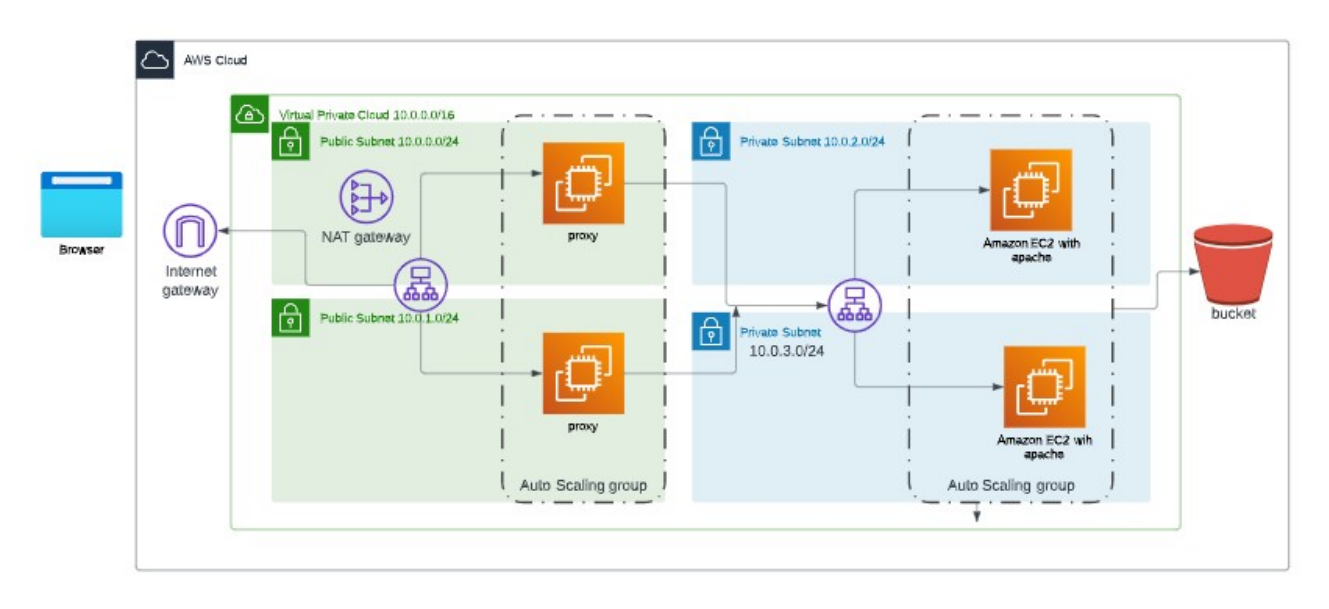


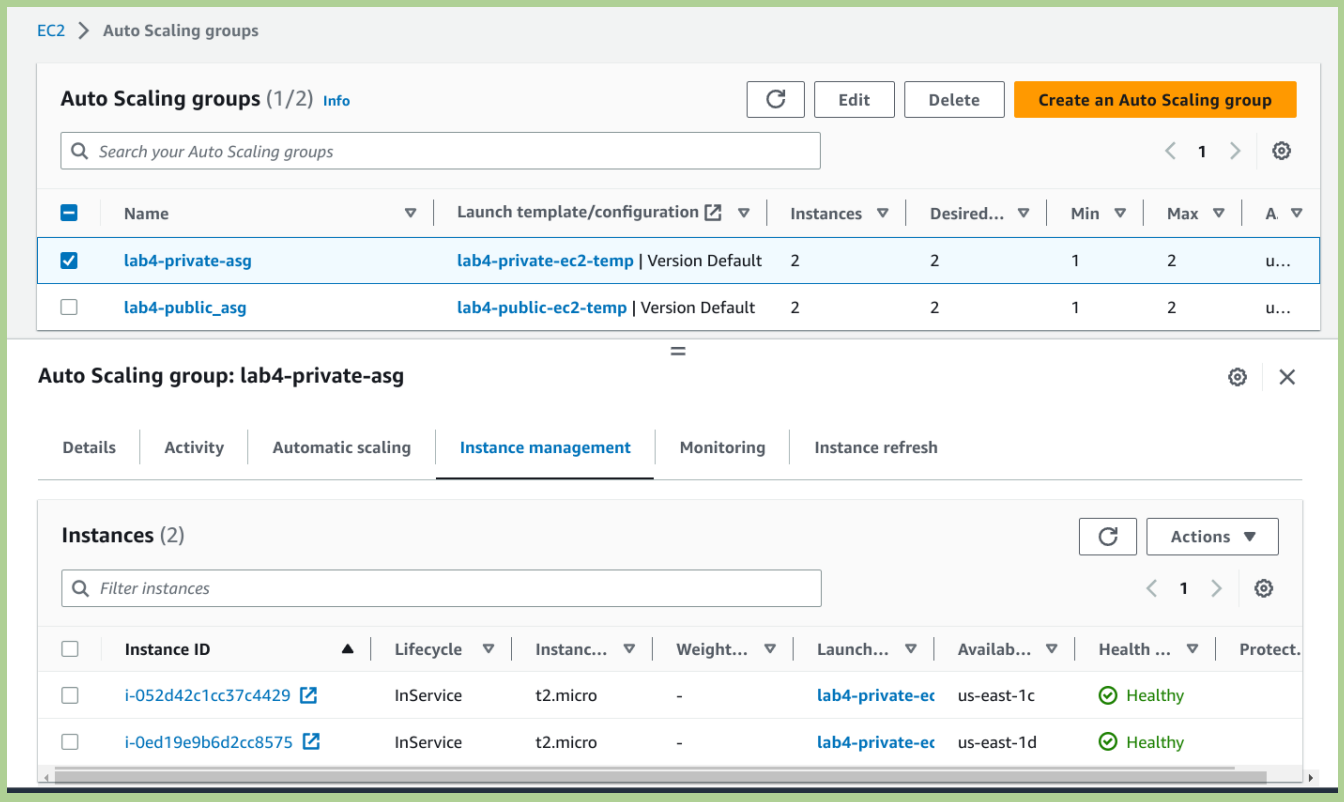
Lab 4

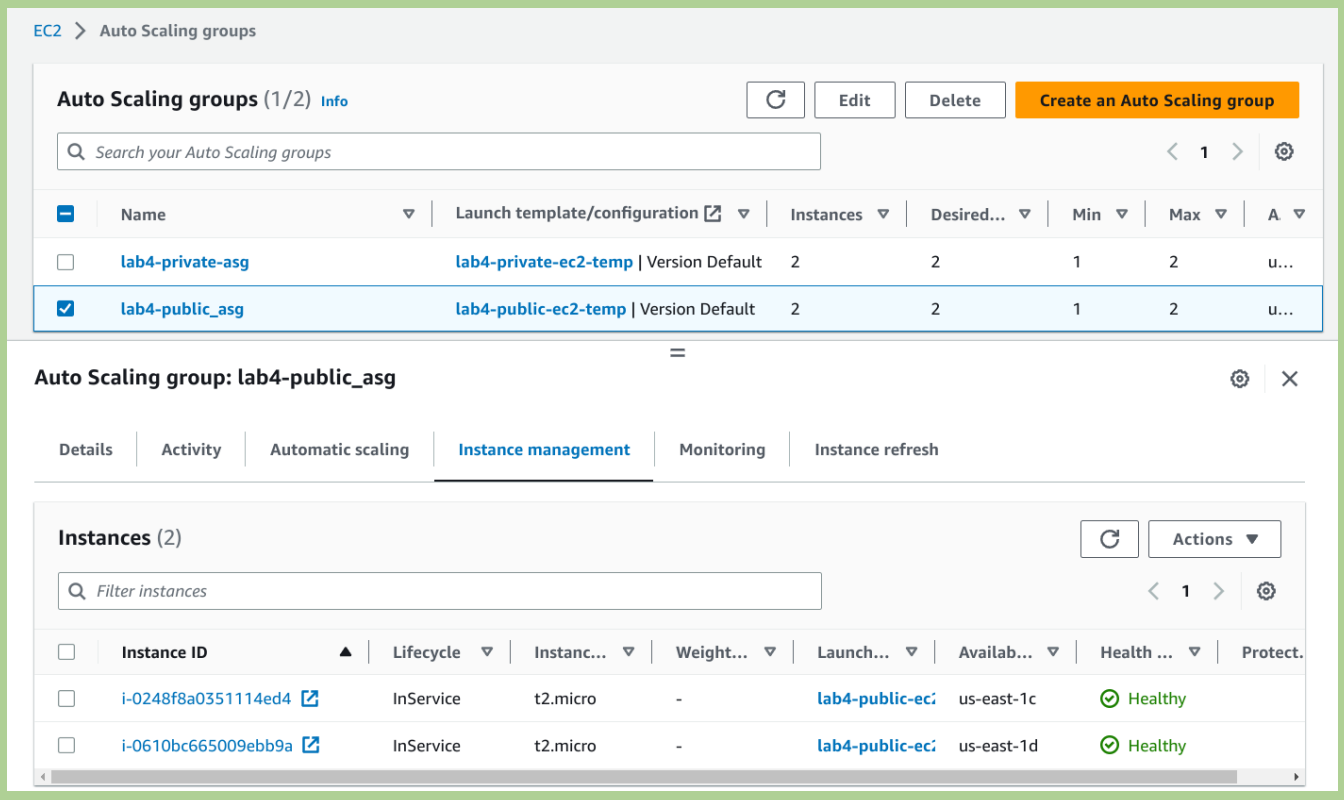
Implement a vpc with cidr 10.0.0.0/16 with 2 public subnets with cidrs 10.0.0.0/24 and 10.0.0.2.0/24 with a load balancer to Distribute the traffic between 2 machines with nginx installed in them as a proxy and 2 private subnets with the below cidrs 10.0.1.0/24 and 10.0.0.3.0/24 then a 2 instances attached in autoscaling in the private subnets with apache installed without SSH and load balancer to install between them and the ec2 will get the app from an s3

