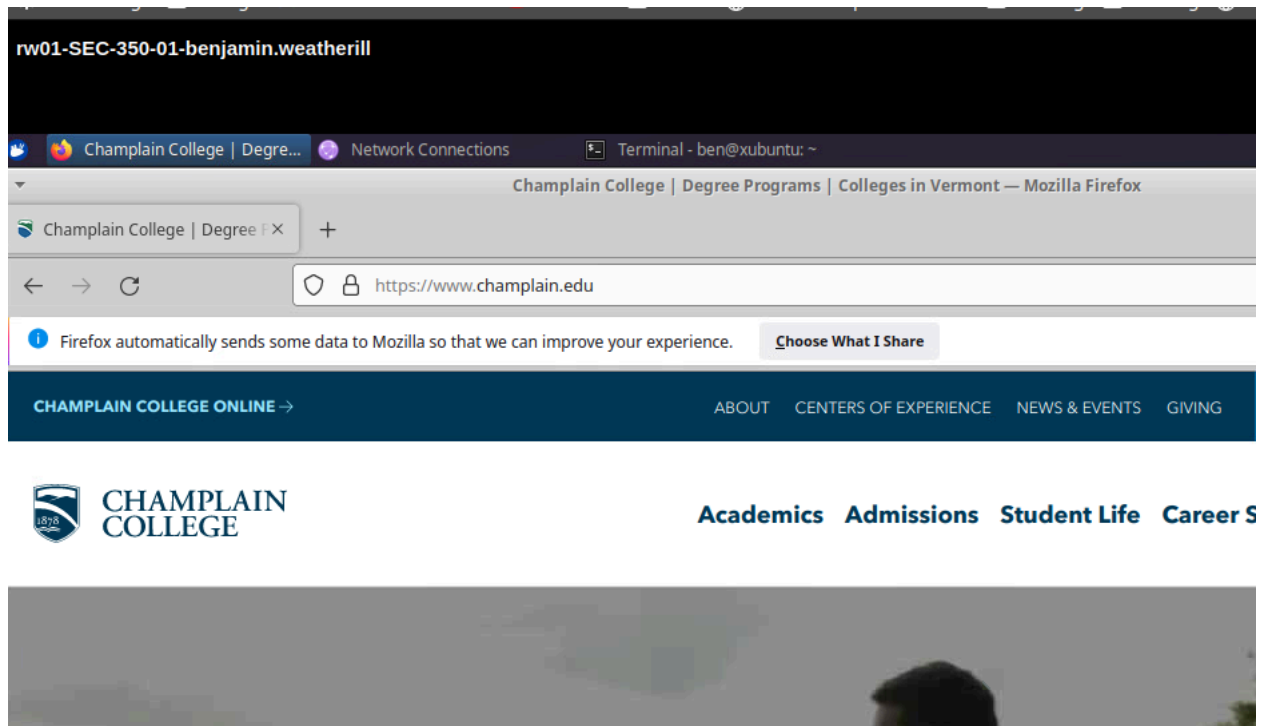


Lab 1.1 - Routing and DMZ  
SEC-350  
Ben W  
SP24

Deliverables:

1. Rw01 connected to the internet



2. Ping google.com from fw01

```
vyos@fw01-benjamin:~$ ping google.com
PING google.com (142.250.65.238) 56(84) bytes of data:
64 bytes from lga25s73-in-f14.1e100.net (142.250.65.238): icmp_seq=1 ttl=55 time
=11.6 ms
64 bytes from lga25s73-in-f14.1e100.net (142.250.65.238): icmp_seq=2 ttl=55 time
=11.7 ms
64 bytes from lga25s73-in-f14.1e100.net (142.250.65.238): icmp_seq=3 ttl=55 time
=11.4 ms
64 bytes from lga25s73-in-f14.1e100.net (142.250.65.238): icmp_seq=4 ttl=55 time
=11.4 ms
^C
--- google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3005ms
rtt min/avg/max/mdev = 11.396/11.517/11.705/0.129 ms
```

