

AWS ECS & EC2 CloudWatch Monitoring Report

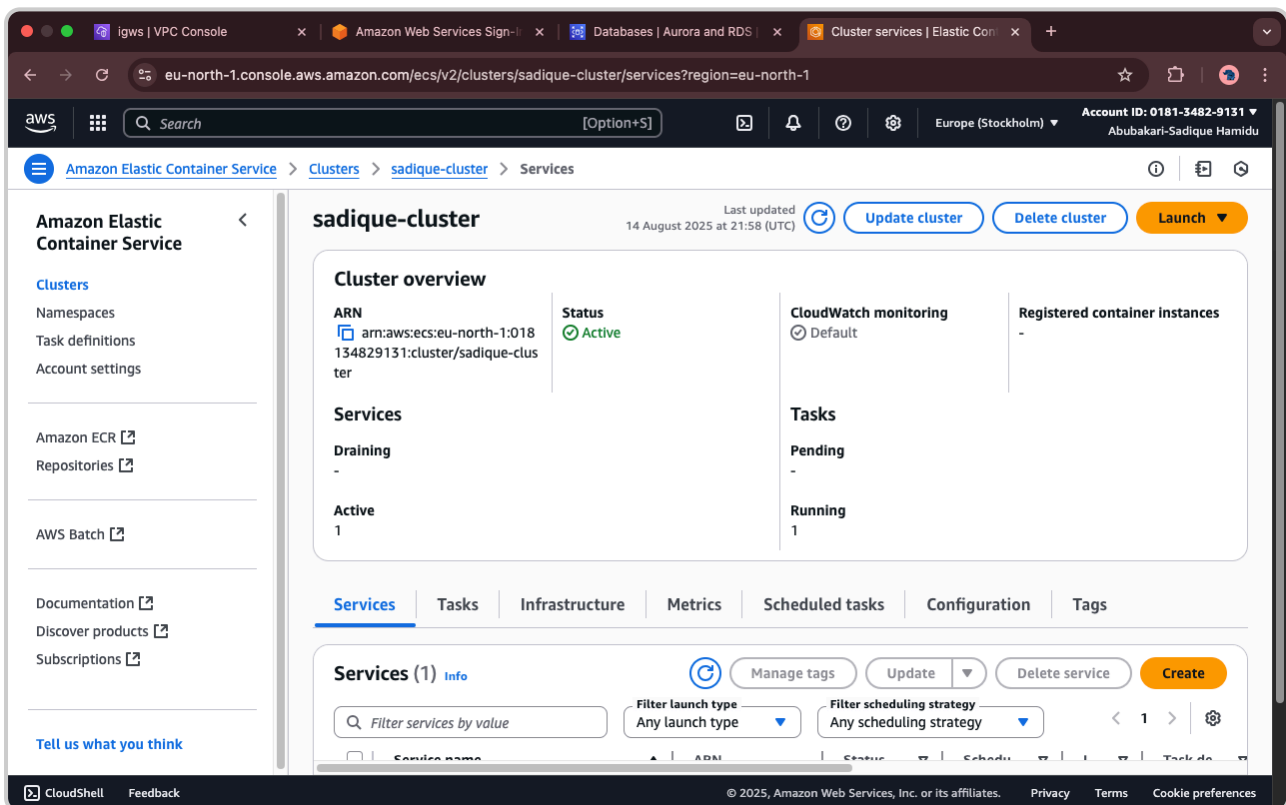
Name: Abubakari-Sadique Hamidu

Date: August 2025

1. ECS Cluster and Running Service

ECS cluster and running service

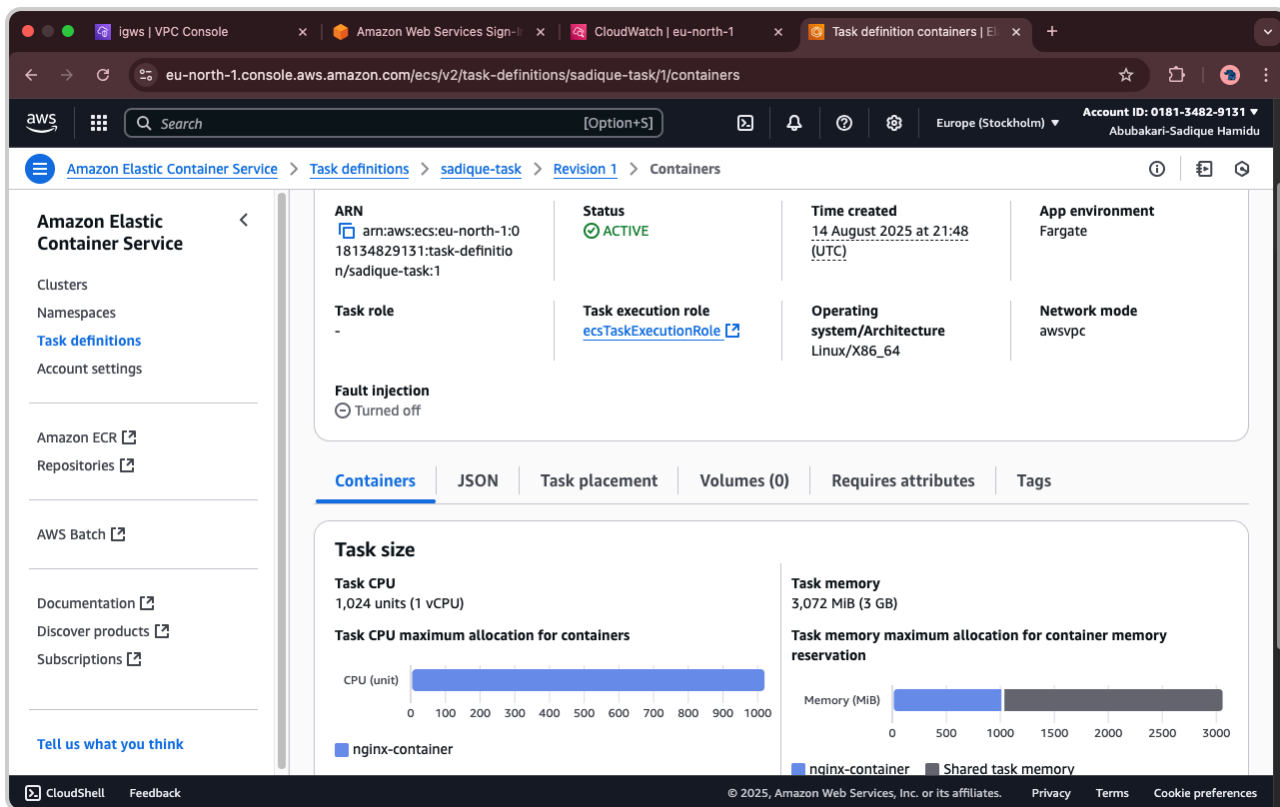
Reason: Deployed the containerized application using ECS Fargate to run it in a scalable, serverless environment. Monitoring the cluster ensures the service is running correctly.



2. ECS Task Definition (CPU & Memory Settings)

Task definition showing CPU & memory

Reason: Configured CPU and memory in the task definition to allocate appropriate resources to the container, ensuring smooth performance without over-provisioning.

