

OLD DOMINION UNIVERSITY

CYSE 301 CYBERSECURITY TECHNIQUES AND OPERATIONS

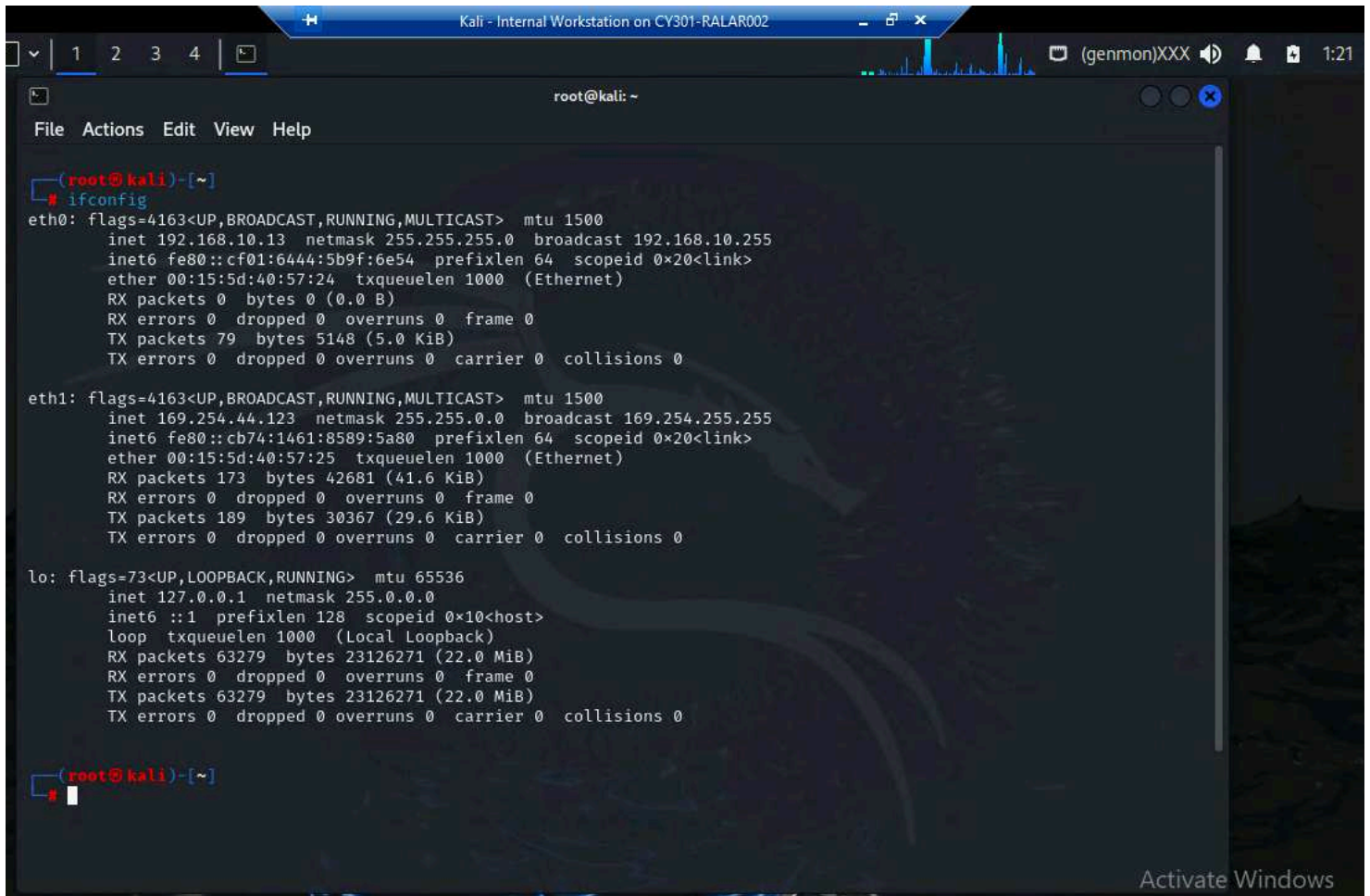
Assignment #1: Basic Linux Commands

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Task A

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



```
(root@kali)-[~]
└─# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.13 netmask 255.255.255.0 broadcast 192.168.10.255
    inet6 fe80::cf01:6444:5b9f:6e54 prefixlen 64 scopeid 0x20<link>
    ether 00:15:5d:40:57:24 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 79 bytes 5148 (5.0 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

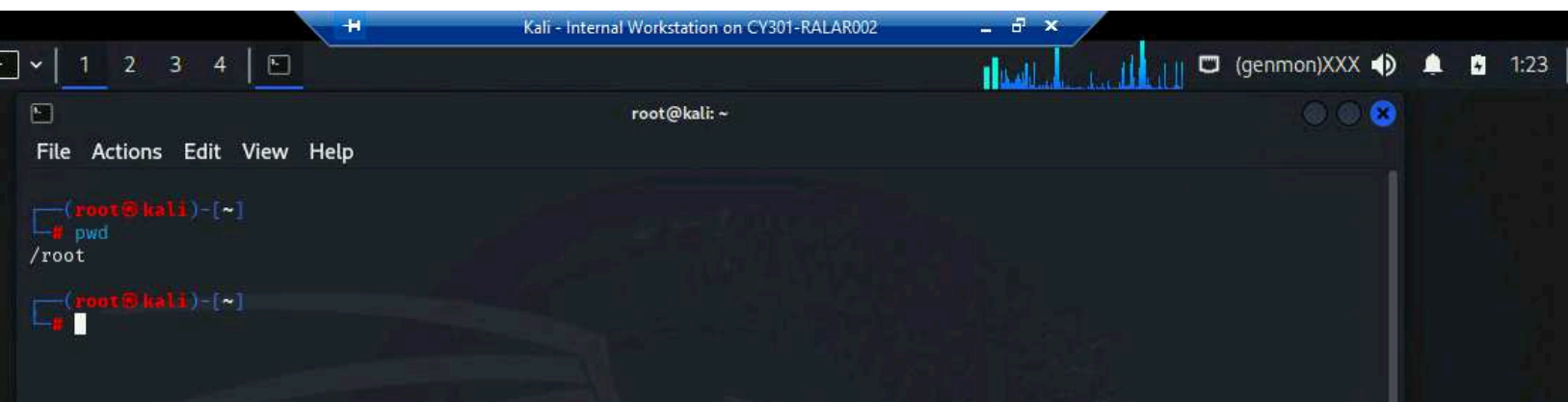
eth1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 169.254.44.123 netmask 255.255.0.0 broadcast 169.254.255.255
    inet6 fe80::cb74:1461:8589:5a80 prefixlen 64 scopeid 0x20<link>
    ether 00:15:5d:40:57:25 txqueuelen 1000 (Ethernet)
    RX packets 173 bytes 42681 (41.6 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 189 bytes 30367 (29.6 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 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 63279 bytes 23126271 (22.0 MiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 63279 bytes 23126271 (22.0 MiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

(root@kali)-[~]
└─#
```

I used the command "ifconfig," and the IP address returned is "192.168.10.13"

