

# Linux Commands - Cheat Sheet

## What is Linux?

Linux refers to a collection of free and open-source operating systems software, that is built around the Linux Kernel (*a system architecture that defines a high-level virtual interface over computer hardware*). Linux is the most widely deployed operating system for servers, mainframe computers and embedded systems<sup>1</sup>.

<code>ls</code>	List files and folders in current directory
<code>ls -a</code>	List all files and folders including hidden files
<code>cd</code>	change directory to a new folder/directory
<code>grep 'searchword' file</code>	Search for 'searchword' in specific file
<code>whoami</code>	Who you are logged in as
<code>tcpdump -i eth0</code>	Capture and display all packets on interface eth0
<code>tcpdump -i eth0 'port 80'</code>	Monitor all traffic on port 80
<code>id</code>	Display the user and group ids of your current user.
<code>last</code>	Display the last users who have logged onto the system.
<code>mkdir directory</code>	Create a directory
<code>rm file</code>	Remove (delete) file
<code>cp file1 file2</code>	Copy file1 to file2
<code>cat file</code>	View the contents of file
<code>head file</code>	Display the first 10 lines of file
<code>tail file</code>	Display the last 10 lines of file
File permissions	U = User G = Group W = World  r = Read w = write x = execute - = no access

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<sup>1</sup><https://www.computerworld.com/article/2521639/computer-hardware/ibm-s-newest-mainframe-is-all-linux.html>

<code>ifconfig -a</code>	# Display all network interfaces and ip address
<code>ifconfig eth0</code>	Display eth0 address and details
<code>whois domain</code>	Display whois information for domain
<code>find /home/john -name 'prefix*'</code>	Find files in /home/john that start with "prefix".
<code>ssh host</code>	Connect to host as your local username.
<code>ssh user@host</code>	Connect to host as user
<code>ssh -p port user@host</code>	Connect to host using port
<code>gpg -v -c --cipher-algo AES256 filename.txt</code>	Encrypt file filename.txt with the symmetric cipher AES 256
<code>traceroute --tcp -p 80 www.example.com</code>	Trace the route to www.example.com using TCP SYN packets on port 80 instead of ICMP:
<code>cat /etc/shadow   awk -F: '(\$2=="") {print \$1}'</code>	Checking Accounts for Empty Passwords