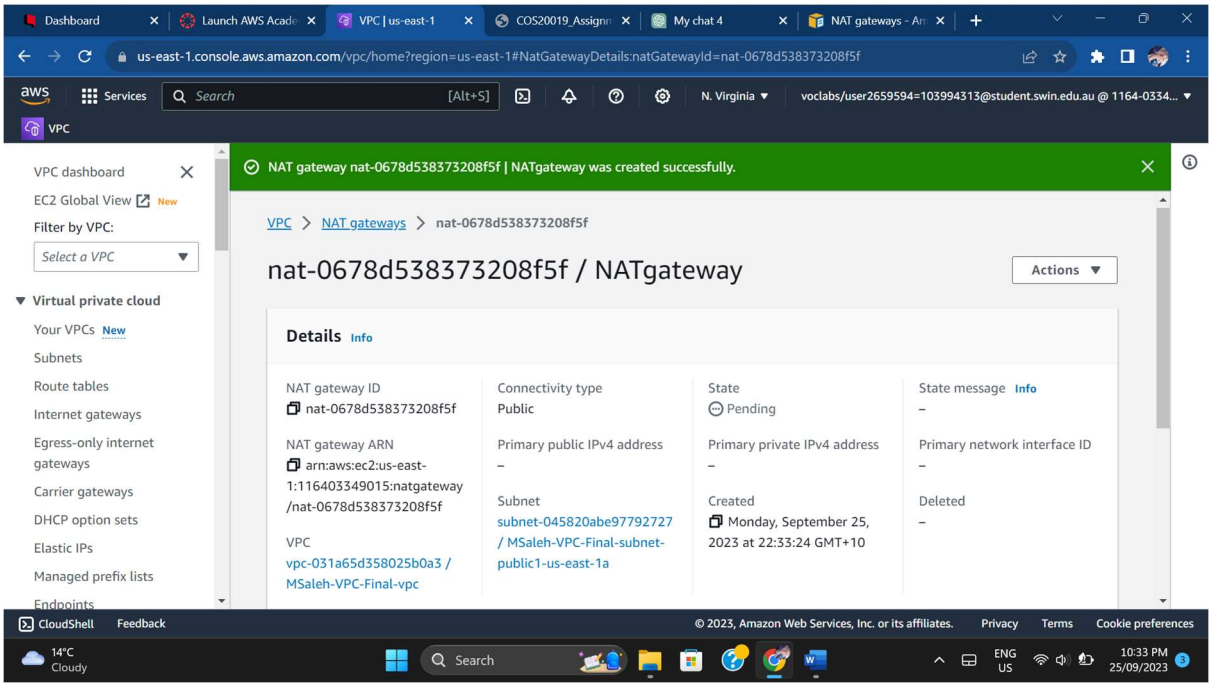
Assignment 2

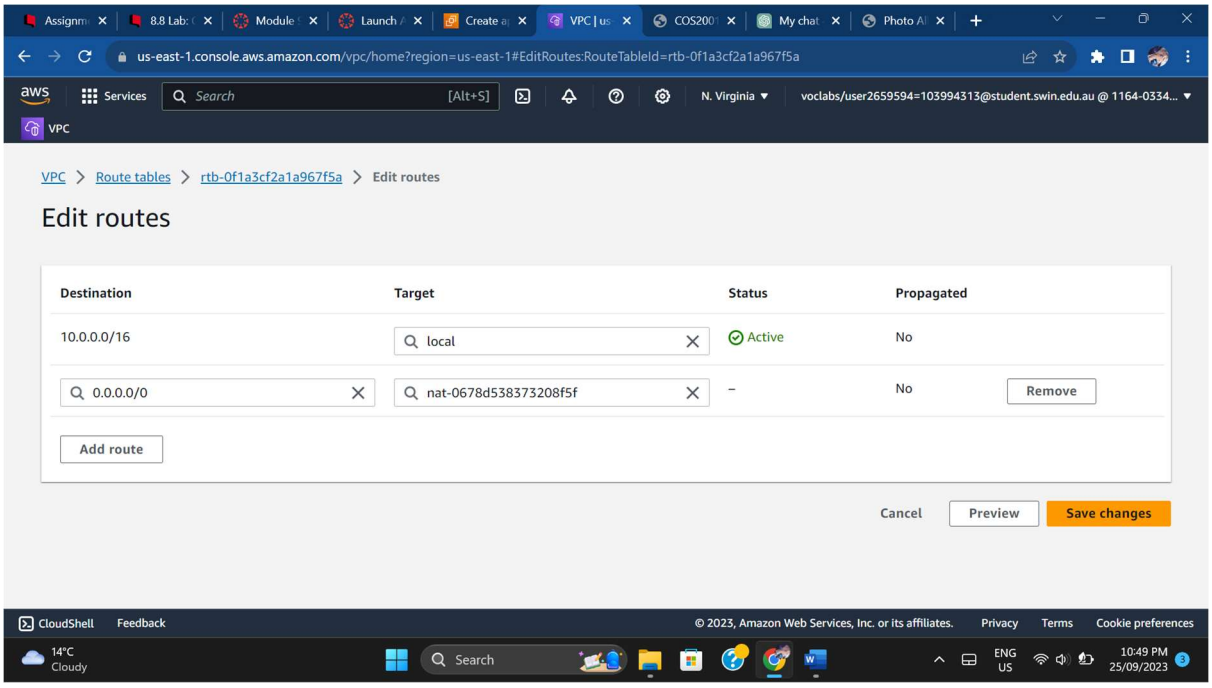
Mark Saleh

In this assignment I created a highly-available photo album. It is accessible here: http://ec2-34-192-245-29.compute-1.amazonaws.com/photoalbum/album.php

