

Linux Command Line Cheatsheet for Absolute Beginners

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Video Course: Linux Command Line from Zero to Expert

For all commands below, # marks comments (i.e. not to be typed).

1 Basics

```
date
cal
```

```
# Download the working files
wget http://bit.ly/cli-files
```

```
# Unzip file
unzip cli-files
```

```
ls
```

```
clear
```

```
# Notice that we don't want any spaces in
# directory names
cd cli-files-0.0
```

2 Working with Directories

```
mkdir temp
cd temp
```

```
# Go back to last working directory
cd -
```

```
# Create hierarchy of directories
# (gives error)
mkdir d1/d2/d3
```

```
mkdir -p d1/d2/d3
```

```
# List directory recursively
ls -R d1
```

3 Basics of Files

```
pwd
touch hello.txt
```

```
# Output contents of file
cat hello.txt
```

```
# Word count
wc dummy-file.txt
```

```
# Getting help
whatis wc
man wc
```

```
ls lesson-01/*.csv
```

4 Speeding Up

```
# Use Up/Down arrow keys to cycle through
# previous commands
```

```
history
!540      # Enter number after the symbol
!!        # Repeat last command
```

```
Ctrl + R # Search through history
Ctrl + L # Clear
Ctrl + U # Cut everything before the cursor
Ctrl + K # Cut everything after the cursor
Ctrl + Y # Paste stuff back in
Ctrl + A # Go to start of line
Ctrl + E # Go to end of line
```

5 Inter-Process Communication

```
head iris.csv # Top few lines
```

```
# Chain commands
cat iris.csv | wc
```

```
grep "setosa" iris.csv
```

```
cat iris.csv | grep "setosa"
```

```
cat iris.csv | grep "setosa" | wc
```

```
cat iris.csv | grep "set" | grep "3.5" | wc
```

```
ls | grep csv
```

6 Redirection

```
# Output to console
echo "Something"

# Redirect to file
echo "Something" > temp

cat iris.csv | grep "setosa" > setosat.csv

# Move/rename files
mv setosat.csv setosa.csv
```

7 Remove, Copy

```
rm setosa.csv

cp backs backups # Directory omitted
cp -r backs backups

rm backups      # Directory omitted
rm -r backups   # Recursively deleted
```

8 df and du

```
df -h    # Show disk usage
du -h    # Human readable
du -sh   # Summary
du -sh * # Summary for subfolders
```

9 Finding Stuff

```
# Find all files named .csv in current
# directory recursively
find . -name "*.csv"

# Find files larger than 100k
find . -type f -size +100k

# Find in files (dot for current directory)
grep -r "setosa" .
```

10 Processes and System

```
tail lesson-04/housing-data/au5_500.csv

# Follow a file for changes
tail -f hello.txt # Ctrl + C to quit

ps u    # Show current user's processes
ps au   # Show all users' processes
ps au   # Show in BSD format

# Find 'firefox' in the process list
ps aux | grep firefox
```

```
kill -9 3245 # Kill process with id 3245
```

```
killall firefox
```

```
cat /proc/cpuinfo # Get CPU info
cat /proc/meminfo # Get memory info
```

```
# Use ps aux to find a process' ID
# Then view its status
cat /proc/1342/status
```

```
cat /proc/1342/status | grep voluntary
```

```
# Repeatedly execute a command
watch -n 1 'cat /proc/1342/status | grep vol'
```

11 Networking Commands

```
ifconfig # Similar to Windows ipconfig
```

```
nslookup yahoo.com
ping yahoo.com
```

```
# Show sockets listening for TCP connections
# Show associated process
# Do not resolve host
netstat -ntlp
```

```
# Check if ssh (port 22) is open
netstat -ntlp | grep 22
```

12 Installing Software

```
# Use apt-get in older systems
# Use yum or another package manager if using
# Non-Ubuntu systems
apt install python-pip # Needs root
```

```
sudo apt install -y python-pip
```

```
# Install python's package using pip
sudo pip install youtube-dl
```

```
# Downloads complete youtube playlist
# (Keep the full command on one line)
youtube-dl 'https://www.youtube.com/watch?v=EFuT_vlbpNs&list=PLE9zbWxlo2b9dFIq5eHbjyyo8CgC3Xjod'
```

13 VIM Commands

```
# [In Command Mode]
:q      # Quit
:wq     # Write file and quit
:q!     # Quit without saving changes

i       # Go to insert mode
INSERT # Go to insert mode

# Show line numbers
:set number

# Go to end of file
Shift + G

:0      # Go to line number 0
0       # Go to beginning of line

:100    # Go to line 100

/num    # Search for 'num'
n       # After search, find next

dd      # Delete line under cursor
d10d    # Delete 10 lines
x       # Delete character under cursor
dw      # Delete word
yy      # Copy line
p       # Paste
.       # Repeat last operation
u       # Undo last operation

fH      # Go forward to character 'H'
FH      # Go backwards to character 'H'
%       # Go to matching bracket
vi"     # Select inside double quotes

# [In Insert Mode]
ESC     # Go to command mode
```

14 Permissions and Ownership

```
# Change owner to nam
sudo chown nam /static

chmod +x test.sh  # Make test.sh executable
echo $PATH        # Echo path env variable
ls -lh            # Show detailed listing

# Execute test.sh from current directory
./test.sh
```