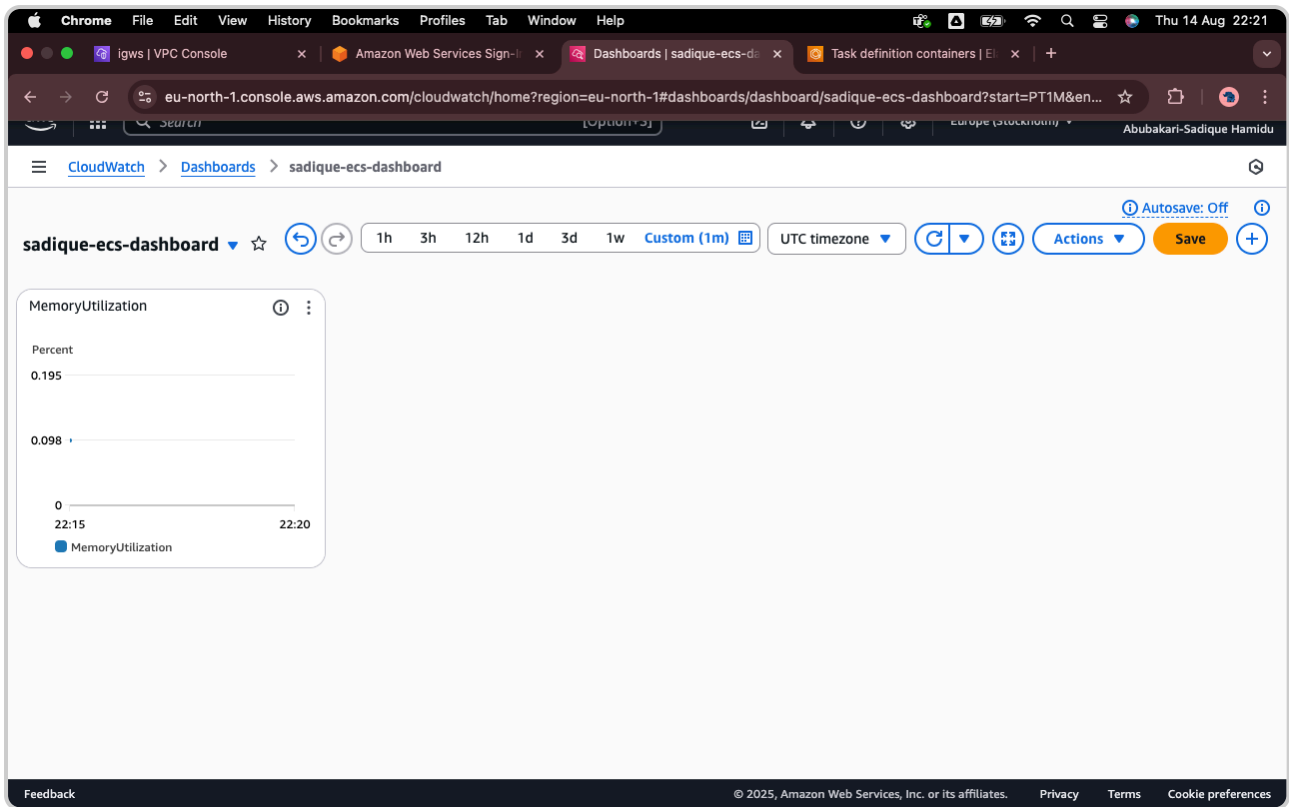


3. CloudWatch Dashboard - ECS & EC2 Monitoring

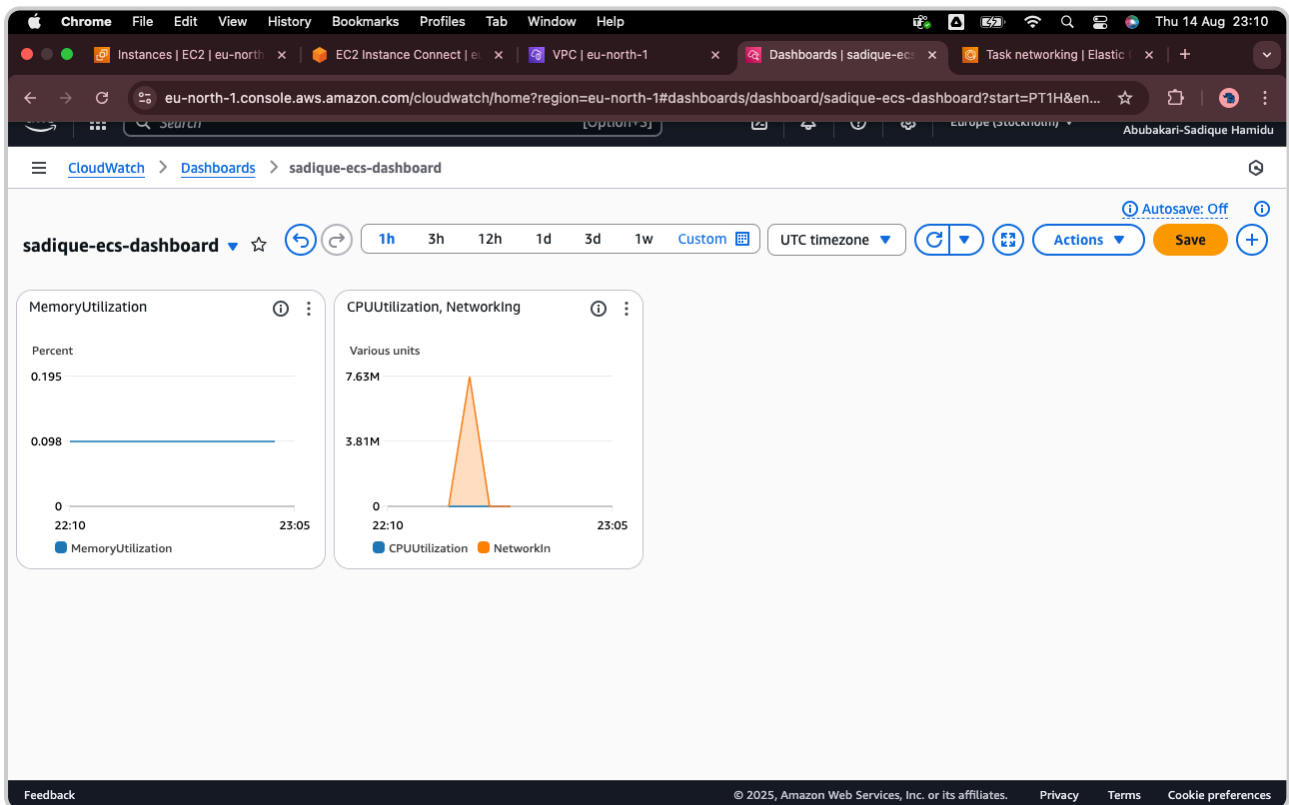
CloudWatch dashboard showing CPU Utilization and Memory Utilization for ECS and EC2

Reason: Used CloudWatch dashboards to monitor ECS and EC2 metrics in real-time. This helps verify that resources are functioning properly and observe the impact of load tests.

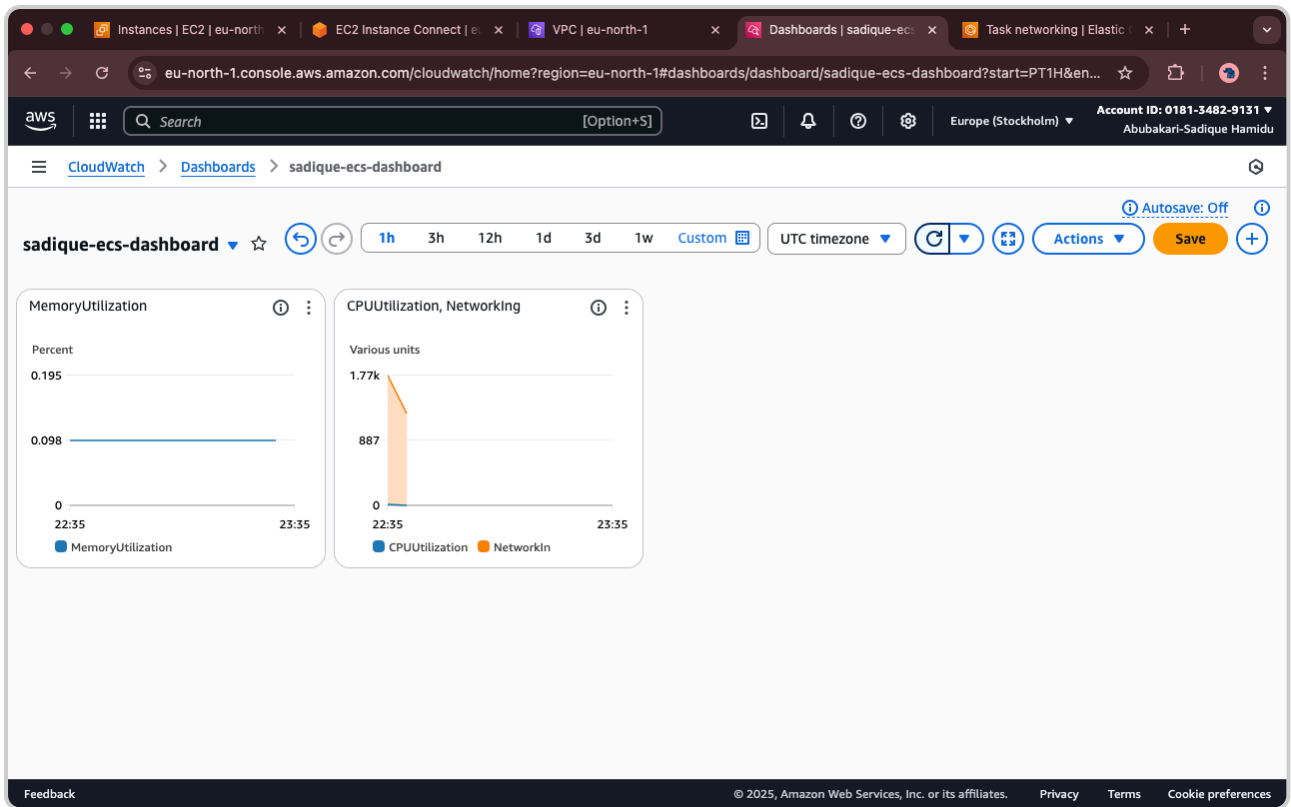
Screenshot 1: ECS only



Screenshot 2: ECS + EC2 after stress



Screenshot 3: ECS + EC2 after stress

