COS20019 - Cloud Computing Architecture

Assignment 1 – part B

Creating and deploying Photo Album website onto a simple AWS infrastructure

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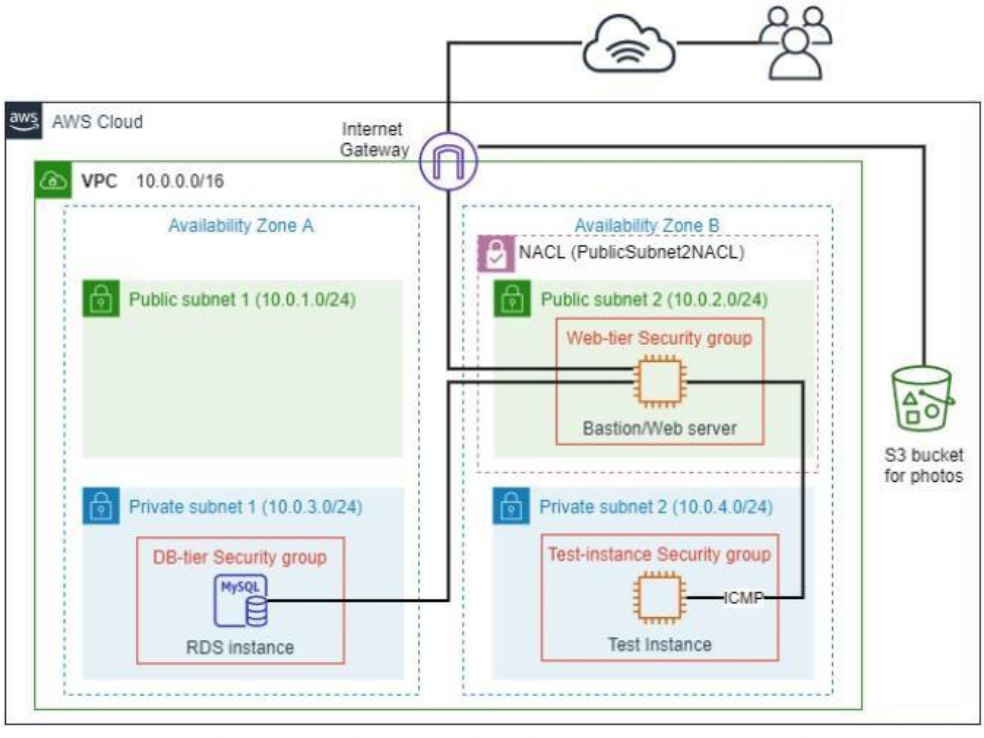
Student ID: 104198996

