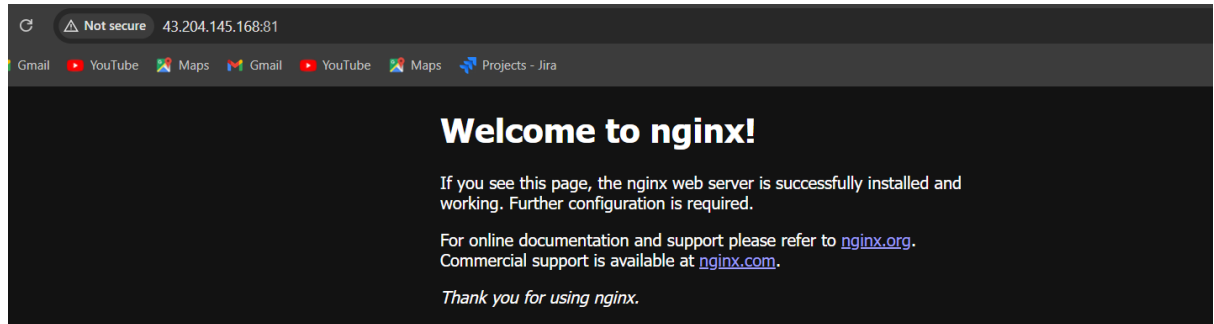
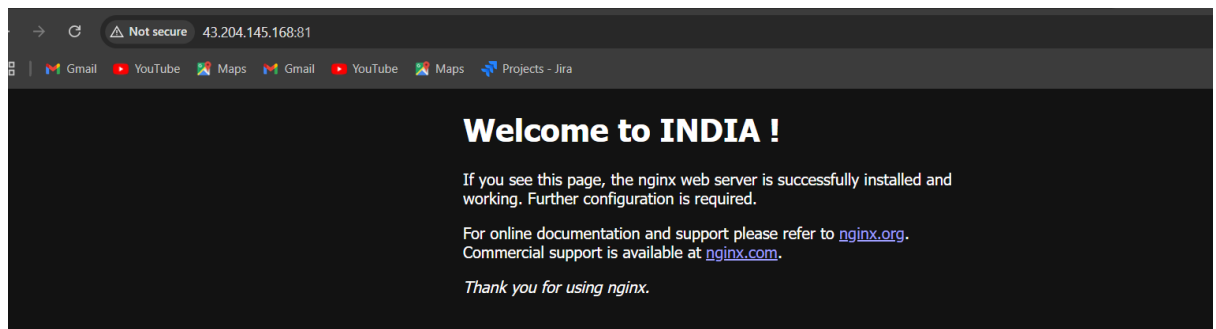


TASK 04 (12-02-2025)

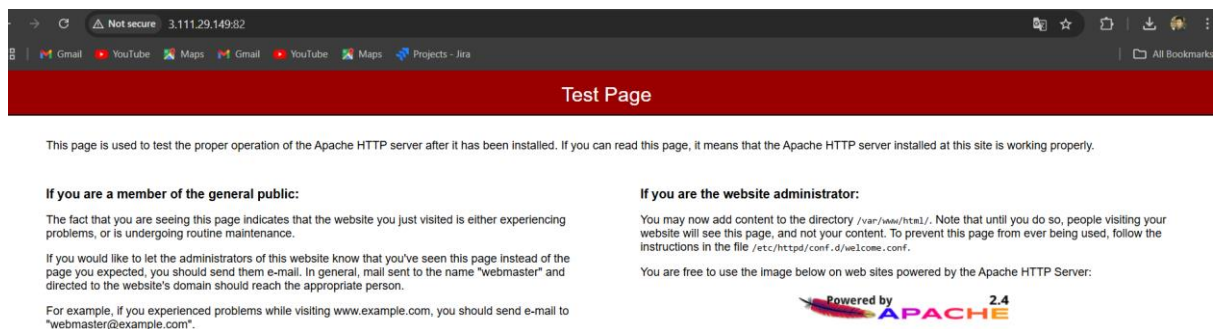
1) Install nginx and run nginx on port number 81:



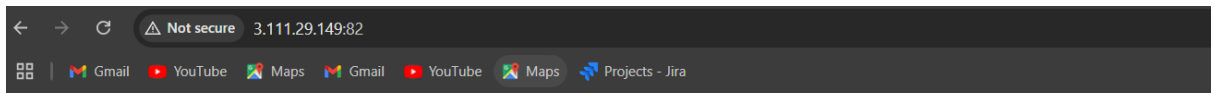
2) Deploy a sample index.html file on nginx:



3) Install Apache and run Apache on port number 82:

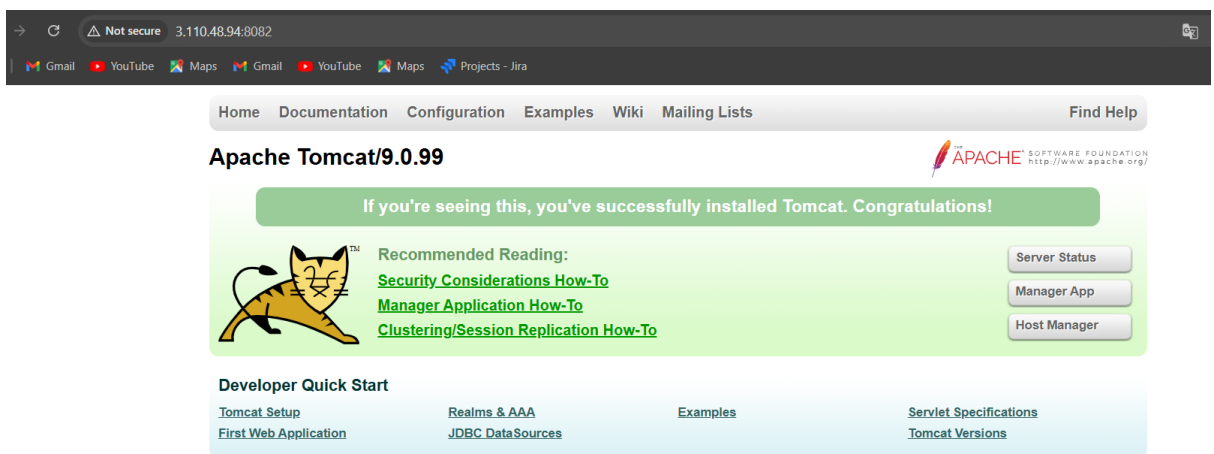


4) Deploy a sample index.html file on Apache:

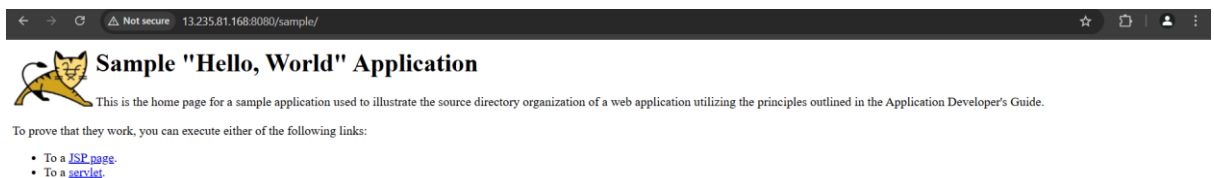


This is My Sample Application!

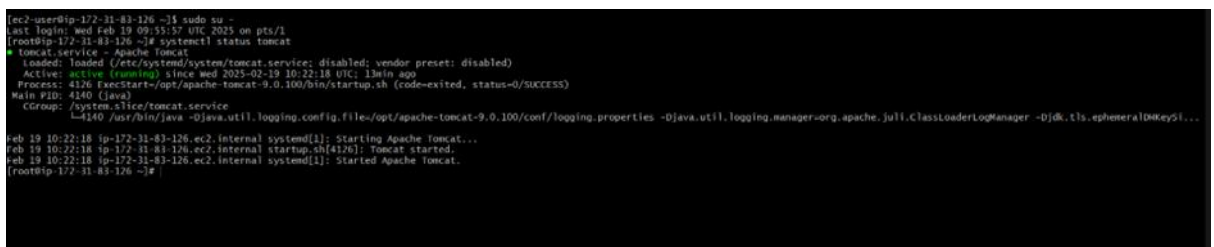
5) Install Apache tomcat on port number 8082:



6) Deploy a sample app on webapps:



7) Create a tomcat. Service file for tomcat:



8) Configure HA Proxy server:

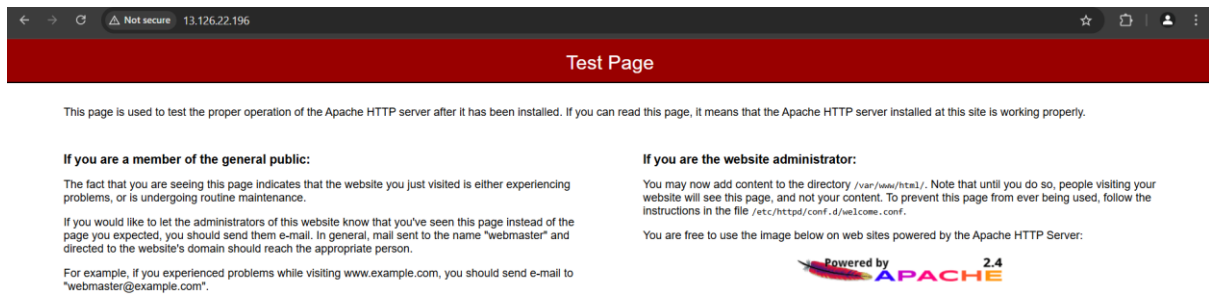
Ec-2 server1:

```

_/m/ https://aws.amazon.com/linux/amazon-linux-2023/
[ec2-user@ip-172-31-7-89 ~]$ sudo -i
[root@ip-172-31-7-89 ~]# yum update -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
No packages marked for update
[root@ip-172-31-7-89 ~]# yum install httpd -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 3.6 kB 00:00
Resolving Dependencies
--> Running transaction check
--> Package httpd.x86_64 0:2.4.62-1.amzn2.0.2 will be installed
--> Processing Dependency: httpd-filesystem = 2.4.62-1.amzn2.0.2 for package: ht
tpd-2.4.62-1.amzn2.0.2.x86_64
--> Processing Dependency: httpd-tools = 2.4.62-1.amzn2.0.2 for package: httpd-2
.4.62-1.amzn2.0.2.x86_64
--> Processing Dependency: /etc/mime.types for package: httpd-2.4.62-1.amzn2.0.2
x86_64

[root@ip-172-31-7-89 ~]# vi /etc/host/
[root@ip-172-31-7-89 ~]# vi /etc/hosts
[root@ip-172-31-7-89 ~]# ping load_balancer -c 4
PING load_balancer (3.110.103.202) 56(84) bytes of data.
64 bytes from load_balancer (3.110.103.202): icmp_seq=1 ttl=254 time=1.50 ms
64 bytes from load_balancer (3.110.103.202): icmp_seq=2 ttl=254 time=0.387 ms
64 bytes from load_balancer (3.110.103.202): icmp_seq=3 ttl=254 time=0.683 ms
64 bytes from load_balancer (3.110.103.202): icmp_seq=4 ttl=254 time=0.871 ms

--- load_balancer ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3058ms
rtt min/avg/max/mdev = 0.387/0.861/1.504/0.409 ms
[root@ip-172-31-7-89 ~]# systemctl start httpd
[root@ip-172-31-7-89 ~]# systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor prese
t: disabled)
   Active: active (running) since Thu 2025-02-27 09:41:18 UTC; 14s ago
     Docs: man:httpd.service(8)
   Main PID: 3465 (httpd)
   Status: "Total requests: 0; Idle/Busy workers 100/0; Requests/sec: 0; Bytes se
```



Ec2-server2:

```
https://aws.amazon.com/linux/amazon-linux-2023/

[ec2-user@ip-172-31-10-105 ~]$ sudo -i
[root@ip-172-31-10-105 ~]# yum update -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 3.6 kB 00:00
No packages marked for update
[root@ip-172-31-10-105 ~]# sudo amazon-linux-extras install nginx1 -y
Topic -y is not found.
[root@ip-172-31-10-105 ~]# yum install nginx -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
No package nginx available.
Error: Nothing to do

nginx is available in Amazon Linux Extra topic "nginx1"

To use, run
# sudo amazon-linux-extras install nginx1

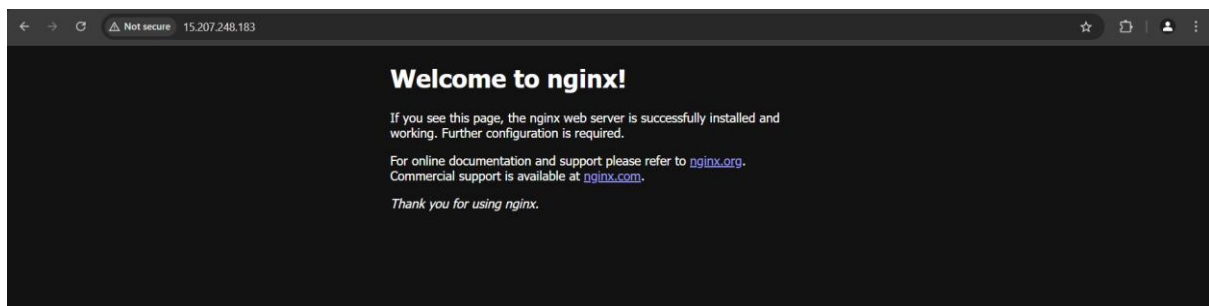
Learn more at
https://aws.amazon.com/amazon-linux-2/faqs/#Amazon Linux Extras
```

```

+ Note on end-of-support. Use 'info' subcommand.
[root@ip-172-31-10-105 ~]# vi /etc/hosts
[root@ip-172-31-10-105 ~]# ping load_balancer -c 4
PING load_balancer (3.110.103.202) 56(84) bytes of data.
64 bytes from load_balancer (3.110.103.202): icmp_seq=1 ttl=254 time=0.441 ms
64 bytes from load_balancer (3.110.103.202): icmp_seq=2 ttl=254 time=0.850 ms
64 bytes from load_balancer (3.110.103.202): icmp_seq=3 ttl=254 time=0.480 ms
64 bytes from load_balancer (3.110.103.202): icmp_seq=4 ttl=254 time=0.915 ms

--- load_balancer ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3066ms
rtt min/avg/max/mdev = 0.441/0.671/0.915/0.214 ms
[root@ip-172-31-10-105 ~]# systemctl start nginx
[root@ip-172-31-10-105 ~]# systemctl status nginx
● nginx.service - The nginx HTTP and reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; disabled; vendor prese
t: disabled)
   Active: active (running) since Thu 2025-02-27 09:53:09 UTC; 19s ago
     Process: 3494 ExecStart=/usr/sbin/nginx (code=exited, status=0/SUCCESS)
     Process: 3490 ExecStartPre=/usr/sbin/nginx -t (code=exited, status=0/SUCCESS)
     Process: 3489 ExecStartPre=/usr/bin/rm -f /run/nginx.pid (code=exited, status=