### 3. Ping working but no dns resolution on web01

web01-SEC-350-01-benjamin.weatherill

```
[ben@localhost ~]$ ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=54 time=11.8 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=54 time=11.6 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=54 time=11.6 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=54 time=11.5 ms
^C
--- 8.8.8.8 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 11.460/11.597/11.826/0.174 ms
[ben@localhost ~]$ ping google.com
ping: google.com: Name or service not known
[ben@localhost ~]$ _
```

### 4. Successful ping to google.com from web01 and hostname

```
[ben@localhost ~]$ ping google.com
PING google.com (142.250.65.238) 56(84) bytes of data.
64 bytes from lga25s73-in-f14.1e100.net (142.250.65.238): icmp_seq=1 ttl=54 time=11.7 ms
64 bytes from lga25s73-in-f14.1e100.net (142.250.65.238): icmp_seq=2 ttl=54 time=12.0 ms
^C
--- google.com ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 11.729/11.878/12.027/0.149 ms
[ben@localhost ~]$ hostname
web01-benjamin
```

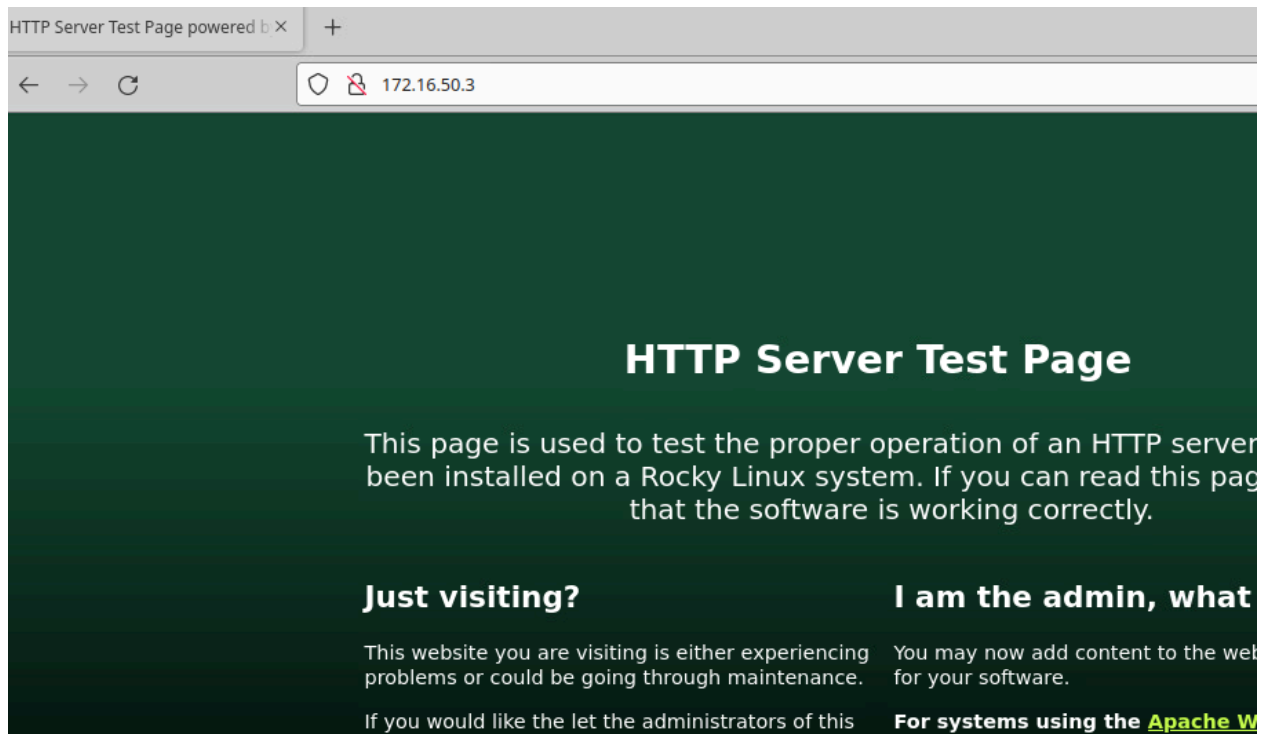
