**Linux CheatSheet for Developers**

**File Commands**

| **Command** | **Description** |
| --- | --- |
| **pwd** | Show current directory |
| **mkdir dir** | Make directory called *dir* |
| **mkdir -p folder/folder2** | Make a directory *folder* and another directory *folder2* in it |
| **cd dir** | Change directory to *dir* |
| **cd ..** | Go up a directory |
| **cd** | Change to home directory |
| **ls** | List contents of directory |
| **ls -r** | Reverse list contents of directory |
| **ls -t** | List contents of directory based on time |
| **ls -al** | Formatted list of contents for the directory including hidden files |
| **rm file** | Delete file |
| **rm -r dir** | Delete directory *dir* |
| **rm -f file** | Forcibly delete the file |
| **rm -rf dir** | Forcibly delete the directory *dir* |
| **rm -rfv dir** | Forcibly delete the directory *dir* with verbose output |
| **cp file1 dir** | Copy *file1* to inside of *dir* |
| **mv file1 dir** | Move/Cut *file1* to inside of *dir* |
| **touch file** | Create *file* |
| **cat file** | Show the Contents of file |
| **head file** | Display first 10 lines of files |
| **tail file** | Display last 10 lines of files |
| **gpg -c file** | Encrypt a file |
| **gpg file** | Decrypt a file |
| **wc** | Show the Number of words,lines,bytes in file |

**File Permissions**

| **Command** | **Description** |
| --- | --- |
| **chmod octal file** | Change the permissions of file to octal for user, group and world by adding: **4 - read( r ), 2 - write( w ), 1- execute ( x )** |
| **chmod 777 file** | Read, write, execute for all |
| **chmod 755 file** | rwx for owner, rx for group and world. |

**Privilege Escalation**

| **Command** | **Description** |
| --- | --- |
| **sudo command** | Runs *command* as root. (If a command requires a higher permission you might have to run it with sudo) |
| **su** | Runs an interactive shell as root |

**SSH**

| **Command** | **Description** |
| --- | --- |
| **ssh user@host** | Connect to host as user |
| **ssh -p port user@host** | Connect to host on port *port* as user |

**System Info**

| **Command** | **Description** |
| --- | --- |
| **date** | Show the system date and time |
| **cal** | Show this month's calendar |
| **uptime** | Show system's uptime |
| **free** | Display amount of free and used memory in the system |
| **w** | See who is online |
| **whoami** | See who you are logged in as |
| **uname -a** | Show kernel information |
| **man command** | Show the manual for any command (exit with **q**) |

**Shortcuts**

| **Command** | **Description** |
| --- | --- |
| **Ctrl + A** | Moves the cursor to the start of a line |
| **Ctrl + E** | Moves the cursor to the end of the line |
| **Ctrl + F** | Move one character forward |
| **Ctrl + B** | Move one character backward |
| **Ctrl + L** | Clear the terminal screen |
| **Ctrl + C** | Halts the current command |
| **Ctrl + D** | Log out of current session |
| **Ctrl + W** | Erases one word in current line |
| **Ctrl + U** | Erases entire line |

**Text Editors**

| **Command** | **Description** |
| --- | --- |
| **nano file** | nano is a small and friendly editor |
| **vi file** | vi is a powerful text editor where every action is done though the keyboard. [How to exit vim/vi](https://www.cyberciti.biz/faq/linux-unix-exit-vim-editor/) (Trust me you'll need to know it) |
| **vim file** | vim - Vi IMproved is an improved version of the vi editor. Like vi, every action is done through the keyboard. |

**Archives**

| **Command** | **Description** |
| --- | --- |
| **tar cf archive.tar directory** | Create tar named archive.tar containing directory |
| **tar xf archive.tar** | Extract the contents from archive.tar |
| **tar czf archive.tar.gz directory** | Create a gzip compressed tar file name archive.tar.gz |
| **tar xzf archive.tar.gz** | Extract a gzip compressed tar file |
| **tar cjf archive.tar.bz2 directory** | Create a tar file with bzip2 compression |
| **tar xjf archive.tar.bz2** | Extract a bzip2 compressed tar file |

**Disk Usage**

| **Command** | **Description** |
| --- | --- |
| **df -h** | Show free and used space on mounted filesystems |
| **df -i** | Show free and used inodes on mounted filesystems |
| **fdisk -l** | Display disks partitions sizes and types |
| **du -ah** | Display disk usage for all files and directories in human readable format |
| **du -sh** | Display total disk usage off the current directory |

**Search**

| **Command** | **Description** |
| --- | --- |
| **grep pattern file** | Search for pattern in file |
| **grep -r pattern directory** | Search recursively for pattern in directory |
| **locate name** | Find files and directories by name |
| **find /home/xyz -name 'prefix\*'** | Find files in /home/xyz that start with "prefix" |
| **find /home -size +100M** | Find files larger than 100MB in /home |

**Networking**

| **Command** | **Description** |
| --- | --- |
| **ip a** | Display all network interfaces and IP address |
| **ip addr show dev eth0** | Display eth0 address and details |
| **ethtool eth0** | Query or control network driver and hardware settings |
| **ping host** | Send ICMP echo request to host |
| **whois domain** | Display whois information for domain |
| **dig domain** | Display DNS information for domain |
| **dig -x IP\_ADDRESS** | Reverse lookup of IP\_ADDRESS |
| **host domain** | Display DNS IP address for domain |
| **hostname -i** | Display the network address of the host name |
| **hostname -I** | Display all local IP addresses of the host |
| **wget http://domain.com/file** | Download http://domain.com/file |
| **netstat -nutlp** | Display listening tcp and udp ports and corresponding programs |

**Environment variables command**

| **Command** | **Description** |
| --- | --- |
| **env** | Displays all environment variables |
| **echo $VARIABLE** | Displays value of variable |