Needed :

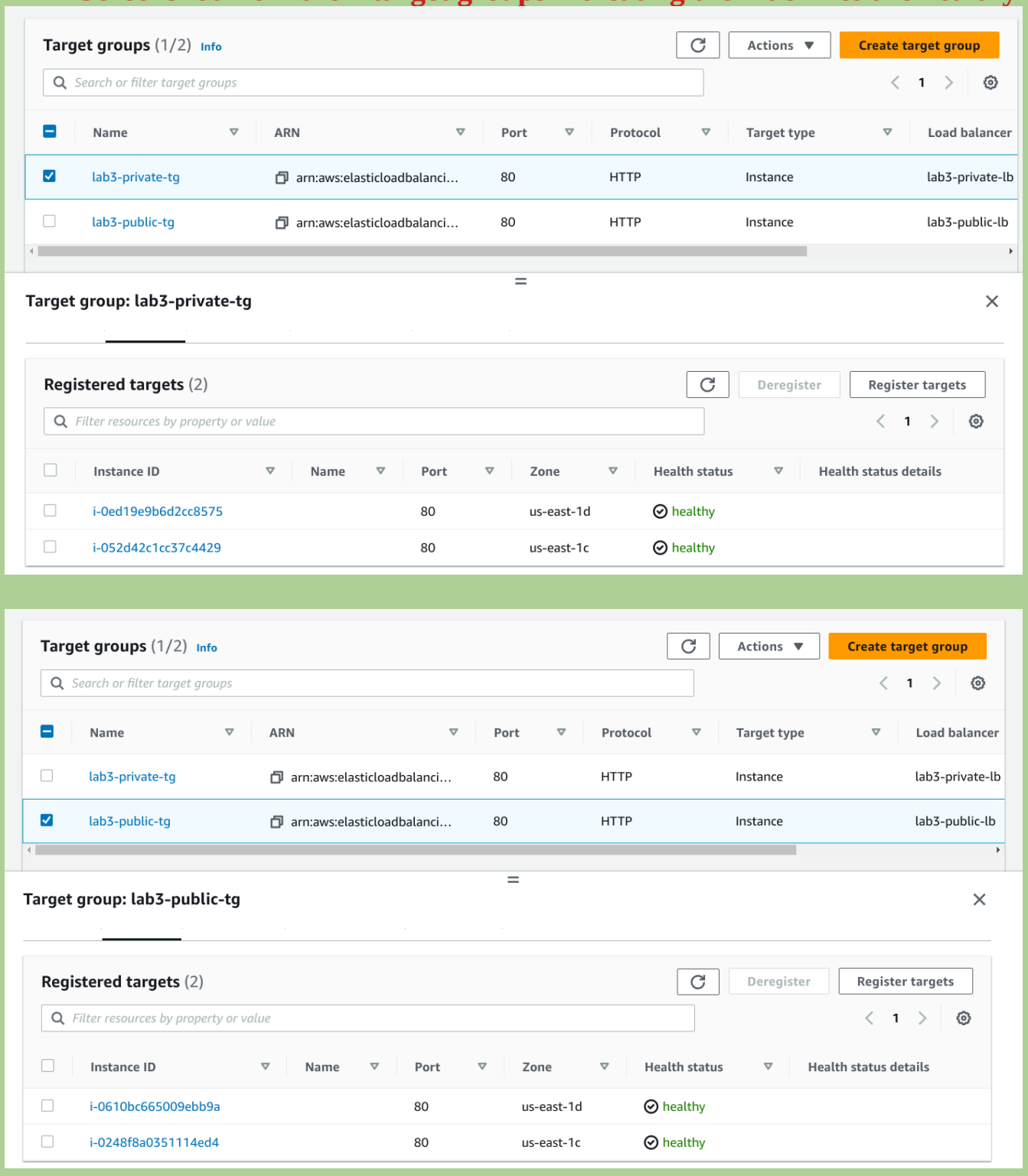
- **A screenshot from the autoscaling group after indicating the minimum ,maximum and desired instances**
- **Screenshot from the 2 target groups indicating the machines are healthy**
- **Screenshot indicate the the machines BE WS are private**
- **Screenshot from the public load balancer when you hit a request from it from a browser with a response returned from the instances**
- **Screenshot from the userdata**
- **Screenshot from s3 to be private**