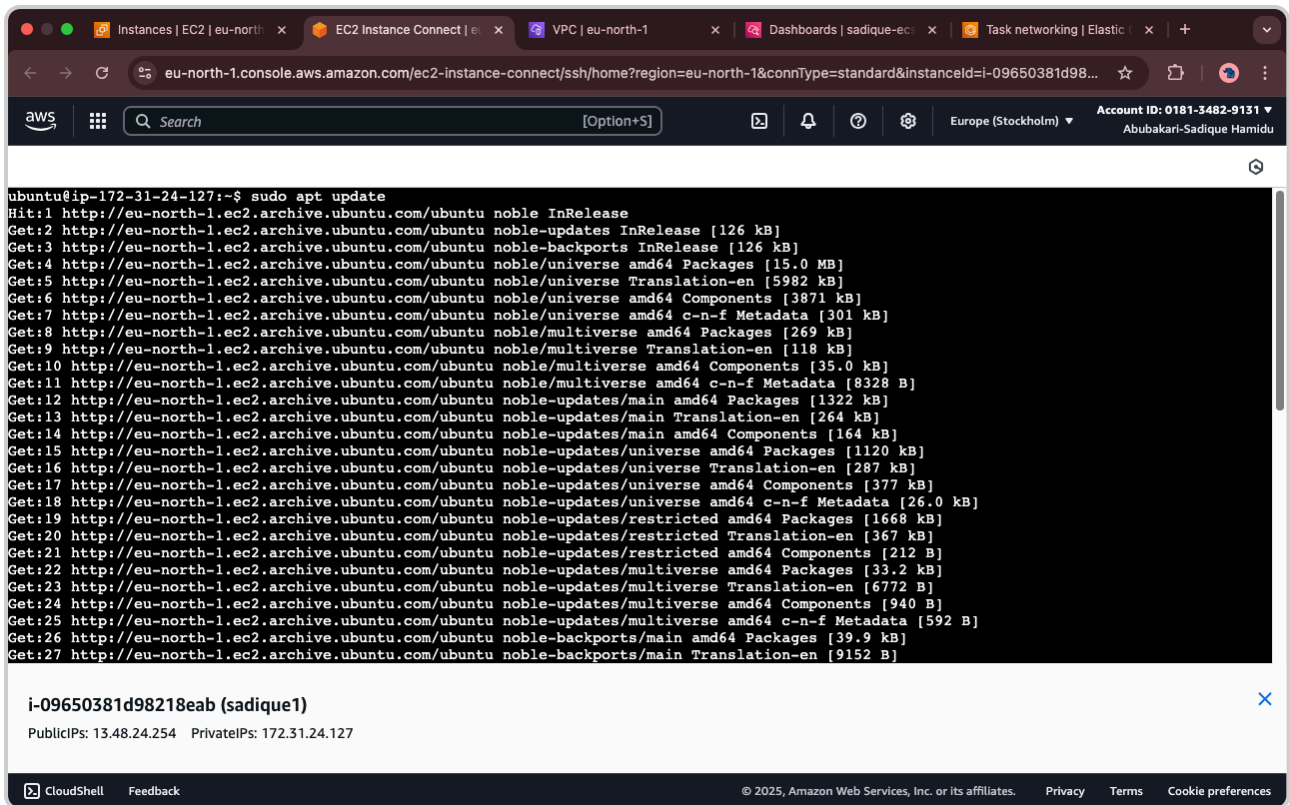


4. EC2 Stress Test Commands

Simulating CPU load on EC2 instance

Reason: Installed and ran the stress tool to simulate CPU load on the EC2 instance. This allows us to see how CloudWatch metrics respond under increased workload, verifying monitoring effectiveness.

