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| **Command** | **Explanation** | **Format** | **Options** | **Example** |
| pwd | Display full pathname of the current working directory. | None | None | pwd  /home/userid |
| w | Display summaries of system usage, currently logged-in users, and what they are doing. | w [options] [user] Display output for one user by specifying [user] | -h suppress heading  -s short command  -u ignore username  -V version info | w userid |
| time | Measures program resource use  Get time in seconds  Returns the time since the Epoch (01/01/70), measured in seconds | time [options]  command [arguments] |  | time |
| date | Current date and time | date [options]  [+format][date] | +format – display current date in a nonstandard format.  %a abbreviated weekday  %b abbrev. month name  %e date  %T time H:M:S format  %Y four-digit year  %Z time zone name | date +%a %b %e %T %Y %Z  Tue Sep 5 14:59:37 2000 EDT |
| cal | 12 month calendar for a given year. 1 month calendar for a given month | cal [-jy][[month]year] | -j Julian dates  -m Monday first day  -y entire year | cal 2004 |
| > | Move contents/results of the command into a text file. Operator to combine several files into a new file. | command > file |  | pwd > outfile1 |
| cat | Display the contents of a file. Combine files.  Append to a file. | cat [options][file] | -a show all  -s squeeze blanks  -n number each line | cat outfile1  cat ch1 ch2 >all  cat note5 >> notes |
| du | *disk usage* utility. Lists the size of a directory and all its subdirectories (in 1 KB blocks) | du [options] [directories] | -a all  -h human-readable | cat /home/userid  22 ./public\_html  2228 ./public |
| **Command** | **Explanation** | **Format** | **Options** | **Example** |
| df | *display filesystems* space usage information (currently mounted). Amount of free disk space available on each of the mounted filesystems. | df [options][name] | -a all (empty fs)  -h human readable  -i free, used, percent-used nodes | df  device, total size, used, available, use%, mount point |
| finger “user” | Display data about one or more users | finger [options] users | -l long format  -s short format | finger userid |
| mail | Text-based command-line e-mail client to read/send mail from/to other users | mail [options][users] | mail *user* to write a message to user | mail userid |
| rm –i file\* | Delete one or more files (need write permission for directory) | rm [options] files | -i interactive  -r recursive | rm –i file\* |
| mkdir | Create one or more directories (need write permissions in parent directory) | mkdir [options] directories | -m mode (777 default) | mkdir –m 755 stuff |
| ls -c | List contents of directories | ls [options][names] | -c list by status change time (create/modify)  -l one entry per line of output | ls –l etc  if no name, then present working directory |
| `who | wc –l` | List users logged into the system| count the users logged in (*word count*) | wc [options] [files] | -l line count  -h heading | who | wc -1 |
| cp | Copy file1 to file2  Copy one or more files to the same names under directory. | cp [options] file1 file2  cp [options] files directory | -u update  -I interactive overwrite prompt | cp report.doc  report\_backup.doc |
| cd | Change directory | cd [dir] | If no directory names, takes to home directory | cd /etc/bin |
| cd .. | Change to parent directory of your current directory (one level closer to root directory) | cd .. |  | pwd is /etc/bin  cd ..  pwd is now /etc |
| **Command** | **Explanation** | **Format** | **Options** | **Example** |
| mv | Move or rename files and directories | mv [option] source target | 1. file >name (nonexistent) -> rename  2. file > file (existing) -> overwrite  3. directory >name (nonexistent) -> rename directory  4. directory > directory (existing) -> make subdir  5. file(s) > directory (existing) -> move files to directory | mv outputfile1 my\_stuff (my\_stuff is an existing directory) |
| jpico | Start Joe text editor, used for writing scripts (set of commands) or editing |  |  | jpico |
| chmod | Change access mode (permissions) for one or more files. Owner only. | chmod [options] mode files | 4 read  2 write  1 execute | chmod 775 outfile1 |