- **A screenshot from the autoscaling group after indicating the minimum ,maximum and desired instances**

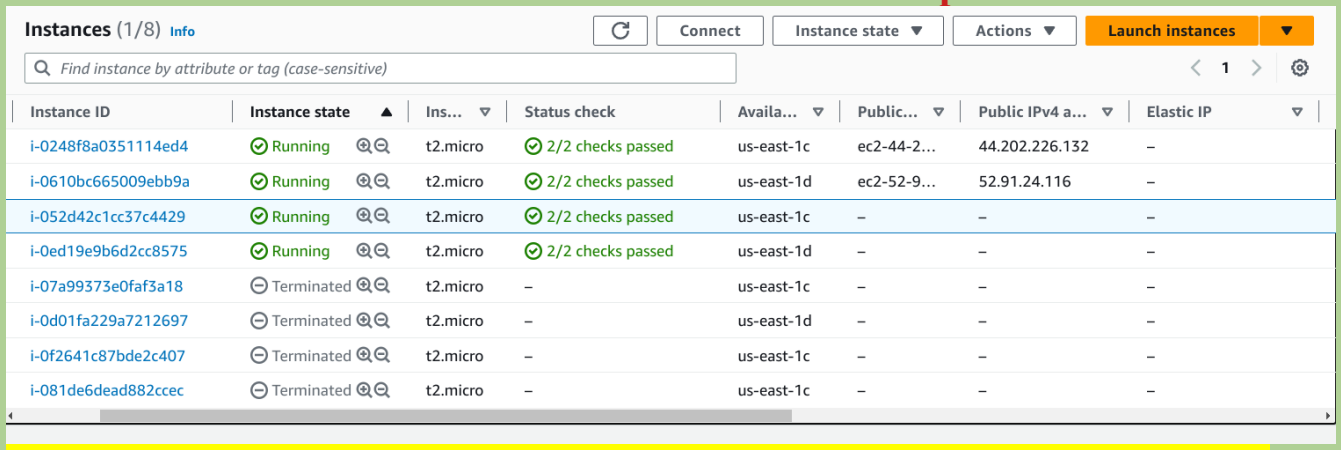




- **Screenshot from the 2 target groups indicating the machines are healthy**



- **Screenshot indicate the the machines BE WS are private**



Instances (1/8) Info

Connect | Instance state | Actions | Launch instances

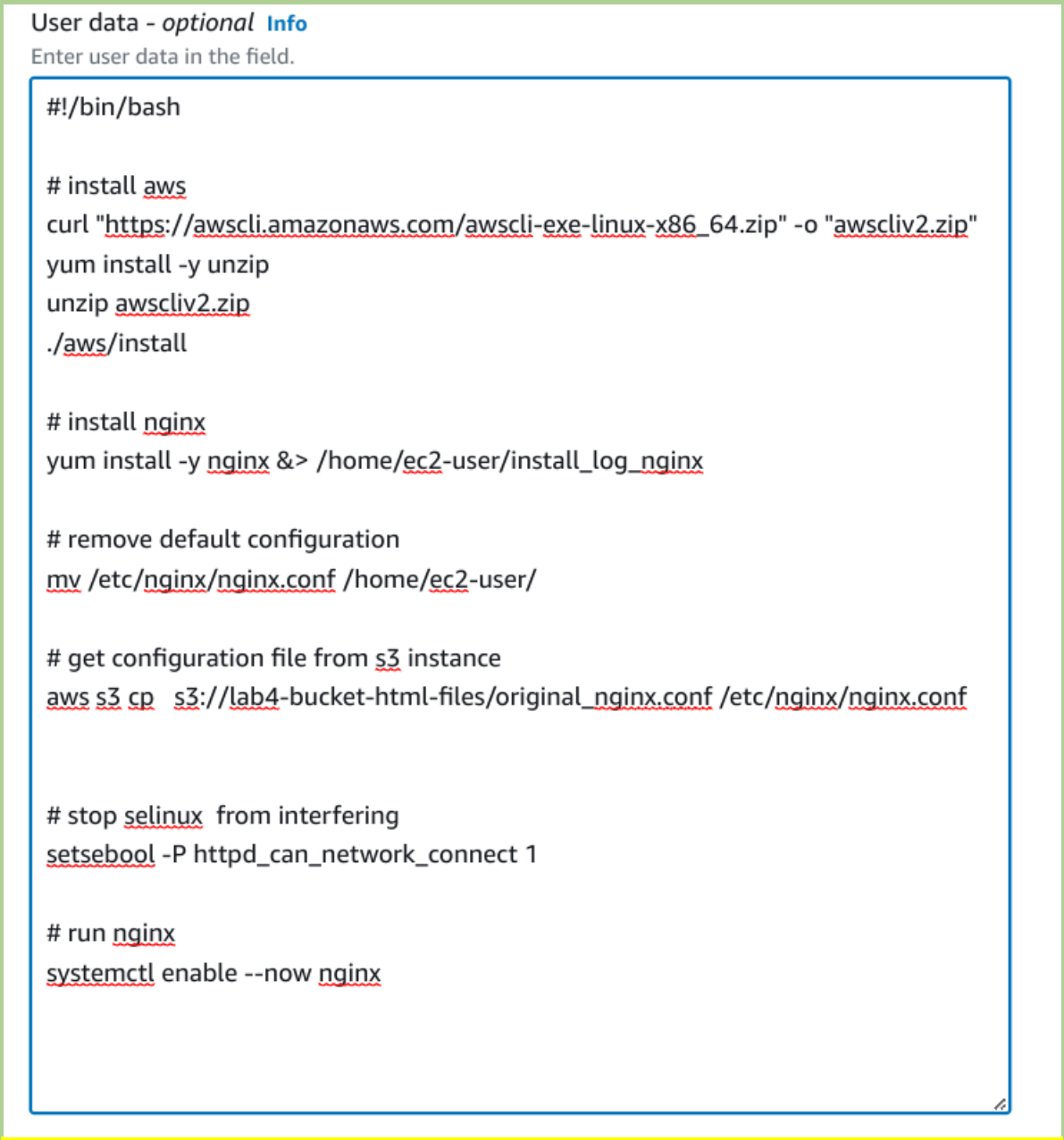
Find instance by attribute or tag (case-sensitive)

Instance ID	Instance state	Ins...	Status check	Availa...	Public...	Public IPv4 a...	Elastic IP
i-0248f8a0351114ed4	Running	t2.micro	2/2 checks passed	us-east-1c	ec2-44-2...	44.202.226.132	–
i-0610bc665009ebb9a	Running	t2.micro	2/2 checks passed	us-east-1d	ec2-52-9...	52.91.24.116	–
i-052d42c1cc37c4429	Running	t2.micro	2/2 checks passed	us-east-1c	–	–	–
i-0ed19e9b6d2cc8575	Running	t2.micro	2/2 checks passed	us-east-1d	–	–	–
i-07a99373e0faf3a18	Terminated	t2.micro	–	us-east-1c	–	–	–
i-0d01fa229a7212697	Terminated	t2.micro	–	us-east-1d	–	–	–
i-0f2641c87bde2c407	Terminated	t2.micro	–	us-east-1c	–	–	–
i-081de6dead882ccec	Terminated	t2.micro	–	us-east-1c	–	–	–

as the screenshot informs, the two instances whose ids ends with “29” and “75”, which are in the private target group and in the private auto scale group as implied by the previous screenshot, those two instances have no public IP.s

- **Screenshot from the public load balancer when you hit a request from it from a browser with a response returned from the instances**

- **Screenshot from the userdata**



user date section in the public-instance Launch Template.

