

AWS CloudSpace Academy

Class promotion: AWS Cloud & DevOps Engineer 2025

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Course: Cloud Computing hands on

Teacher: Narcisse Tchuemoe

SETUP YOUR BASE INFRASTRUCTURE AS FOLLOWS:

Create a VPC named “awesome_vpc” with the primary CIDR “10.0.0.0/16”

Create an Internet Gateway “awesome_igw” and attach it to the VPC.

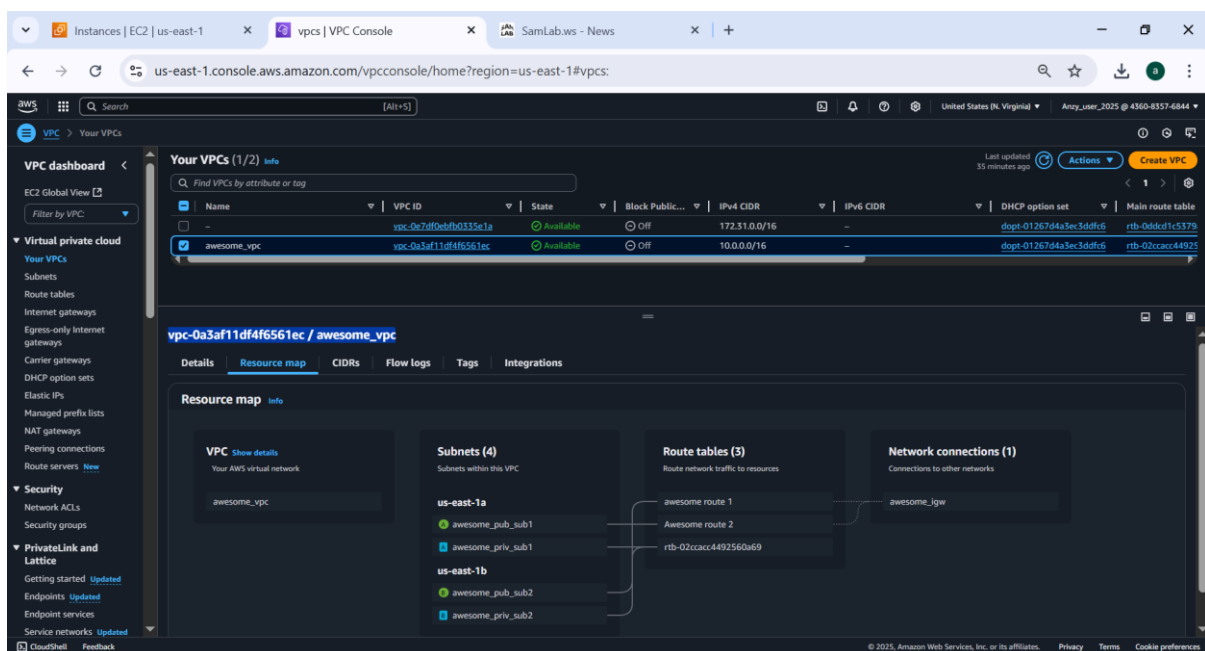
Create a Public subnet “awesome_pub_sub1” – “10.0.1.0/24” in US-EAST-1A

