

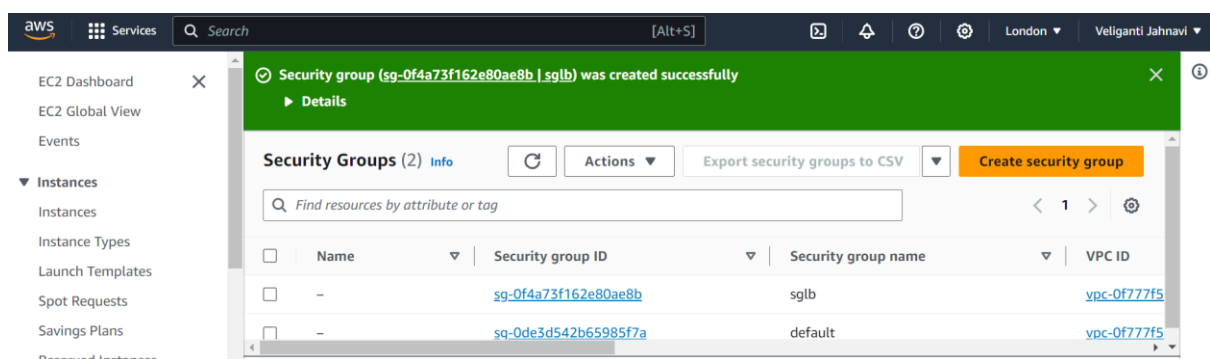
## Task-2

Create three instances,

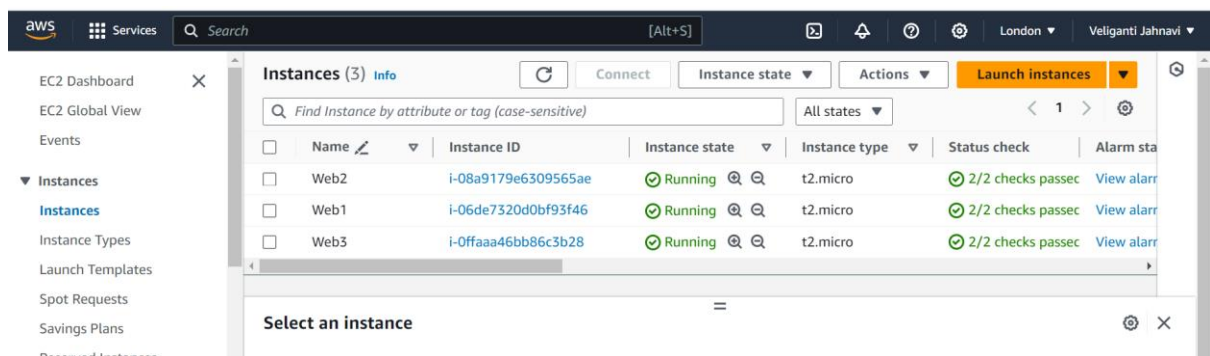
(i) Install Nginx

(ii) And apply ALB

**Step 1: Create the security group → Add Inbound rule (SSH, Custom TCP)**



**Step 2: Go to EC2 instance → Launch the instances → Select the different Availability Zones for 3 Instances(2a,2b,2c) → Select the created Security group → Create the 3 Instances.**



-----Three Instances Created-----

**Step 3: Go to the instance ID of the first instance and connect to the server.**

```
banu@LAPTOP-Q7RDOEPG MINGW64 ~  
$ ssh -i "Hello.pem" ec2-user@ec2-13-40-123-94.eu-west-2.compute.amazonaws.com  
  
#####  
Amazon Linux 2023  
  
#####  
https://aws.amazon.com/linux/amazon-linux-2023  
  
Last login: Fri Jul  5 17:25:34 2024 from 205.254.168.238  
[ec2-user@ip-172-31-17-87 ~]$ sudo -i  
[root@ip-172-31-17-87 ~]# yum update -y  
Last metadata expiration check: 0:14:38 ago on Fri Jul  5 17:16:01 2024.  
Dependencies resolved.  
Nothing to do.  
Complete!  
[root@ip-172-31-17-87 ~]# yum install nginx -y  
Last metadata expiration check: 0:14:47 ago on Fri Jul  5 17:16:01 2024.  
Dependencies resolved.
```

