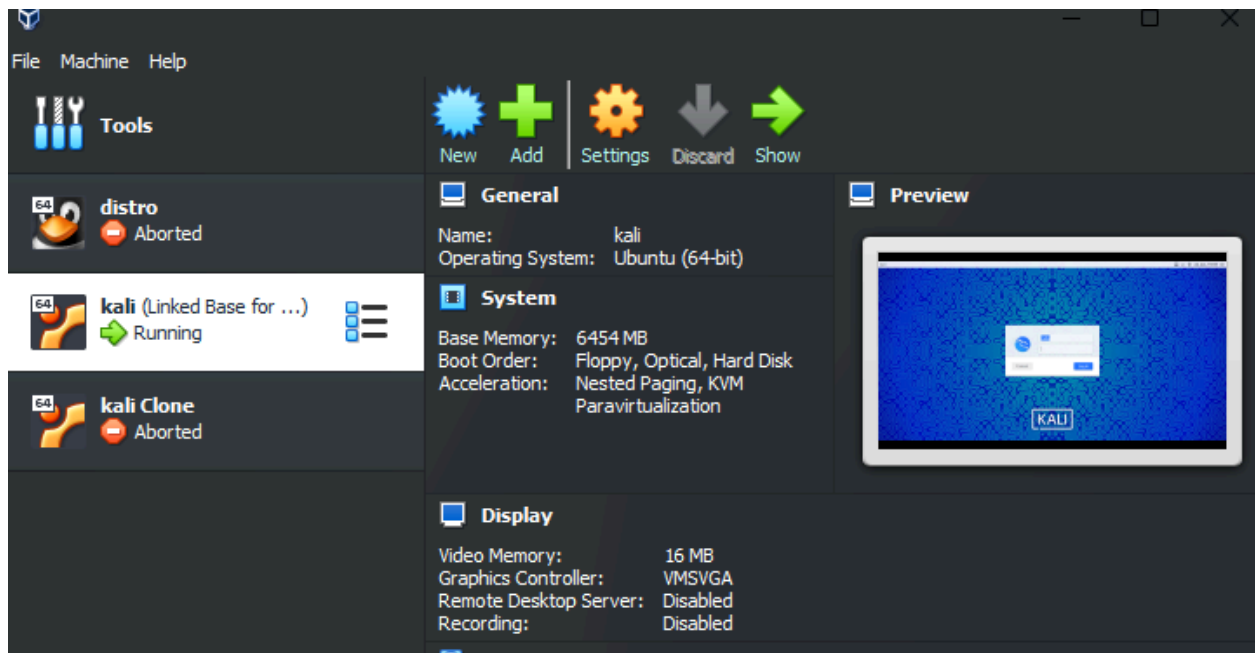


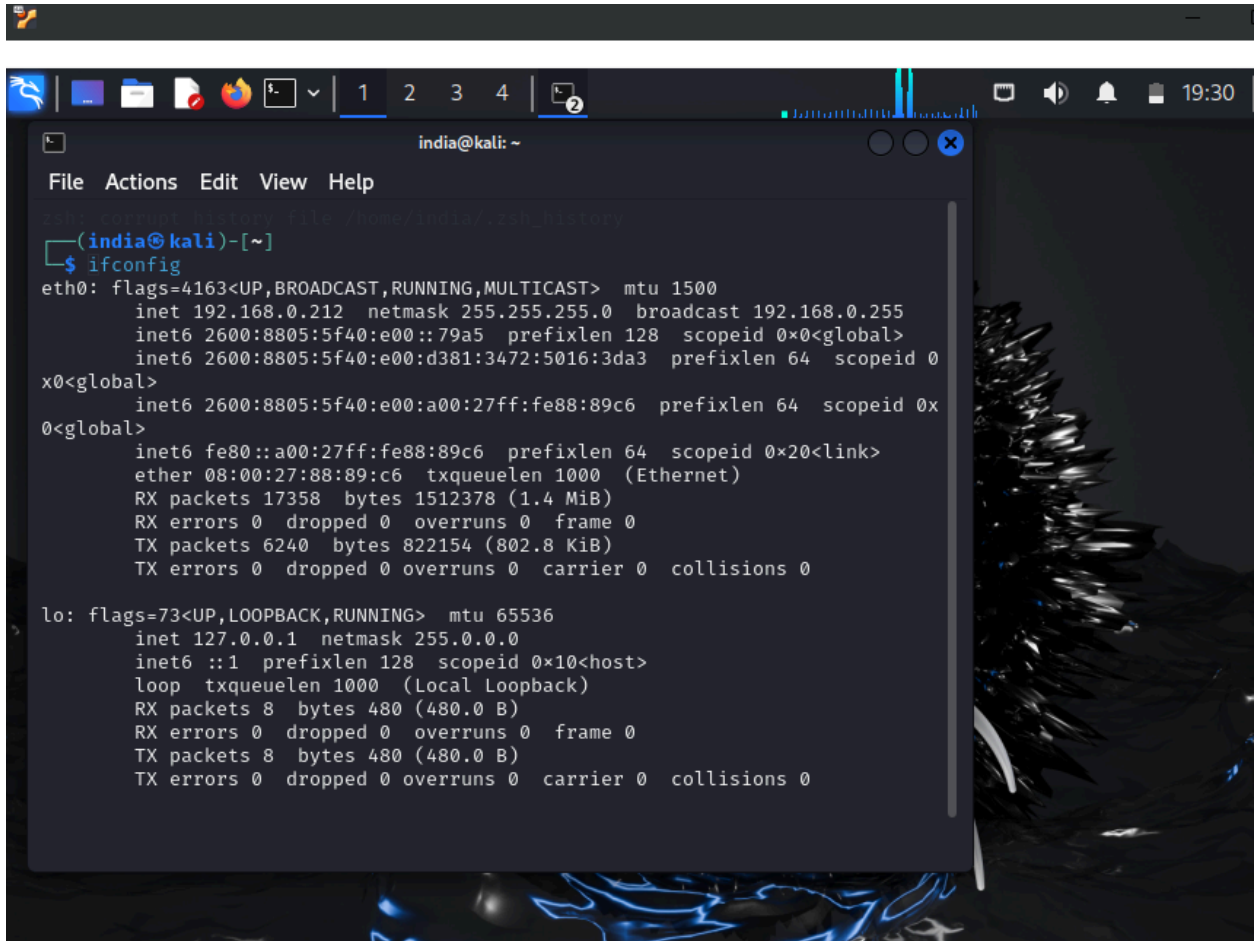
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CYSE 301 - 32781
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24 January 2025**