2. Display your current directory in a terminal

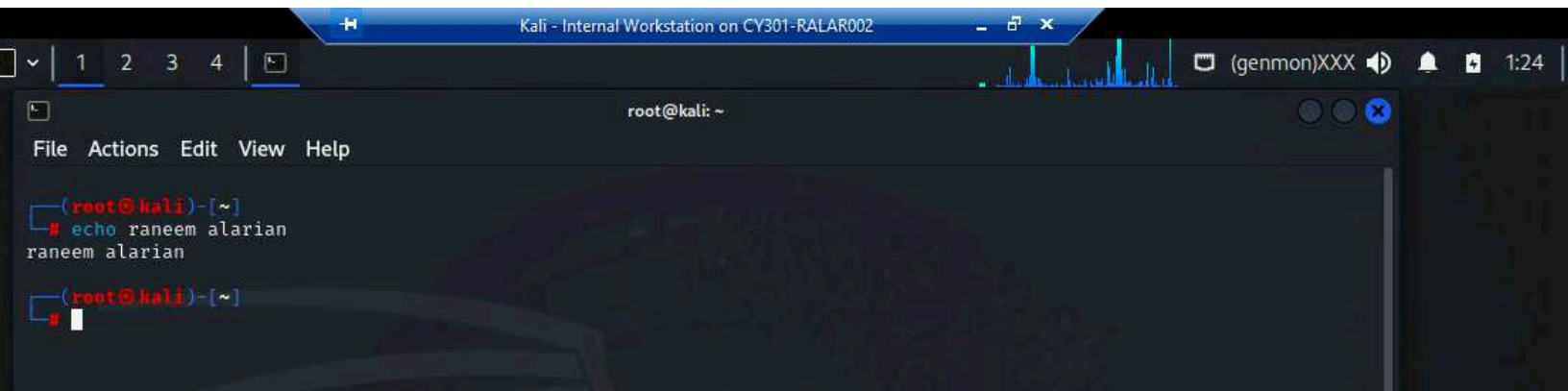


```
(root@kali)-[~]
└─# pwd
/root

(root@kali)-[~]
└─#
```

I used the command “pwd” to display my current directory

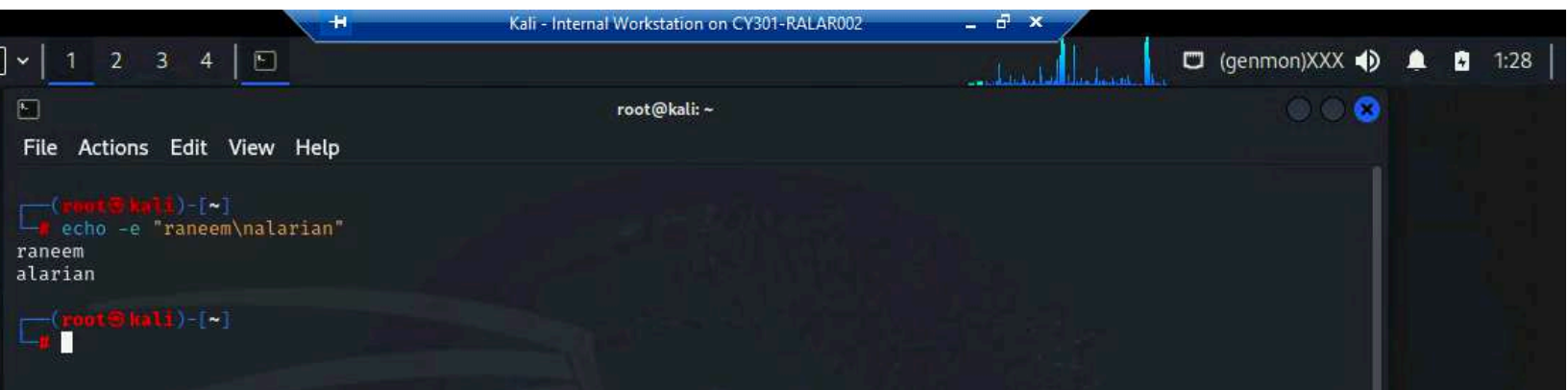
3. Use the echo command to print your name to the console



A terminal window titled "Kali - Internal Workstation on CY301-RALAR002" showing a root user at a kali machine. The terminal displays the command `echo raneem alarian` and its output `raneem alarian`. The terminal interface includes a menu bar with "File", "Actions", "Edit", "View", and "Help", and a status bar at the bottom showing the user's name and time.