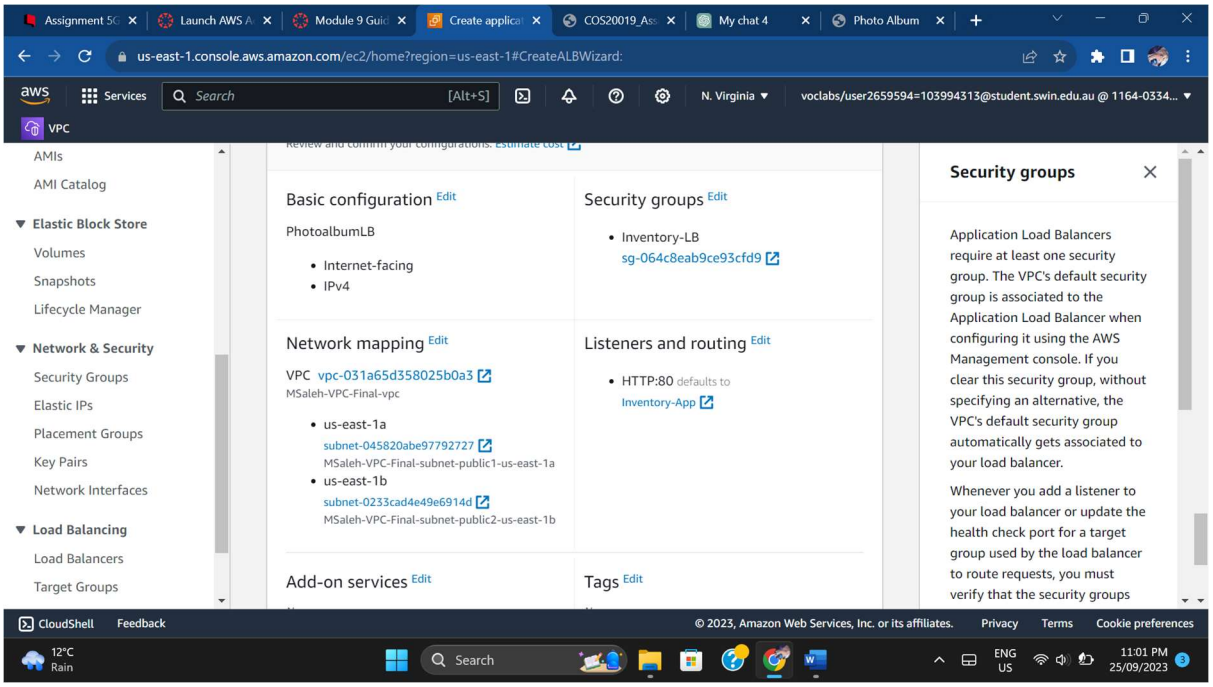
After fixing the constants.php file and uploading all the provided photoalbum files to my instance, I first created a NAT gateway called NATgateway in my EC2 instance, allocating it the elastic IP 44.213.239.113 (eipalloc-05f32e20b72366df4)



