

Bash

<code>#!/bin/env bash</code>	the shebang
<code>./ file-name.sh</code>	how to run a bash script
<code>X="hello"</code>	set variables
<code>\$X</code>	use the variable
exit code	1 for false, 0 for true
<code>[]</code>	shorthand for test
<code>[[]]</code>	better shorthand for test, handles spaces better
<code>if [[]]; then; fi</code>	basic if-then-exit statement
<code>if [[]]; then; else; fi</code>	basic if-then-else
<code>if [[]]; then; elif [[]]; then; else; fi</code>	basic if-elif
<code>\$?</code>	exit code of last run command
<code>\$1, \$2 ... \$9</code>	argument 1, arg 2, ...
<code>env</code>	see all variables already set
<code>__ -eq __</code>	check if things are equal
<code>bash -x ____</code>	debugger
<code>for __ in __ ; do; commands; done</code>	basic for loop, ; indicates new line
<code>while true; do; commands; done</code>	while loop
<code>until true; do; commands; done</code>	until loop
<code>break</code>	exit a loop

Ownership

<code>chown/chgrp [owner] [file]</code>	change owner/-group
<code>chmod [u,g,o]+[permission] [file]</code>	add permissions

Ownership (cont)

<code>chmod [u,g,o]-[permission] [file]</code>	remove permission
<code>[u, g, o]</code>	user, group, other
<code>[permission]</code>	read (r), write (w), execute (x)
7	read, write and execute permissions
6	read and write permissions
5	read and execute permissions
4	read permissions
3	write and execute permissions
2	write permissions
1	execute permissions
0	no permissions

How We Set Up Samba

<code>sudo dnf install samba</code>	
<code>sudo nano /etc/samba/smb.conf</code>	add gloabals
<code>map archive = no</code>	
<code>map hidden = no</code>	
<code>map read only = no</code>	
<code>map system = no</code>	
<code>store dos attributes = yes</code>	
<code>sudo firewall-cmd --add-service=samba</code>	open the firewall
<code>sudo systemctl start smb.service</code>	
<code>sudo systemctl start nmb.service</code>	
<code>sudo systemctl enable smb.service</code>	
<code>sudo systemctl enable nmb.service</code>	
<code>sudo smbpasswd -a [user]</code>	add the user and give password for samba
<code>sudo setsebool -P samba_export_all_rw 1</code>	need this to let samba run because of a se fedora setting

Networking

TCP/IP	Transmission Control Protocol/Internet Protocol
<code>ping [web address]</code>	send packets to web address to test connection and speed
<code>ping -s [number] [address]</code>	change packet size sent
<code>traceroute [web address]</code>	shows route packets take when being sent
<code>firewall-cmd --remove-port=[port #]/[port type]</code>	take down firewall for specified port
<code>firewall-cmd --add-port=[port #]/[port type]</code>	put up firewall for specified port
<code>firewall-cmd --add-service=[service]</code>	some services are recognized by firewall command, use this to let them work

Secure Shell

<code>ssh [name]@[system name]</code>	using the secure shell
<code>scp [dir]/[file] [name]-@[system name]:</code>	copy from local to other system
<code>scp [name]@[system name]:[dir]/[file] .</code>	copy from other system to local

Common Commands

<code>sudo !!</code>	run previous command as sudo
<code>man [command]</code>	for manpages (give info about command)
<code>mkdir</code>	make directory
<code>rmdir</code>	remove directory
<code>cp -r [source] [destination]</code>	copy file recursively
<code>which [filename]</code>	gives location of file



Common Commands (cont)

less	read files and able to scroll through, better than 'more'
grep	search text
cat [filename]	shows content of file
head	shows beginning of file
tail	shows end of file
find . -iname *. [pP][dD] [fF]	find file, use -iname for case-insensitive
history	give a list of previously entered commands
![line #]	(use this with history) run the command from the history on given line
history grep [word]	search history for commands including the word
script	record output from entire session
yes "string"	repeat string until manually stopped
cal	ascii calendar
date	gives current date
^this^that	run previous command replacing "this" with "that"
uptime	show system uptime
whoami	display current user name

DNF

**dnf ____ [package name]	____ can be filled with the words below
update (or upgrade)	update a package
install	install a package
remove	remove a package

Systemctl

systemctl daemon-reload	Reload systemd manager configuration
journalctl [service name]	check the logs of a service
systemctl ____ [service name]	____ can be filled with the words below
start	start a system service
stop	stop a system service
status	check the status of a service
enable	let service start on boot
disable	make it so service does not start on boot

Other Info

*	any character any number of times
?	any character one time
[cC]	one of these characters
/etc/skel	Sample startup files you can place in home directories for new users
[command] [command]	piping
\$	regular user
#	root user
~	home directory
nano and vi	text editors
&	run in background
ctrl+z	suspend process running
ctrl+c	kill process running
ctrl+s	stop output to terminal
ctrl+q	return from ctrl+s state
ctrl+a	go to start of a line
ctrl+e	go to end of a line
ctrl+k	cut from cursor to end of line

Git

git clone /path/to/repository	create copy of git repository
git add filename	add file to git repository
git commit -am "message"	send the changes to git repository
git push	makes the changes to git repository

Download/Extract

wget [url for file]	download file
tar -xzf [file]	extract tar file

Directories of Note

/	root directory
/bin	contains Unix commands
/boot	contains files needed to boot the system
/dev	device files
/etc	contains most configuration files
/etc/passwd	contains user information (name, password, id, ...)
/etc/skel	sample files for making a new home directory
/home	home folder for user
/lib	contains files for /bin and /sbin
/tmp	location of temporary files for the system