I used the “echo” command to display my name by typing in “echo” followed by my name

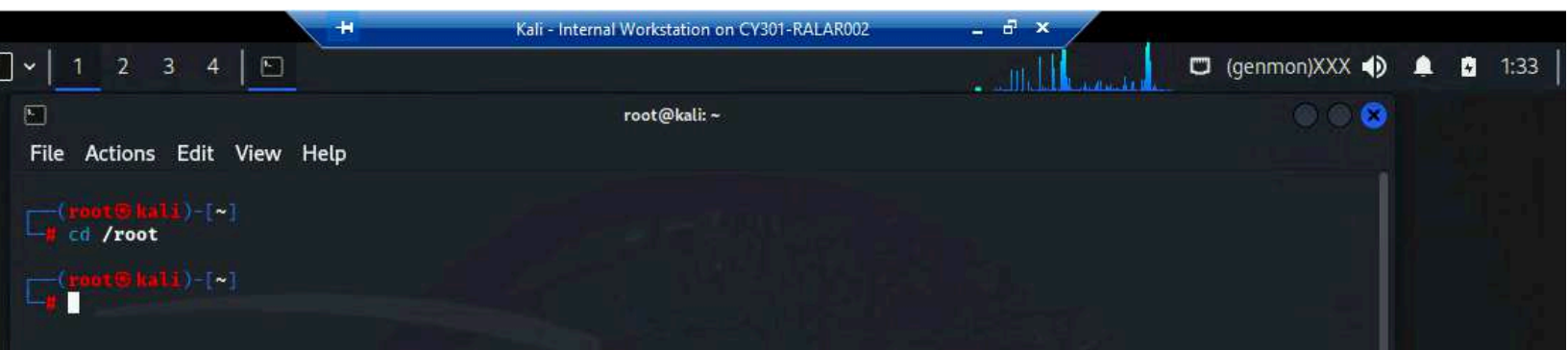
4. Display your first and last names in two separate lines using a single echo command



A terminal window titled "Kali - Internal Workstation on CY301-RALAR002" showing a root user at a kali machine. The terminal displays the command `echo -e "raneem\nalarian"` and its output, which consists of two lines: `raneem` followed by `alarian` on a new line. The terminal interface includes a menu bar with "File", "Actions", "Edit", "View", and "Help", and a status bar at the bottom showing the user's name and time.

I used the “echo” command followed by the -e option, as well as “\n” in between the lines I wanted to separate, to display my first and last name in two separate lines

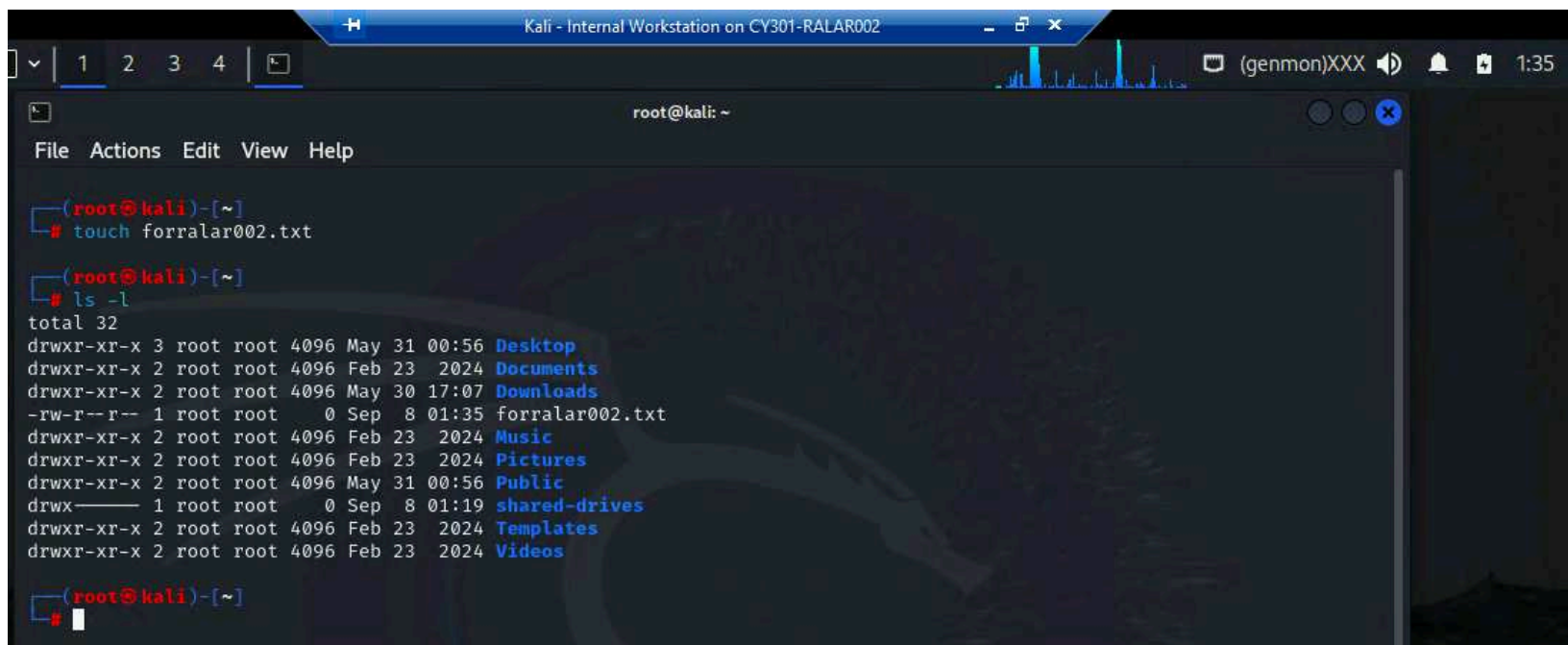
5. How to change to the home directory using cd command and absolute pathname?