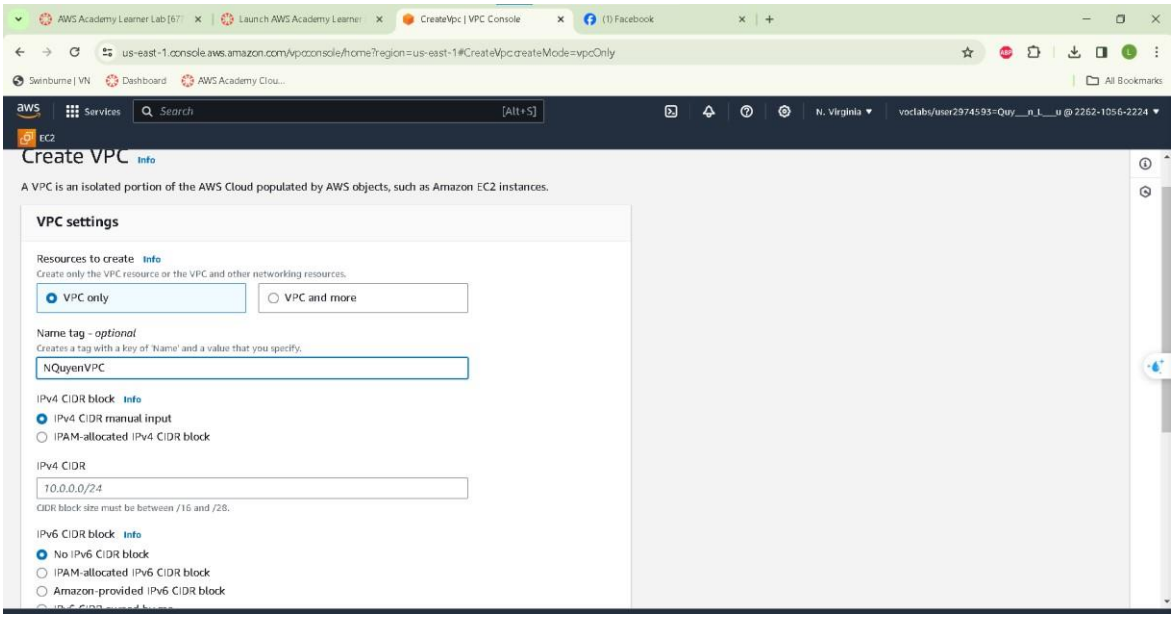
Tutorial Time: Every Tuesday at 7:AM

Date of submission: 9:AM (AEST) Monday, start of Week 7

1. Infrastructure deployment

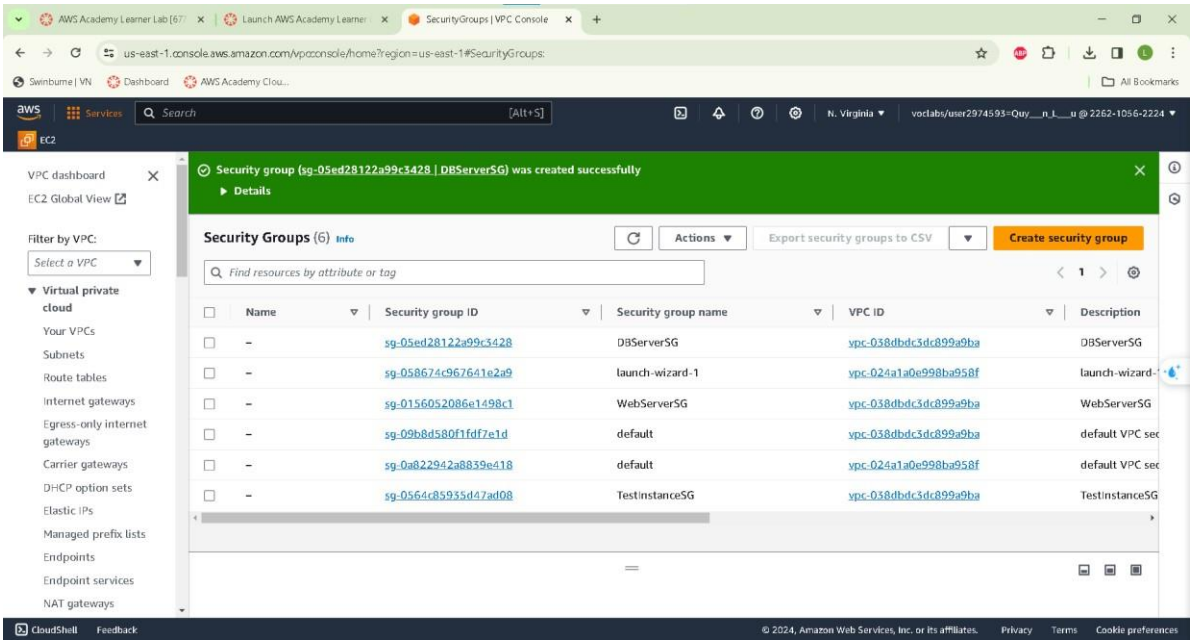


1.1 – VPC:



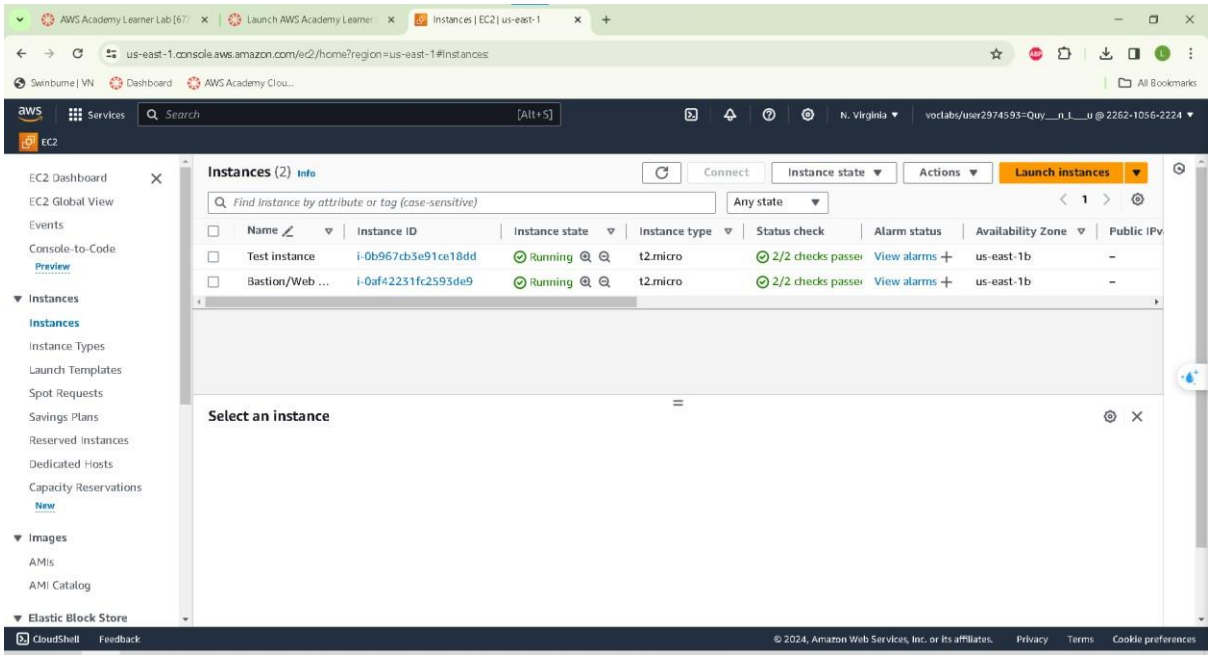
First, I created an VPC based on my name called " NQuyenVPC ".

1.2 – Security Group:

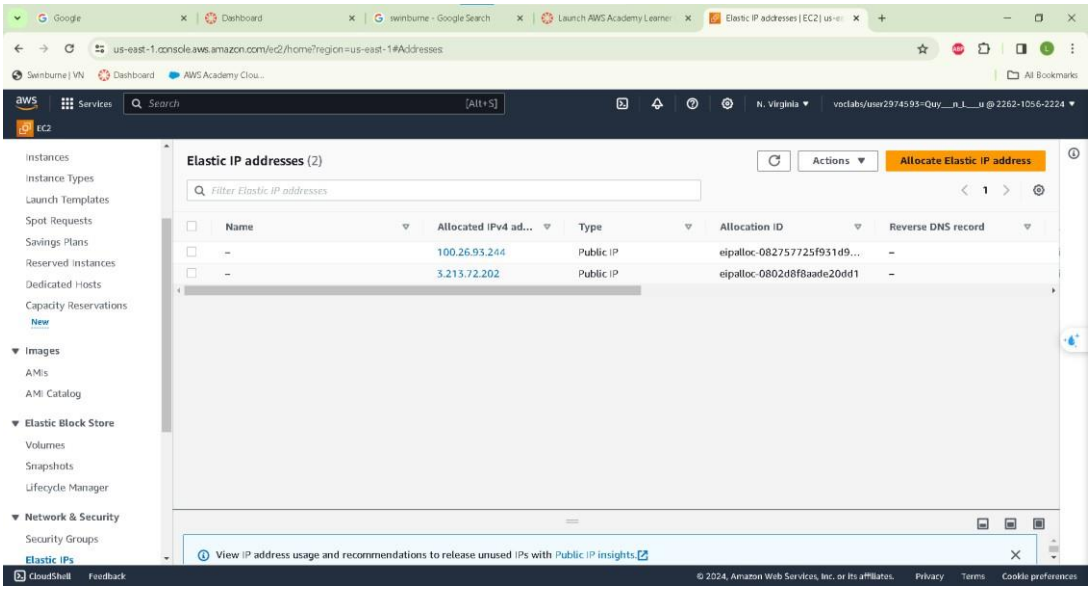


I Continuely create four security groups, each is associated with each tier to meet the requirements.

1.3– EC2 virtual machine:

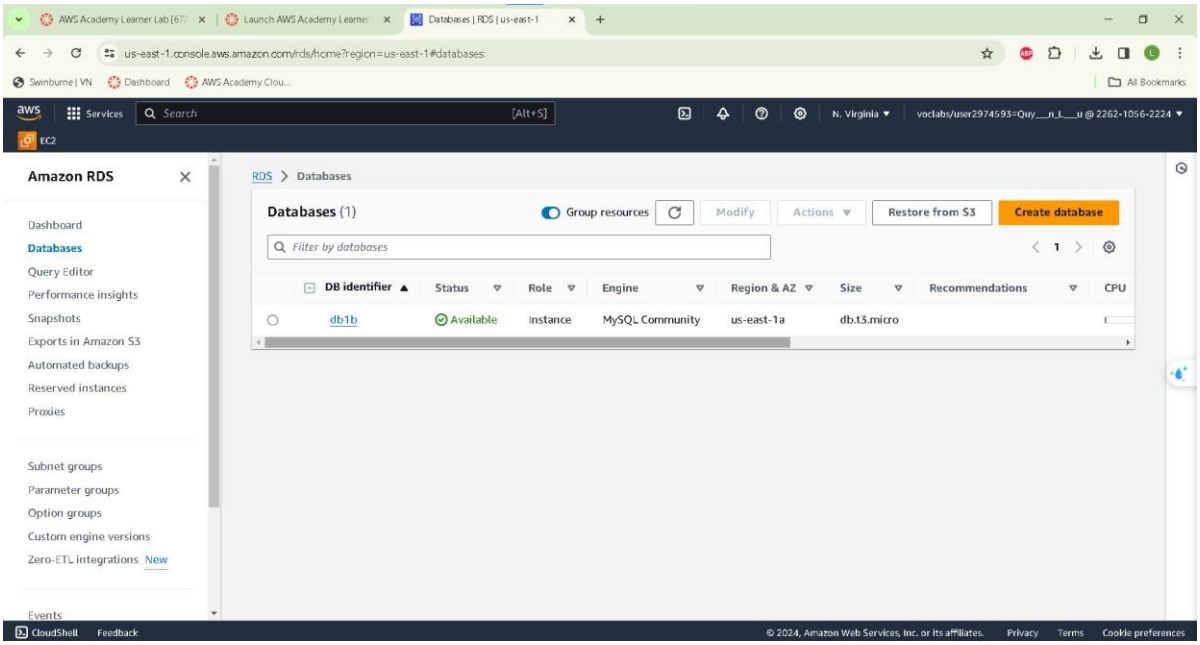


For Bastion/Web server instance, it deployed on an EC2 instances in Public Subnet 2. Following with Test insance in Private Subnet 2.

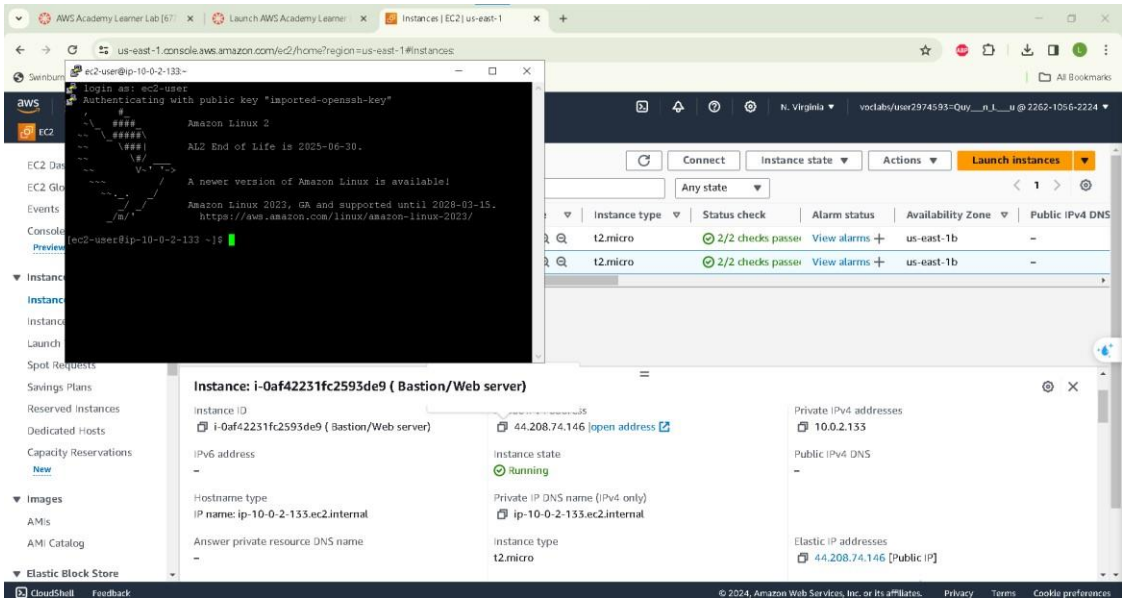


To avoid my public DNS change every time the Webserver instance restarts, I created two Elastic IP addresses.

1.4– RDS database instance:

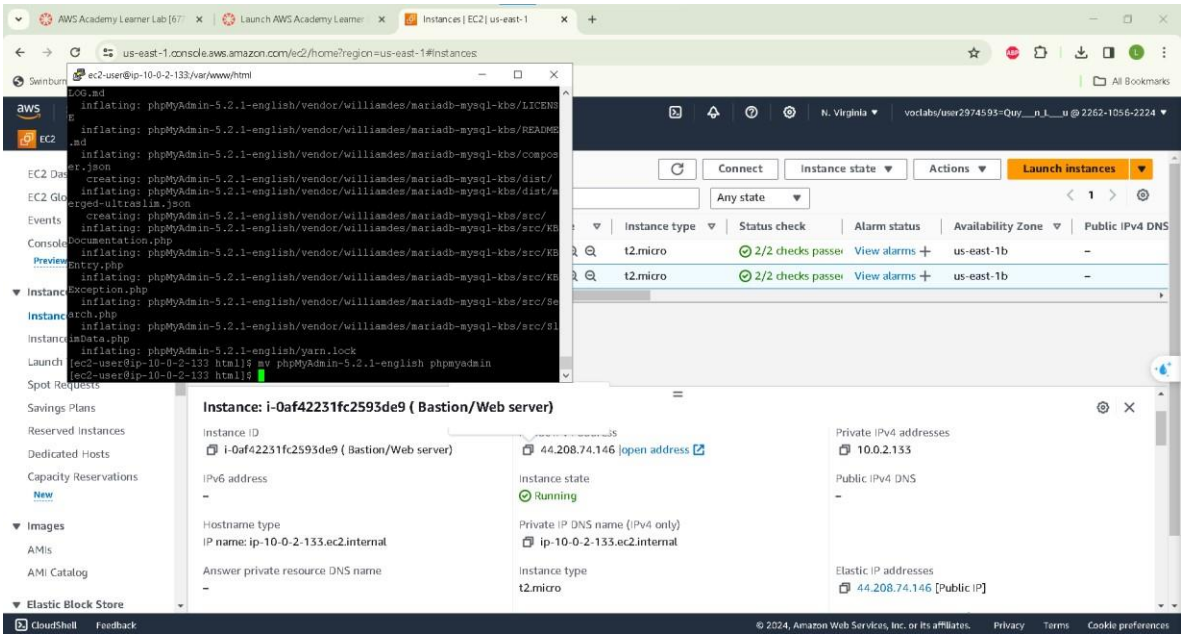


The database been created succesfully.