**CYSE: Cybersecurity Technique and Operations
Assignment: Lab 1 - Basic Linux Commands**

VM info



1. How do you find the IP address of your Linux machine using the command line?

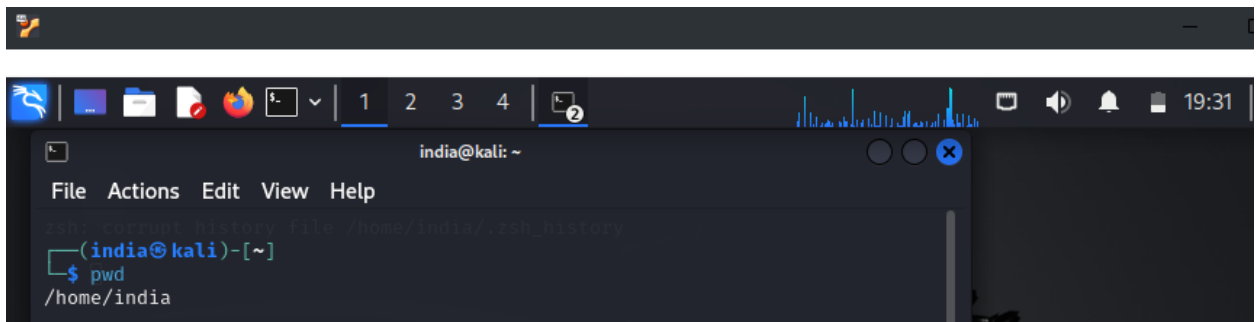
A terminal window titled 'india@kali: ~' with a menu bar (File, Actions, Edit, View, Help). The prompt is '(india@kali)-[~]'. The user has entered '\$ ifconfig'. The output shows details for the 'eth0' and 'lo' interfaces. For 'eth0', it lists flags, mtu, inet (192.168.0.212), inet6, ether (08:00:27:88:89:c6), and statistics. For 'lo', it lists flags, mtu, inet (127.0.0.1), inet6 (::1), loop, and statistics.

```
(india@kali)-[~]
└─$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
      inet 192.168.0.212 netmask 255.255.255.0 broadcast 192.168.0.255
      inet6 2600:8805:5f40:e00::79a5 prefixlen 128 scopeid 0<global>
      inet6 2600:8805:5f40:e00:d381:3472:5016:3da3 prefixlen 64 scopeid 0
x0<global>
      inet6 2600:8805:5f40:e00:a00:27ff:fe88:89c6 prefixlen 64 scopeid 0x
0<global>
      ether 08:00:27:88:89:c6 txqueuelen 1000 (Ethernet)
      RX packets 17358 bytes 1512378 (1.4 MiB)
      RX errors 0 dropped 0 overruns 0 frame 0
      TX packets 6240 bytes 822154 (802.8 KiB)
      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 0<host>
      loop txqueuelen 1000 (Local Loopback)
      RX packets 8 bytes 480 (480.0 B)
      RX errors 0 dropped 0 overruns 0 frame 0
      TX packets 8 bytes 480 (480.0 B)
      TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

I used the command “ifconfig” to determine the ip address, it returned 192.168.0.212

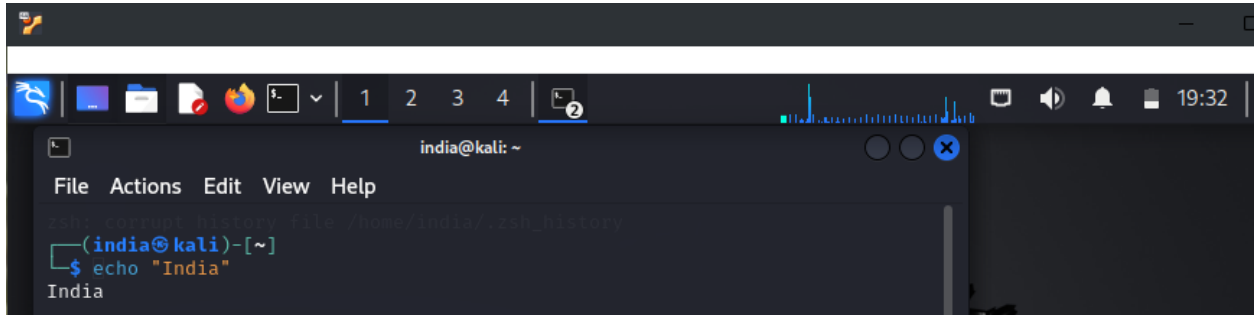
2. Display your current directory in a terminal.

