

Bash	File Permissions	Shell Scripting
File system Root Path pwd cd ~ .. .	ls -al rwx owner, group, world r w x r-x 755	grep <word> redirect operator append operator cut -d" " cut -d, -f1,2,4 sort sort -n uniq
File / - top of file hierarchy either absolute or relative present working directory change directory indicates home directory moving up to folder above current current folder	10 character; (1)file type + (9)file permissions read, write, execute order which permissions are displayed 4 - indicates read permission 2 - indicates write permission 1 - indicates execute permission read and execute (5) rwe-er-er	print lines matching a pattern (>) send output to file instead of displaying on screen (>>) appends data instead of displaying on screen cut empty columns cuts out only columns 1,2,4 sorts alphabetically sorts numerically removes duplicate lines from a text file; MUST BE SORTED FORT
ls ls -F ls -l ls -a ls -al mkdir rmdir cp mv rm -i	IF/THEN fi if [-eq -ne -gt -lt -ge -le = != ELIF read bash <directory> <variable> s>	tr "abc" "-xyz" tr "[:lower:][:upper:]" new variable variab- le1=2 \$((echo \$<v- variable> " " ' ' \$USER \$PWD \$HOME \$RANDOM sleep #
lists all lists only folders show details show hidden files show hidden files + details creates folders removes folders copy move; can also be used to rename a file remove command adds interactivity; warning if will delete an existing file	if [<condition>] then <commands> fi terminates IF/THEN [is equal to (integer) is not equal to (integer) greater than (integer) less than (integer) greater than or equal to (integer) less than or equal to (integer) is equal to (string) is not equal to (string) alternative to nested-if statements reads user input remember to put variables at end if variables are needed for command	substitute <v1> to <v2> specify all lowercase letters to turn uppercase supply variable name and its value; no spaces inbetween valid; no spaces between equals arithmetic expansion prints <variable value> does not affect use used literally, does not call variables lists current user prints present working directory home directory of current user o and 32767 sleeps for # seconds
UNIX file systems are CASE SENSITIVE Folders are directories Copying and Moving Files General syntax - <command> <source> <target> Examples - cp hello.txt hello_world.txt Notes on cp & mv 'cp' is only top level files, does not get what is in folders only folders on top 'mv' is always recursive 'cp -r' - copies a directory including all its content Invasive Commands 'cp', 'mv', and 'rm' - no recovery possible	Conditionals	



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find

find	search for files
find [where to start searching from][expression to find][options][what to find]	takes 2 arguments; where to search & what to find; wildcards can be used
find /home -user alice -empty	finds files in the home folder from alice which are empty

Wildcards & Examples

Wildcards

?	matches a single character
*	matches any zero or more characters
[x..y]	matches a range of letters or numbers

Examples

ls	lists all files + extensions
ls *.doc	lists only files with .doc extensions
rm -r <target>	removes folders with content; be very careful

While Loops

while	run until a specific conditions is met
CTRL+C	to close script

vim - file editor

vim "filena-me"	starts up in command mode
i	insert mode - start typing
:w	write
:q	quit vim type
:wp	save and quit
:q!	quit w/o saving

vim - file editor (cont)

/word	search towards end of file for first occurrence of word
?	search towards beginning of the file for the word
n	search for next occurrence
N	search for previous occurrence
less	view file contents one screen at a time
head	top of file to see if it is the one you need
head -3	show the first three results
tail	bottom of file to see new log entries
-n	default output of ten line
-n#	changes number of lines outputted
-n & -n#	to be used with head or tail
YUM	
YUM	yellowdog updater modifier - package modifier
su changes \$ -> #	

chmod

chmod	updates permissions on files and folders
su	grants super user privileges
ls -laF	lists all folders + access
chmod 775 engineering	changes permissions for the engineering folders
chown	change ownership
chgrp	change group
chown dave README	changes owner of README to dave
chgrp sales_grp README	changes the group that can access README to sales_grp

Encryption

aesencrypt	secret key encryption
-e	encrypt the file
-d	decrypt the file
-p <password>	password to use; if omitted, the command will prompt the user
-o <filename>	output file
md5sum	easy way to generate a checksum
#!	turns list of commands into one
/bin/bash	command // no need for bash ...

For Loops

for var in <item/directory> do <commands> done	how to format for loops
Sequences	{#..#}
#..#	first # starting value .. second# ending value
#1..#2..#3	#3 is increment between each number series



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