Bash Commands - ISM 4323 Cheat Sheet

by uhndreams via cheatography.com/178879/cs/37269/

Bash

File system Root	/ - top of file hierarchy
Path	either absolute or relative
pwd	present working directory
cd	change directory
~	indicates home directory
..	moving up to folder above current
.	current folder
ls	lists all
ls -F	lists only folders
ls -l	show details
ls -a	show hidden files
ls -al	show hidden files + details
mkdir	creates folders
rmdir	removes folders
cp	copy
mv	move; can also be used to rename a file
rm	remove command
-i	adds interactivity; warning if will delete an existing file

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

File Permissions

ls -al	10 charactesr; (1)file type + (9)file permissions
rwx	read, write, execute
owner, group, world	order which permissions are displayed
r	4 - indicates read permission
w	2 - indicates write permission
x	1 - indicates execute permission
r-x	read and execute (5)
755	rwe-er-er

Conditionals

IF/THEN	if [<condition>] then <commands> fi
fi	terminates IF/THEN
if_[_<equation>_]	
-eq	is equal to (integer)
-ne	is not equal to (integer)
-gt	greater than (integer)
-lt	less than (integer)
-ge	greater than or equal to (integer)
-le	less than or equal to (integer)
=	is equal to (string)
!=	is not equal to (string)
ELIF	alternative to nested-if statements
read	reads user input
bash <directory> <variables>	remember to put variables at end if variables are needed for command

Shell Scripting

grep <word>	print lines matching a pattern
redirect operator	(>) send output to file instead of displaying on screen
append operator	(>>) appends data instead of displaying on screen
cut -d" "	cut empty columns
cut -d, -f1,2,4	cuts out only columns 1,2,4
sort	sorts alphabetically
sort -n	sorts numerically
uniq	removes duplicate lines from a text file; MUST BE SORTED FORT
tr "abc" "-xyz"	subsitute <v1> to <v2>
tr "[:lower:]""[:upper:]"	specify all lowercase letters to turn uppercase
new variable	supply variable name and its value; no spaces inbetween
variable1=2	valid; no spaces between equals
$((<equation>))	arithmetic expansion
echo $<variable>	prints <variable value>
" "	does not affect use
' '	used literally, does not call variables
$USER	lists current user
$PWD	prints present working directory
$HOME	home directory of current user
$RANDOM	o and 32767
sleep #	sleeps for # seconds

By **uhndreams**

cheatography.com/uhndreams/

Published 22nd February, 2023.

Last updated 3rd May, 2023.

Sponsored by **CrosswordCheats.com**

Learn to solve cryptic crosswords!

http://crosswordcheats.com

Bash Commands - ISM 4323 Cheat Sheet

by uhndreams via cheatography.com/178879/cs/37269/

find

find	search for files
find [where to start searching from][expression to fine][-options][what to find]	takes 2 arguements; 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
re - 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 "filename"	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 occurance of word
? word	search towards beginning of the file for the word
n	search for next occurance
N	search for previous occurance
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 outputed
-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

aescrypt	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
#! /bin/bash	turns list of commands into one 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

By **uhndreams**

cheatography.com/uhndreams/

Published 22nd February, 2023.
Last updated 3rd May, 2023.

Sponsored by **CrosswordCheats.com**
Learn to solve cryptic crosswords!
http://crosswordcheats.com