A terminal window titled "Kali - Internal Workstation on CY301-RALAR002" showing a root user at a kali machine. The terminal displays the command `cd /root`. The terminal interface includes a menu bar with "File", "Actions", "Edit", "View", and "Help", and a status bar at the bottom showing the user's name and time.

I used the “cd” command, followed by “/root” to change to the home directory using an absolute path. Typically, regular user accounts have directories under /home. However, the root user’s home directory is /root

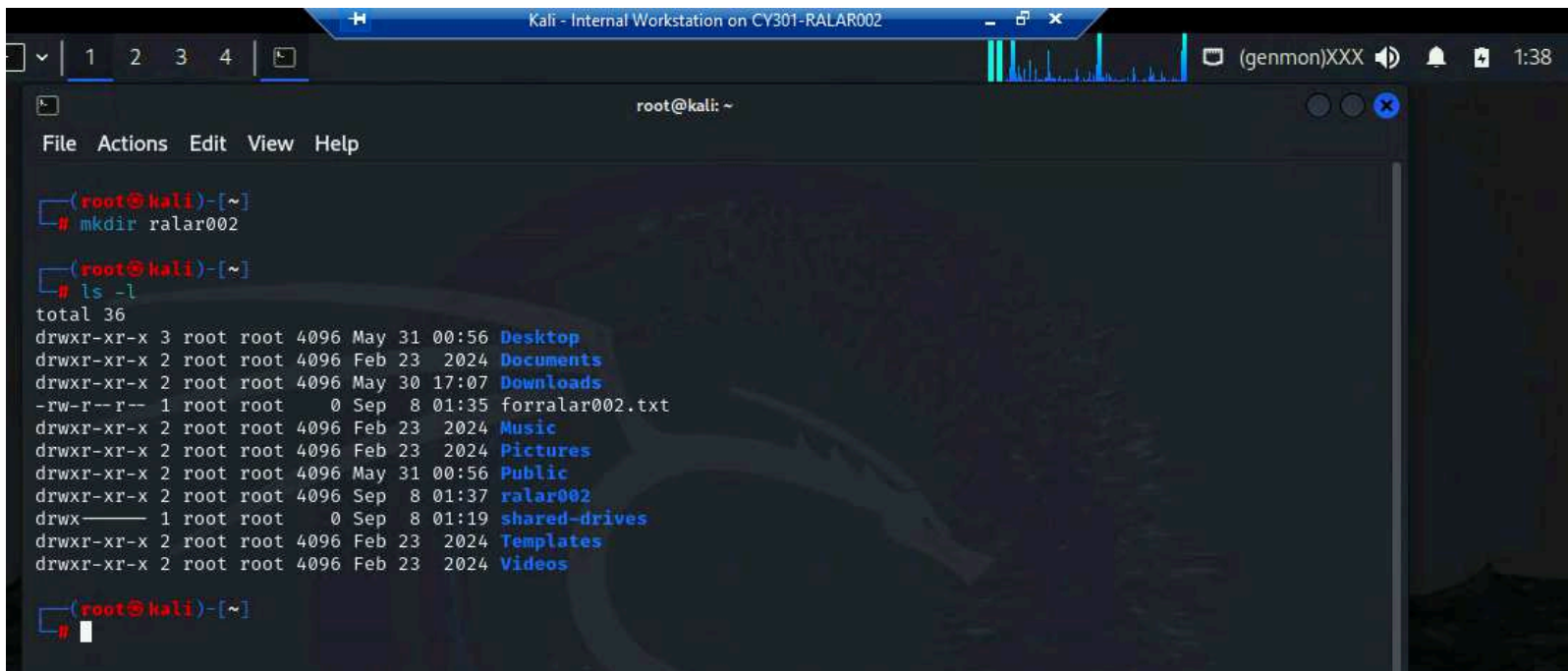
6. Create a new file named “forXXXX.txt” in your home directory (replace “XXXX” with your own MIDAS). Then, use the long listing format to display the contents in your home directory. What is the size of the file you just created?



```
root@kali: ~  
File Actions Edit View Help  
(root@kali)-[~]  
# touch forralar002.txt  
(root@kali)-[~]  
# ls -l  
total 32  
drwxr-xr-x 3 root root 4096 May 31 00:56 Desktop  
drwxr-xr-x 2 root root 4096 Feb 23 2024 Documents  
drwxr-xr-x 2 root root 4096 May 30 17:07 Downloads  
-rw-r--r-- 1 root root 0 Sep 8 01:35 forralar002.txt  
drwxr-xr-x 2 root root 4096 Feb 23 2024 Music  
drwxr-xr-x 2 root root 4096 Feb 23 2024 Pictures  
drwxr-xr-x 2 root root 4096 May 31 00:56 Public  
drwx----- 1 root root 0 Sep 8 01:19 shared-drives  
drwxr-xr-x 2 root root 4096 Feb 23 2024 Templates  
drwxr-xr-x 2 root root 4096 Feb 23 2024 Videos  
(root@kali)-[~]  
#
```

I used the “touch” command to create a new file. I then used the command “ls -l” to display the contents in my home directory. The size of my file I created is 0

7. 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 contents in your home directory. What is the size of the file you just created?



