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SYS-255

1. List five common Linux directories and briefly state their purpose?

- a. **Root-** This is the main directory that holds everything in the linux system.
- b. **Bin-** This directory contains the essential user programs and applications.
- c. **Boot-** This is where all the files necessary to boot up the system are.
- d. **Dev-** This is how the devices are shown within the system such as drives.
- e. **Etc-** This contains the config files for the system which can be edited by the user.

2. Which command would you use to change directories to /etc/sysconfig/network-scripts/?
Provide a screenshot of the command and a listing of the contents of that directory.

- a. `cd /etc/sysconfig/network-scripts/`

```
[david@dhcp01-david ~]$ cd /etc/sysconfig/network-scripts/  
[david@dhcp01-david network-scripts]$ _
```

- b.

3. Figure out how to create a directory called "assignment" within your /home/yourname/sys255 directory. What command would you use to copy the /etc/hosts file to your new directory? Provide a screenshot of the tree command executed from your home directory.

- a.

```
[david@dhcp01-david ~]$ mkdir assignment /home/david/sys255  
[david@dhcp01-david ~]$ cd /home/david  
[david@dhcp01-david ~]$ ls  
assignment sys255  
[david@dhcp01-david ~]$ _
```

```
[david@dhcp01-david ~]$ cd /home/david  
[david@dhcp01-david ~]$ ls  
assignment sys255  
[david@dhcp01-david ~]$ cp /etc/hosts /home/david/assignment  
[david@dhcp01-david ~]$ cd /home/david/assignment  
[david@dhcp01-david assignment]$ ls  
hosts
```

4. What are the two major text editors used in Linux? Provide a screenshot of ~/sys255/assignment/hosts in each of these editors (two screenshots)

a.

```
127.0.0.1    localhost localhost.localdomain localhost4 localhost4.localdomain4
::1         localhost localhost.localdomain localhost6 localhost6.localdomain6
```

b.

```
GNU nano 2.3.1      File: /home/david/assignment/hosts

127.0.0.1    localhost localhost.localdomain localhost4 localhost4.localdomain4
::1         localhost localhost.localdomain localhost6 localhost6.localdomain6
```

5. Which file contains a list of user accounts in Linux? Use the cat command to provide a screenshot of the contents of this file.

a.

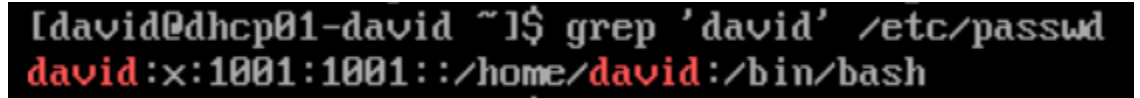
```
[david@dhcp01-david ~]$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:99:99:Nobody:/:/sbin/nologin
systemd-network:x:192:192:systemd Network Management:/:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
polkitd:x:999:998:User for polkitd:/:/sbin/nologin
libstoragemgmt:x:998:997:daemon account for libstoragemgmt:/var/run/lsm:/sbin/nologin
abrt:x:173:173:/:etc/abrt:/sbin/nologin
rpc:x:32:32:Rpcbind Daemon:/var/lib/rpcbind:/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/var/empty/sshd:/sbin/nologin
postfix:x:89:89:/:var/spool/postfix:/sbin/nologin
chrony:x:997:995:/:var/lib/chrony:/sbin/nologin
ntp:x:38:38:/:etc/ntp:/sbin/nologin
tcpdump:x:72:72:/:/sbin/nologin
champuser:x:1000:1000:champuser:/home/champuser:/bin/bash
david:x:1001:1001:/:home/david:/bin/bash
```

6. Which command would you use to create a user account named *champlain* and set its password.

a. Useradd champlain

7. Which command is used to search for words or files as a pipe ("|") after a command (example: *command : _____ search*). Provide a screenshot where you search the concatenated (cat) output of the file from #5 for your username.

a.



```
[david@dhcp01-david ~]$ grep 'david' /etc/passwd
david:x:1001:1001::/home/david:/bin/bash
```

8. In your own words, please list out the process for setting a static IP address on CentOS Linux (you did this in the lab and it is documented in the video and the wiki links) Provide a link to your tech journal article. (2 points)

- a. After searching through previous labs, I was unable to find when or how we had created the static IP address on Linux.
- b. https://github.com/dthomsen116/SYS_255/wiki/Thomsen-SYS255-Lab03

9. What is a *shell* in Linux?

- a. A shell is very similar to command prompt or powershell in windows. Allows the user to input direct commands to the system.

10. What is the difference between su and sudo -i?

- a. Su makes the user a superuser which allows admin rights. Sudo does the same making the user a root user however a password is required before the user is granted these rights.

11. You know parts of the command you want to use to accomplish something, yet need to know more about the command and what options there are first. Where can you look in Linux to find additional information about a specific command?. Provide a screenshot where you find more information about the "tree" command.

- a. man tree (I used cat because for some reason tree was not a valid command)

```
[david@dhcp01-david ~]$ tree
-bash: tree: command not found
```

- b.

```
CAT(1) User Commands CAT(1)

NAME
  cat - concatenate files and print on the standard output

SYNOPSIS
  cat [OPTION]... [FILE]...

DESCRIPTION
  Concatenate FILE(s), or standard input, to standard output.

  -A, --show-all
      equivalent to -vET

  -b, --number-nonblank
      number nonempty output lines, overrides -n

  -e      equivalent to -vE

  -E, --show-ends
      display $ at end of each line

  -n, --number
      number all output lines

  -s, --squeeze-blank
      suppress repeated empty output lines

  -t      equivalent to -vT

  -T, --show-tabs
      display TAB characters as ^I

  -u      (ignored)

  -v, --show-nonprinting
```

- c. Manual page cat(1) line 1 (press h for help or q to quit)

12. What command would you use (be specific) to find out who is logged into the computer right now. Provide a screenshot.

- a. Both the w command and the whoami command work to answer this.

```
[david@dhcp01-david ~]$ whoami
david
[david@dhcp01-david ~]$ w
 18:48:55 up 6 days,  4:12,  1 user,  load average: 0.00, 0.01, 0.05
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT
david     tty1                13Sep21  7.00s   1.02s   0.03s w
[david@dhcp01-david ~]$
```

- b.