Create a Public subnet “awesome_pub_sub2” – “10.0.2.0/24” in US-EAST-1B

Create a Private subnet “awesome_priv_sub1” – “10.0.3.0/24” in US-EAST-1A

Create a Private subnet “awesome_priv_sub2” – “10.0.4.0/24” in US-EAST-1B

Attach a screenshot of the setup



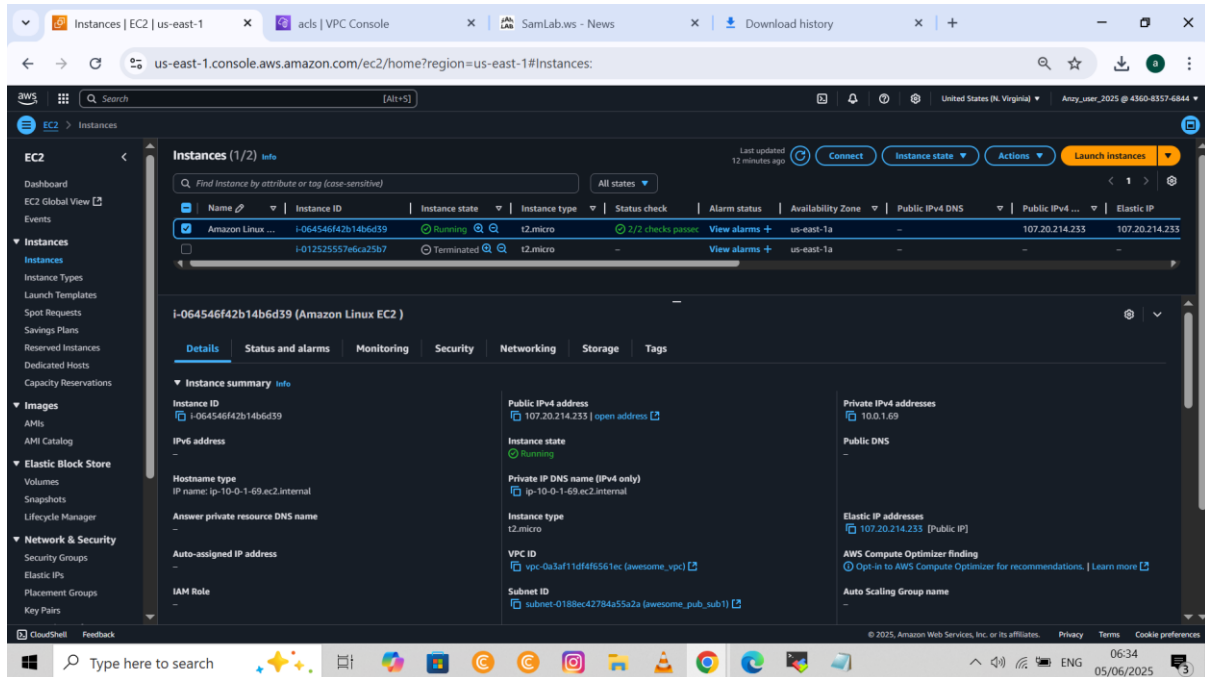
Homework 1

a) Launch an Amazon linux instance in awesome_pub_sub1 subnet as follows:

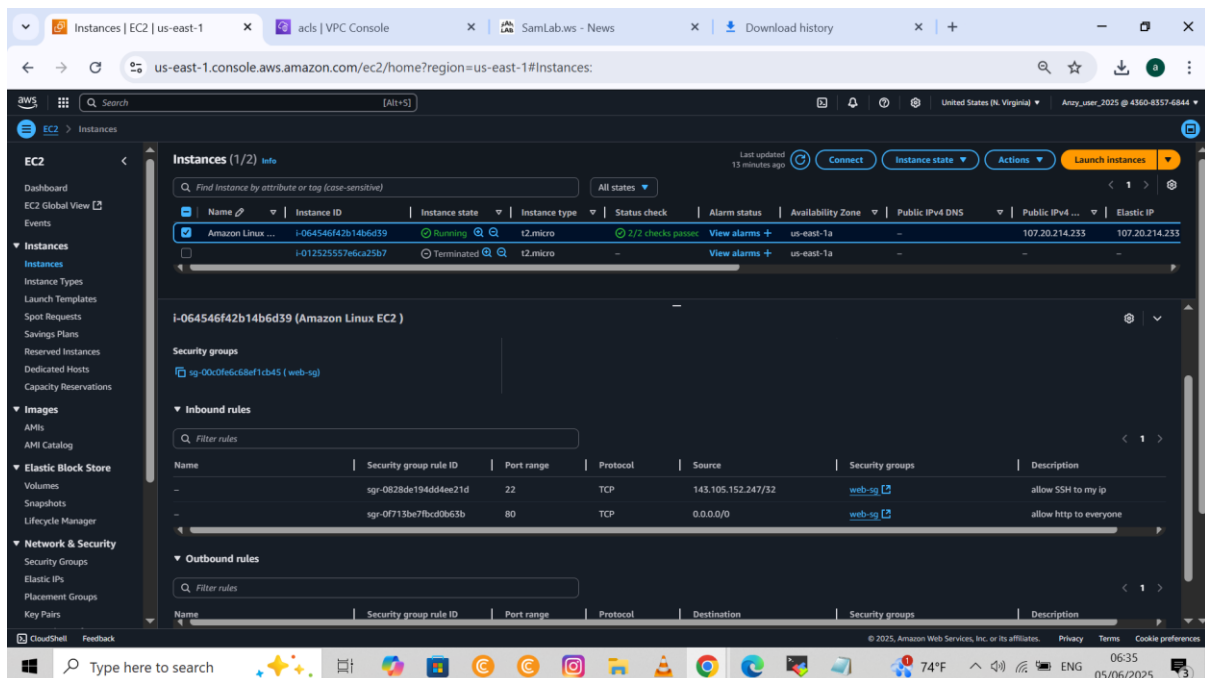
- AMI: Amazon linux 2
- Specs: t2.micro
- Storage: 8GB

- Attach a Security Group call web-sg allowing SSH traffic to your IP address and HTTP traffic to the outside world.
- Tag the instance our-first-ec2
- KeyPair: awesome-key-east1

Attach a screenshot of your EC2 Dashboard with the running instance



Attach a screenshot of your security group displaying all the rules in the same



Homework 2:

Attach a screenshot of the output of the `hostnamectl` command



Manually deploy Apache HTTP server on a Linux EC2 instance using the script below.

A screenshot of a web browser window. The address bar shows the URL "107.20.214.233" and a warning icon indicating "Not secure". The page content is a single line of text: "webpage built by Ebsiy Anslem". The browser's tab bar shows several open tabs, including "Instances | EC2 | us-east-1", "acls | VPC Console", "SamLab.ws - News", "Download history", and the current tab "107.20.214.233". The Windows taskbar is visible at the bottom, showing the search bar and various application icons. The system tray in the bottom right corner displays the date and time as "07:01 05/06/2025".

HOMEWORK 4:

a) – Work with a cluster member

Create an AMI based on our previous EC2 Apache HTTP Server.