| sh “script” | Invoke the script, allows you to run another executable. | sh [script name] |  | sh script1 |
| echo | Displays text specified after command | echo *string* | \c suppress trailing newline  -e enable character | echo –e “Enter text \c” |
| shutdown | Graceful shutdown. Indicates how long to wait before shutting down and whether to reboot or halt afterwards. | shutdown [options] [when] | -h halt the system when shutdown is complete  -r reboot the system when shutdown is complete | shutdown –h 5 (shutdown in 5 minutes, halt after shutdown)  shutdown –r now  (reboot now) |
| useradd | Create new user (must be root) | useradd [options] [user] | -D view defaults (/etc/login.defs & /etc/default/useradd)  -g specify group  -c name comment | useradd –g sales –c “firstname lastname” userid |
| **Command** | **Explanation** | **Format** | **Options** | **Example** |
| userdel | Delete user’s account permanently | userdel [options] [user] | -r remove home directory and files | userdel –r userid |
| groupadd | Add a new group account | groupadd [options] *group* | -g group ID (GID) | groupadd –g 919 managers |
| groupdel | Remove group from account files | groupdel *group* | None | groupdel managers |
| top | Information about CPU-most intensive processes currently running (frequently refreshed – 5 seconds) | top [options] | -c show command line  -s secure mode  r apply renice (priority) to a process (negative = important, positive big = less important)  q quit | top  r  1066 (PID)  10 (new value)  NI column changed to 10, process moves down in the list |
| free | View statistics about memory usage (RAM and swap), buffers used by the kernel | free [options] | -t display totals | free |
| uptime | Current time, amount of time logged in, number of users logged in, system load averages | uptime | None | uptime |
| ps | Report on all active processes currently running on the Linux system | ps [options] PID, TTY, time, CMD | -u user’s name who started process | ps  ps [-]u |
| xosview | Displays system related stats (CPU usage, memory usage, swap usage, load average on X Windows system in graphical format) |  |  | xosview |
| lsmod | Lists modules installed in the Linux kernel (stored as file on hard disk) | lsmod | /proc/modules | lsmod |
| insmod | Insert/add modules to the running Linux kernel. Does NOT load dependent modules as modprobe. | insmod [options] file [symbol=value…] | -m output a load map  -o name module | insmod ne2  irq = 11  io\_port = 0x330 |
| **Command** | **Explanation** | **Format** | **Options** | **Example** |
| depmod | Create dependency file for the modules used by modprobe to automatically load the relevant modules | depmod [options] modules |  |  |
| modprobe | Add a module manually PLUS any required supporting modules | modprobe [options] [modules] | -l list all existing modules | modprobe ne2  irq = 11 |
| rmmod | Remove a module from the kernel | rmmod [option] modules | -r remove all dependent modules | rmmod –r ne2 |
| grep | Search file(s) for lines that match a regular expression pattern | grep [options] pattern [files] | -i ignore upper and lowercase distinction  -c count matched lines  -l list file names | who | grep -i |
| who | Show who is logged in to the system | who [options] [file] | -H show headings  -u idle times | who -uH |
| who | grep –i username | Show terminal, time logged in, name of the host for the user matching a specific pattern (username) |  | -i ignore upper and lowercase distinction | who | grep –i username |
| sort | Sort the lines of the name files | sort [options] [files] | -d dictionary order  -n arithmetic order  -o*file* output in file | soft outfile1 |
| mount | Display the name of currently mounted file systems (root user) .  Mount a filesystem | mount [options] [special-device] [directory] | -t type of filesystem  -r mount read-only | mount |
| alias | String of characters substituted for another string of characters at the shell prompt | alias <user string> = <actual command> | None | alias mount-mount |
| dir | List directory contents | dir [option] [file] | --author of each file | dir/home/userid |
| jpico passwd | Edit passwd file |  | Read-only for most users |  |