Linux Terminal Tips - Tab completion, command history

Tab Completion

Many shells support a tool called "Tab Completion"

Tab completion allows a shell to auto-complete a command you're typing.

Support you're in your home directory ~, which contains:

- Pictures
- Videos
- Documents
- Downloads

And suppose your Documents folder only contained the folder:

• python-examples

Ex 1 - Tab Completion:

If you type:

~ \$ cd P

and press TAB, the shell will autocomplete this to:

~ \$ cd Pictures/

Because the Pictures directory is the only directory within your current folder that starts with a "P".

Ex 2 - Tab Completion for Long Path:

If you type:

~ \$ cd **Do**

and press TAB, nothing will happen.

Because your current directory contains more than one directory that starts with "Do".

On the other hand, if you type:

∼ \$ cd Doc

and press TAB, the shell will autocomplete this to:

~ \$ cd Documents/

If you press TAB again, the shell will autocomplete this to:

~ \$ cd Documents/python−examples/

Because the folder python-examples is the only existing file within the ~/Documents directory.

Command history

Command history allows you to navigate previous commands you enetered using the arrow keys

Let's say you've entered the following commands:

```
~ $ cd ~/Documents/python-examples
~/Documents/python-examples $ python3 myprogram.py
Hello, World!
~/Documents/python-examples $ cd /
/ $
```

You can run a previous command, by pressing the up arrow key

Ex 1 - Running the last command:

If you press UP once:

```
~ $ cd ~/Documents/python-examples
~/Documents/python-examples $ python3 myprogram.py
Hello, World!
~/Documents/python-examples $ cd /
/ $ cd /
```

The shell will automatically put the last command you entered

```
~ $ cd ~/Documents/python-examples
~/Documents/python-examples $ python3 myprogram.py
Hello, World!
~/Documents/python-examples $ cd /
/ $ cd /
```

Ex 2 - Running previous command from session

If you had pressed UP *three times* instead of once:

```
~ $ cd ~/Documents/python-examples
~/Documents/python-examples $ python3 myprogram.py
Hello, World!
~/Documents/python-examples $ cd /
/ $ cd ~/Documents/python-examples
```

It would automatically place the command you ran three commands ago (cd ~/Documents/python-examples)

After pressing enter, youwould find yourself back in your cd ~/Documents/python-examples directory:

```
~ $ cd ~/Documents/python-examples
~/Documents/python-examples $ python3 myprogram.py
Hello, World!
~/Documents/python-examples $ cd /
/ $ cd ~/Documents/python-examples
~/Documents/python-examples $
```