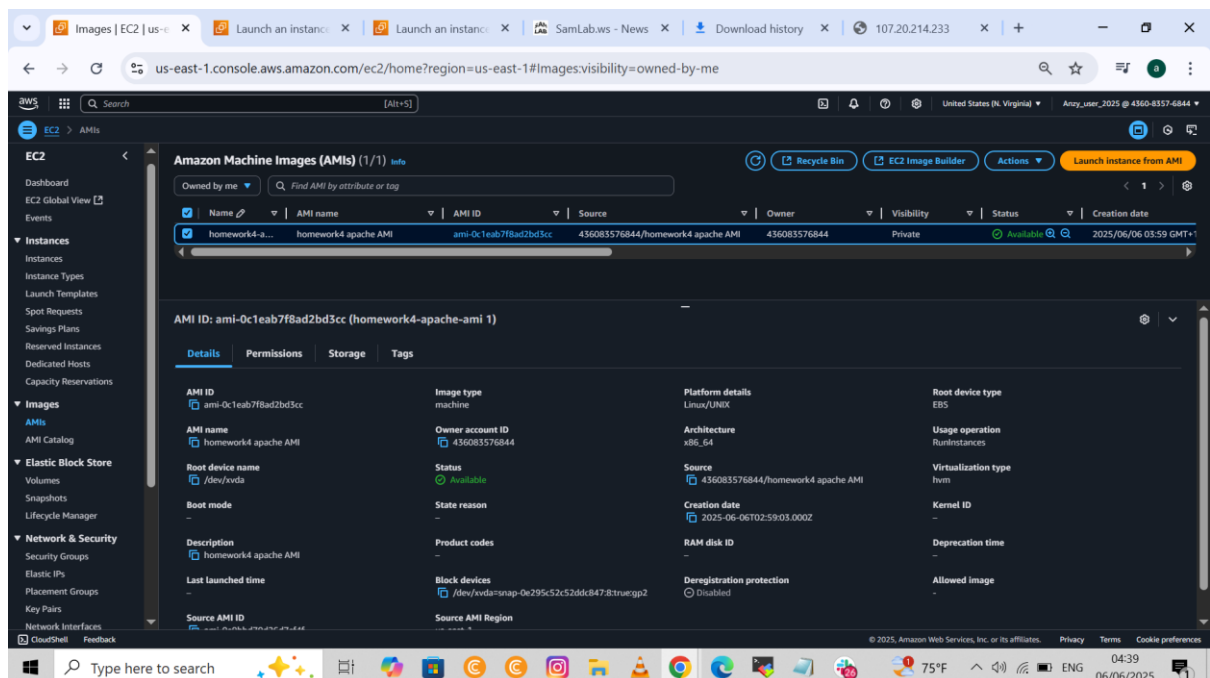
Tag AMI with value “homework4-apache-ami”.

Share the AMI with one member of your cluster.

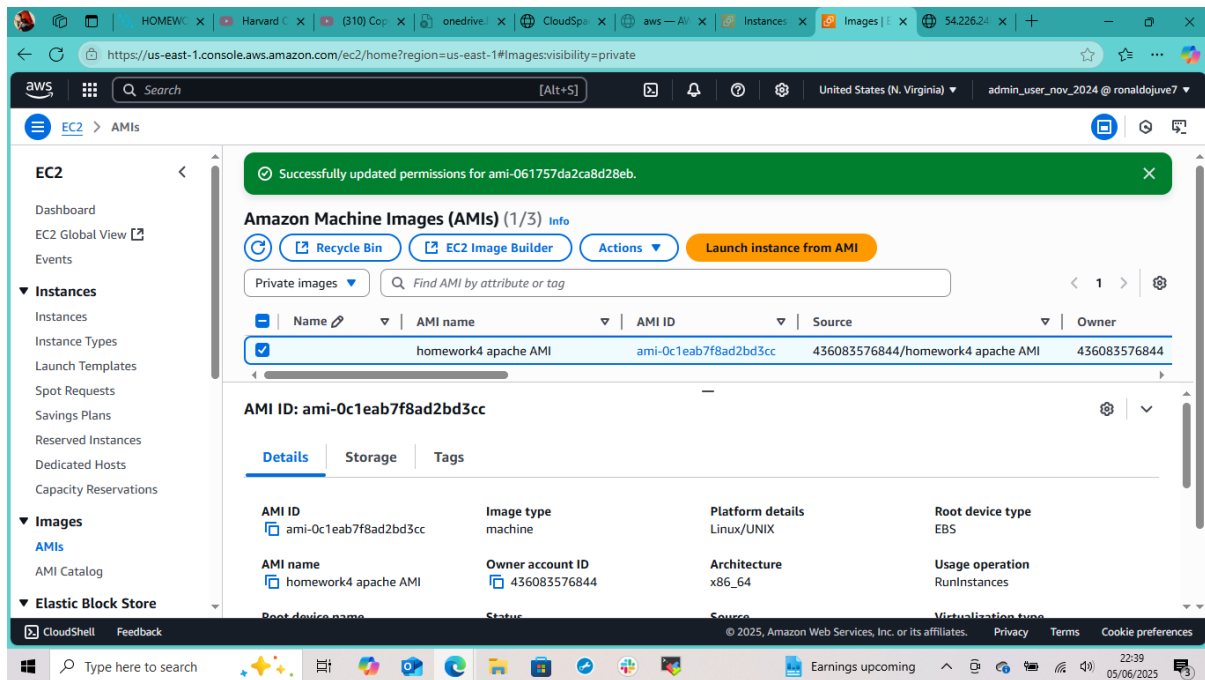
Launch an EC2 instance using the AMI created in the previous step.

