

1CCNA!2#Ubuntu Commands:

Please note: the -(Letter): specifies the options. So think ls -l gives the option of: using long listing format

ls: content of directory

less: view files or any section of a file. If used with sources.list it gets the sources

apt: uses package manage system

sudo apt update: updates the list of available packages and their versions from configured sources, but it does not install or upgrade any packages.

apt-get upgrade: actually installs newer versions of the packages you have updated from sources. After updating the lists (apt upgrade), the package manager knows about available updates for the software you have installed. This is why you first want to update.

Sudo apt search: 1. Uses sudo so administrative privalages 2. apt use the package manage system 3. searches for the avaiable packages

ls -la: the “-” means option. The -l: is puts the content in long listing format. The “-a”: essentially list entries starting with “.”

mkdir: Creates a folder/directories

less: contents of a file

cd: moves/changes to a directory

rm: removes a single file

cp: copies a file to another file. Difference with windows copy is that you need to have the file. But with windows it allows you to create a file if there is no file

⑩ CREATES A FOLDER IF NOT ONE IE: cp /root/desktop/folder1 root/desktop/folder2

⑩ creates folder2

mv [source file] [destination]: moves content of one file to another file deleting original file

sudo: administrative privalages allows it. If you are out of the root folder you don't have privalages so you need to use sudo

ps -e: single snapshot of process running

Top: Allows you to display of process statistics in real time

uname -a: print certain system information. But the option - “a” prints all system information (very specific not uname which just reports back with the word “linux”. This is the operating system.)

Nano: open text editor in terminal

Touch: change file stamp. If no file creates a file

Gedit: open/executes default text editor of gnome desktop of a file

Nano: text editor in terminal (gui)

lsusb: list usb devices

lspci: list all pci devices

crontab: location where you can schedule scripts or task

rc.local: runs scripts everytime machine boots

/usr/bin: location where makes script seen for system wide use. If you can type testscrip instead of ./testscrip

Echo \$path: The \$path: states the series of path that are checked when command is typed ie testscrip command checks in bin

zip: zip -r [root/path/filename.zipp] [path/destination]

So the source then destination. The source includes path and name

```
#!/bin/bash
```

```
zip zippedfile *
```

```
thedata=$(date +"%d_%m_%y")
```

```
mv currentfile $thedata
```

```
scp -i dave_pem.pem $thedata@192.168.1.250:/home/dave/
```

So the #! bin/bash indicates that its a script should run/interpret with a bash

The zip command will compression all the files in the current directory and name it zippedfile

Then a variable thedate is created which stores the date in format days month year.

Finally the mv command will rename the currentfile to the the \$thedata variable (which outputs the formatted date)

And the last line will export the file (the file name is the \$thedata variable output. eg: If \$thedata variable stores the date 14/2/17 then the file name would be assigned 14/2/17) to dave server using pem key as the authentication method.

- **Sudo adduser [user] [group name]:** add users to system or to group+ but give options to add password.
- **Sudo useradd [user] [group name]:** same as above but does not give prompt for password
- **Sudo groupadd [group name]:** create new group
- **Sudo groupdel [group name]:** delete a group
-
- *note its very case sensitive
- **sudo su [user]:** change user Id + become supervisor so essentially switching users
- D/F[RWE][RWE][RWE] + owner [name] + group owner [name] permission
 - [RWE] → Owner permission + Group permission + user permission
 - 4 2 1
 - **sudo chown [owner] [owner group aswell] [file]:** Assign new Owner of file
- *Can't remove file unless root. Root is assigns permission but they can only remove files
 - **sudo chgrp:** Assign new file group owner
 - please note: even though when you change owner of a file it doesn't give the assigned owner of the file permission to change the group
- **chmod [xyz] [filename]:** change permission of owner (X) + change permission of group (Y) + change permission of user (Z)
 - So: x = (sum of the rwe (421) numbers)
 - D[RW-] = chmod 6(4+2)
- **pwd:** gives directory path
- **Sudo rm -rf /* :** deletes the whole file system including the os

Windows commands

- **whoami:** shows the the domain/user. Username and group information
- **dir:** shows content of current directory- files & folders
- **Notepad [file]:** opens the text file in GUI. Sort of like gedit
- All files are 0 bytes. But when you save a text it becomes more than 0 bytes (FOR EXAM DO THIS AND REFRESH YOUR MIND)
- **copy [emptyfile.txt] [directory/path]:** Copies one or more files to another location (not folders hierarchy). But if no file creates a file ie: Touch + Copy
 - **Copy NUL [file.FORMAT]:** Copies one or more files to another location. If no file exist it Creates a file and specifies format sort of like touch.
- **xcopy [Source] [Destination]:** copies one or more files/folder hierarchy into new directory (for scripting)
- **del:** deletes one or more single file
- **move [Path1 absolute path + file] [Path2 absolute path+ file ie c:\user\testfile.txt\]:** moves file from source to destination.
- **tasklist:** displays all running applications and services in snapshot like ps -e (task manager gui shows you programs and services in a useful name.

- **taskkill /f /[exe file] or taskkill /f /pid [process ID. Found in tasklist and number]**
- **chkdsk:** check disk and repair them
- **appwiz.cpl:** brings you to control panel uninstall programs
- **ftp:** is windows file transfer protocol. .
- **ipconfig:** show ip address windows
- **netstat -an:** shows public private ipv4 address (not apache2 one) that is public ipv4
- **schtasks:** Get a list of task scheduled and manage and create task
- **schtasks | findstr Backup:** show a list of process/task (more task but lab said) and when they will be scheduled (species it will find for)
- **Steps to allow windows file and share server:**
 - Enable FTP and HTTP server via windows feature on and off
 - IIS manager
 - View sites Add ftp site
 - The site is you ip address → ipconfig.
 - But we need to enable it via firewall inbound connection then add rule
- **Steps to allow Ubuntu server:**
 - Sudo apt update
 - Sudo apt install apache2
 - Sudo apt install openssh-server
 - Sudo apt install nmap
 - Ifconfig to check ip address
 - Then check if you can check website with other computers if not. Then fix firewall
 - Ufw status verbose
 - Ufw allow
 - So install webserver. Check if can access if can't allow → ufw allow
- **Inbound rules:** These are to do with other things accessing your computer. If you are running a Web Server on your computer then you will have to tell the Firewall that outsiders are allowed to connect to it.
- **Outbound rules:** These are so that you can let some programs use the Internet, and Block others. You will want to let your Web Browser (Internet Explorer, Firefox, Safari, Chrome, Opera...) have access to the Internet, so you will tell Windows Firewall that it's allowed.
- How does ftp differ from windows and linux.
- **Powershell:** A command shell (terminal) and configuration toolkit built in .net framework. But it supports the management of network devices and linux machines so it can be used on linux. Allows user to develop their own script and interact directly with operating system objects
- `Get-Process | Sort-Object ID` sorts it to ID

*File creator is always the owner

Please note to run files it is ./name.exe for Ubuntu and name.exe for windows but if we want name.exe in linux place it in user/bin