apt update

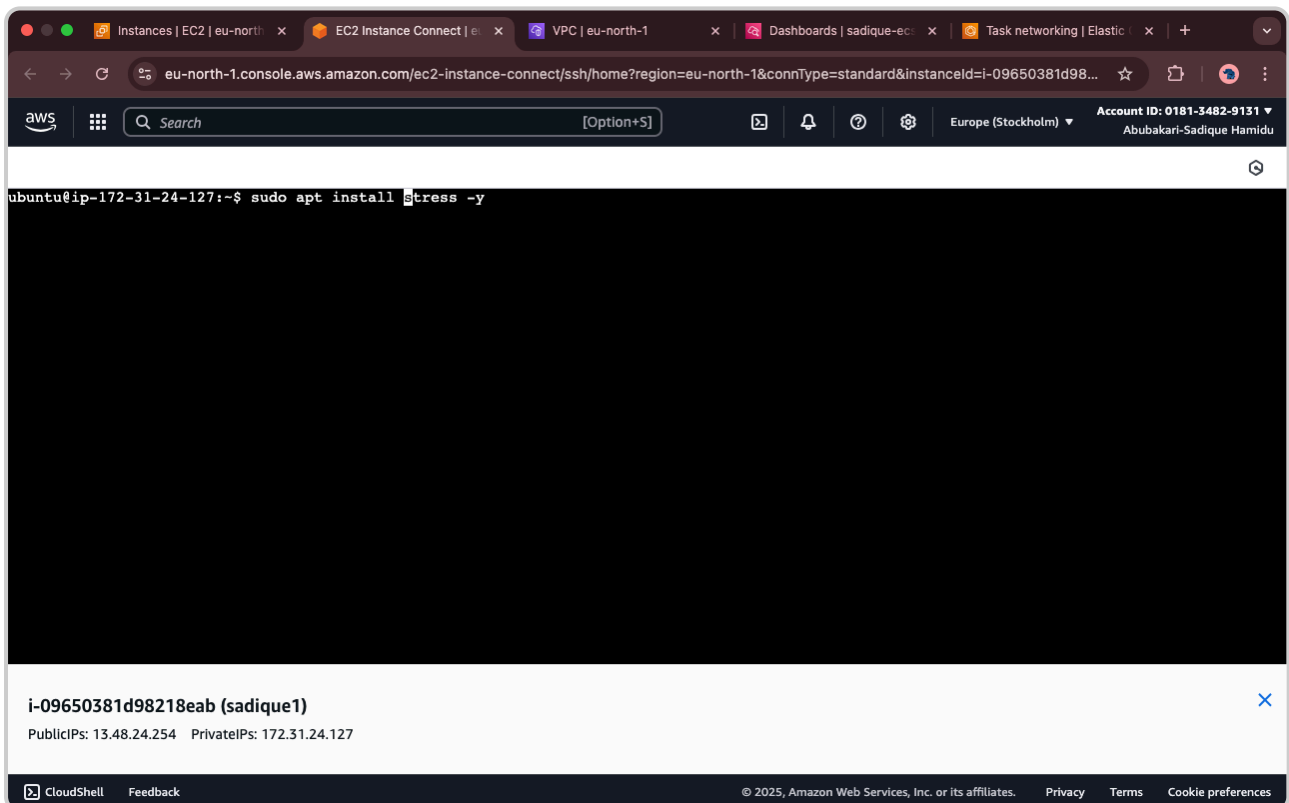


```
ubuntu@ip-172-31-24-127:~$ sudo apt update
Hit:1 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:5 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:6 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:7 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:8 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:9 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
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Get:12 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [1322 kB]
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Get:23 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [6772 B]