SUBMISSION: Post a screenshot of:

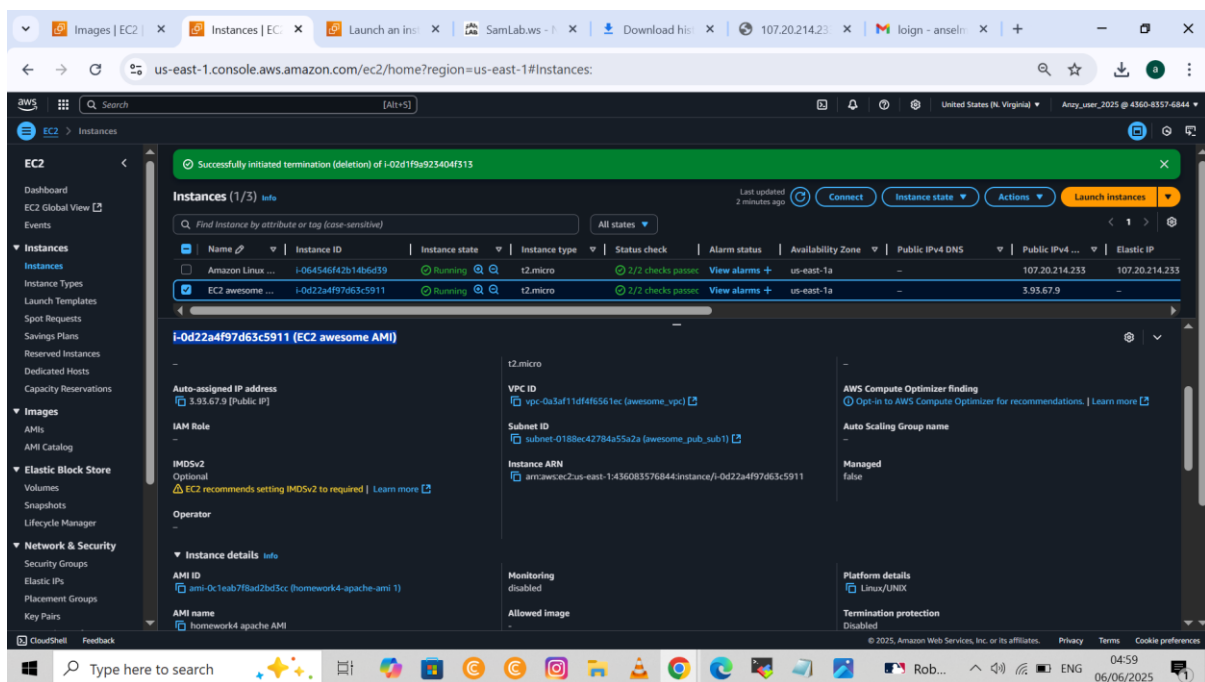
AMI in my account



AMI in the destination account



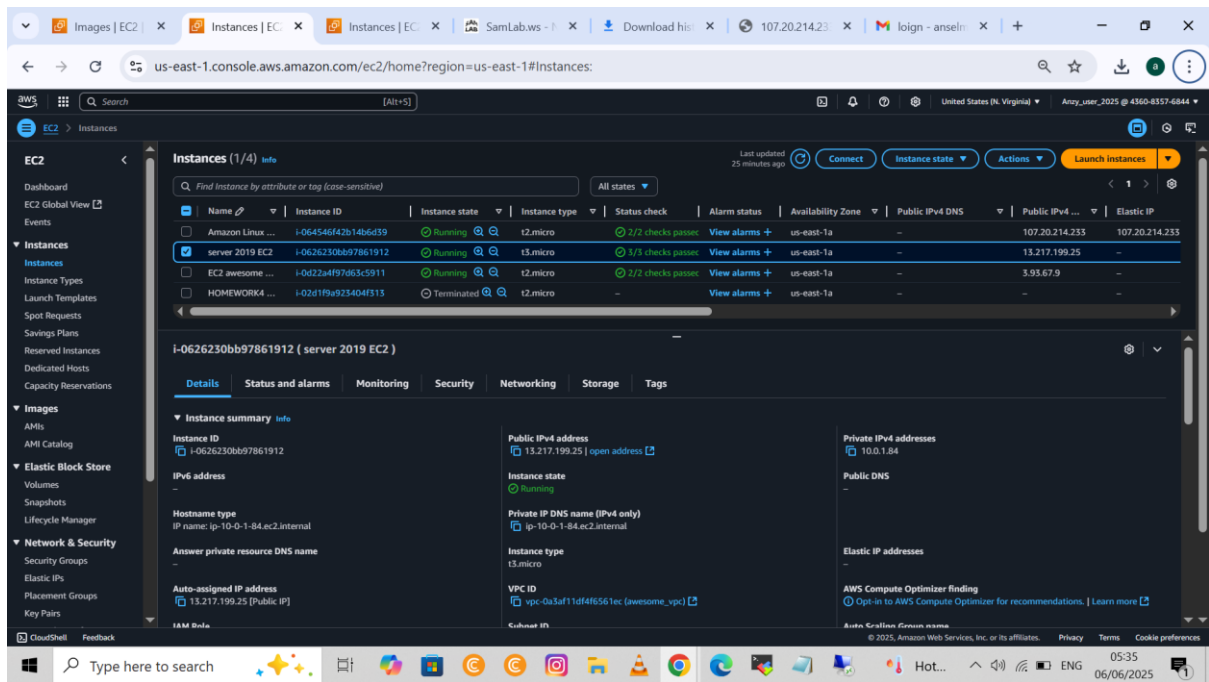
Screenshot of the peer launch a new EC2 instance using the shared AMI



