

50+ UNIX Commands

1. touch

```
sxakil@Progrmaniac:~$ touch example.txt
```

Creates new empty file

2. nano example.txt

```
GNU nano 2.9.3 example Modified
a quick brown fox jumps over the lazy dog

^G Get Help  ^O Write Out  ^W Where Is  ^K Cut Text   ^J Justify    ^C Cur Pos   M-U Undo
^X Exit      ^R Read File  ^\ Replace   ^U Uncut Text ^T To Spell   ^_ Go To Line M-E Redo
```

3. cat example.txt

```
sxakil@Progrmaniac:~$ cat example.txt
a quick brown fox jumped over the lazy dog
```

Prints out the content of a file.

4. echo

```
sxakil@Progrmaniac:~$ echo new text added from echo >> example.txt
sxakil@Progrmaniac:~$ cat example.txt
a quick brown fox jumped over the lazy dog
new text added from echo
```

Prints or appends the argument to the console/file.

5. diff example.txt xample.txt

```
sxakil@Progrmaniac:~$ diff example.txt xample.txt
1,2d0
< a quick brown fox jumped over the lazy dog
< new text added from echo
```

Shows the difference between two file

6. units '5 pounds' kg

```
sxakil@Progrmaniac:~$ units '5 lbs' 'kg'
* 2.2679619
/ 0.44092452
```

Units conversion

7. mkdir

```
sxakil@Progrmaniac:~$ mkdir LabAssignment
```

Create a new directory

8. cp

```
sxakil@Progrmaniac:~$ cp example.txt xmp1e.txt LabAssignment/
sxakil@Progrmaniac:~$ ls LabAssignment/
example.txt  xmp1e.txt
```

Copy files to a directory

9. rev

```
sxakil@Progrmaniac:~$ rev LabAssignment/example.txt
god yzal eht revo depmuj xof nworb kciug a
ohce morf dedda txet wen
```

Reverse print a file contents

10. read

```
sxakil@Progrmaniac:~$ read name
Shakil
sxakil@Progrmaniac:~$ echo $name
Shakil
```

Assign values to a variable, later referred as \$variable_name

11. seq

```
sxakil@Progrmaniac:~$ seq 1 5
1
2
3
4
5
```

Print a numerical sequence

12. for

```
sxakil@Progrmaniac:~$ for i in `seq 1 5`; do echo hello; done
hello
hello
hello
hello
hello
```

A traditional loop operation

13. base64

```
sxakil@Progrmaniac:~/LabAssignments$ base64 example.txt > encoded.txt
sxakil@Progrmaniac:~/LabAssignments$ cat encoded.txt
YSBxdWljayB1cm93biBmb3gganVtcGVkIG92ZXIgdGhlIGxhenkgZG9nCM5ldyB0ZXh0IGFkZGVk
IGZyb20gZWNoYm9w=
sxakil@Progrmaniac:~/LabAssignments$ base64 -d encoded.txt
a quick brown fox jumped over the lazy dog
new text added from echo
```

Base64 encoder/decoder

14. chmod

```
sxakil@Progrmaniac:~/LabAssignments$ chmod a+r example.txt
```

Change read, write, delete permissions accross user groups.

15. wget

```
sxakil@Progrmaniac:~/LabAssignment$ wget https://www.ajdesigner.com/fl_cat_age/cat_1200_630.png
--2020-02-07 01:46:40-- https://www.ajdesigner.com/fl_cat_age/cat_1200_630.png
Resolving www.ajdesigner.com (www.ajdesigner.com)... 13.227.243.60, 13.227.243.71, 13.227.243.29, ...
Connecting to www.ajdesigner.com (www.ajdesigner.com)|13.227.243.60|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1063038 (1.0M) [image/png]
Saving to: 'cat_1200_630.png'

cat_1200_630.png      100%[=====>] 1.01M  2.26MB/s  in 0.4s

2020-02-07 01:46:40 (2.26 MB/s) - 'cat_1200_630.png' saved [1063038/1063038]
```

Downloads web contents from a given link

16. file

```
sxakil@Progrmaniac:~/LabAssignments$ mv cat_1200_630.png cat.png
sxakil@Progrmaniac:~/LabAssignments$ ls
cat.png  encoded.txt  example.txt  xample.txt
sxakil@Progrmaniac:~/LabAssignments$ file cat.png
cat.png: PNG image data, 1200 x 630, 8-bit/color RGBA, non-interlaced
```

File details

17. identify

```
sxakil@Progrmaniac:~/LabAssignment$ identify cat.png
cat.png PNG 1200x630 1200x630+0+0 8-bit sRGB 1.063MB 0.000u 0:00.000
```