Get:24 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]
Get:25 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [592 B]
Get:26 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Packages [39.9 kB]
Get:27 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main Translation-en [9152 B]
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i-09650381d98218eab (sadique1)

PublicIPs: 13.48.24.254 PrivateIPs: 172.31.24.127

Install stress

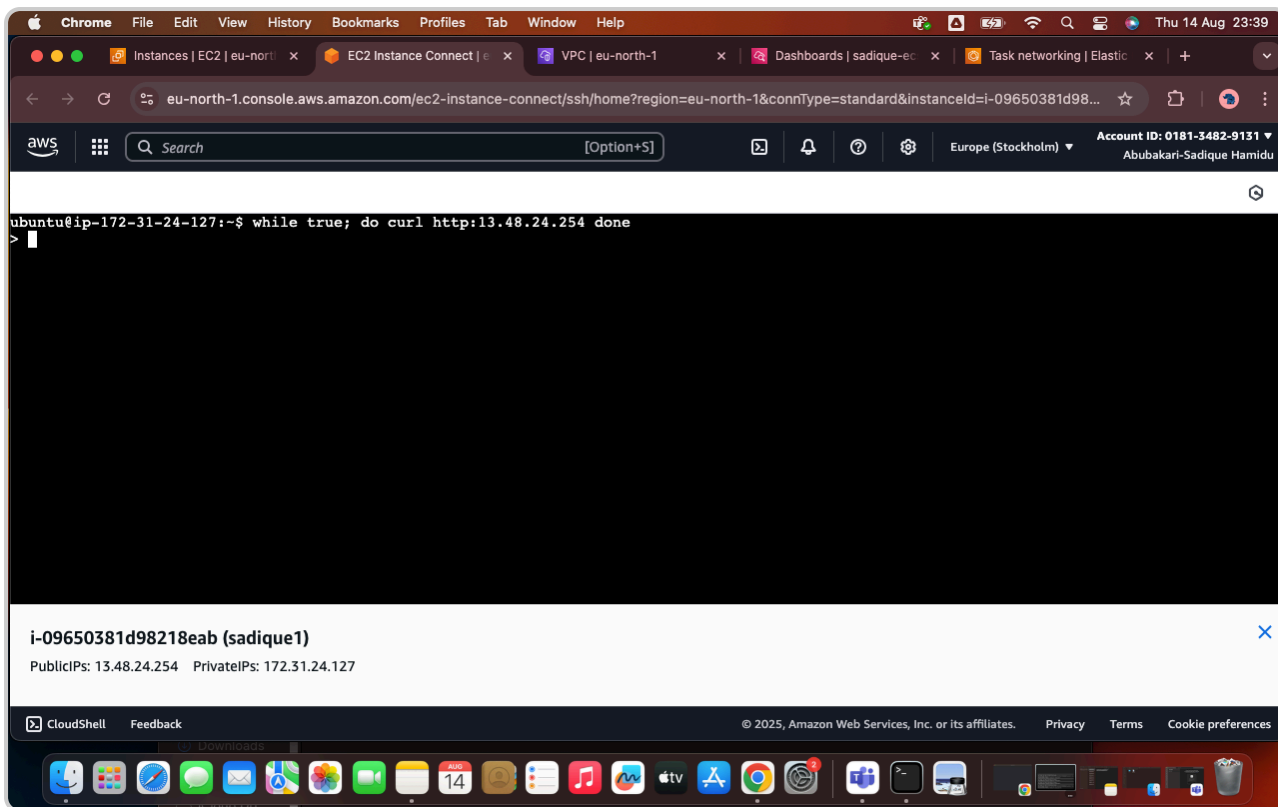


```
ubuntu@ip-172-31-24-127:~$ sudo apt install stress -y
```

i-09650381d98218eab (sadique1)

PublicIPs: 13.48.24.254 PrivateIPs: 172.31.24.127

Stress run (1)



Stress run (2)