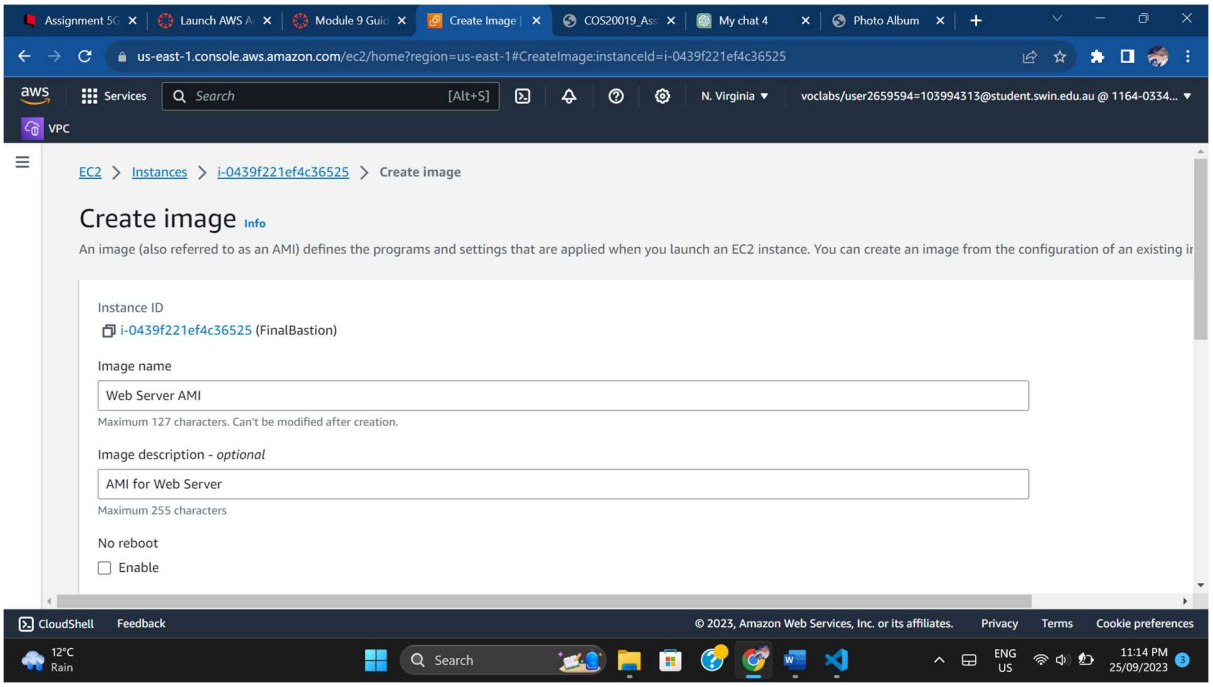
I then routed both the private subnets to it



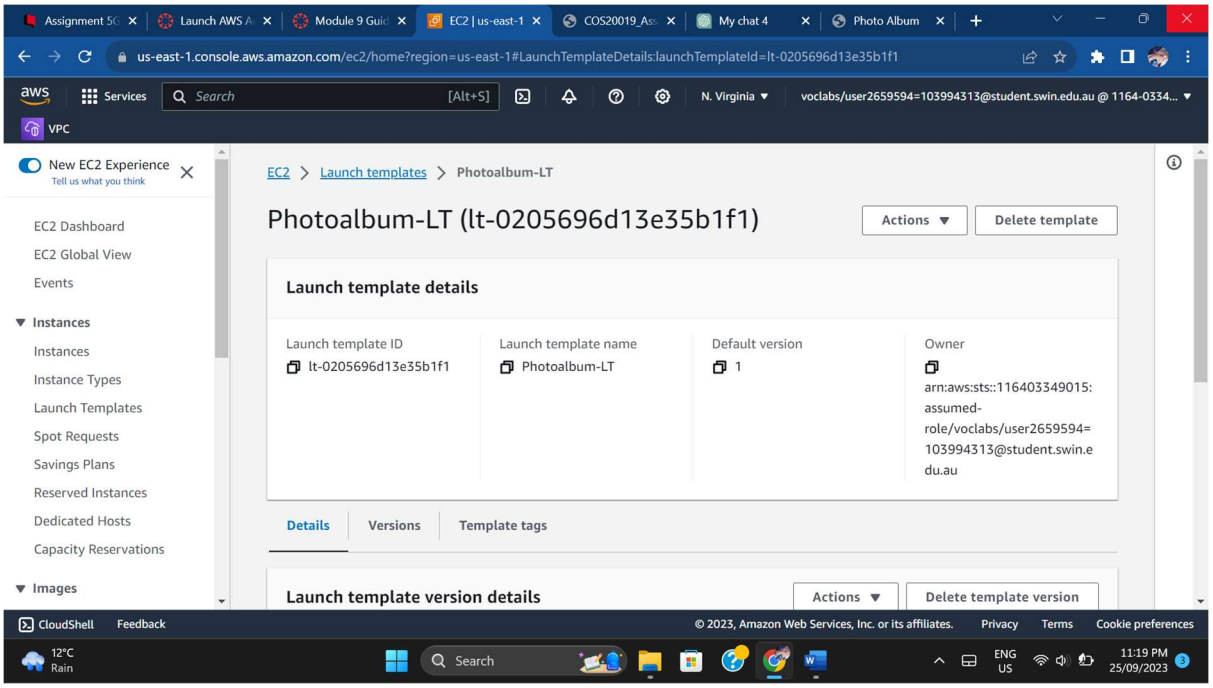
After this I made an application load balancer between the two public subnets called PhotoalbumLB.

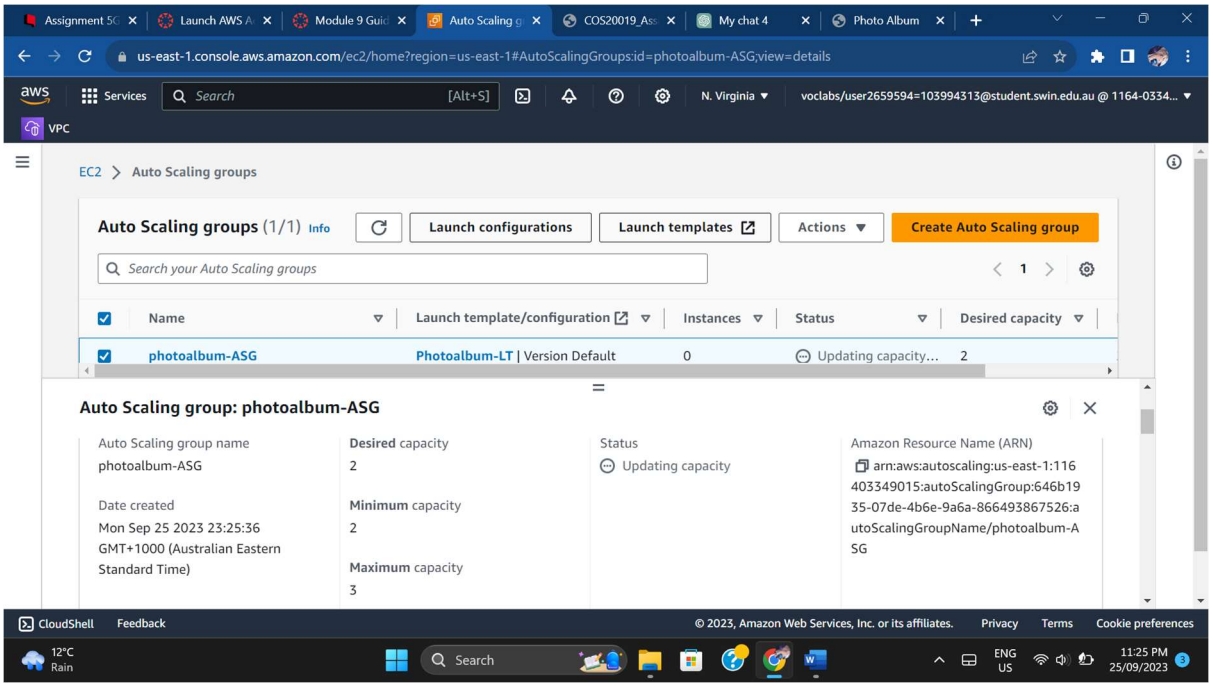


I then made an AMI of my web server.

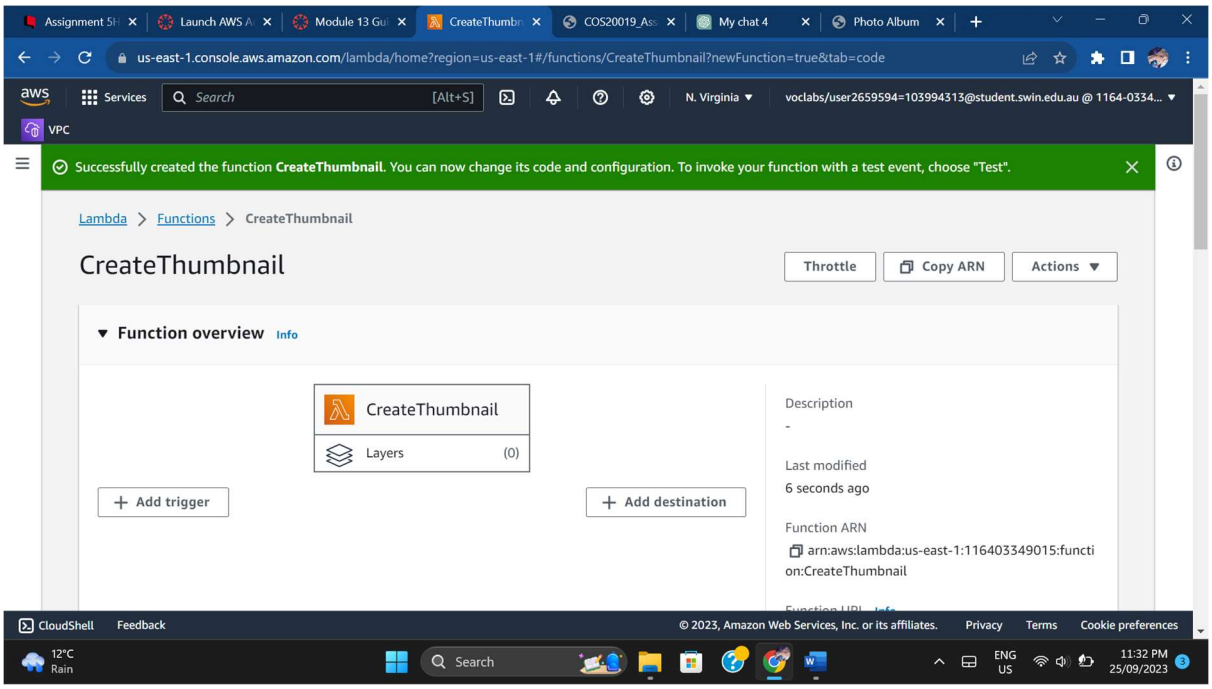


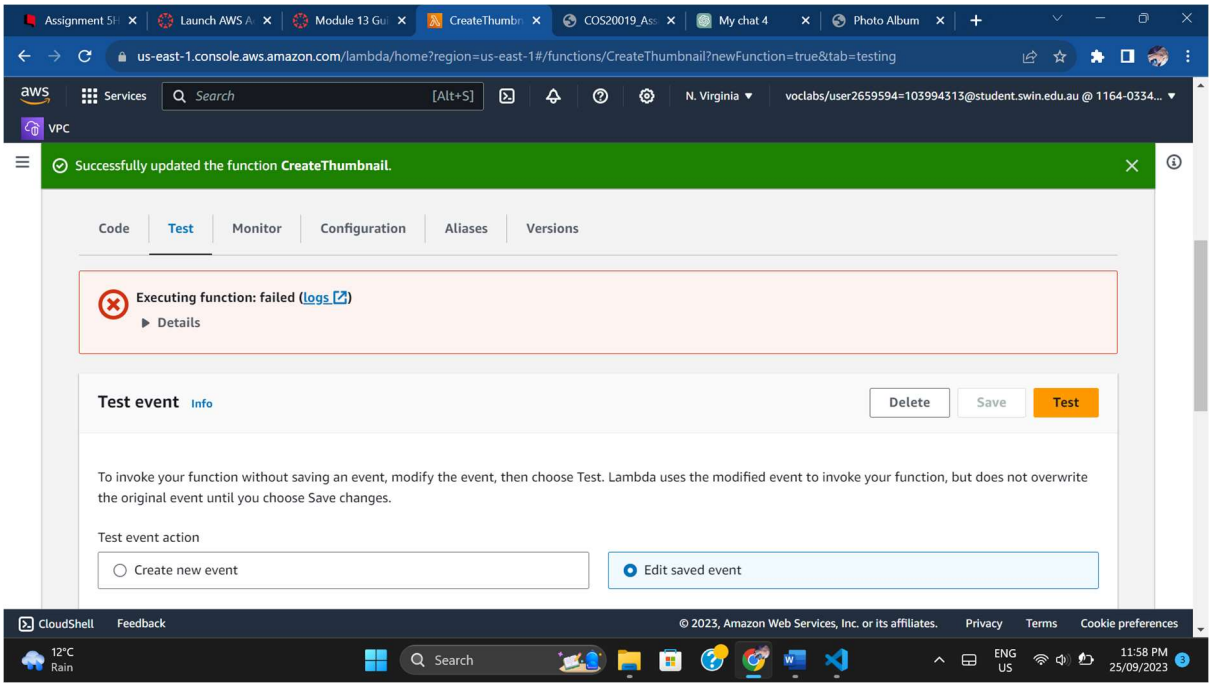
I used this to set up a launch template which I then used to create an Auto Scaling Group as instructed