Reveal the exif data of a file

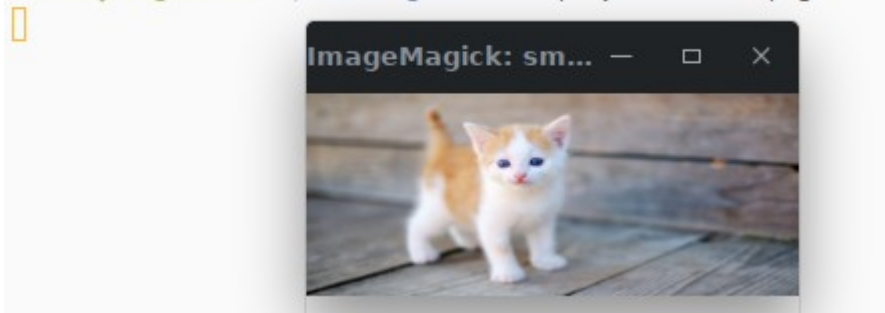
18. convert

```
sxakil@Progrmaniac:~/LabAssignment$ convert cat.png -resize 600x315 small-cat.png
sxakil@Progrmaniac:~/LabAssignment$ ls
cat.png encoded.txt example.txt small-cat.png xmp1e.txt
```

Convert/change a file properties

19. display

```
sxakil@Progrmaniac:~/LabAssignment$ display small-cat.png
```



Opens up a binary file in a new window

20. mv

```
sxakil@Progrmaniac:~/LabAssignment$ mv cat.png small-cat.png img/
sxakil@Progrmaniac:~/LabAssignment$ ls img/
cat.png small-cat.png
```

Moves file(s) to another directory

21. alias

```
sxakil@Progrmaniac:~/LabAssignment$ alias sn='echo Shakil Ahmad'
sxakil@Progrmaniac:~/LabAssignment$ sn
Shakil Ahmad
```

Creates shorthand for long commands

22. zip

```
sxakil@Progrmaniac:~/LabAssignment$ zip img-zipped img/*
adding: img/cat.png (deflated 0%)
adding: img/small-cat.png (deflated 0%)
sxakil@Progrmaniac:~/LabAssignment$ ls
encoded.txt example.txt img img-zipped.zip xmp1e.txt
```

Creates compressed file in zip formate

23. xdg-open

```
sxakil@Progrmaniac:~/LabAssignment$ xdg-open img-zipped.zip
(file-roller:9881): Gtk-WARNING **: 02:03:11.637: Theme parsing error: gtk.css:3601:22: 'none' is not a valid color name
```

Opens up files in the systems' default application.

24. whereis

```
sxakil@Progrmaniac:~/LabAssignment$ whereis bash
bash: /bin/bash /etc/bash.bashrc /usr/share/man/man1/bash.1.gz
```

Shows where a application package is stored

25. wc

```
sxakil@Progrmaniac:~/LabAssignment$ wc example.txt
 2 14 68 example.txt
```

Shows lines, words and charachter count in a text file.

26. stat

```
sxakil@Progrmaniac:~/LabAssignment$ stat img
  File: img
  Size: 4096          Blocks: 8          IO Block: 4096   directory
Device: 802h/2050d   Inode: 3675327    Links: 2
Access: (0775/drwxrwxr-x)  Uid: ( 1000/  sxakil)   Gid: ( 1000/  sxakil)
Access: 2020-02-07 01:59:10.356691290 +0600
Modify: 2020-02-07 01:59:03.308545342 +0600
Change: 2020-02-07 01:59:03.308545342 +0600
 Birth: -
```

Shows directory statistics.

27. whoami

```
sxakil@Progrmaniac:~/LabAssignment$ whoami
sxakil
```

Reveals current user.

28. ping

```
sxakil@Progrmaniac:~/LabAssignment$ ping -a google.com
PING google.com (172.217.26.206) 56(84) bytes of data.
64 bytes from maa03s23-in-f14.1e100.net (172.217.26.206): icmp_seq=1 ttl=52 time=28.1 ms
64 bytes from maa03s23-in-f14.1e100.net (172.217.26.206): icmp_seq=2 ttl=52 time=31.3 ms
64 bytes from maa03s23-in-f14.1e100.net (172.217.26.206): icmp_seq=3 ttl=52 time=26.3 ms
^C
--- google.com ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2003ms
rtt min/avg/max/mdev = 26.371/28.621/31.327/2.053 ms
```

Pings to a website and shows the packets progressions.