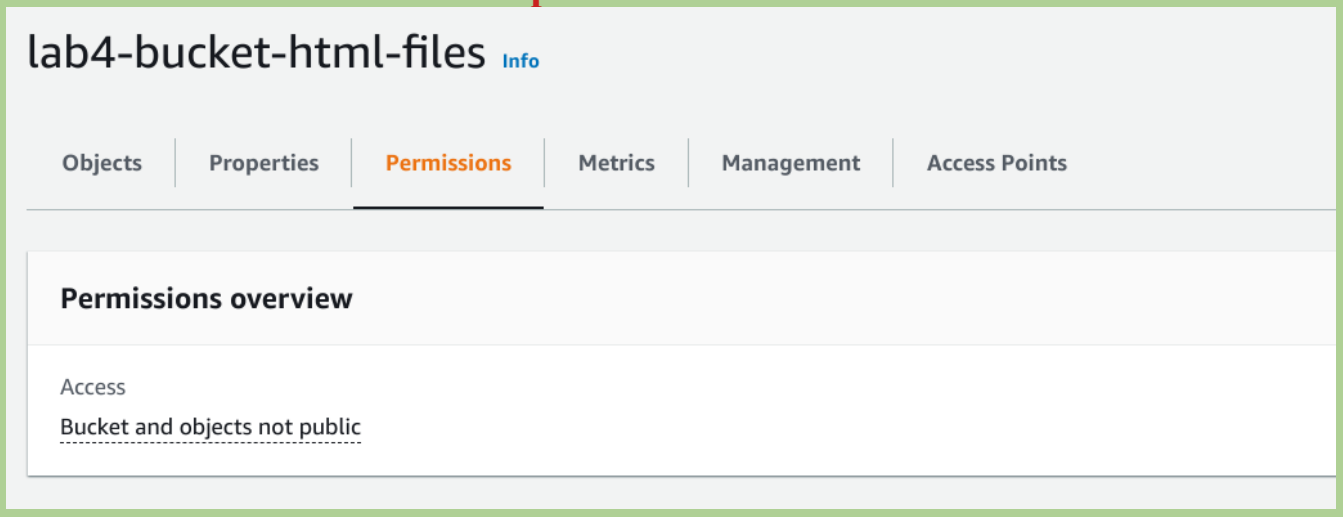
User data - *optional* Info

Enter user data in the field.

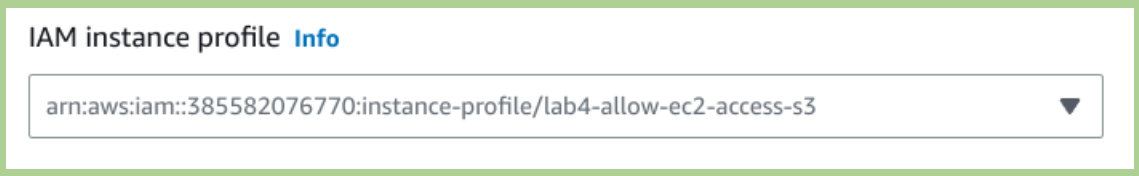
```
#!/bin/bash

# install aws
curl "https://awscli.amazonaws.com/awscli-exe-linux-x86_64.zip" -o "awscliv2.zip"
yum install -y unzip
unzip awscliv2.zip
./aws/install

# install nginx
yum install -y httpd &> /home/ec2-user/install_log_httpd

# get webpage from s3 bucket
aws s3 cp   s3://lab4-bucket-html-files/page.html "/var/www/html/status"

# run nginx
systemctl enable --now httpd
```

