

Old Dominion University
CYSE 301 Cybersecurity Techniques and Operations

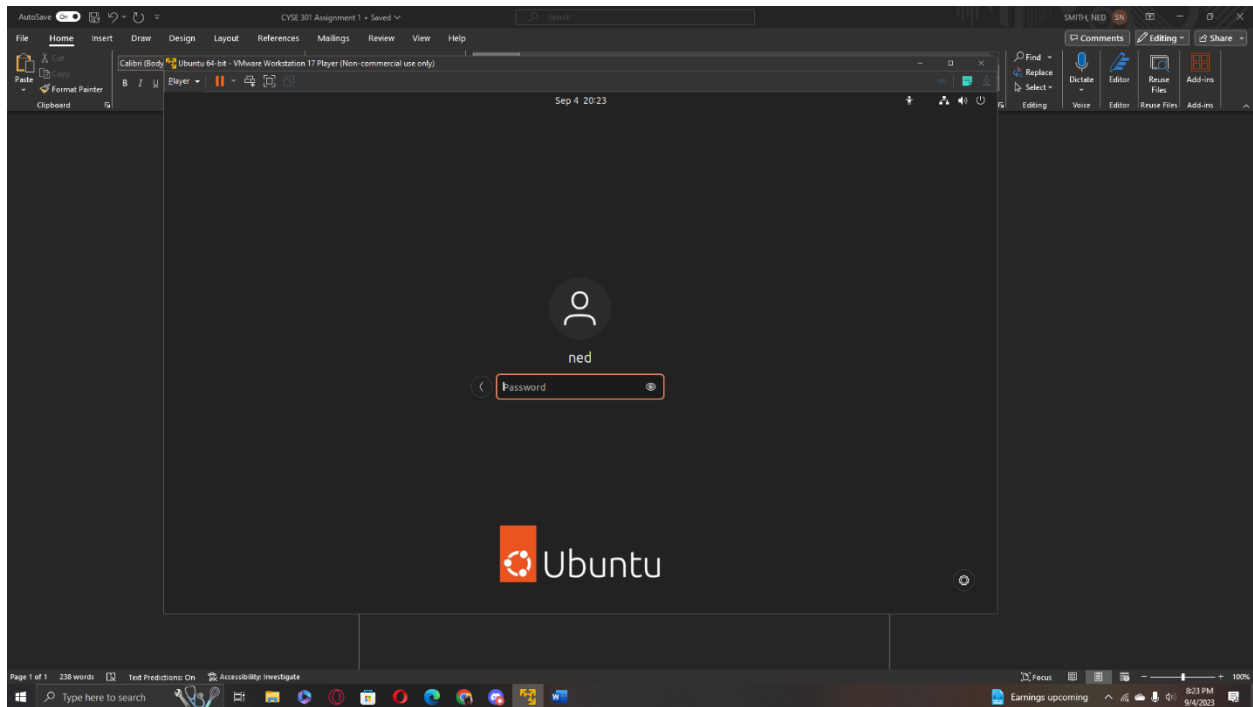
Assignment #1 Traffic Tracing and Analysis

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Task A

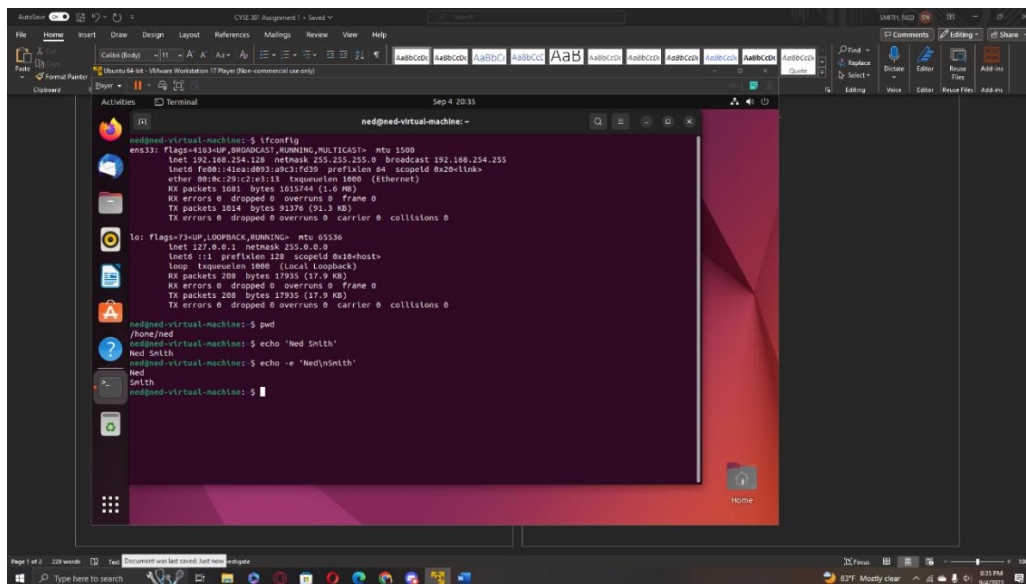
Question 1



Explanation: Above I showed the login screen to show I successfully installed a virtual machine that can run Linux

Task B

Questions 1-4



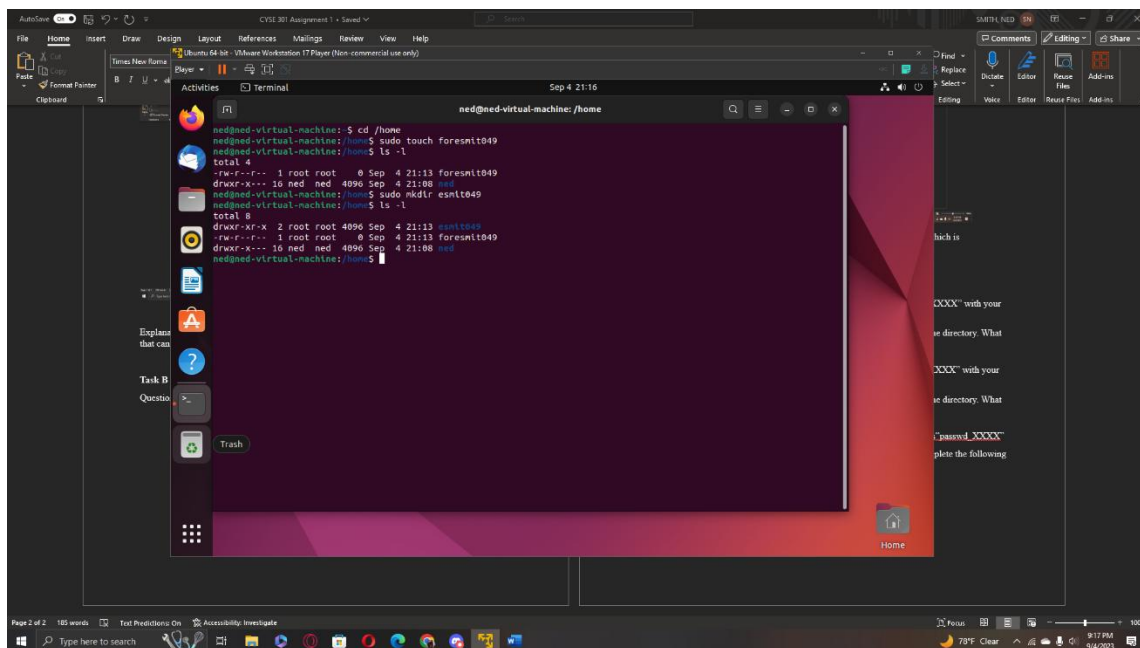
```
ned@ned-virtual-machine:~$ ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.254.128 netmask 255.255.255.0 broadcast 192.168.254.255
    inet6 fe80::a5c:0093:dc3:fcd0 prefixlen 64 scopeid 0x2b<link>
    ether 08:0c:29:c2:e3:13 txqueuelen 1000 (Ethernet)
    RX packets 1081 bytes 1613744 (1.6 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1014 bytes 91376 (91.3 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop transmit 1000 (Local Loopback)
    RX packets 208 bytes 17935 (17.9 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 208 bytes 17935 (17.9 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

ned@ned-virtual-machine:~$ pwd
/home/ned
ned@ned-virtual-machine:~$ echo 'Ned Smith'
Ned Smith
ned@ned-virtual-machine:~$ echo -e 'Ned\nSmith'
Ned
Smith
ned@ned-virtual-machine:~$
```