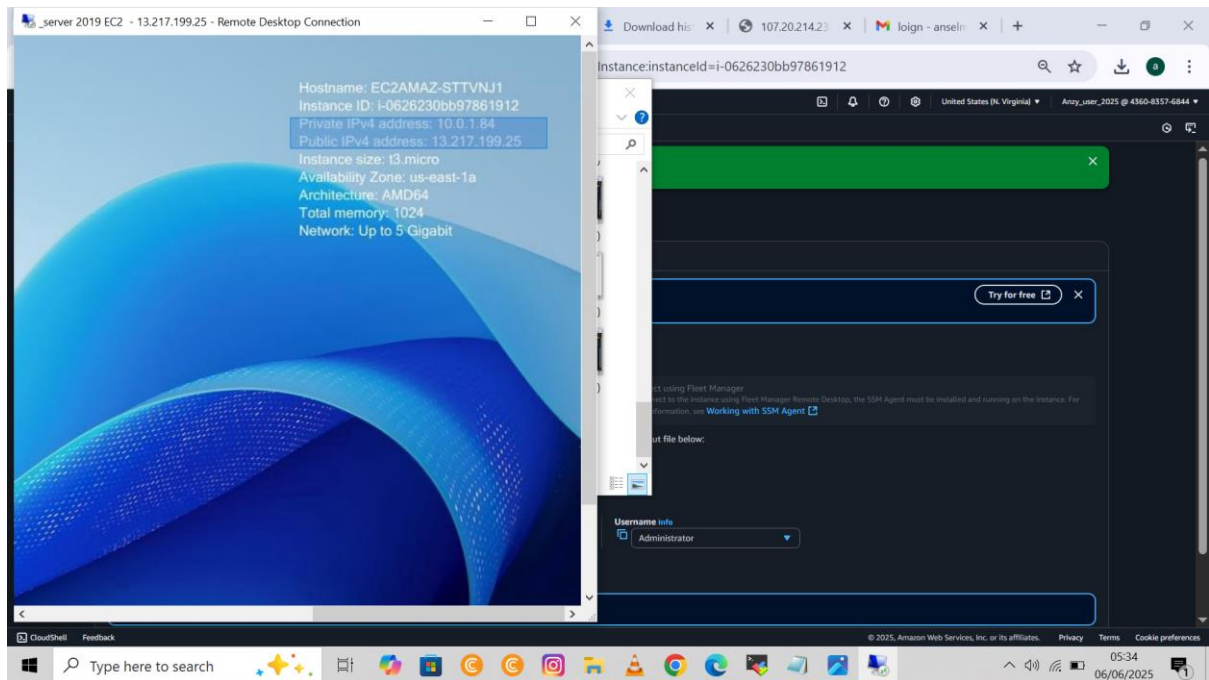
HOMEWORK 5:

– Launch a windows server 2019 EC2 instance and connect to it using a RDP client of your choice.

SUBMISSION: Post a screenshot of the Windows Server landing page after successful authentication. Attach your screenshot to a Word or pdf document.



Sreenshot of the Windows Server landing page



HOMEWORK 6: USER DATA

a)Automate your HTTP server creation using EC2 user-data.

Make sure to attach an SSM role at launch that will allow you to login into the instance within your browser.

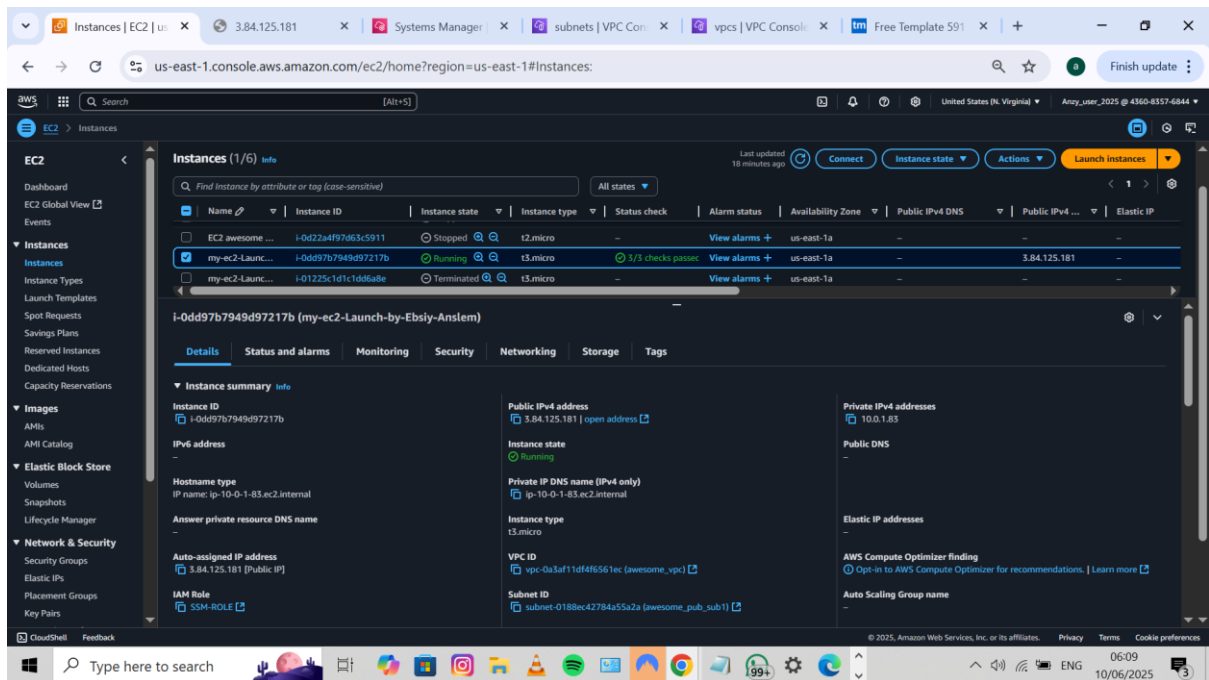
The screenshot shows the AWS Management Console for the 'us-east-1' region. The left sidebar contains navigation links for EC2, including Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images, AMIs, AMI Catalog, and Elastic Block Store. The main content area displays the details for an EC2 instance with ID 'i-07bd259dccc764b69'. The instance is in a 'Running' state, using the 't2.micro' instance type, and is located in the 'us-east-1a' Availability Zone. Key details include: Auto-assigned IP address '107.23.193.225', IAM Role 'AmazonEC2Role', and Instance ARN 'arn:aws:ec2:us-east-1:436083576844:instance/i-07bd259dccc764b69'. The instance is associated with VPC 'vpc-0a3af11df4f6561ec' and Subnet 'subnet-0188ec42784a55a2a'. An AWS Compute Optimizer finding is also visible, suggesting an 'Opt-in to AWS Compute Optimizer for recommendations'.