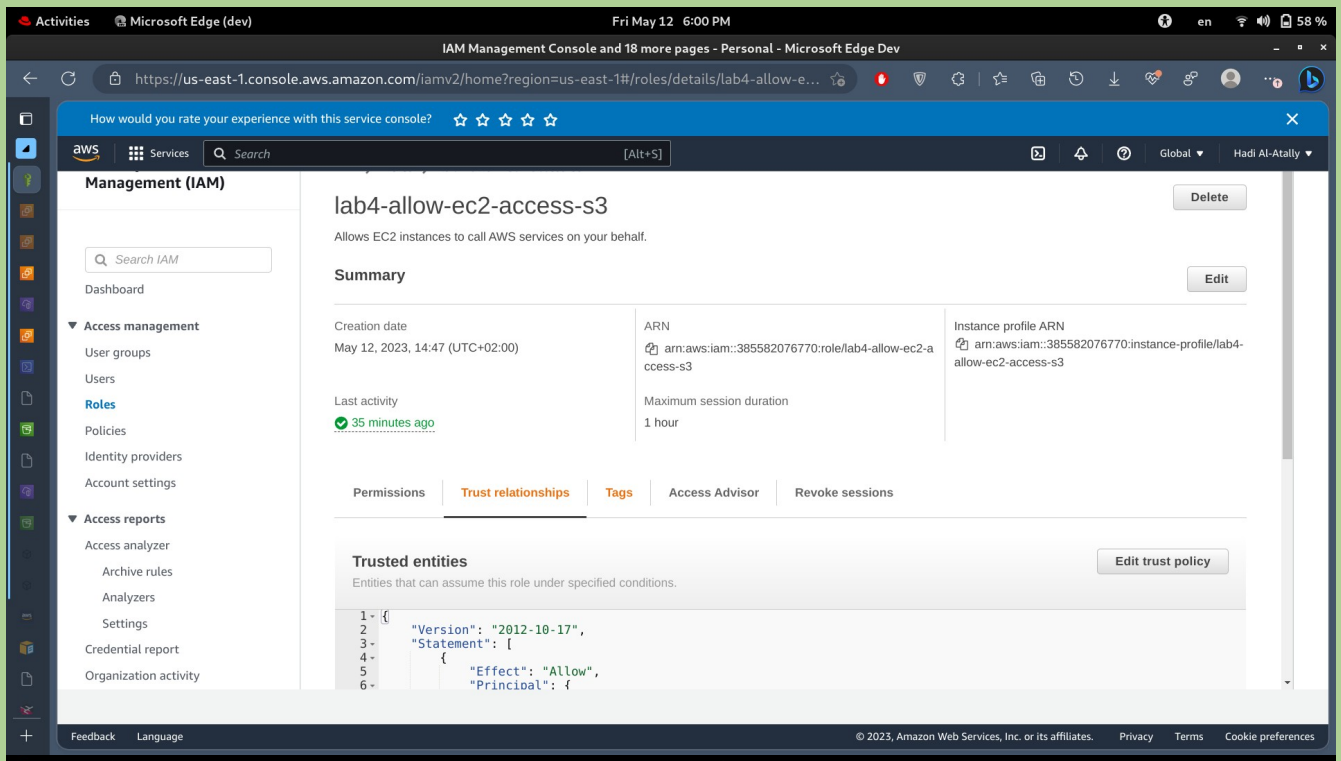
user date section in the private-instance Launch Template.