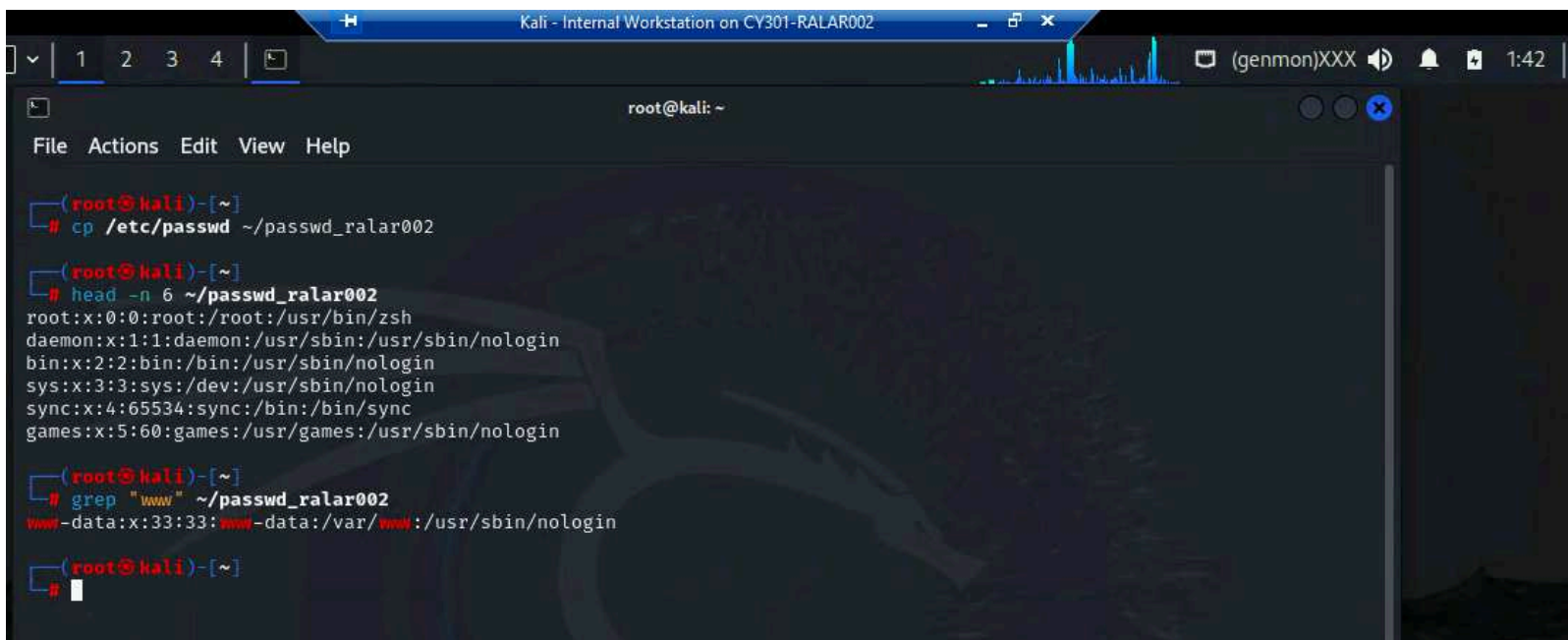
A terminal window titled "Kali - Internal Workstation on CY301-RALAR002" showing the following commands and output:

```
(root@kali)-[~]
# mkdir ralar002

(root@kali)-[~]
# ls -l
total 36
drwxr-xr-x 3 root root 4096 May 31 00:56 Desktop
drwxr-xr-x 2 root root 4096 Feb 23 2024 Documents
drwxr-xr-x 2 root root 4096 May 30 17:07 Downloads
-rw-r--r-- 1 root root 0 Sep 8 01:35 forralar002.txt
drwxr-xr-x 2 root root 4096 Feb 23 2024 Music
drwxr-xr-x 2 root root 4096 Feb 23 2024 Pictures
drwxr-xr-x 2 root root 4096 May 31 00:56 Public
drwxr-xr-x 2 root root 4096 Sep 8 01:37 ralar002
drwx----- 1 root root 0 Sep 8 01:19 shared-drives
drwxr-xr-x 2 root root 4096 Feb 23 2024 Templates
drwxr-xr-x 2 root root 4096 Feb 23 2024 Videos
```

I used the “mkdir” command to create a new directory. I then used the command “ls -l” to display the contents in my home directory. The size of the directory I created is 4096 bytes

8. 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:
- Use the proper command to display the first six lines in this file
 - Search for the keyword “www” in this file



A terminal window titled "Kali - Internal Workstation on CY301-RALAR002" showing the following commands and output:

```
(root@kali)-[~]
# cp /etc/passwd ~/passwd_ralar002

(root@kali)-[~]
# head -n 6 ~/passwd_ralar002
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

(root@kali)-[~]
# grep "www" ~/passwd_ralar002
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
```

I used the “cp” command to copy the /etc/passwd file to my home directory under the name “passwd_ralar002”. I then used the “head” command followed by the -n 6 option to display the first six lines in the file. Lastly, I used the “grep” command to search for the keyword “www” in the file