UNIVERSITÀ DEGLI STUDI DI MILANO
DIPARTIMENTO DI INFORMATICA

9. Interacting with the Operating System

Terminal and Console

A **terminal** is a text input and output environment, that displays a graphical interface and allows us to interact with the *shell* entering commands.
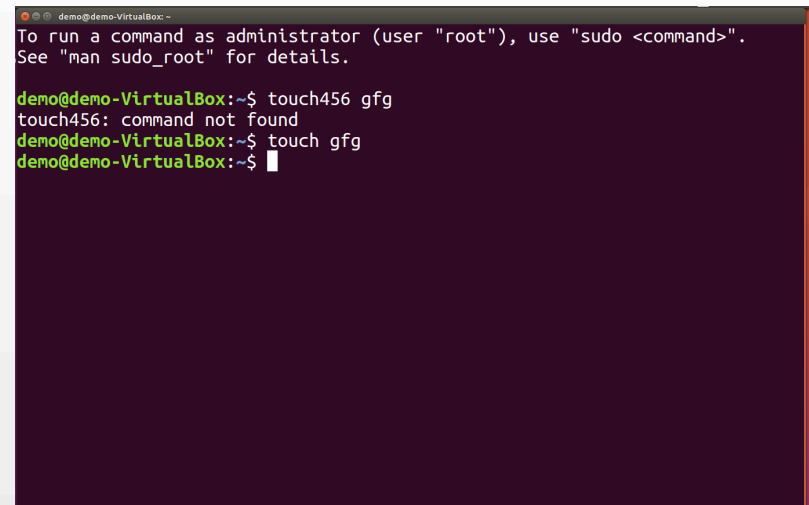
A **console** is a *physical terminal*, consisting of a single keyboard and monitor plugged into a dedicated serial console port on a computer.

Shell and Command Line

A **command-line interface** is any type of interface that is used to enter textual commands.

The **shell** is a command-line interpreter: it processes commands and outputs results.


```
demo@demo-VirtualBox: ~
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

demo@demo-VirtualBox:~$ touch456 gfg
touch456: command not found
demo@demo-VirtualBox:~$ touch gfg
demo@demo-VirtualBox:~$
```

Basic CLI Commands

Windows	MacOS
dir	ls
help *or* [/?]	man
cd	pwd
cd <path>	cd <path>
mkdir folderName	mkdir folderName
echo *sometext* > filename.txt	cat > filename.txt
cls	clear

Virtual Environments

A **virtual environment** is a Python environment such that the Python interpreter, libraries and scripts installed into it are isolated from those installed in other virtual environments, and (by default) any libraries installed in a "system" Python, i.e., the one installed as part of your operating system.

create a new environment: *conda create -n envName*
activate the environment: *conda activate envName*
deactivate the environment: *conda deactivate*