

Contents

1	Introduction	2
1.1	What is Linux?	2
1.2	Why do we care?	2
1.3	Fedora Virtual Machine	2
1.4	Terminology	2
1.4.1	Terminal	2
1.4.2	files	2
1.4.3	folders	2
1.4.4	path	2
1.4.5	command	2
1.4.6	arguments	2
1.4.7	options	2
2	Basic commands	2
2.1	Info	2
2.1.1	pwd	2
2.1.2	whoami	3
2.1.3	uname	3
2.1.4	man	3
2.2	Create files and folders	3
2.2.1	touch	3
2.2.2	mkdir	3
2.3	Reading files	3
2.3.1	less	3
2.3.2	more	3
2.3.3	cat	3
2.4	Changing files	3
2.4.1	editors	3
2.5	Navigating the filesystem	4
2.5.1	ls	4
2.5.2	cd	4
2.5.3	tree	4
2.6	Managing the filesystem	4
2.6.1	mv	4
2.6.2	cp	4
2.6.3	rm	4
2.6.4	rmdir	4

3	Working with C++	4
3.1	Editing a file	4
3.2	Compiling a file	4
3.2.1	g++	4
3.3	Running the compiled executable	5
3.3.1	after g++ compiles	5
3.4	Input/Output redirection	5
3.4.1	give input through a file	5
3.4.2	write output to a file	5
3.4.3	combine the two	5
	Linux Workshop	

1 Introduction

1.1 What is Linux?

1.2 Why do we care?

1.3 Fedora Virtual Machine

1.4 Terminology

1.4.1 Terminal

1.4.2 files

1.4.3 folders

1.4.4 path

1.4.5 command

1.4.6 arguments

1.4.7 options

2 Basic commands

2.1 Info

2.1.1 pwd

```
#+begin_src shell pwd #+end_src shell
```

2.1.2 whoami

```
#+begin_src shell whoami #+end_src shell
```

2.1.3 uname

```
#+begin_src shell uname -r #+end_src shell
```

2.1.4 man

```
#+begin_src shell man command #+end_src shell
```

2.2 Create files and folders

2.2.1 touch

```
#+begin_src shell touch filename #+end_src shell
```

2.2.2 mkdir

```
#+begin_src shell mkdir foldername #+end_src shell
```

2.3 Reading files

2.3.1 less

```
#+begin_src shell touch filename #+end_src shell
```

2.3.2 more

```
#+begin_src shell touch filename #+end_src shell
```

2.3.3 cat

```
#+begin_src shell cat filename #+end_src shell
```

2.4 Changing files

2.4.1 editors

```
emacs filename &
```

2.5 Navigating the filesystem

2.5.1 ls

```
#+begin_src shell ls ls -l ls -a ls -la #+end_src shell
```

2.5.2 cd

```
#+begin_src shell cd foldername cd ~ cd - cd . cd .. cd /some/literal/path  
#+end_src shell
```

2.5.3 tree

```
#+begin_src shell tree tree /path/to/root/folder #+end_src shell
```

2.6 Managing the filesystem

2.6.1 mv

```
#+begin_src shell mv original_path destination_path #+end_src shell
```

2.6.2 cp

```
#+begin_src shell cp original_filepath destination_filepath cp -R original_folderpath  
destination_folderpath #+end_src shell
```

2.6.3 rm

```
#+begin_src shell rm filepath rm -rf folderpath #+end_src shell
```

2.6.4 rmdir

```
#+begin_src shell rmdir empty_folder #+end_src shell
```

3 Working with C++

3.1 Editing a file

Most editors have a C++ mode. Any editor is fine.

3.2 Compiling a file

3.2.1 g++

```
#+begin_src shell g++ file.cpp g++ file.cpp -o executable #+end_src shell
```

3.3 Running the compiled executable

3.3.1 after g++ compiles

```
##+begin_src shell ./a.out ./executable /path/to/executable ##+end_src shell
```

3.4 Input/Output redirection

3.4.1 give input through a file

```
##+begin_src shell ./a.out < input_file ##+end_src shell
```

3.4.2 write output to a file

```
##+begin_src shell ./a.out > output_file ##+end_src shell
```

3.4.3 combine the two

```
##+begin_src shell ./a.out < input_file > output_file ##+end_src shell
```