

Unix lab

Experiment no. 2 To study and execute basic Unix commands.

Content:

Online linux link: <https://bellard.org/jslinux/vm.html?url=buildroot-x86.cfg>

Or simply <https://bellard.org/jslinux> and then selecting x86 Linux 4.12.0 Buildroot

Or use cygwin

Command	Syntax	Use
cd	cd directoryPathName	use to change current working directory.
cp	cp [options] sourceFile destFile cp [options] fromDir toDir cp [options] file1 file2 fileN toDir	copy files, group of files or directory to another destination
ps	ps [options]	provides information about currently running processes.
ls	ls [options]	list contents of directory
mv	mv [options] source dest	mv is a Unix command that moves one or more files or directories from one place to another. If both filenames are on the same filesystem, this results in a simple file rename; otherwise the file content is copied to the new location and the old file is removed.
rm	rm [options] file	to remove objects such as computer files, directories and symbolic links from file systems and also special files such as device nodes, pipes and sockets
mkdir	mkdir [options] directoryName	to make a new directory
rmdir	rmdir directoryName	To remove a directory
man	man commandName	to display the user manual of any command that we can run on the terminal
cat	cat filename	reads files sequentially, writing them to standard output.
echo	echo [options] String	used to display line of text/string that are passed as an argument
more	more [options] fileName	a command line utility for viewing the contents of a file or files once screen at a time. It supports navigating forwards and backwards

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		through a file and is primarily used for viewing the contents of a file
date	date [options] [stringDate]	Displays or set time
time	time [option] command	To determine execution time of command
kill	kill pid	used to terminate processes manually
history	history	to view the previously executed command
chmod	chmod [reference][operator][mode] file	change the access mode of a f
passwd	passwd [options] [username]	to change the user account passwords
whoami	whoami	displays the username of the current user when this command is invoked
time	time [option] [COMMAND]	to execute a command and prints a summary of real-time, user CPU time and system CPU time spent by executing a command when it terminates
clear	clear	to clear the terminal screen
chown	chown [options] [owner] fileName	to change the file Owner or group.
pwd	pwd	print the full system path of the current working directory to standard output.
cal	cal	for displaying a calendar in the terminal
logout	logout	To log out from session
shutdown	Shutdown	To shut down computer

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Complete run of above commands:

```
admin@DESKTOP-JSUMQCA ~
```

```
$ whoami
```

```
admin
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ echo "hello to unix lab"
```

```
hello to unix lab
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ man clear
```

```
clear(1)
```

NAME

clear - clear the terminal screen

SYNOPSIS

```
clear [-Ttype] [-V] [-x]
```

DESCRIPTION

...

```
admin@DESKTOP-JSUMQCA ~
```

```
$ clear
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ cal
```

```
February 2020
```

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Su Mo Tu We Th Fr Sa

1

2 3 4 5 6 7 8

9 10 11 12 13 14 15

16 17 18 19 20 21 22

23 24 25 26 27 28 29

admin@DESKTOP-JSUMQCA ~

\$ ls

admin@DESKTOP-JSUMQCA ~

\$ ls -a

. .. .bash_history .bash_profile .bashrc .inputrc .profile

admin@DESKTOP-JSUMQCA ~

\$ echo "hello unix world" > hello.txt

admin@DESKTOP-JSUMQCA ~

\$ ls

hello.txt

admin@DESKTOP-JSUMQCA ~

\$ ls

hello.txt

admin@DESKTOP-JSUMQCA ~

\$ mkdir newDir

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```
admin@DESKTOP-JSUMQCA ~
```

```
$ cd newDir
```

```
admin@DESKTOP-JSUMQCA ~/newDir
```

```
$ ls
```

```
admin@DESKTOP-JSUMQCA ~/newDir
```

```
$ cd ..
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ cp hello.txt ./newDir
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ ls
```

```
hello.txt newDir
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ echo "this is another file in newDir" > ./newDir/another.txt
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ cd newDir
```

```
admin@DESKTOP-JSUMQCA ~/newDir
```

```
$ ls
```

```
hello.txt another.txt
```

```
admin@DESKTOP-JSUMQCA ~/newDir
```

```
$ cd ..
```

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Experiment no. 2 To study and execute basic Unix commands.

```
admin@DESKTOP-JSUMQCA ~
```

```
$ cd newDir
```

```
admin@DESKTOP-JSUMQCA ~/newDir
```

```
$ rm hello.txt
```

```
admin@DESKTOP-JSUMQCA ~/newDir
```

```
$ rm another.txt
```

```
admin@DESKTOP-JSUMQCA ~/newDir
```

```
$ ls
```

```
admin@DESKTOP-JSUMQCA ~/newDir
```

```
$ cd ..
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ ls
```

```
hello.txt newDir
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ rmdir newDir
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ ls
```

```
hello.txt
```

```
admin@DESKTOP-JSUMQCA ~/newDir
```

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Experiment no. 2 To study and execute basic Unix commands.

```
$ ps
```

PID	PPID	PGID	WINPID	TTY	UID	STIME	COMMAND
883	830	883	6188	pty0	197609	21:48:50	/usr/bin/ps
830	829	830	5876	pty0	197609	21:38:05	/usr/bin/bash
829	1	829	4444	?	197609	21:38:05	/usr/bin/mintty

```
admin@DESKTOP-JSUMQCA ~
```

```
$ cat hello.txt
```

```
hello unix world
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ echo "" > hello.txt
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ man more > hello.txt
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ cat hello.txt
```

```
...
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ more hello.txt
```

```
...
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ date
```

```
Tue, Feb 11, 2020 9:54:31 PM
```

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admin@DESKTOP-JSUMQCA ~

\$ time

real 0m0.000s

user 0m0.000s

sys 0m0.000s

admin@DESKTOP-JSUMQCA ~

\$ ps

PID	PPID	PGID	WINPID	TTY	UID	STIME	COMMAND
96	85	96	6780	pty0	197609	21:55:50	/usr/bin/ps
84	1	84	788	?	197609	21:55:45	/usr/bin/mintty
85	84	85	3296	pty0	197609	21:55:45	/usr/bin/bash

admin@DESKTOP-JSUMQCA ~

\$ kill 84

admin@DESKTOP-JSUMQCA ~

\$ history

...

admin@DESKTOP-JSUMQCA ~

\$ ls

hello.txt

admin@DESKTOP-JSUMQCA ~

\$ ls -l hello.txt

-rw-r--r-- 1 admin None 5494 Feb 11 21:53 hello.txt

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Experiment no. 2 To study and execute basic Unix commands.

```
admin@DESKTOP-JSUMQCA ~
```

```
$ chmod -w hello.txt
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ ls -l hello.txt
```

```
-r--r--r-- 1 admin None 5494 Feb 11 21:53 hello.txt
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ echo "another text" >hello.txt
```

```
-bash: hello.txt: Permission denied
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ chmod +w hello.txt
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ pwd
```

```
/home/admin
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ logout
```

```
admin@DESKTOP-JSUMQCA ~
```

```
$ shutdown
```