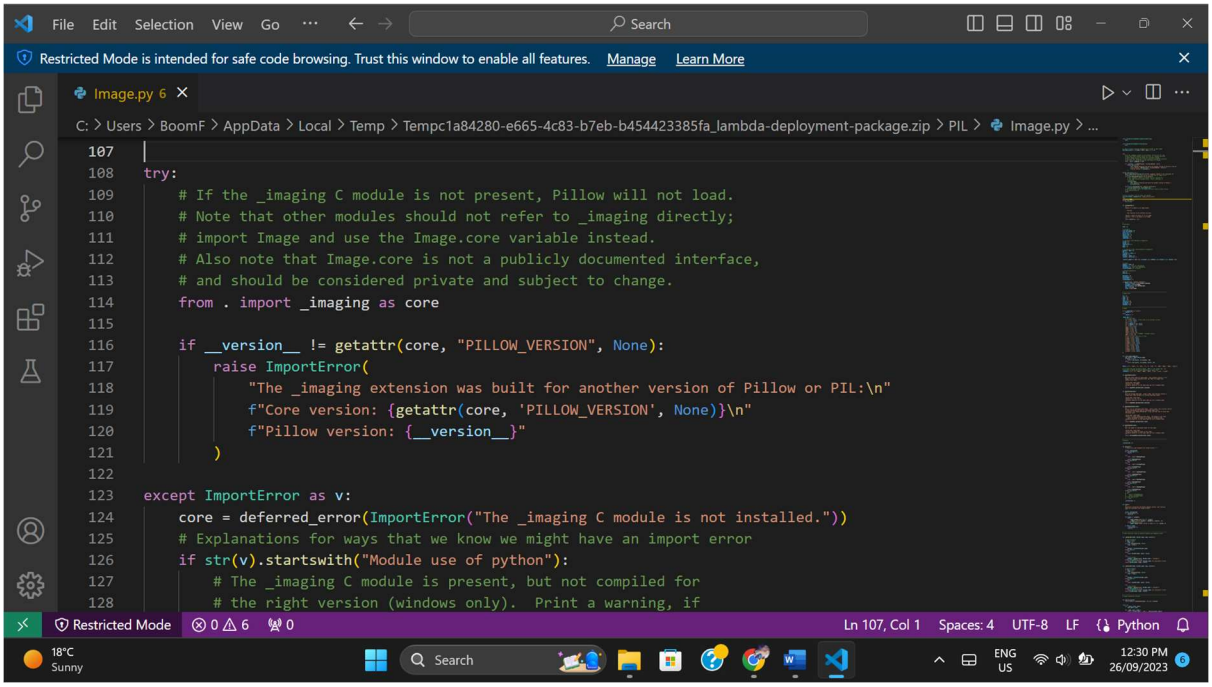


I then made the CreateThumbnail Lambda function and uploaded the code to it. When testing it, it did not work for some reason, and I could not fix it. Since I did not write the code or the test, I am not sure if the problem is on my side. I decided to leave it like that