```



HA Proxy:

```

[ec2-user@ip-172-31-6-216 ~]$ sudo -i
[root@ip-172-31-6-216 ~]# yum update -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 3.6 kB 00:00
No packages marked for update
[root@ip-172-31-6-216 ~]# yum install haproxy -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package haproxy.x86_64 0:1.5.18-9.amzn2 will be installed
--> Finished Dependency Resolution

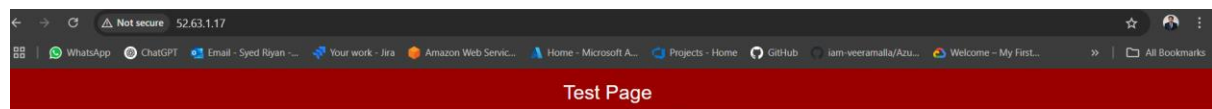
Dependencies Resolved

```

```
Installed:
 haproxy.x86_64 0:1.5.18-9.amzn2

Complete!
[root@ip-172-31-6-216 ~]# vi /etc/hosts
[root@ip-172-31-6-216 ~]# systemctl enable haproxy
Created symlink from /etc/systemd/system/multi-user.target.wants/haproxy.service
to /usr/lib/systemd/system/haproxy.service.
[root@ip-172-31-6-216 ~]# systemctl start haproxy
[root@ip-172-31-6-216 ~]# systemctl status haproxy
● haproxy.service - HAProxy Load Balancer
   Loaded: loaded (/usr/lib/systemd/system/haproxy.service; enabled; vendor preset: disabled)
   Active: active (running) since Thu 2025-02-27 10:05:05 UTC; 16s ago
     Main PID: 3559 (haproxy-systemd)
       CGroup: /system.slice/haproxy.service
               └─3559 /usr/sbin/haproxy-systemd-wrapper -f /etc/haproxy/haproxy.c...
                 └─3560 /usr/sbin/haproxy -f /etc/haproxy/haproxy.cfg -p /run/hapro...
                   └─3561 /usr/sbin/haproxy -f /etc/haproxy/haproxy.cfg -p /run/hapro...

Feb 27 10:05:05 ip-172-31-6-216 an-south-1 compute internal systemd[1]: Start
```



This page is used to test the proper operation of the Apache HTTP server after it has been installed. If you can read this page, it means that the Apache HTTP server installed at this site is working properly.

If you are a member of the general public:

The fact that you are seeing this page indicates that the website you just visited is either experiencing problems, or is undergoing routine maintenance.

If you would like to let the administrators of this website know that you've seen this page instead of the page you expected, you should send them e-mail. In general, mail sent to the name "webmaster" and directed to the website's domain should reach the appropriate person.

For example, if you experienced problems while visiting www.example.com, you should send e-mail to "webmaster@example.com".

If you are the website administrator:

You may now add content to the directory `/var/www/html/`. Note that until you do so, people visiting your website will see this page, and not your content. To prevent this page from ever being used, follow the instructions in the file `/etc/httpd/conf.d/welcome.conf`.

You are free to use the image below on web sites powered by the Apache HTTP Server:

