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| Linux commands | | |
| Command | Function | Extra Information |
| man | Gets online information on almost any Unix command | man ls : will show all the available options for the ls command |
| date | displays the date and time |  |
| cal | displays calendar information |  |
| clear | Clears all of the text on the screen |  |
| ls | Lists all the files in your current directory | ls dir1 dir2 : will list files in specific directories.  . = current directory  .. = parent directory |
| ls -a | Lists all the files in your current directory including hidden files |  |
| ls -l | Shows a detailed listing of the current directory including file permissions |  |
| pwd | Shows the name of the current directory | pwd is short for Print Working Directory |
| cd [directory] | Changes the current directory to the folder/directory of your choice | If a directory name isn’t given the directory will change to the default home directory |
| cd ~/[directory] | Changes the current directory if you are in a subdirectory |  |
| mkdir | Creates one or more directories |  |
| mkdir -p | Creates one or more directories and the parent directory if it doesn’t exist | Example: mkdir -p ~/dir1/dir2/dir3  dir1 is the parent directory, dir2 is the subdirectory |
| rmdir [directory] | Removes one or more empty directories |  |
| rmdir -r | Removes directory and all of the files inside |  |
| rm [directory] or [file] | Removes directories or files |  |
| rm -i | Displays a confirmation before deleting a file | Example: Are you sure you want to delete this file yes/no? |
| rm -r | Recursively deletes directories |  |
| touch | creates an empty file |  |
| cp [file] | copies a file or multiple files into a directory | Example: cp file1 file2 dir |
| mv | renames a file or moves files and directories into a destination directory | To rename a file:  mv file1 newfile  To move files and directories:  mv file1 file2 dir3 dir4 destination\_dir |
| Wildcards:  \*  ?  [set] | \* - matches zero or more of ant character  ? matches exactly one of any character  [set] matches exactly one character from the set (example s, e, t) |  |
| k\* | Would match anything that starts with k |  |
| a\*b | Would match anything that starts with a and ends with b:  ab, a56445756b, all\_the\_tab |  |
| \*txt | Would match anything that ends with txt:  file.txt, file\_txt, texttxt |  |
| a?b | matches anything that has one character in-between:  a2b, axb, a\_b |  |
| ?txt | matches anything that has one character in front of txt:  2txt, atxt, htxt |  |
| test[12] | matches anything that has one character from the set after test:  test1 or test2 |  |
| cat filename | views contents in files |  |
| less filename | views files one page at a time | <spacebar> = go to the next screen  b = go to the previous screen  q = quite |
| head filename | displays the first 10 lines of the file |  |
| head -n filename | displays the first number of lines |  |
| tail filename | displays the last 10 lines of the file |  |
| tail -n filename | displays the last number of lines |  |
| grep pattern file:  Example:  grep tree nature.txt | searches files for specific words or patterns | grep -i = will ignore case distinctions  to search for a phrase or pattern use  “example” |
| sort filename | displays lines in ASCII ascending order | > = sending the standard output of a program into a file  >> = adds to a file instead of overwriting |
| sort -r filename | Sorts in descending order |  |
| sort -f filename | case-sensitive sorting |  |
| zip -r filename.zip filesdir | will compress a file to the directory stated |  |
| unzip filename.zip | extracts the contents in the zip file |  |
| chmod | chmod 761 file1 would set the permissions:  rwxrw---x  chmod o+r file1: adds read permission for other for the file  chmod a+rw file1: adds read and write permission for everyone  chmod g-r file1: removes read permission for the group  chmod u=rw file1: sets the user permission to read and write | The first three characters are the permissions given to the user who owns the file. The middle three characters are the permissions given to the group the file belongs to. The characters at the right-hand end are the permissions given to all other users. |
| Logging out | Click the system menu at the very right of the menu bar and select “Log out” or “Shut down” |  |

Numeric representation of file permissions

r = read permission w = write permission x = execute permission

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| Text | | | Binary | | | Octal |
| r | w | x | 1 | 1 | 1 | 7 |
| r | w | - | 1 | 1 | 0 | 6 |
| r | - | x | 1 | 0 | 1 | 5 |
| r | - | - | 1 | 0 | 0 | 4 |
| - | w | x | 0 | 1 | 1 | 3 |
| - | w | - | 0 | 1 | 0 | 2 |
| - | - | x | 0 | 0 | 1 | 1 |
| - | - | - | 0 | 0 | 0 | 0 |