The screenshot shows a web browser window with the address '107.23.193.225'. The page content displays the text: "Automated Apache web server deployment using EC2 UserData – Ebsiy Anselm". The browser's address bar indicates the connection is 'Not secure'.

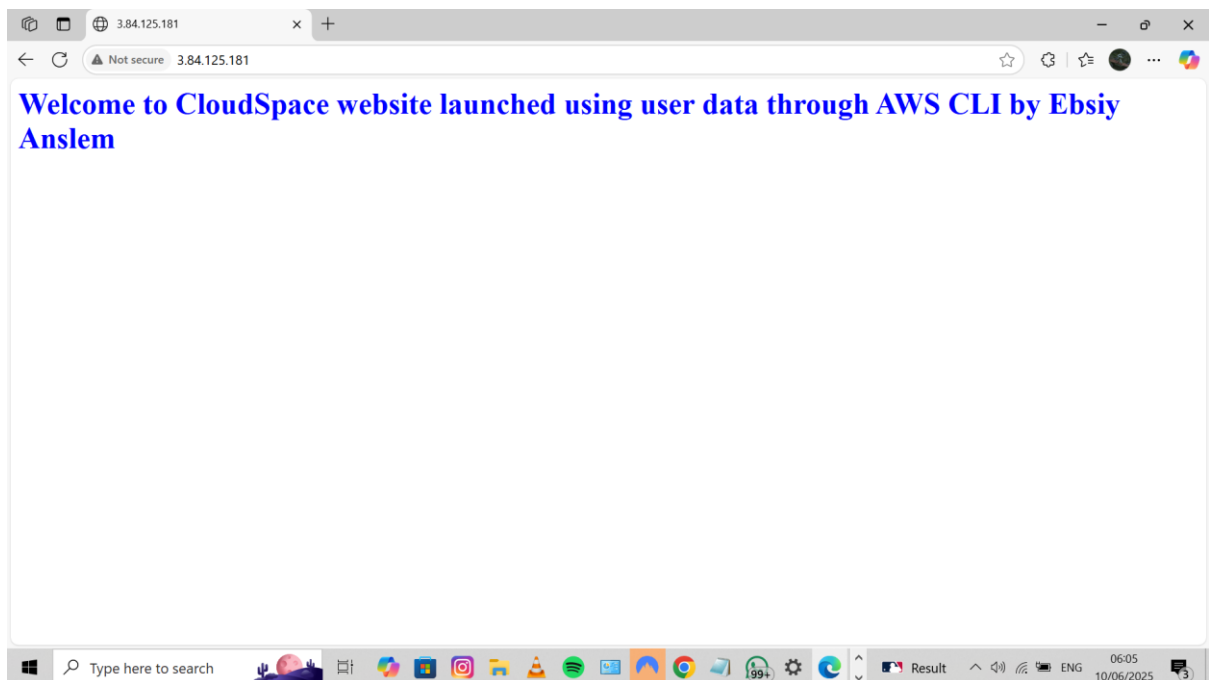
The screenshot shows a Windows taskbar at the bottom of the screen. It includes a search bar, several application icons (including a terminal, file explorer, and various web browsers), and a system tray on the right showing the time as 06:42 on 07/06/2025, along with network and volume icons.

HOMEWORK 7: AWS CLI

a) Launch a linux EC2 instance using AWS CLI and Tag it with "my-ec2-created-through-CLI". Be carefull with Name tag