Package	Architecture	Version	Repository	Size
Installing:				
nginx	x86_64	1:1.24.0-1.amzn2023.0.2	amazonlinux	32 k
Installing dependencies:				
generic-logos-httpd	noarch	18.0.0-12.amzn2023.0.3	amazonlinux	19 k
gperfutils-libc	x86_64	2.9.1-1.amzn2023.0.3	amazonlinux	308 k
libunwind	x86_64	1.4.0-5.amzn2023.0.2	amazonlinux	66 k

## Step 4: Install nginx

```
Running transaction
Preparing : 1/1
Running scriptlet: nginx-filessystem-1:1.24.0-1.amzn2023.0.2.noarch 1/7
Installing : nginx-filessystem-1:1.24.0-1.amzn2023.0.2.noarch 1/7
Installing : nginx-mimetypes-2.1.49-3.amzn2023.0.3.noarch 2/7
Installing : libunwind-1.4.0-5.amzn2023.0.2.x86_64 3/7
Installing : gperftools-libs-2.9.1-1.amzn2023.0.3.x86_64 4/7
Installing : nginx-core-1:1.24.0-1.amzn2023.0.2.x86_64 5/7
Installing : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch 6/7
Installing : nginx-1:1.24.0-1.amzn2023.0.2.x86_64 7/7
Running scriptlet: nginx-1:1.24.0-1.amzn2023.0.2.x86_64 7/7
Verifying : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch 1/7
Verifying : gperftools-libs-2.9.1-1.amzn2023.0.3.x86_64 2/7
Verifying : libunwind-1.4.0-5.amzn2023.0.2.x86_64 3/7
Verifying : nginx-1:1.24.0-1.amzn2023.0.2.x86_64 4/7
Verifying : nginx-core-1:1.24.0-1.amzn2023.0.2.x86_64 5/7
Verifying : nginx-filessystem-1:1.24.0-1.amzn2023.0.2.noarch 6/7
Verifying : nginx-mimetypes-2.1.49-3.amzn2023.0.3.noarch 7/7

Installed:
generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch      gperftools-libs-2.9.1-1.amzn2023.0.3.x86_64
libunwind-1.4.0-5.amzn2023.0.2.x86_64                nginx-1:1.24.0-1.amzn2023.0.2.x86_64
nginx-core-1:1.24.0-1.amzn2023.0.2.x86_64            nginx-filessystem-1:1.24.0-1.amzn2023.0.2.noarch
nginx-mimetypes-2.1.49-3.amzn2023.0.3.noarch

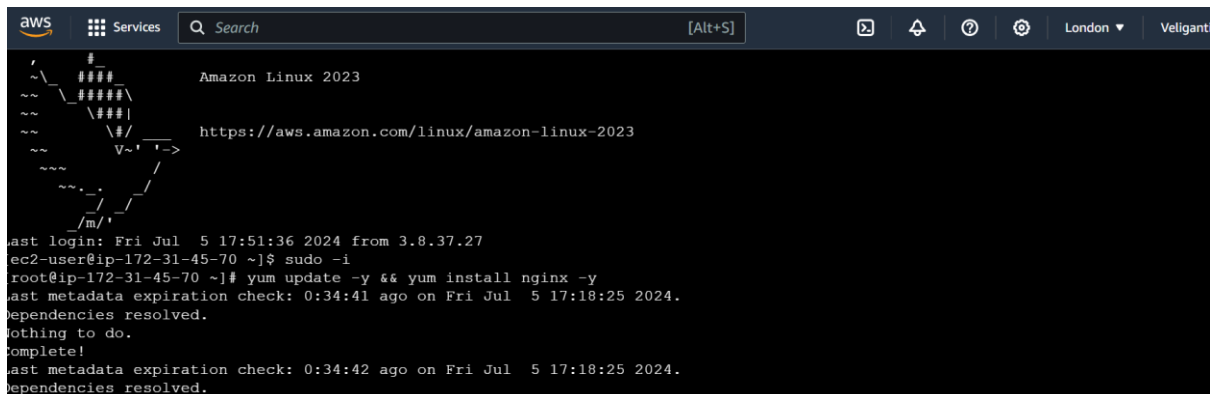
Complete!
[root@ip-172-31-17-87 ~]# cd /usr/share/nginx/html
[root@ip-172-31-17-87 html]# rm index.html
rm: remove regular file 'index.html'? yes
[root@ip-172-31-17-87 html]# vi index.html
[root@ip-172-31-17-87 html]# systemctl restart nginx
```