A terminal window titled 'india@kali: ~' with a menu bar (File, Actions, Edit, View, Help). The prompt is '(india@kali)-[~]'. The user has entered '\$ pwd'. The output is '/home/india'.

```
(india@kali)-[~]
└─$ pwd
/home/india
```

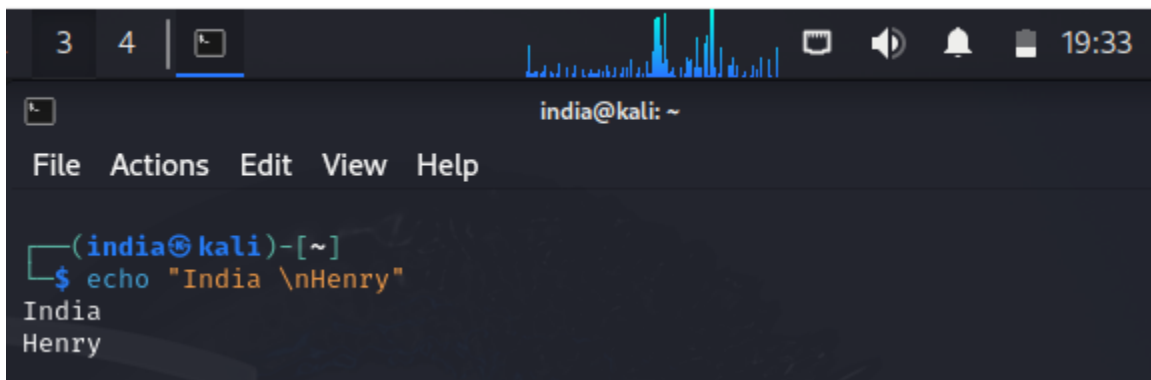
I used the command “pwd” to return the home directory: /home/india (my personal VM)

3. Use the echo command to print your name to the console.

A terminal window titled 'india@kali: ~' with a menu bar (File, Actions, Edit, View, Help). The prompt is '(india@kali)-[~]'. The command '\$ echo "India"' is entered, and the output 'India' is displayed below it. The terminal is running on a Kali Linux desktop environment with a taskbar at the top showing icons for various applications and the time 19:32.

I used the echo command to return my name

4. Display your **first and last names in two separate lines** using a single echo command (tip: how to enable the interpretation of escape characters)

A terminal window titled 'india@kali: ~' with a menu bar (File, Actions, Edit, View, Help). The prompt is '(india@kali)-[~]'. The command '\$ echo "India \nHenry"' is entered, and the output 'India' followed by 'Henry' on a new line is displayed. The terminal is running on a Kali Linux desktop environment with a taskbar at the top showing icons for various applications and the time 19:33.

I used the echo command in one line to return my full name, \n separates my first and last name on two separate lines.

5. Create a new file named "forXXXX.txt" in your **home directory** (replace "" with your own MIDAS). Then, use the long listing format to display the contents in your home directory. What is the size of the file you just created?