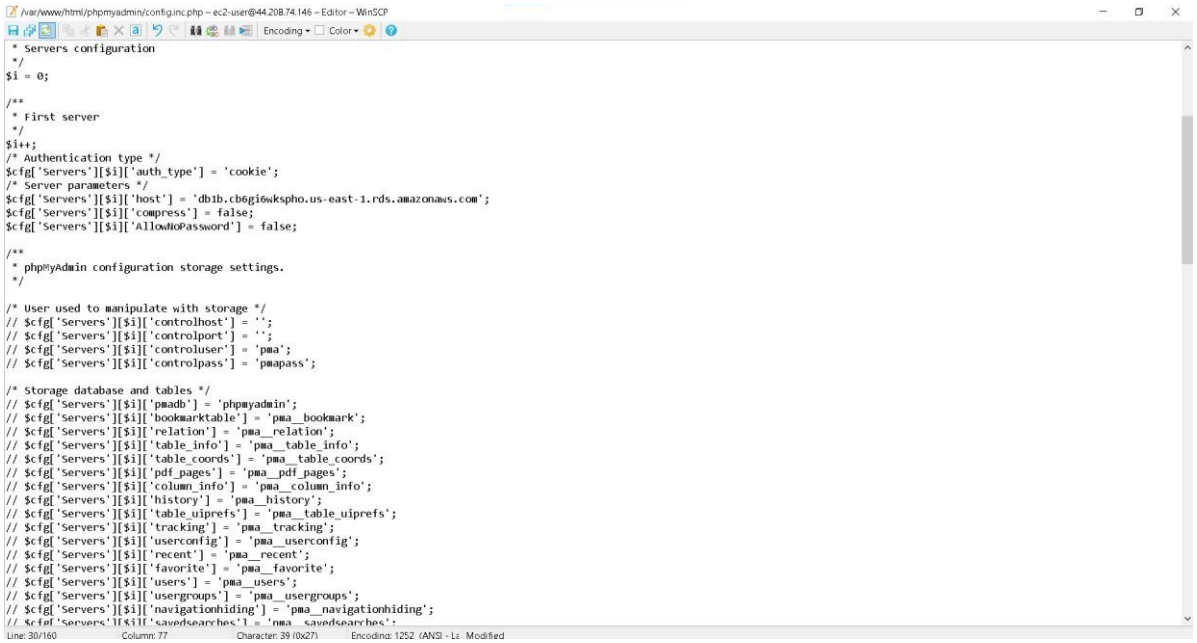


I runned the SSH with the private ppk key authentication to dowload the *phpMyAdmin.*

(This image is before I change my Elastic IP addresses. Which not effect the installing section)

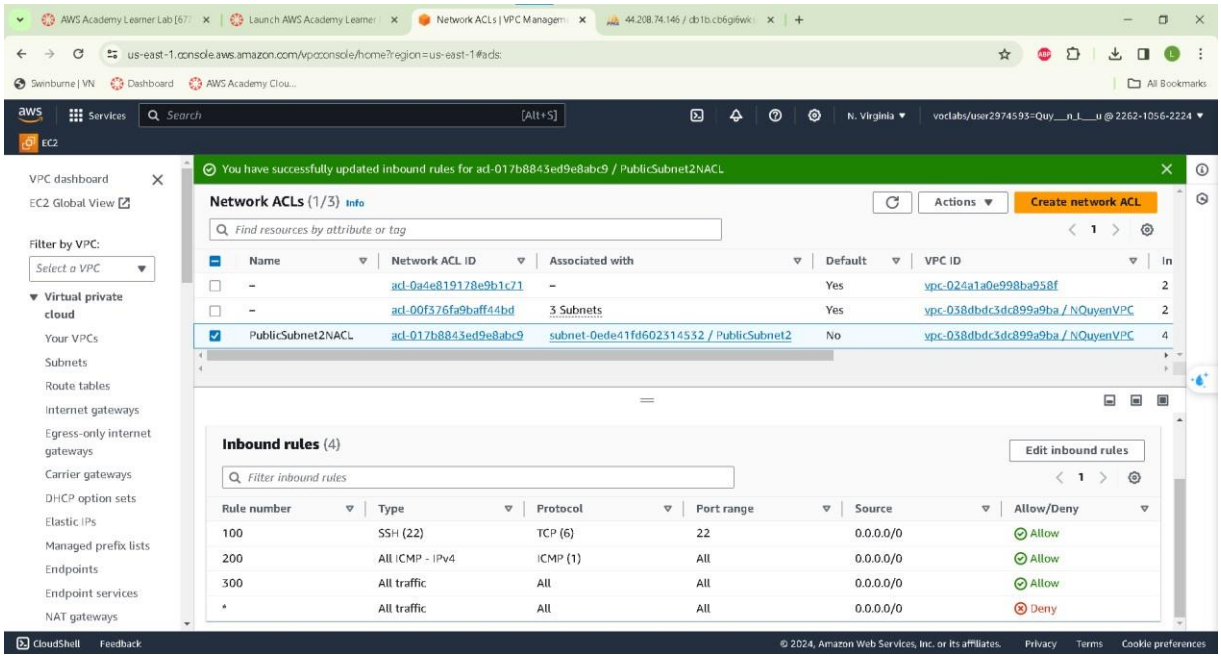


Installing section for *phpMyAdmin.*



I also change the Dabase host to run the Phpmyadmin.