### Step 5: Copy the public IP of the first instance and paste it into Google.



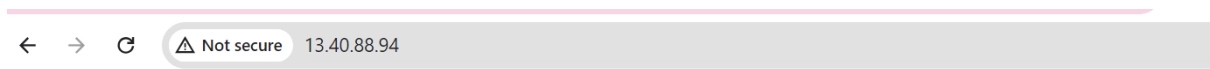
This webserver1

**Step 6: Now go to the Second instance →connect to the server → Install nginx.**



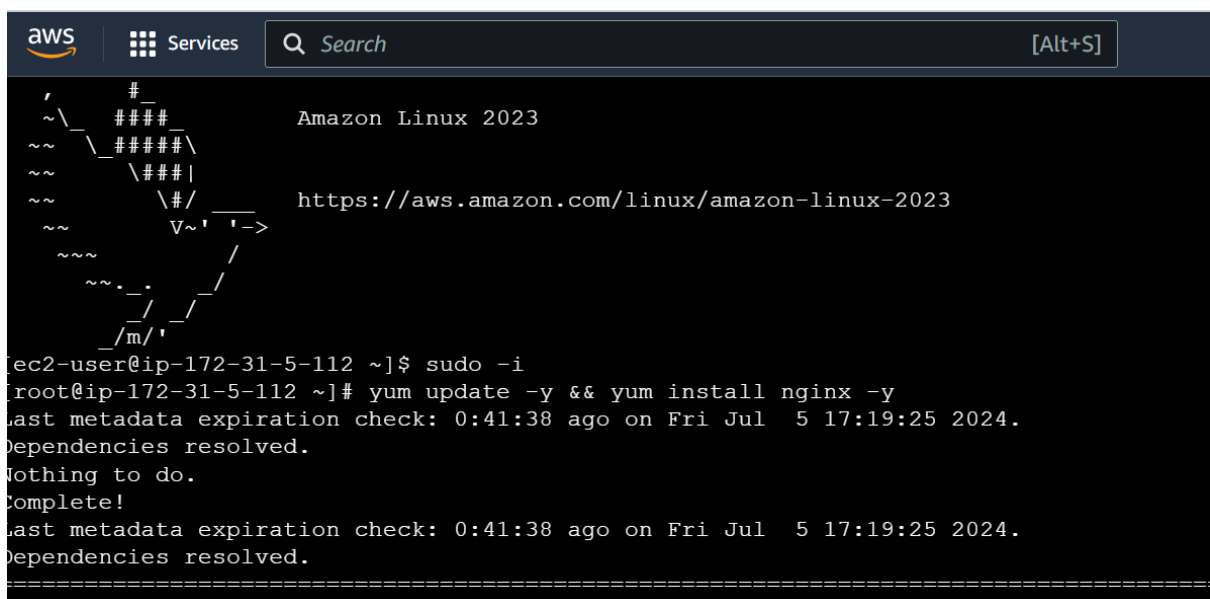
```
aws Services Search [Alt+S]
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
last login: Fri Jul 5 17:51:36 2024 from 3.8.37.27
ec2-user@ip-172-31-45-70 ~]$ sudo -i
root@ip-172-31-45-70 ~]$ yum update -y && yum install nginx -y
Last metadata expiration check: 0:34:41 ago on Fri Jul 5 17:18:25 2024.
Dependencies resolved.
Nothing to do.
Complete!
Last metadata expiration check: 0:34:42 ago on Fri Jul 5 17:18:25 2024.
Dependencies resolved.
```

