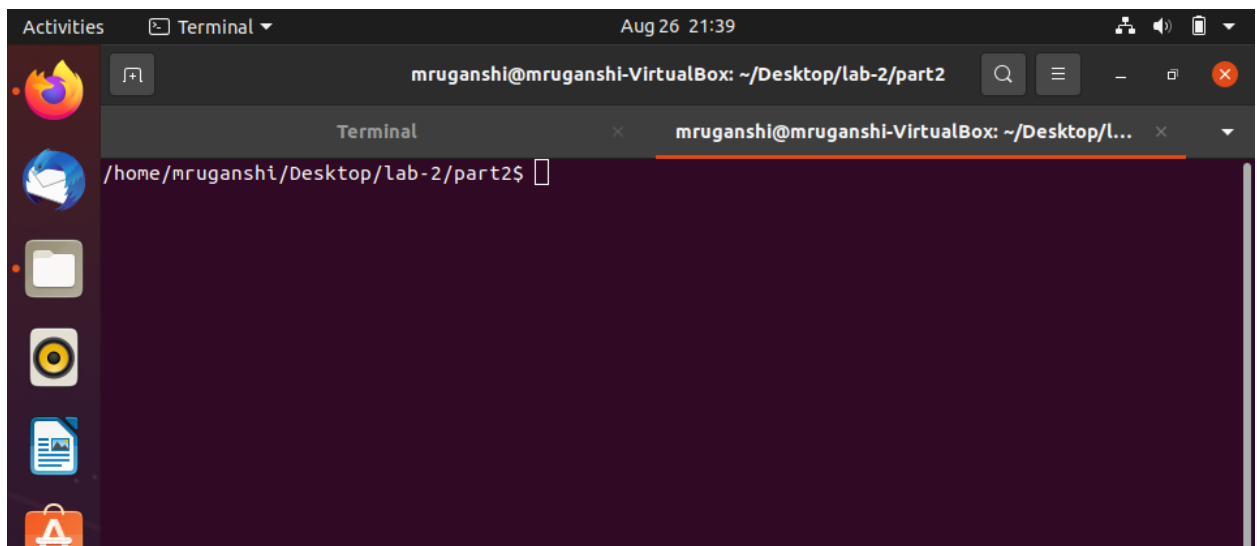
Hello mruganshi.
Please type the required command.Type help to see list of commands
/home/mruganshi/Desktop/lab-2/part2$
```

- **exit**

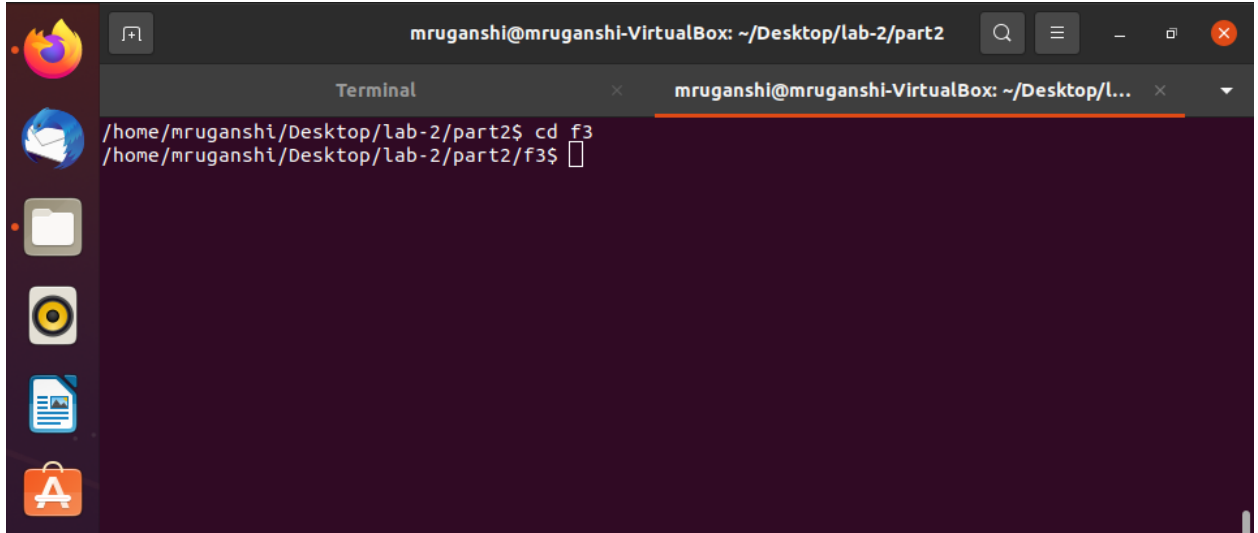
```
Please type the required command.Type help to see list of commands
/home/mruganshi/Desktop/lab-2/part2$ exit

Bbye
mruganshi@mruganshi-VirtualBox:~/Desktop/lab-2/part2$
```

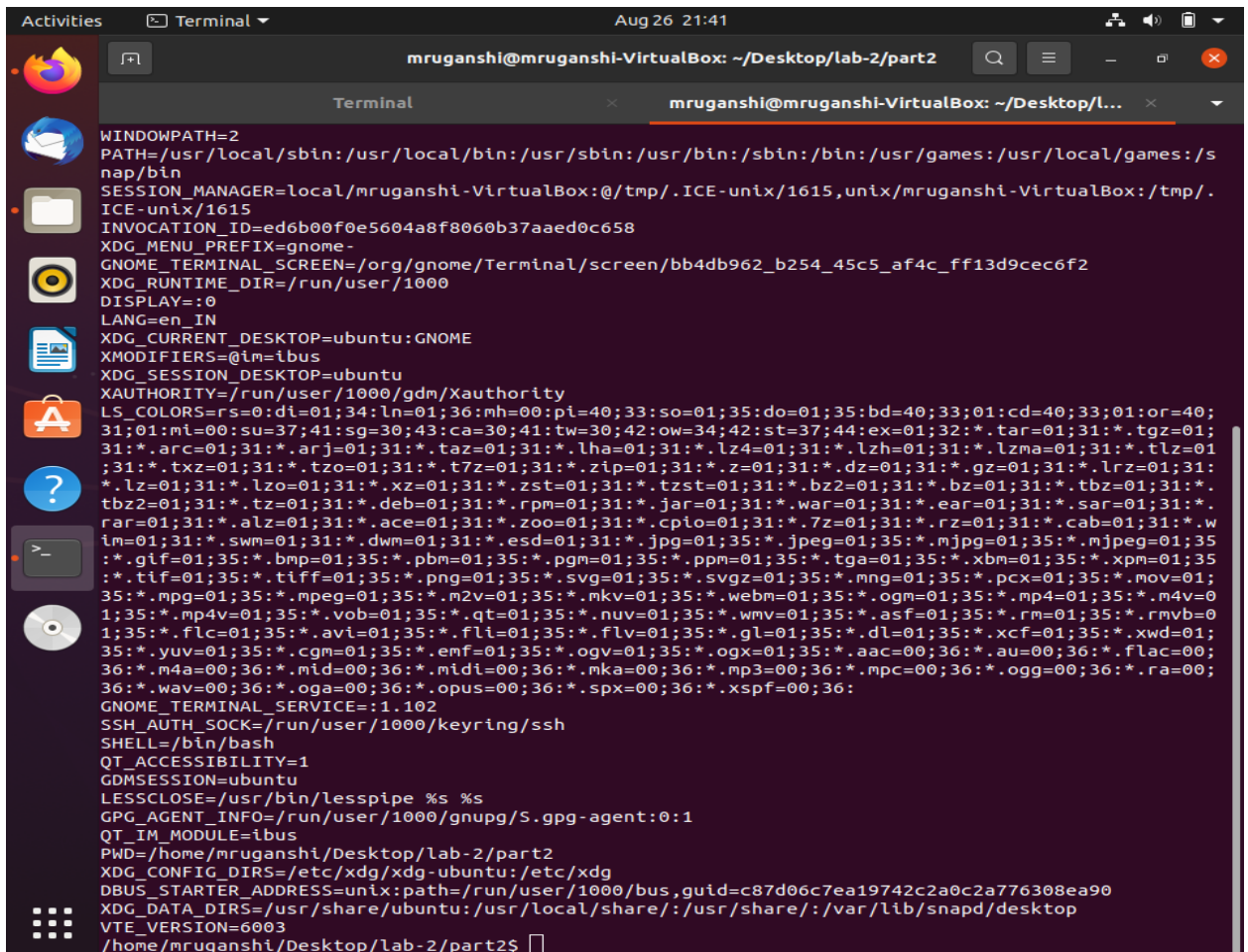
- **clear**



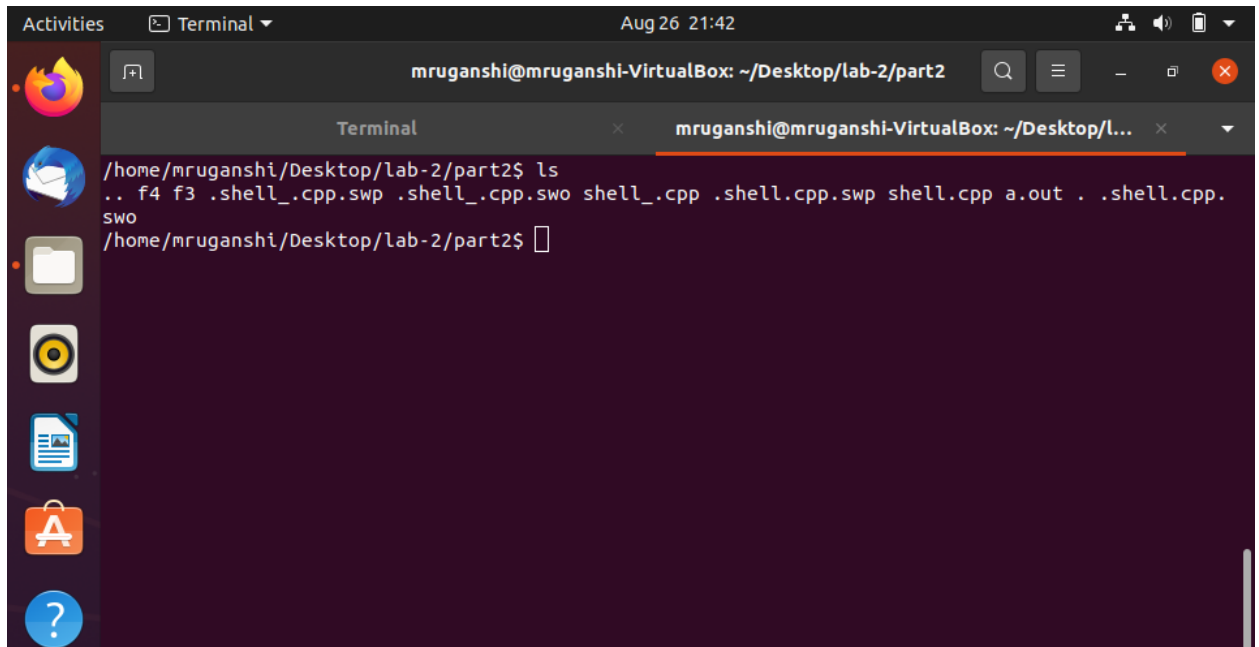
- **cd**



- env



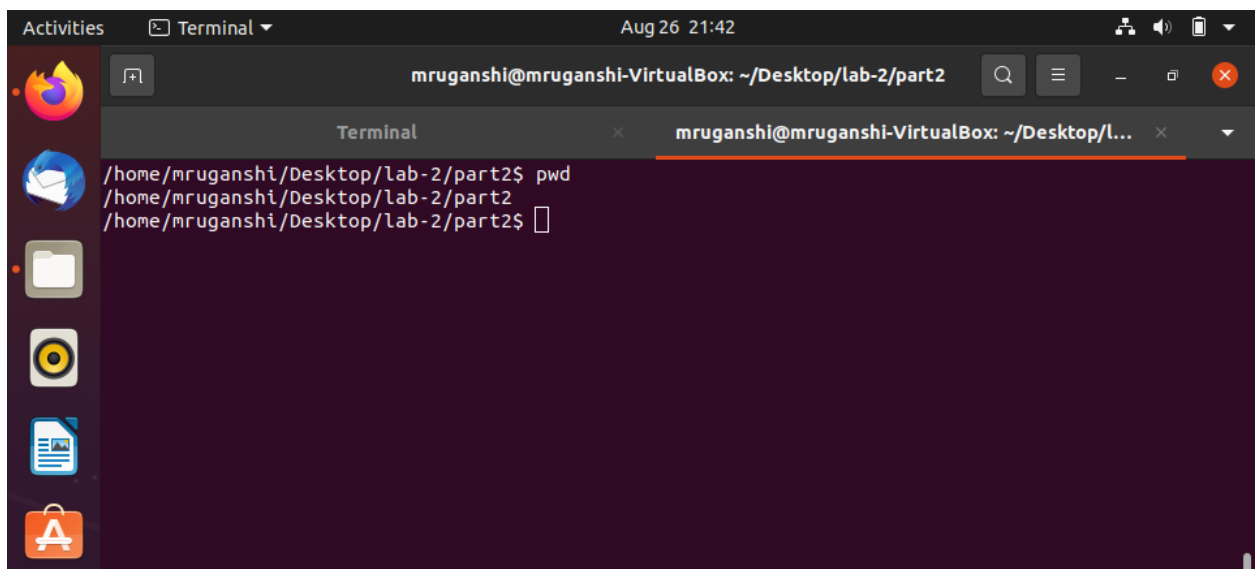
- **ls**



A terminal window titled "mruganshi@mruganshi-VirtualBox: ~/Desktop/lab-2/part2" showing the execution of the `ls` command. The output lists files and directories: `.. f4 f3 .shell_.cpp.swp .shell_.cpp.swo shell_.cpp .shell.cpp.swp shell.cpp a.out . .shell.cpp.swo`. The prompt is `/home/mruganshi/Desktop/lab-2/part2$`.