### 5. Log01 ifconfig and ping to google.com

```
[ben@localhost ~]$ ifconfig
ens192: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 172.16.50.5 netmask 255.255.0.0 broadcast 172.16.255.255
    inet6 fe80::5ee1:5d08:5fa3:fa10 prefixlen 64 scopeid 0x20<link>
    ether 00:50:56:a1:e9:59 txqueuelen 1000 (Ethernet)
    RX packets 33 bytes 3453 (3.3 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 112 bytes 13664 (13.3 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

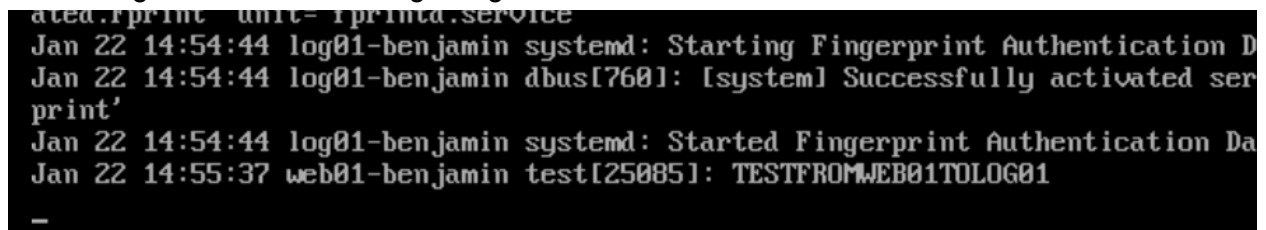
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 264 bytes 22944 (22.4 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 264 bytes 22944 (22.4 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[ben@localhost ~]$ ping google.com
PING google.com (142.250.65.238) 56(84) bytes of data.
64 bytes from lga25s73-in-f14.1e100.net (142.250.65.238): icmp_seq=1 ttl=54 time=11.6 ms
^C
--- google.com ping statistics ---
1 packets transmitted, 1 received, 0% packet loss, time 0ms
rtt min/avg/max/mdev = 11.632/11.632/11.632/0.000 ms
[ben@localhost ~]$ _
```