**Step 7: Copy the public IP of the second instance and paste it into Google.**



# This webserver2

**Step 8: Now go to the Third instance →connect to the server → Install nginx.**



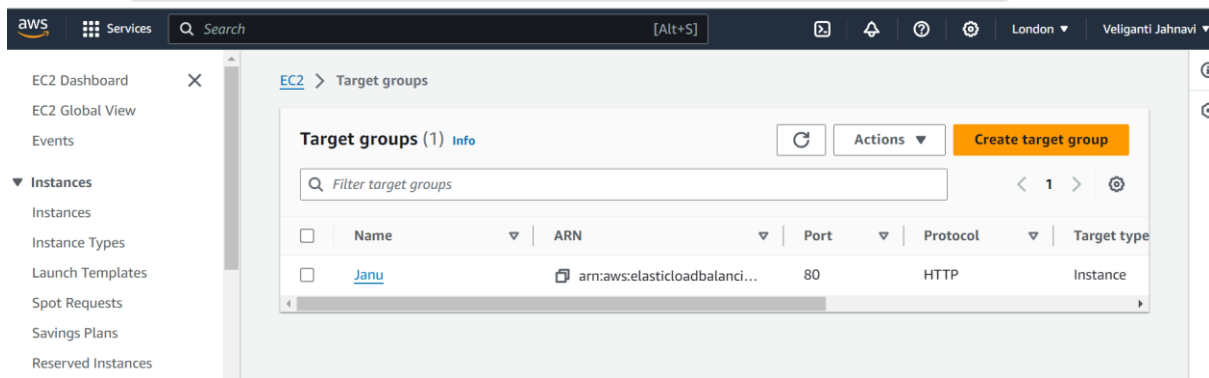
```
aws Services Search [Alt+S]
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
ec2-user@ip-172-31-5-112 ~]$ sudo -i
root@ip-172-31-5-112 ~]$ yum update -y && yum install nginx -y
Last metadata expiration check: 0:41:38 ago on Fri Jul 5 17:19:25 2024.
Dependencies resolved.
Nothing to do.
Complete!
Last metadata expiration check: 0:41:38 ago on Fri Jul 5 17:19:25 2024.
Dependencies resolved.
```