```
1 2 3 4 | v 19:50
india@kali: ~
File Actions Edit View Help

(india@kali)-[~]
└─$ touch forihenr002.txt

(india@kali)-[~]
└─$ ls
'${midas}-${date}.tar'  Music      Videos    forihenr002.txt
Desktop                Pictures    cd         ihenr002
Documents              Public     copyright  passwd
Downloads              Templates  data      passwd_ihenr002

(india@kali)-[~]
└─$ du -h forihenr002.txt
0      forihenr002.txt
```

I used the “touch” command to create a file named forihenr002.txt
To verify the file is in my home directory I used the “ls” command
Using the “du -h” command on the forihenr002.txt file to verify the size of the file “0”

- 6. Create a new directory named “XXXX” in your **home directory** (replace “XXXX” with your own MIDAS). Then, use the **long listing format** to display the content in your home directory. What is the size of the file you just created?

```
1 2 3 4 | 19:37
india@kali: ~
File Actions Edit View Help

(india@kali)-[~]
└─$ mkdir ihenr002

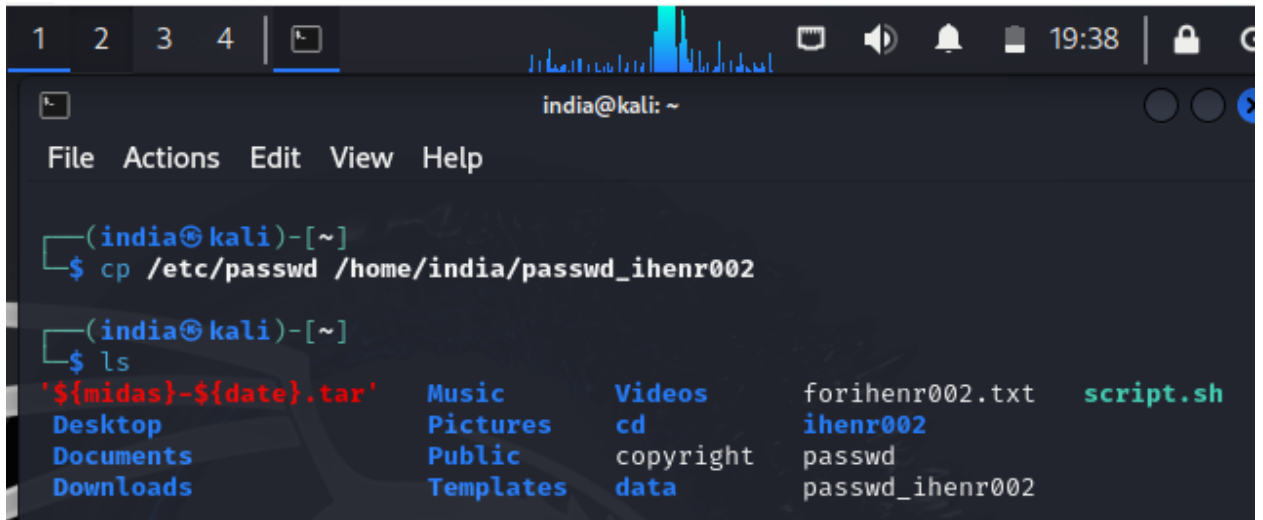
(india@kali)-[~]
└─$ ls
'${midas}-${date}.tar'  Music      Videos    forihenr002.txt  script.sh
Desktop                Pictures    cd         ihenr002
Documents              Public     copyright  passwd
Downloads              Templates  data      passwd_ihenr002

(india@kali)-[~]
└─$ du -sh ihenr002
4.0K   ihenr002
```

I used the “mkdir” command to make a directory titled “ihenr002”

I used the “ls” command to verify the directory is within my home directory
I used the “du -sh” command display the size of the directory

7. Copy `/etc/passwd` file to your home directory. The copy should be named as “passwd_XXXX” (replace “XXXX” with your own MIDAS) in your home directory. Then, complete the following two subtasks:



```
1 2 3 4 | [ ]
india@kali: ~
File Actions Edit View Help

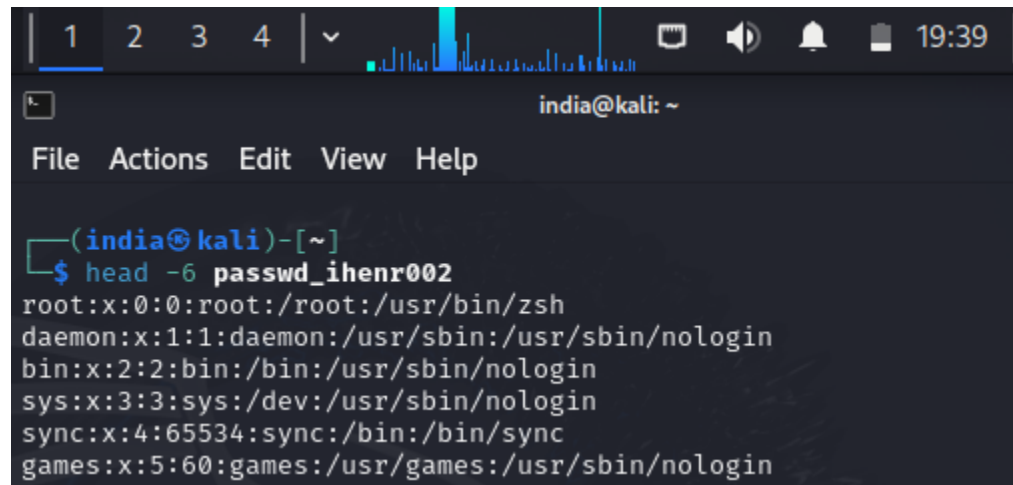
(india@kali)-[~]
└─$ cp /etc/passwd /home/india/passwd_ihenr002

(india@kali)-[~]
└─$ ls
'${midas}-${date}.tar'  Music      Videos    forihenr002.txt  script.sh
Desktop                Pictures    cd          ihenr002
Documents              Public     copyright  passwd
Downloads              Templates  data       passwd_ihenr002
```

I used the “cp” command to copy the `/etc/passwd` file to my home directory and rename it to `passwd_ihenr002`

To verify that change was made I used the “ls” command

- a. Use the proper command to display the first **six** lines in this file.

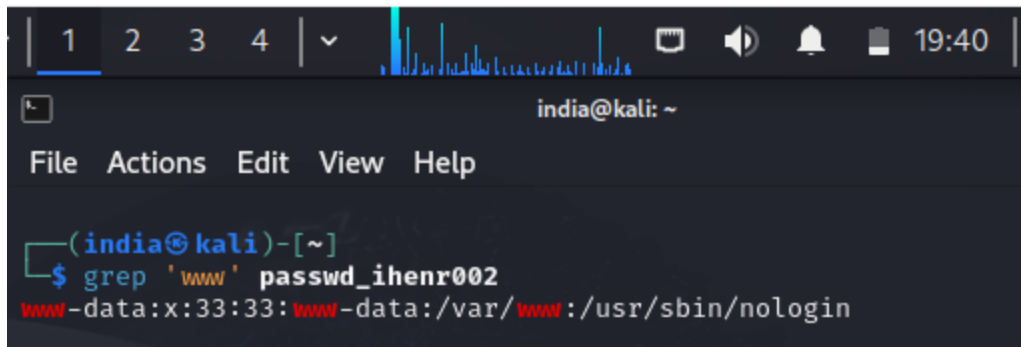


```
1 2 3 4 | v [ ] 19:39
india@kali: ~
File Actions Edit View Help

(india@kali)-[~]
└─$ head -6 passwd_ihenr002
root:x:0:0:root:/root:/usr/bin/zsh
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
```

I used the “head” command to display the first 10 lines, but shortened it using “-6” to display only the first 6 lines of the file

- b. Search keyword “www” in this file.

A terminal window on a Kali Linux system. The window title is "india@kali: ~". The menu bar includes "File", "Actions", "Edit", "View", and "Help". The prompt is "(india@kali)-[~]". The command executed is "grep 'www' passwd_ihenr002". The output is "www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin".

```
1 2 3 4 | v | 19:40
india@kali: ~
File Actions Edit View Help
(india@kali)-[~]
└─$ grep 'www' passwd_ihenr002
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
```

I used the “grep” command to loop up any usage of “www” within the passwd_ihenr002 file