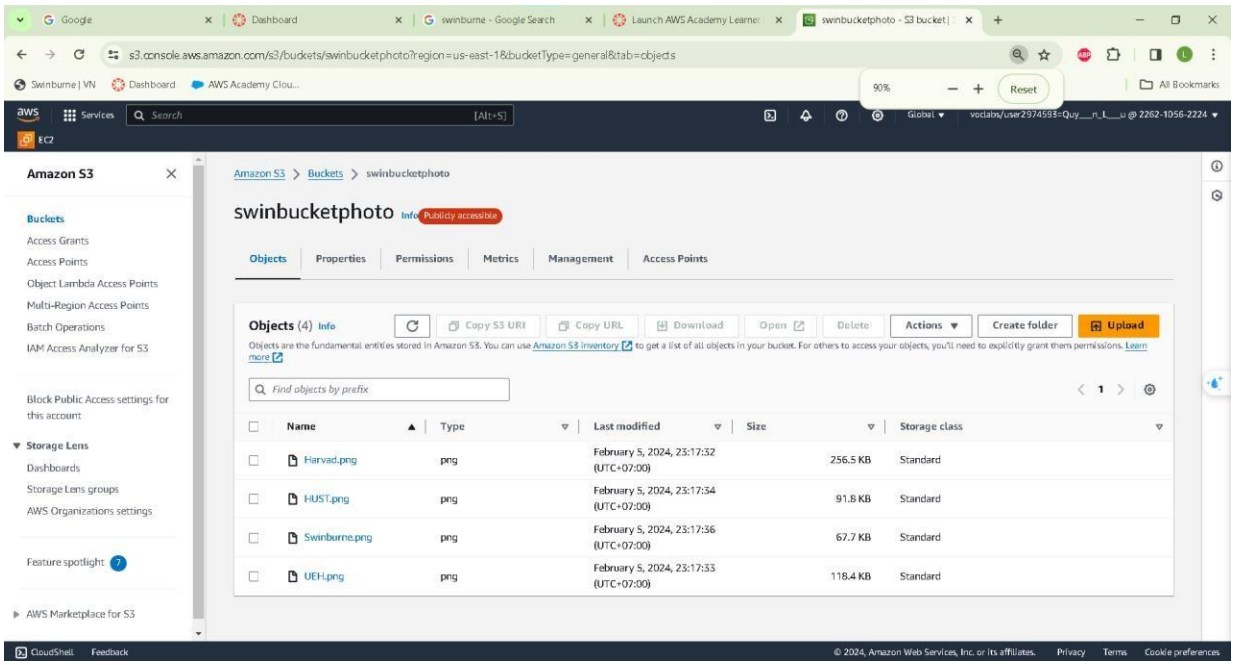
1.5– Network ACL:

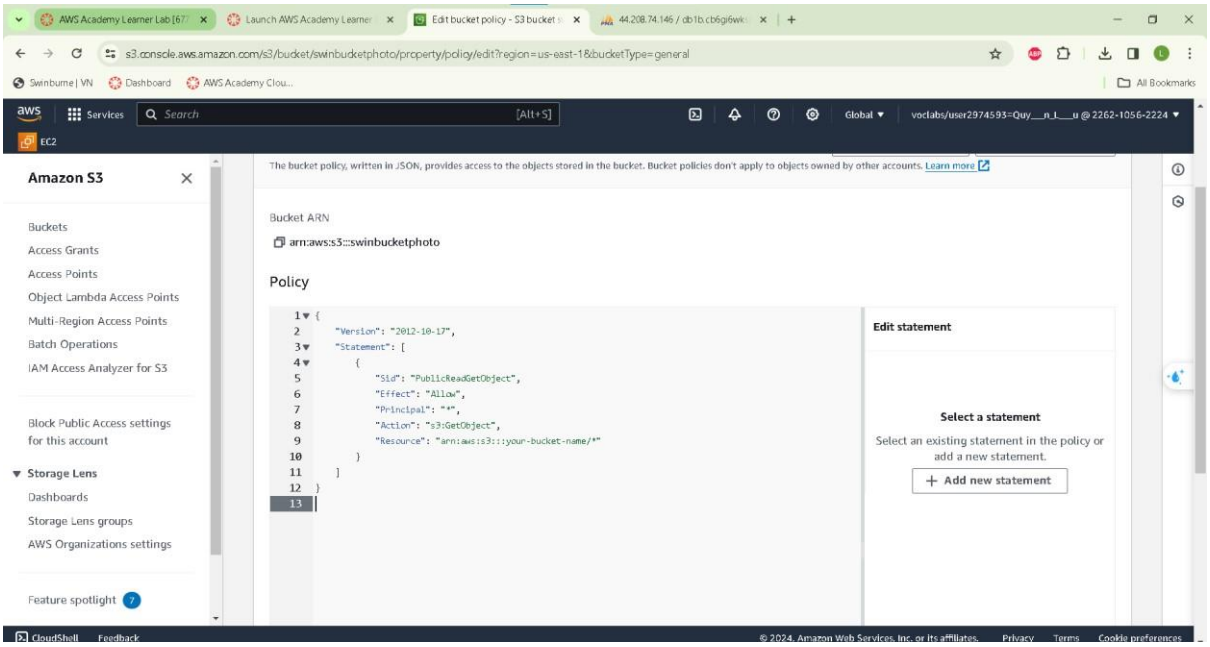


I designed and deploy a Network ACL (named “PublicSubnet2NACL”) that limit ICMP and other requirements in the Assignment .