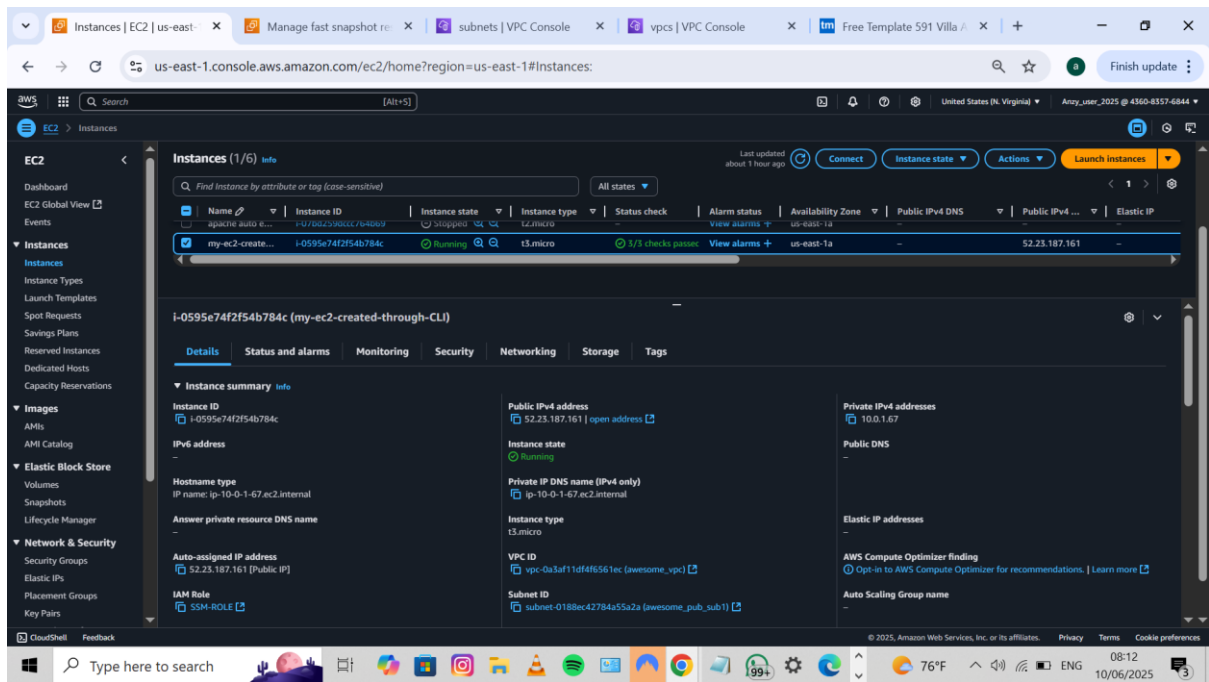


b) Using AWS CLI, Automate your HTTP server creation using EC2 user-data.
User-data Script:

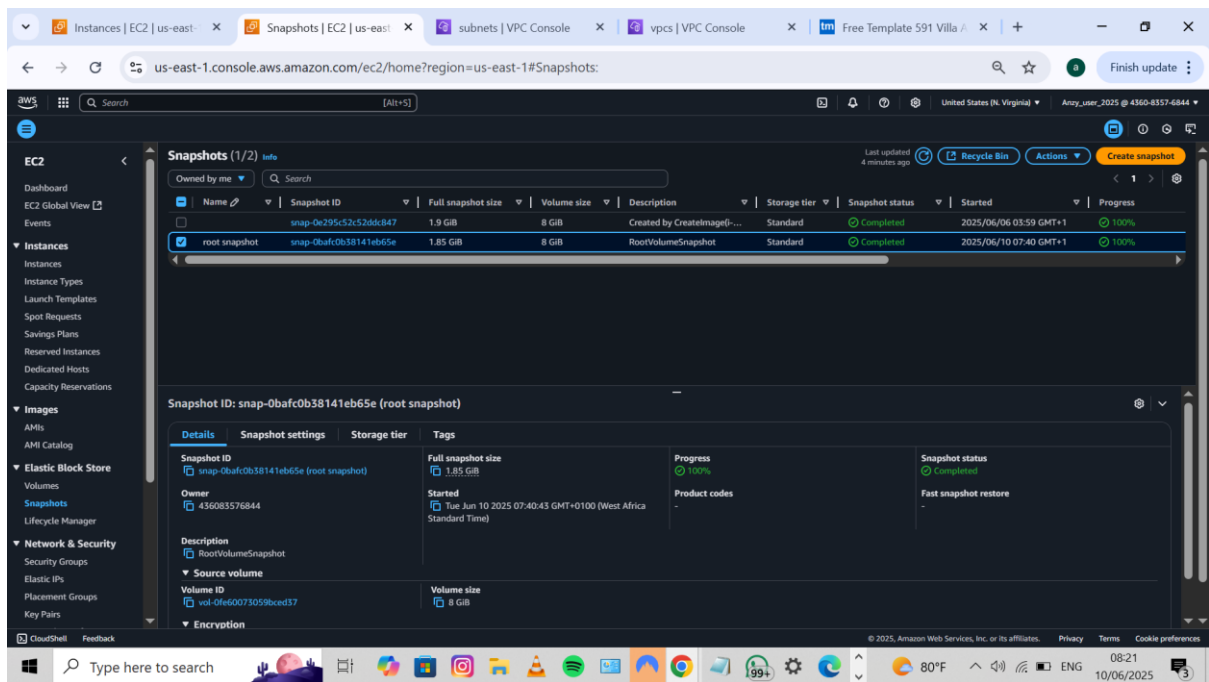


HOMEWORK 8: EBS & SNAPSHOT

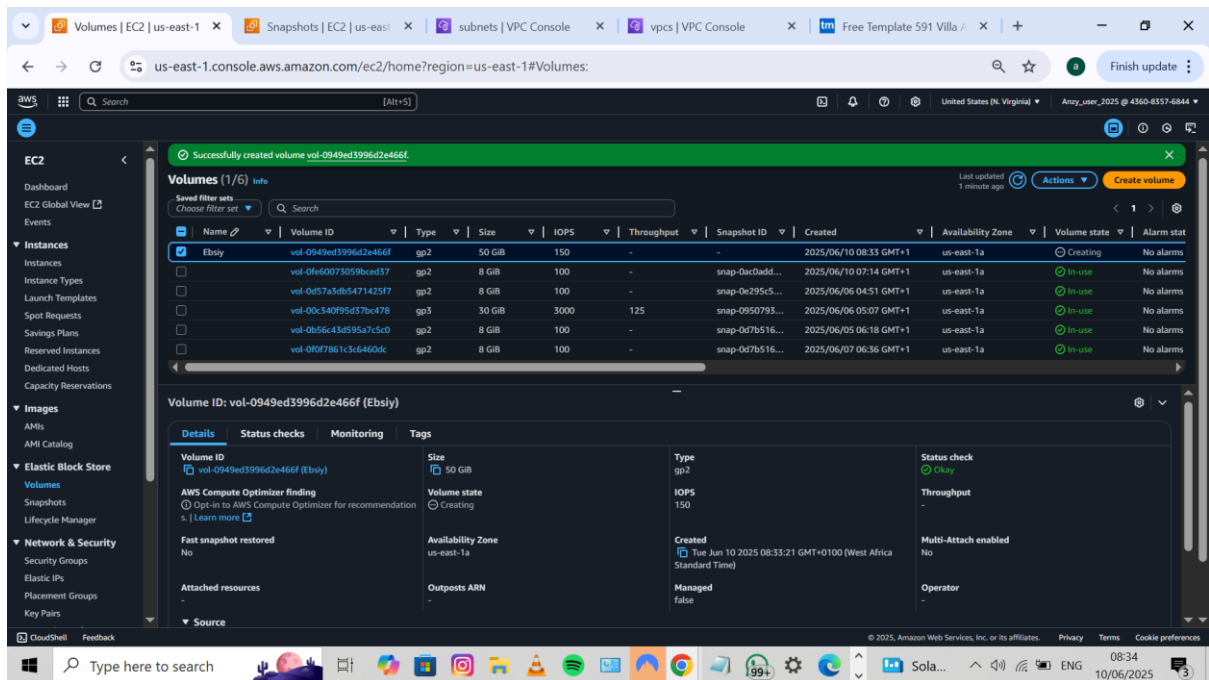
a) Launch a linux EC2 instance using AWS CLI and Tag it with "my-ec2-created-through-CLI". Be careful with Name tag



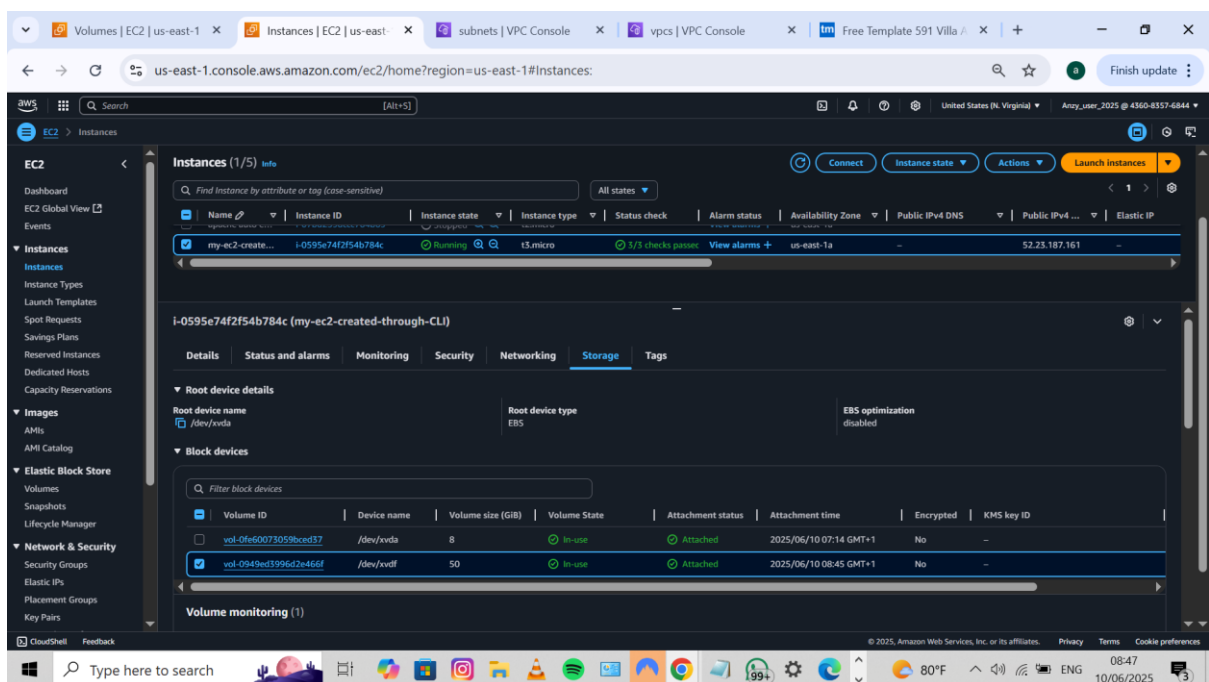
b) Take a snapshot of the Root Volume



c) Create a new Volume (with **Name** tag “**your_first_name**”, size 50 GB) in the same Availability Zone (AZ) as the EC2 instance. Take screenshot



d) Attach the new volume to the EC2 created in step 1. Take a screenshot showing both Volumes in the console.



e) login to the EC2 instance and run the command **"lsblk"**. Take a screenshot showing both Volumes size

Exemple of **lsblk** output

```
[ec2-user@ip-10-0-7-44 ~]$ lsblk
```

```
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
```

xvda 202:0 0 8G 0 disk

└─xvda1 202:1 0 8G 0 part /

xvdf 202:80 0 50G 0 disk