**Step 9: Copy the public IP of the Third instance and paste it into Google.**

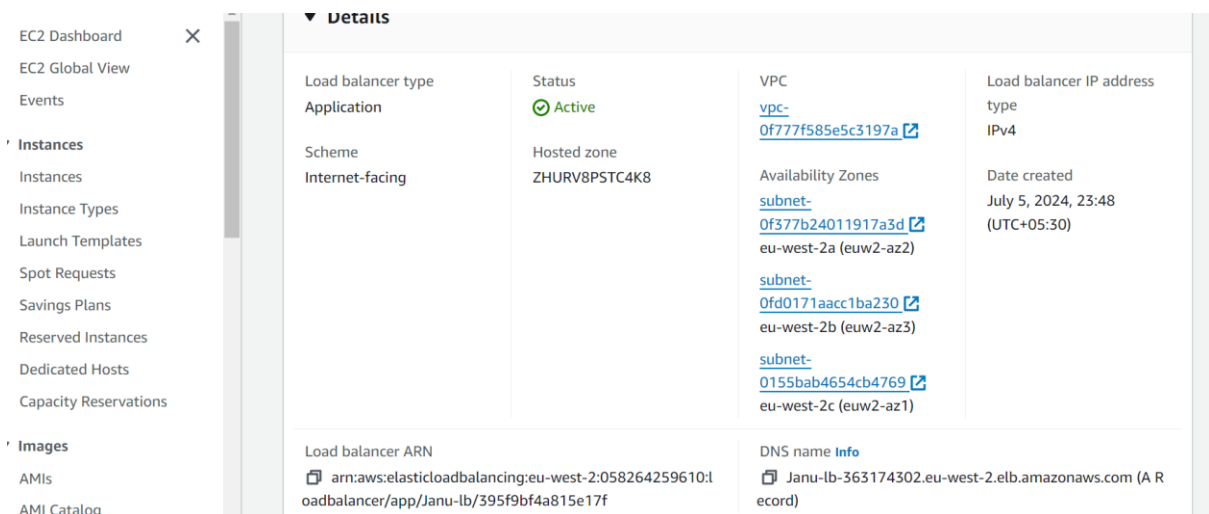
← → ↻ ⚠ Not secure 18.171.212.133

This is Webserver3

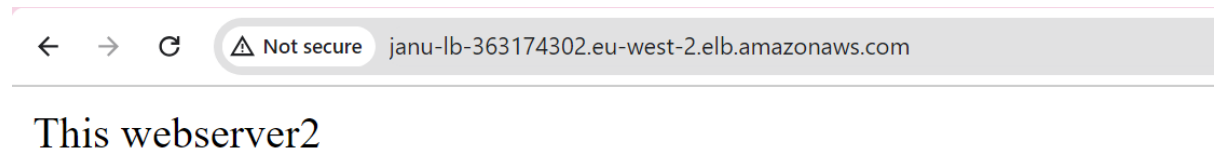
**Step 10: Go to Target group→click on create→Give name (Janu)→next→select the three instances and click on pending below and create Target group.**



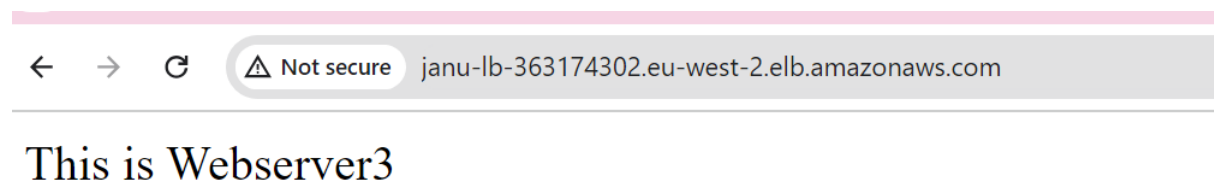
**Step 11: Go to Load Balancer→Choose Application Load Balancer→Select the mapping→Select the security group→select the Target Group→Create the Load Balancer.**



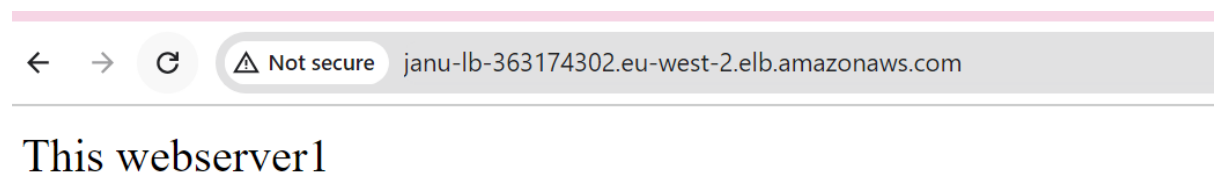
## Step 12: Copy the DNS → Paste in Google.



Reload.....



Reload.....



-----Applied Application Load Balancer-----