29. ifconfig

```
sxakil@Progrmaniac:~/LabAssignment$ ifconfig
enp1s0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    ether 40:8d:5c:de:91:19 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 38267 bytes 2048902 (2.0 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 38267 bytes 2048902 (2.0 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

Network statistics

30. ifconfig

31. ss

32. lspci

```
sxakil@Progrmaniac:~/LabAssignment$ lspci
00:00.0 Host bridge: Intel Corporation Xeon E3-1200 v5/E3-1500 v5/6th Gen Core Processor Host Bridge/DRAM Registers (rev 07)
00:02.0 VGA compatible controller: Intel Corporation HD Graphics 530 (rev 06)
00:14.0 USB controller: Intel Corporation 100 Series/C230 Series Chipset Family USB 3.0 xHCI Controller (rev 31)
00:14.2 Signal processing controller: Intel Corporation 100 Series/C230 Series Chipset Family Thermal Subsystem (rev 31)
00:16.0 Communication controller: Intel Corporation 100 Series/C230 Series Chipset Family MEI Controller #1 (rev 31)
00:17.0 SATA controller: Intel Corporation Q170/Q150/B150/H170/H110/Z170/CM236 Chipset SATA Controller [AHCI Mode] (rev 31)
00:1c.0 PCI bridge: Intel Corporation 100 Series/C230 Series Chipset Family PCI Express Root Port #5 (rev f1)
00:1c.5 PCI bridge: Intel Corporation 100 Series/C230 Series Chipset Family PCI Express Root Port #6 (rev f1)
00:1d.0 PCI bridge: Intel Corporation 100 Series/C230 Series Chipset Family PCI Express Root Port #9 (rev f1)
00:1f.0 ISA bridge: Intel Corporation H110 Chipset LPC/eSPI Controller (rev 31)
00:1f.2 Memory controller: Intel Corporation 100 Series/C230 Series Chipset Family Power Management Controller (rev 31)
00:1f.3 Audio device: Intel Corporation 100 Series/C230 Series Chipset Family HD Audio Controller (rev 31)
00:1f.4 SMBus: Intel Corporation 100 Series/C230 Series Chipset Family SMBus (rev 31)
01:00.0 Ethernet controller: Realtek Semiconductor Co., Ltd. RTL8111/8168/8411 PCI Express Gigabit Ethernet Controller (rev 0c)
02:00.0 PCI bridge: Integrated Technology Express, Inc. IT8892E PCIe to PCI Bridge (rev 41)
```

Lists all PCI devices

33. grep

```
sxakil@Progrmaniac:~/LabAssignment$ grep fox example.txt
a quick brown fox jumped over the lazy dog
```

Captures given word/pattern from a stream.

34. export

```
sxakil@Progrmaniac:~/LabAssignment$ export OWNER=Shakil
sxakil@Progrmaniac:~/LabAssignment$ env | grep OWNER
OWNER=Shakil
```

Creates an environment variable.

35. curl

```
sxakil@Progrmaniac:~/LabAssignment$ curl example.com
<!doctype html>
<html>
<head>
  <title>Example Domain</title>

  <meta charset="utf-8" />
  <meta http-equiv="Content-type" content="text/html; charset=utf-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <style type="text/css">
    body {
      background-color: #f0f0f2;
```

Scrapes raw data from a link.

36. killall

```
sxakil@Progrmaniac:~/LabAssignment$ killall node
node: no process found
```

Kills all processes by name

37. pkill 5509

```
sxakil@Progrmaniac:~/LabAssignment$ pkill 8000\tcp
```

Kills a process by process id or port number.

38. source

```
sxakil@Progrmaniac:~/LabAssignment$ echo echo Hello World! > test.sh
sxakil@Progrmaniac:~/LabAssignment$ source test.sh
Hello World!
```

Executes commands from a shell script.

39. cal

```
sxakil@Progrmaniac:~/LabAssignment$ cal
February 2020
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
```

Prints the calendar

40. users

```
sxakil@Progrmaniac:~/LabAssignment$ users
sxakil
```

List of logged in users

41. shopt

```
sxakil@Progrmaniac:~/LabAssignment$ shopt
autocd             off
cdable_vars        off
cdspell             off
checkhash          off
checkjobs          off
checkwinsize       on
```

Shows current shell configurations.

42. aspell

```
wrong spelling
```

```
1) wrong          6) wing
2) Wong           7) wrung
3) worn           8) working
4) Wang           9) wog
5) wonk           0) won
i) Ignore         I) Ignore all
r) Replace        R) Replace all
a) Add            l) Add Lower
b) Abort          x) Exit
```

Detects wrong spelling and allows user to fix them

43. passwd

44. sort


```
-n num.txt
```

```
45.      dig
```

```
46.      find  
*.txt
```

```
47.      xargs -n1
```

```
48.      ln  
txt/example.txt xmpl
```

```
49.      tac  
txt/example.txt
```

```
50.      nl  
txt/example.txt
```

```
51.      alsamixer
```

```
52.      history
```

```
53.      exit
```