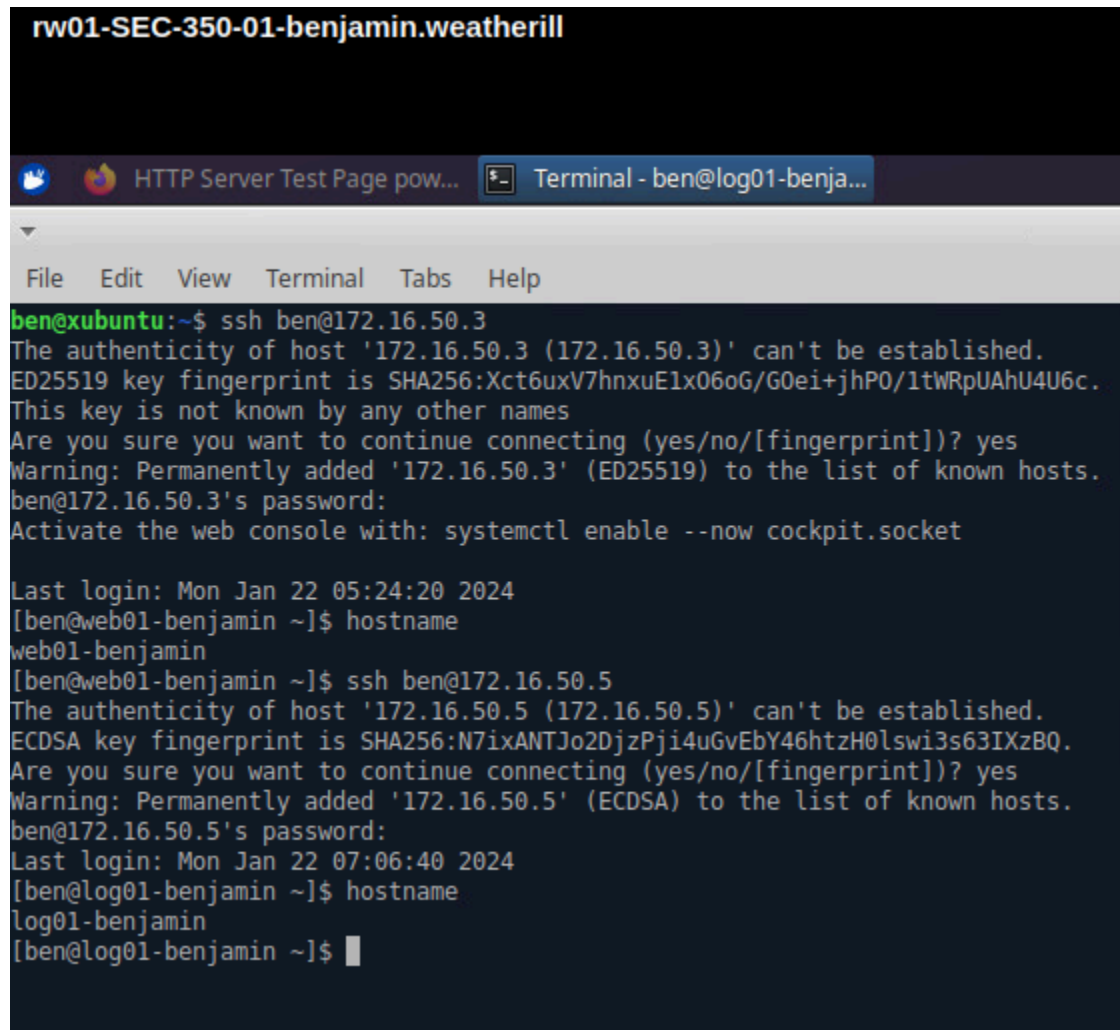
6. Test page of web01 shown on rw01



7. Log from web01 showing in log01



8. SSH from rw01 to web01 to log01



The screenshot shows a terminal window titled "rw01-SEC-350-01-benjamin.weatherill". The terminal content shows a user at a xubuntu machine performing an SSH connection to 172.16.50.3. It displays host fingerprint warnings for both ED25519 and ECDSA keys, followed by successful logins to web01 and then log01. The final prompt is at log01-benjamin.

```
ben@xubuntu:~$ ssh ben@172.16.50.3
The authenticity of host '172.16.50.3 (172.16.50.3)' can't be established.
ED25519 key fingerprint is SHA256:Xct6uxV7hnxuElx06oG/G0ei+jhP0/ltWRpUAhU4U6c.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '172.16.50.3' (ED25519) to the list of known hosts.
ben@172.16.50.3's password:
Activate the web console with: systemctl enable --now cockpit.socket

Last login: Mon Jan 22 05:24:20 2024
[ben@web01-benjamin ~]$ hostname
web01-benjamin
[ben@web01-benjamin ~]$ ssh ben@172.16.50.5
The authenticity of host '172.16.50.5 (172.16.50.5)' can't be established.
ECDSA key fingerprint is SHA256:N7ixANTJo2DjzPji4uGvEbY46htzH0lswi3s63IXzBQ.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '172.16.50.5' (ECDSA) to the list of known hosts.
ben@172.16.50.5's password:
Last login: Mon Jan 22 07:06:40 2024
[ben@log01-benjamin ~]$ hostname
log01-benjamin
[ben@log01-benjamin ~]$
```

9. vyOS Tech Journal:

<https://github.com/benjamin-weatherill/SEC-350/wiki/VyOS-Set%E2%80%90up-Information>

10. Lab Tech Journal:

<https://github.com/benjamin-weatherill/SEC-350/wiki/Lab-1.1-%E2%80%90Routing-and-DMZ>