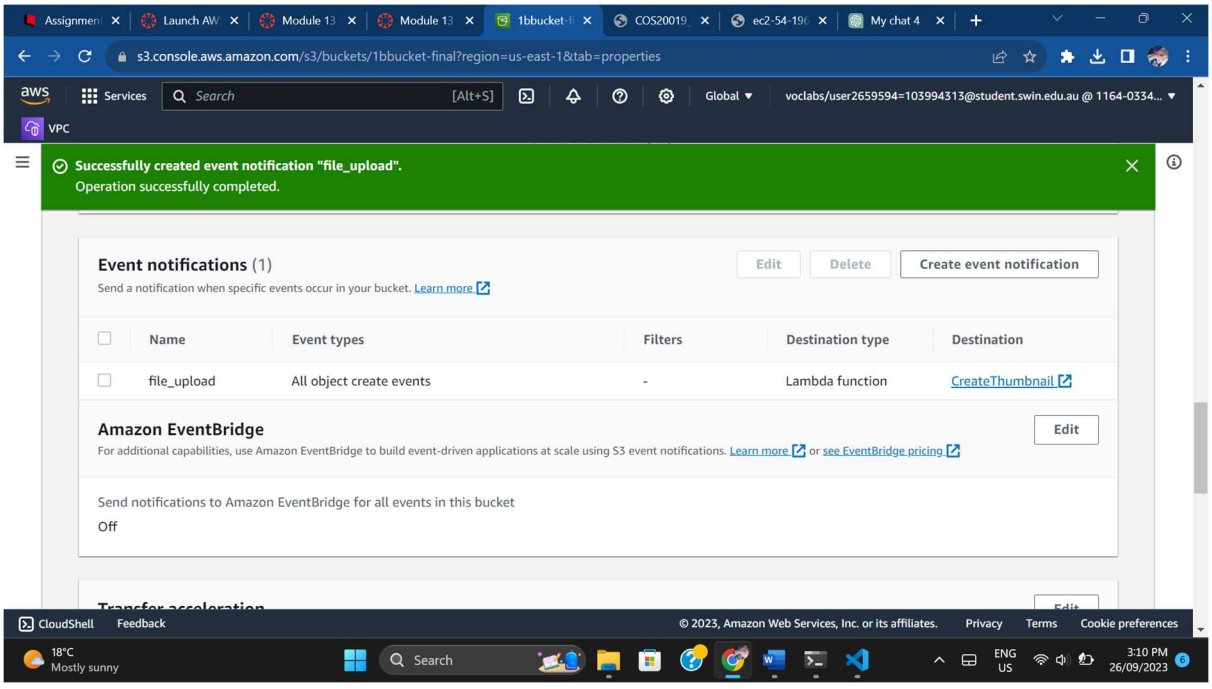

Assignment 5
Launch AWS A
Module 13 Gui
CreateThumbn
COS20019_Ass
My chat 4
Photo Album
us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/functions/CreateThumbnail?newFunction=true&tab=code
Services
Search
[Alt+S]
N. Virginia
voclabs/user2659594=103994313@student.swin.edu.au @ 1164-0334...
VPC
Successfully created the function CreateThumbnail. You can now change its code and configuration. To invoke your function with a test event, choose "Test".
Lambda
Functions
CreateThumbnail
CreateThumbnail
Throttle
Copy ARN
Actions
Function overview
Info
CreateThumbnail
Layers
(0)
Add trigger
Add destination
Description
-
Last modified
6 seconds ago
Function ARN
arn:aws:lambda:us-east-1:116403349015:function:CreateThumbnail
CloudShell
Feedback
© 2023, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
12°C
Rain
Search
ENG
US
11:32 PM
25/09/2023


Assignment 5
Launch AWS A
Module 13 Gui
CreateThumbn
COS20019_Ass
My chat 4
Photo Album
us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/functions/CreateThumbnail?newFunction=true&tab=testing
Services
Search
[Alt+S]
N. Virginia
voclabs/user2659594=103994313@student.swin.edu.au @ 1164-0334...
VPC
Successfully updated the function CreateThumbnail.
Code
Test
Monitor
Configuration
Aliases
Versions
Executing function: failed (logs)
Details
Test event
Info
Delete
Save
Test
To invoke your function without saving an event, modify the event, then choose Test. Lambda uses the modified event to invoke your function, but does not overwrite the original event until you choose Save changes.
Test event action
Create new event
Edit saved event
CloudShell
Feedback
© 2023, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
12°C
Rain
Search
ENG
US
11:58 PM
25/09/2023