```
mruganshi@mruganshi-VirtualBox: ~/Desktop/lab-2/part2
/home/mruganshi/Desktop/lab-2/part2$ ls
.. f4 f3 .shell_.cpp.swp .shell_.cpp.swo shell_.cpp .shell.cpp.swp shell.cpp a.out . .shell.cpp.swo
/home/mruganshi/Desktop/lab-2/part2$
```

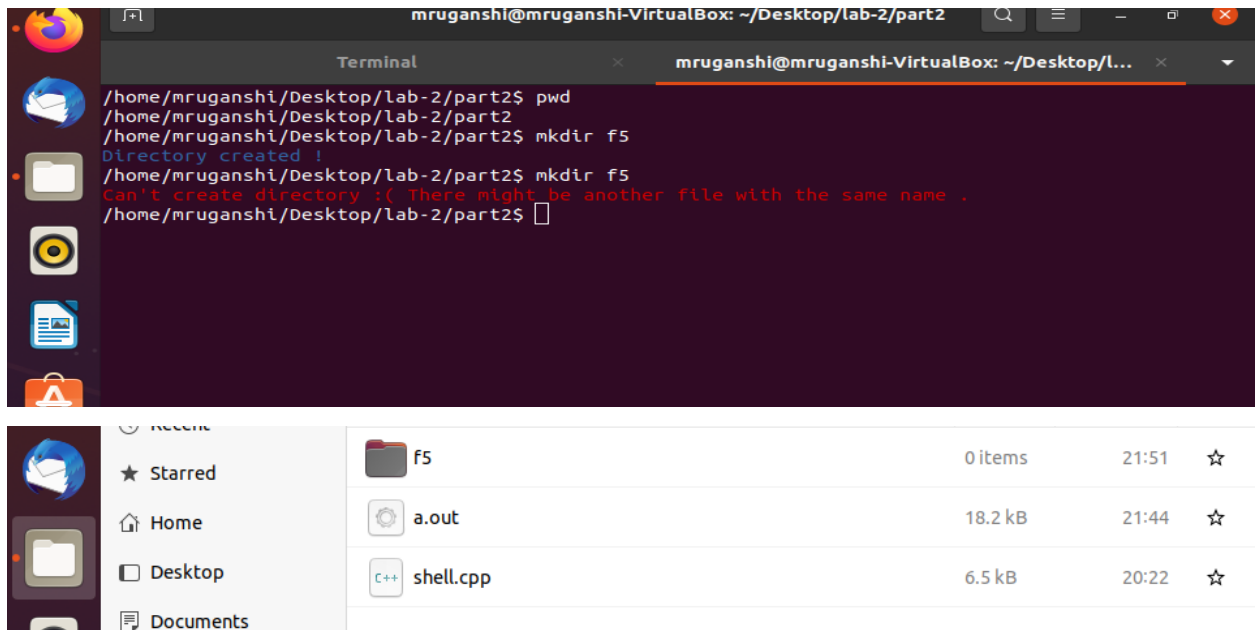
- **pwd**



A terminal window titled "mruganshi@mruganshi-VirtualBox: ~/Desktop/lab-2/part2" showing the execution of the `pwd` command. The output is `/home/mruganshi/Desktop/lab-2/part2`. The prompt is `/home/mruganshi/Desktop/lab-2/part2$`.

```
mruganshi@mruganshi-VirtualBox: ~/Desktop/lab-2/part2
/home/mruganshi/Desktop/lab-2/part2$ pwd
/home/mruganshi/Desktop/lab-2/part2
/home/mruganshi/Desktop/lab-2/part2$
```

- **mkdir**



- **rmdir**