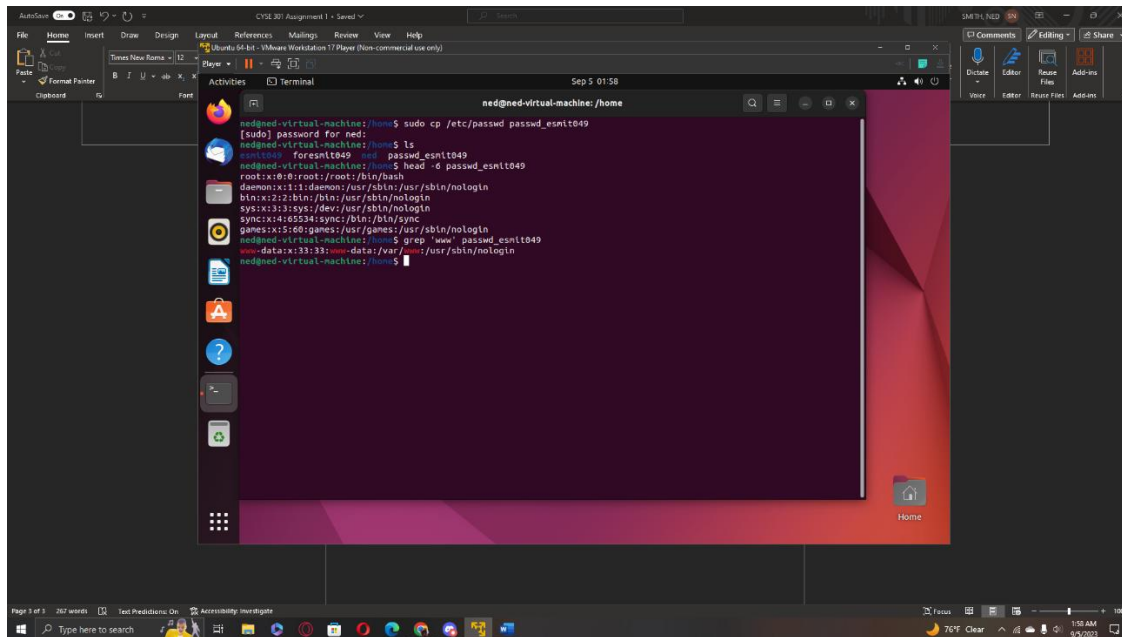
Explanation: First, I used the “ifconfig” command to display my ip address, which is 192.168.254.128. Then I used the PWD command to display the current directory before using the echo command followed by my name to print my name in the terminal. Then, I used the echo command again followed by -e to enable the interpretation of escape characters and then followed by ‘Ned\nSmith’ to print my name in two separate lines.

Questions 5-7



```
ned@ned-virtual-machine: /home
ned@ned-virtual-machine:~$ cd /home
ned@ned-virtual-machine:/home$ sudo touch foresnit049
ned@ned-virtual-machine:/home$ ls -l
total 4
-rw-r--r-- 1 root root 0 Sep  4 21:13 foresnit049
drwxr-x--- 10 ned ned 4096 Sep  4 21:08 ned
ned@ned-virtual-machine:/home$ sudo mkdir esmit049
ned@ned-virtual-machine:/home$ ls -l
total 0
drwxr-xr-x  2 root root 4096 Sep  4 21:13 esmit049
-rw-r--r--  1 root root  0 Sep  4 21:13 foresnit049
drwxr-x--- 10 ned ned 4096 Sep  4 21:08 ned
ned@ned-virtual-machine:/home$
```

Explanation: First I used `cd /home` to navigate to the home directory using its absolute pathname. Then I used the `touch` command followed by “foresmit049” to create a file with the given name in my home directory, before then using the `ls -l` command to list the files in the home directory in long list format. This gave me the size of the “foresmit049” file, which was 0 bits. Then, I used “`mkdir esmit049`” to make a directory titled esmit049 inside of the home directory, followed by using the `ls -l` command to list the files in the home directory in long list format once again. This gave me the “esmit049” directory size, which was 4096 bits.



```
ned@ned-virtual-machine: /home$ sudo cp /etc/passwd passwd_esmit049
[sudo] password for ned:
ned@ned-virtual-machine: /home$ ls
passwd_esmit049
ned@ned-virtual-machine: /home$ head -6 passwd_esmit049
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/usr/sbin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:13:13:games:/usr/games:/usr/sbin/nologin
ned@ned-virtual-machine: /home$ grep 'www' passwd_esmit049
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
ned@ned-virtual-machine: /home$
```

Explanation: I used the `cp` command to copy the `/etc/passwd` file to the home directory as well as renaming it to `passwd_esmit049`. Then I used the `ls` command to verify if the file was in the home directory, before using the `head` command followed by `-6` to display the first six lines of the `passwd_esmit049` file. Finally, I used the `grep` command followed by “`www`” to search the `passwd_esmit049` file for all instances in the file where “`www`” came up.