

### Server Operation

|                     |  |
|---------------------|--|
| cal                 | displays a calendar and the date of Easter                   |
| chkconfig           | updates and queries runlevel information for system services |
| daemon              | writing and packaging system daemons                         |
| date                | print or set system date and time                            |
| df -h               | report file system disk usage                                |
| exit                | exit current <i>username</i> session                         |
| halt                | halt the machine   |
| hostname            | show or set the system ( <b>SysV</b> ) host name             |
| hostnamectl         | control the system ( <b>systemd</b> ) hostname               |
| init                | <b>systemd</b> init system and service manager               |
| journalctl          | query the <b>systemd</b> init journal                        |
| kill [-s] [-l]      | send a signal (kill) to a process                            |
| login               | begin session on the system                                  |
| logout              | close current <i>username</i> session                        |
| reboot              | reboot the machine   |
| poweroff            | power off the machine  |
| ps                  | report a snapshot of the current processes                   |
| pstree              | display a tree of processes                                  |
| service [command]   | run a <b>SysV</b> init script                                |
| shutdown -h now     | shutdown the machine   |
| systemctl [command] | control the <b>systemd</b> init system and service manager   |
| systemd             | <b>systemd</b> init system and service manager               |
| telinit             | change <b>SysV</b> init runlevel                             |
| top                 | display Linux processes                                      |
| upstart             | <b>upstart</b> init system and service manager               |
| uptime              | tell how long the system has been running                    |

Basic server operation for login, logout, shows system date, display server processes, and shutdown the machine.

Please Note, there are several init system in Linux (SysV, systemd, upstart, etc) you should check with command `ps -p 1`

### User Operations

|   |  |
|---|--|
| adduser [username]                      | create a new <i>username</i> or update default new <i>username</i> information |
| deluser [username] [--remove-all-files] | delete a <i>username</i> account and related files                             |
| getent [group] [  less]                 | print user groups  |
| getent [passwd] [  less]                | print user account   |
| groups [username]                       | print the groups current <i>username</i> is in                                 |
| id                                      | print real and effective user and group IDs                                    |
| passwd                                  | change password for current user name  |
| su [username]                           | change <i>username</i> or become super user                                    |
| sudo [command]                          | execute a <i>command</i> as super user   |
| useradd [username]                      | create a new <i>username</i> or update default new <i>username</i> information |
| userdel [username] [-r]                 | delete a <i>username</i> account and related files                             |
| usermod [username] -aG [groupname]      | modify a <i>username</i> account into supplementary <i>groupname</i>           |
| who                                     | show who is logged on  |
| whoami                                  | print effective user id  |

Basic user operation such as create user, delete user, change password, list active user, etc

### Network Operation

|              |  |
|--------------|--|
| curl [url]   | transfer a <i>url</i> with supported protocol eg. HTTP, HTTPS, SMTP, FTP, etc. |
| dig [domain] | dig (domain information groper) DNS lookup utility                             |
| ftp          | internet file transfer program to another host                                 |
| host         | DNS lookup utility   |
| hostname     | show or set the system ( <b>SysV</b> ) host name                               |
| hostnamectl  | control the system ( <b>systemd</b> ) hostname                                 |



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### Network Operation (cont)

|   |  |
|---|--|
| ifconfig                                | configure a network interface  |
| ip                                      | show/manipulate routing, devices, policy routing and tunnels   |
| iptables                                | administration tool for IPv4/IPv6 packet filtering and NAT   |
| mtr                                     | a network diagnostic tool  |
| netstat                                 | print network connections, routing tables, interface statistics, masquerade connections, and multicast memberships |
| ping [host]                             | send ICMP ECHO_REQUEST to network <i>hosts</i>   |
| scp                                     | secure copy (remote file copy program)   |
| route [host]                            | show/manipulate the IP routing table   |
| sftp                                    | secure file transfer program   |
| ssh                                     | OpenSSH SSH client (remote login program)  |
| ssh-keygen                              | authentication key generation, management and conversion   |
| telnet                                  | user interface to the TELNET protocol  |
| traceroute [host]                       | print the route that packets follow to another host  |
| ufw [--dry-run] [options] [rule syntax] | uncomplicated firewall a program for managing a netfilter firewall   |
| whois                                   | get information about a domain name  |

Basic network operation and network security such as check network connection, setup firewall, ssh secure shell connection, trace network path, etc

### Filename or Command Execution

|                   |  |
|-------------------|--|
| [command]   less  | <i>more</i> with advance features                            |
| [command]   more  | filter for displaying text one screen at the time            |
| alias [command]   | define or display aliases command                            |
| bash [command]    | GNU Bourne-Again SHell for execute <i>command</i>            |
| cat [filename]    | concatenate <i>filename</i> and print on the standard output |
| echo [text]       | display a line of <i>text</i>                                |
| head [filename]   | output the first part of <i>filename</i>                     |
| ln                | make links between files                                     |
| source [filename] | execute commands from a <i>filename</i> in the current shell |
| tail [filename]   | output the last part of filename                             |
| touch             | change file timestamps                                       |

### Help and Other Command

|                  |  |
|------------------|--|
| [command] --help | display <i>command</i> help                                      |
| help [command]   | display <i>command</i> help                                      |
| info [command]   | read Info <i>command</i> documents                               |
| man [command]    | an interface to the on-line reference manuals for <i>command</i> |
| nano [filename]  | Nano's ANOther editor, an enhanced free Pico clone               |
| vim [filename]   | Vi Improved, a programmers text editor                           |

Help, others important command and common text editor for Basic Linux Administration

### File and Directory Operations

|                           |   |
|---------------------------|---|
| apt-get install [package] | APT package handling utility to install <i>dkpg package</i>                             |
| apt-get remove [package]  | APT package handling utility to remove <i>dkpg package</i>                              |
| apt-get update            | APT package handling utility to synchronize index file of available <i>dkpg package</i> |
| cd [directory]            | change current <i>directory</i>   |
| chgrp                     | change group ownership  |
| chmod                     | change file access permission   |
| chown                     | change file owner and group   |
| cp                        | copy files and directory  |
| df -h                     | report file system disk usage   |



### File and Directory Operations (cont)

|                          |  |
|--------------------------|--|
| dpkg                     | package manager for Debian & Ubuntu                                |
| find [filename]          | search for <i>filename</i> in a directory hierarchy                |
| getent [filename]        | get entries from Name Service Switch or <i>filename</i> libraries  |
| grep                     | print lines matching a pattern                                     |
| gzip                     | compress or expand files   |
| locate [filename]        | find <i>filename</i> by name                                       |
| ls -l [] more]           | list directory content   |
| mkdir [directory]        | create <i>directory</i>  |
| mv <i>filename</i>       | move (rename) <i>filename</i>                                      |
| pwd                      | print name of current/working directory                            |
| rm [filename]            | remove <i>filename</i>   |
| rmdir [diretory]         | remove <i>directory</i>  |
| rpm                      | package manager for Fedora & CentOS                                |
| tar                      | the GNU version of the tar archiving utility                       |
| wget [url]               | the non-interactive network downloader                             |
| which [command]          | locate a <i>command</i>  |
| yum install<br>[package] | Yellowdog Updater Modified Synopsis for install <i>rpm package</i> |
| yum remove<br>[package]  | Yellowdog Updater Modified Synopsis for remove <i>rpm package</i>  |
| yum update<br>[package]  | Yellowdog Updater Modified Synopsis for update <i>rpm package</i>  |

Basic file operation such as list directory, change working directory, installation, set file permission, compress file, find file location, etc.

Please Note, there are several package system in Linux (dpkg for Debian & Ubuntu or rpm for Fedora & CentOS)



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