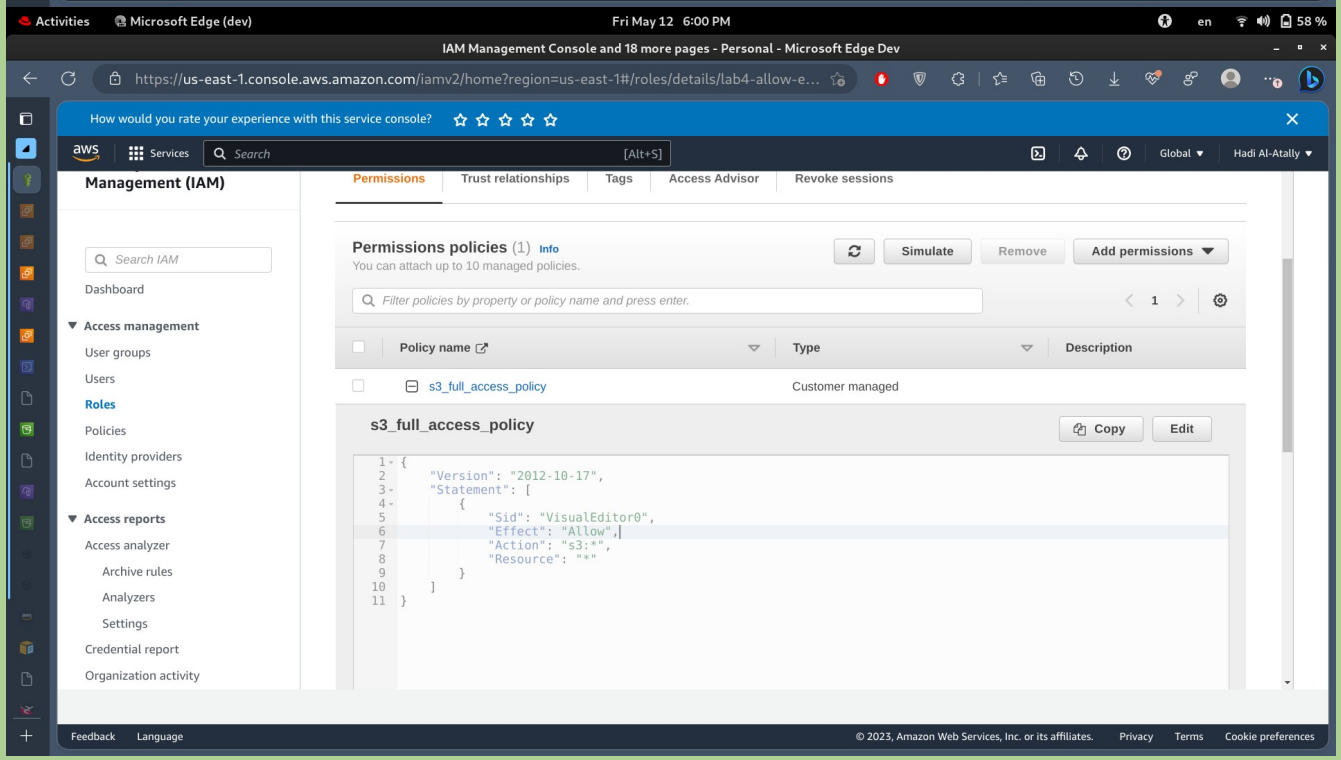
- **Screenshot from s3 to be private**

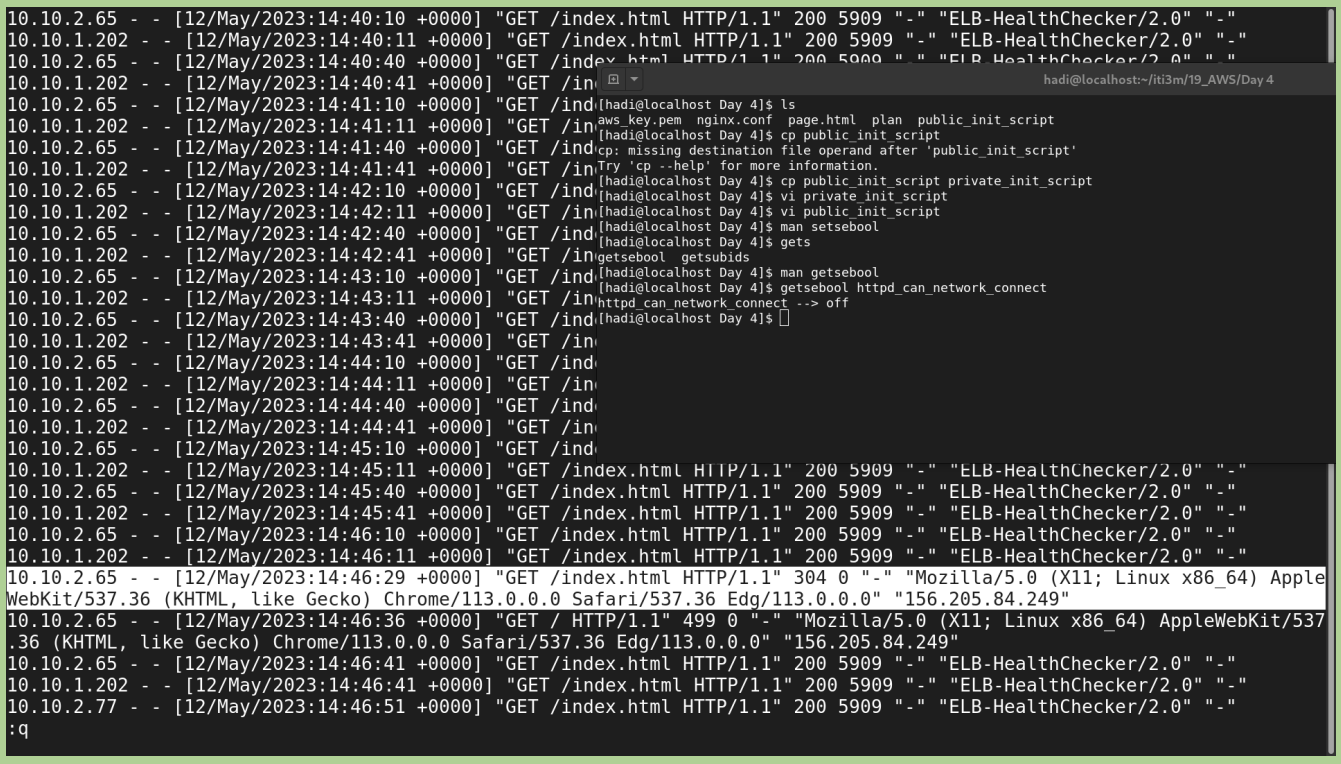


- **Additional screenshots:**









while doing some troubleshooting this screenshot was taken for the access.log file for ngin in one of the public instances,
It shows the continuous health checking which of course comes from the auto scale group and the target group.
And it shows some http Get requests from the end user ip (the selected lines)