

CLI (Command Line Interface)

▼ Shell command

- Show

```
$ pwd
/c/Users/User

User@DESKTOP-EB7QT0J MINGW64 ~
$ cd AppData

User@DESKTOP-EB7QT0J MINGW64 ~/AppData
$ cd ..

User@DESKTOP-EB7QT0J MINGW64 ~
```

- pwd: shows the current path in a hierarchical directory

▼ directory

- / root
- . current directory
- .. upper-level directory
- ~ home of current user
- /[directory name] : absolute path
- ./[directory name] : relative path
- ../[directory name] : relative path

```
$ ls -l
$ ls -lh # same as above, but size in units
```

```
$ ls -l
total 28
drwxr-xr-x 1 User 197121 0 Sep 21 18:49 Local/
drwxr-xr-x 1 User 197121 0 Jan  3 2024 LocalLow/
drwxr-xr-x 1 User 197121 0 Sep 21 18:52 Roaming/
```

File permissions / owner / group / size (B) / modification time / file name

- Manipulation

```
$ cp file1 file2
$ cp -r dir1 dir2

$ mv file1 file2
$ mv dir1 dir2
$ mv file1 file2 dir1

$ rm file1
$ rm -r dir1

$ mkdir dir1
```

- mv file1 file2 dir : file1 & file2 → dir

- Wildcards

*	All filenames
g*	All filenames that begin with the char 'g'
g*.txt	'g*'.txt'
g???	Any filename that begins with the char 'g' followed by exactly 3 more char

```
$ cp *.txt dir1
$ mv dir1 ../*.bak dir2
$ rm *~
```

- rm *~ : delete all file in current dir that end with the char '~'

- Help

```
$ help cd
```

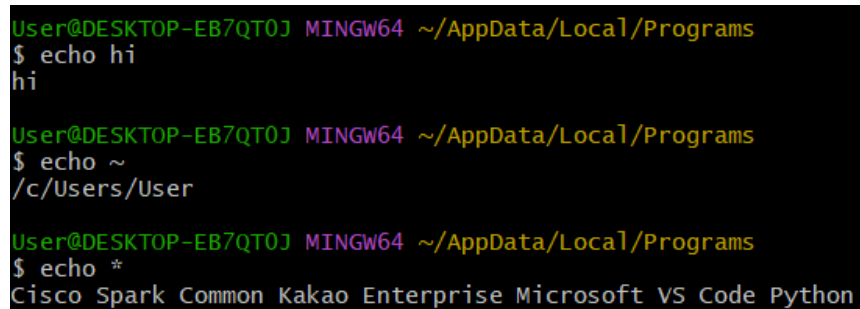
```
$ man cp
```

- Exit

```
$ exit
```

- Standard Output

```
$ cat test.txt # content of a text file
$ ls -lh >> test.txt # create file if it doesn't exist
$ echo # write arg to the standard output
```

A terminal window with a black background and yellow text. The prompt is 'User@DESKTOP-EB7QT0J MINGW64 ~/AppData/Local/Programs'. The first command is '\$ echo hi' followed by the output 'hi'. The second command is '\$ echo ~' followed by the output '/c/Users/User'. The third command is '\$ echo *' followed by the output 'Cisco Spark Common Kakao Enterprise Microsoft VS Code Python'.

```
User@DESKTOP-EB7QT0J MINGW64 ~/AppData/Local/Programs
$ echo hi
hi
User@DESKTOP-EB7QT0J MINGW64 ~/AppData/Local/Programs
$ echo ~
/c/Users/User
User@DESKTOP-EB7QT0J MINGW64 ~/AppData/Local/Programs
$ echo *
Cisco Spark Common Kakao Enterprise Microsoft VS Code Python
```

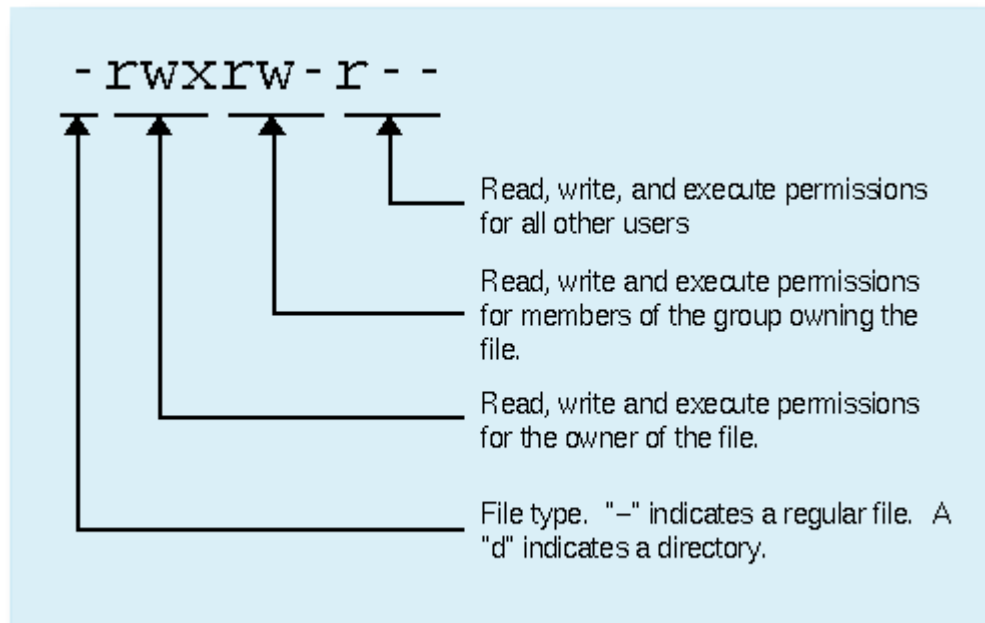
- Standard Input

```
$ sort < test.txt > sort_test.txt # redirect input using
```

- Tips

```
$ command1 | command2 | command3 .. # press 'q' to exit
$ command1 \
> command2
$ history # see previous command history
```

▼ Permissions



- Changing permissions

```
$ chmod 754 README.md # 7 = 111 = rwx for owner
                        # 5 = 101
                        # 4 = 100
```

- Superuser

```
$ sudo -i # superuser has all sys administration auth
```

- Text Editor

vi, vim	command line
nano	command line
gedit	graphical

- Etc.

```
$ wget https://www.notion.so/CLI # download files from
$ curl -o https://www.notion.so/CLI # fetching, uploadi
$ grep # -v : not containing
        # -n : line num
        # -r : recursive search
```

```
# .* : match '.' or '*'  
# \d : match digit (0-9)  
# [abc] : match any single char in [ ]  
# ^ : match the beginning of a line  
# $ : match the end of a line
```

```
User@DESKTOP-EB7QT0J MINGW64 ~  
$ echo "This is a test" | grap "test"  
bash: grap: command not found  
  
User@DESKTOP-EB7QT0J MINGW64 ~  
$ echo "This is a test" | grep "test"  
This is a test  
  
User@DESKTOP-EB7QT0J MINGW64 ~  
$ echo "This is a test" | grep "Test"  
  
User@DESKTOP-EB7QT0J MINGW64 ~  
$ echo "This is a test" | grep -i "Test"  
This is a test  
  
User@DESKTOP-EB7QT0J MINGW64 ~  
$ echo "This is a test" | grep -i ^t  
This is a test
```