2. Functional requirements of Photo Album website

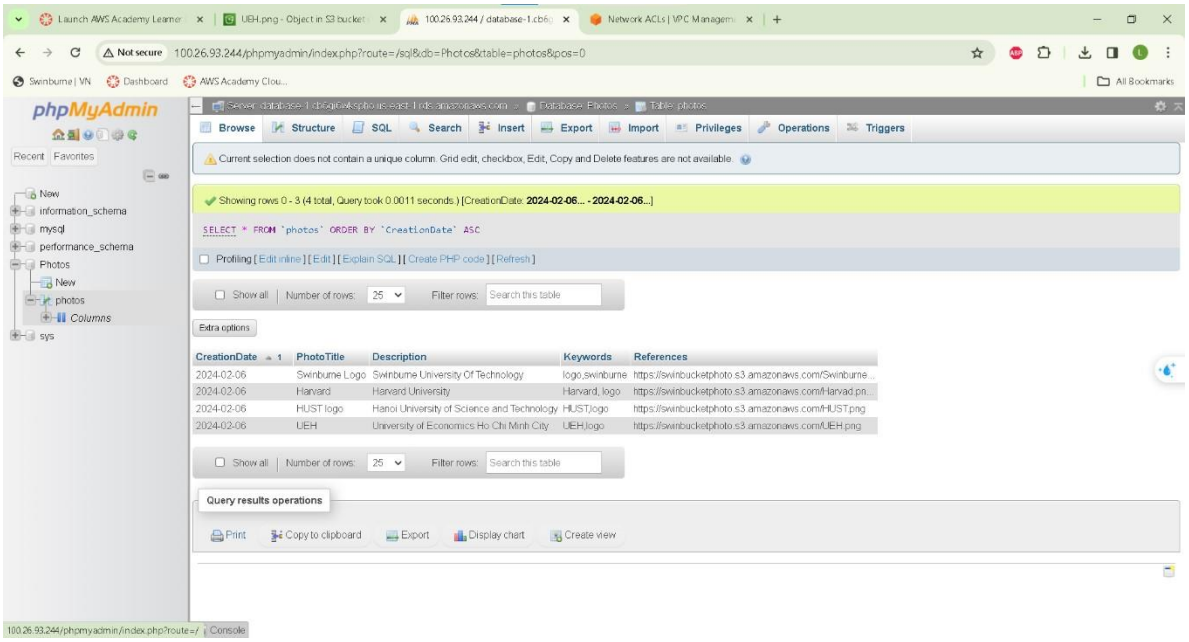
2.1-Photo Storage





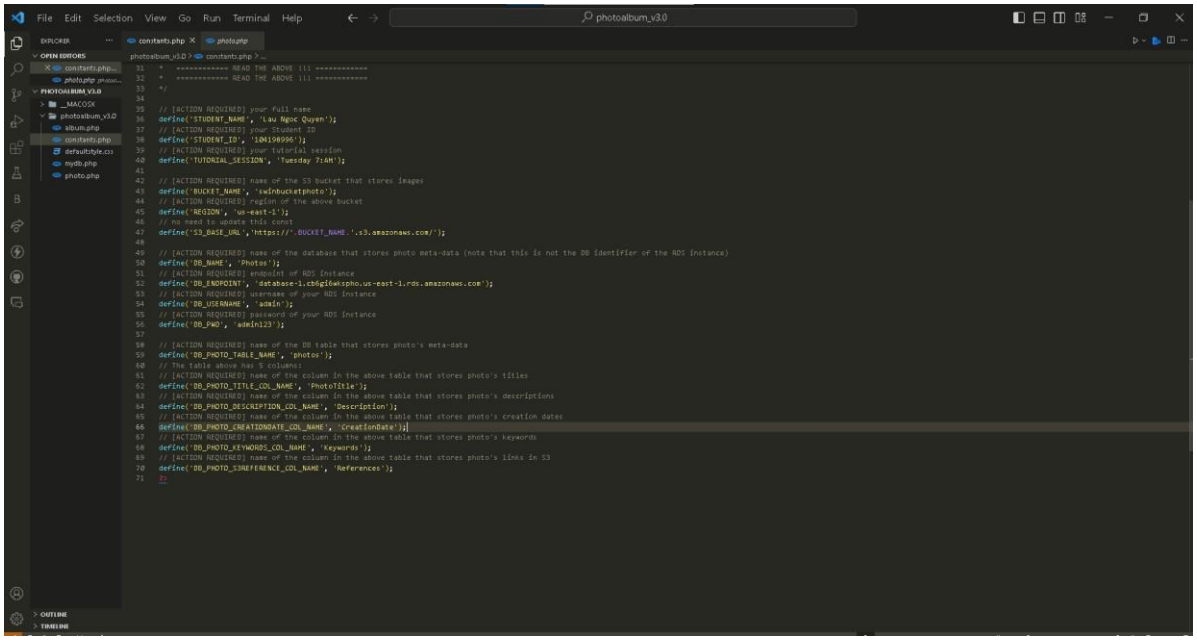
I created an S3 bucket to store the photos that I have dowloaded and it successfully uploaded.

2. 2-Photo meta-data in RDS Database



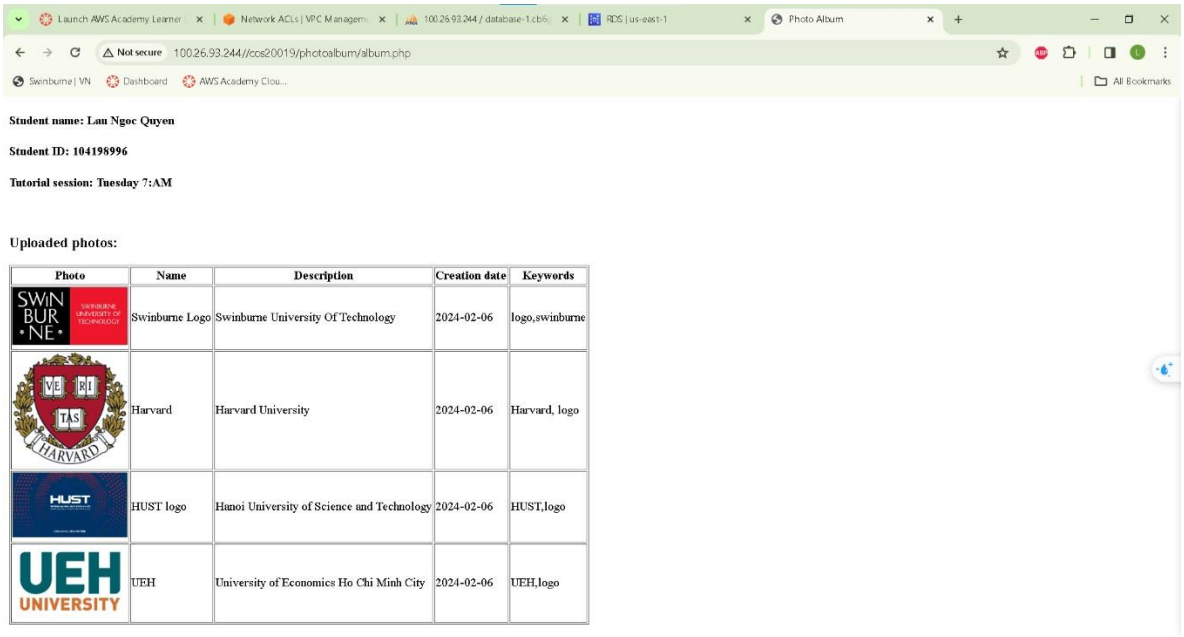
I populated the table with the require records in the Assignment.

2.3 – Photo Album website functionality



The website listed all the photos (stored in the S3 bucket) along with their metadata (stored in the database I created previously). I Installed (*photoalbum_v3.0.zip*). Modified the *constants.php* file in the provided code available information from the S3 bucket and RDS database that i created in the previously

Testing



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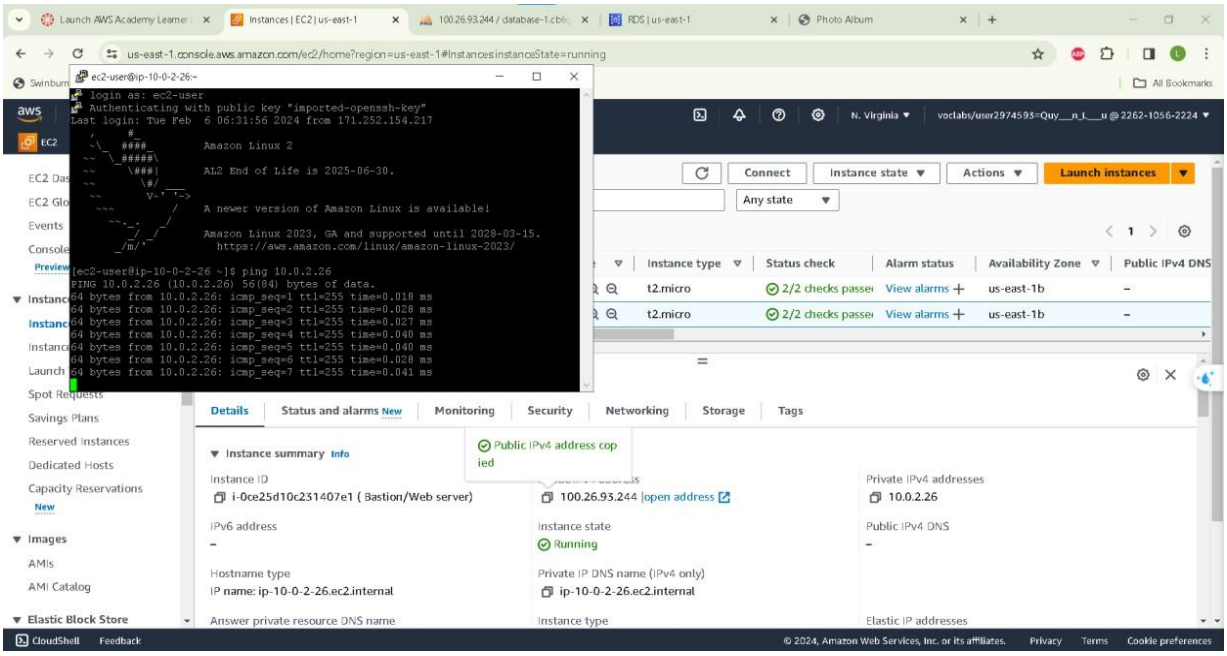
Tutorial session: Tuesday 7:AM

Uploaded photos:

Photo	Name	Description	Creation date	Keywords
	Swinburne Logo	Swinburne University Of Technology	2024-02-06	logo,swinburne
	Harvard	Harvard University	2024-02-06	Harvard, logo
	HUST logo	Hanoi University of Science and Technology	2024-02-06	HUST,logo
	UEH	University of Economics Ho Chi Minh City	2024-02-06	UEH,logo

Deploy the website that took the information from the database



Succesfully testing by ping the Webserver using SSH in the Linux terminal

Here is the link of the photoalbum:

http://100.26.93.244//cos20019/photoalbum/album.php

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