The error seems to be connected to this part of the code

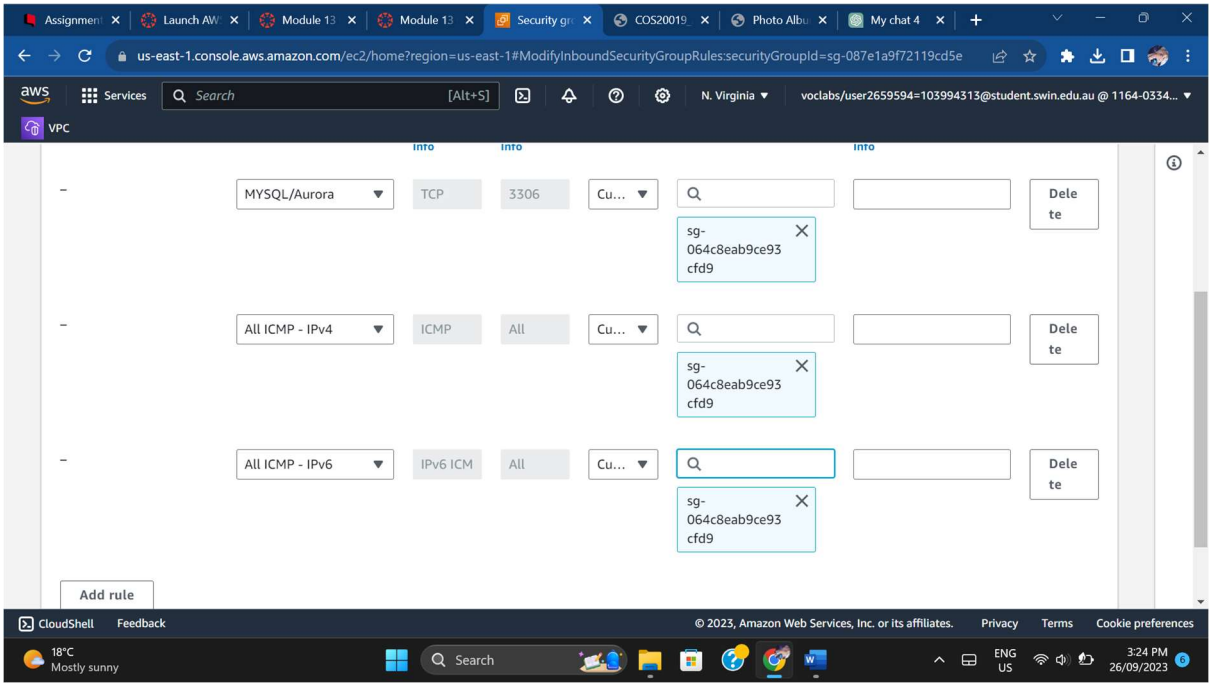


Despite this, I made an event in my S3 bucket and connected it to the lambda function



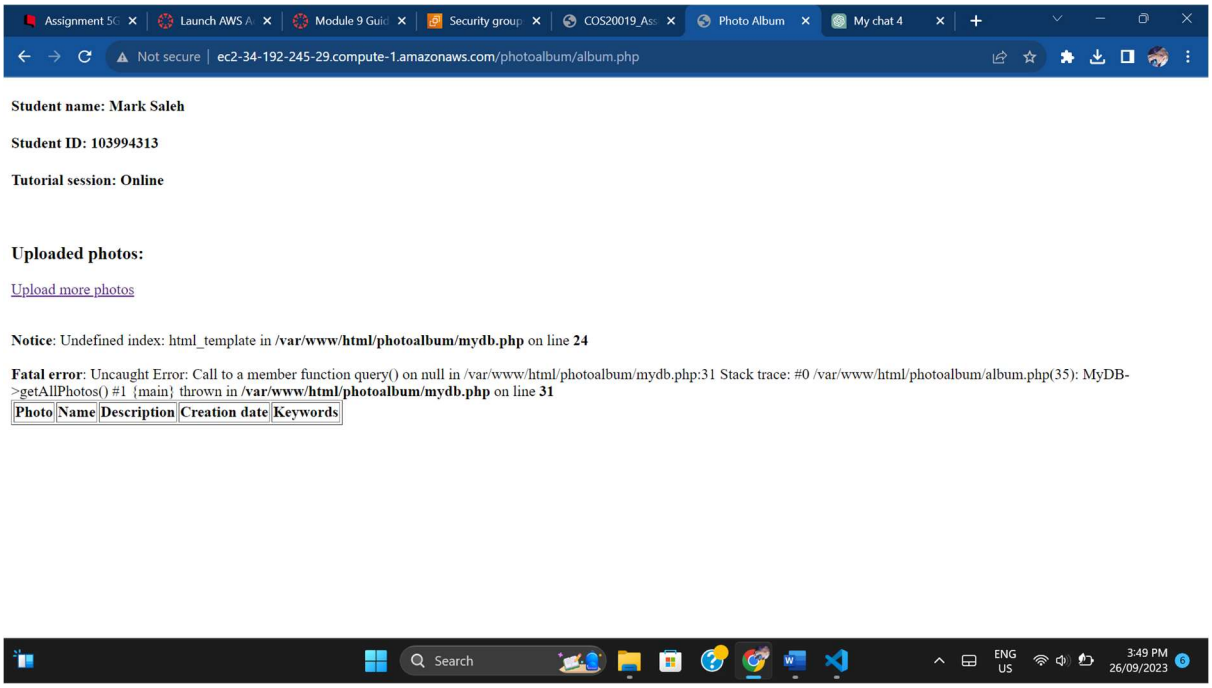
I then moved on to the next step which is security groups. My ELBSG was named Inventory-LB and my WebServerSG was named WebServerSG-FINAL. I edited its inbound rules to only allow traffic

from Inventory-LB.

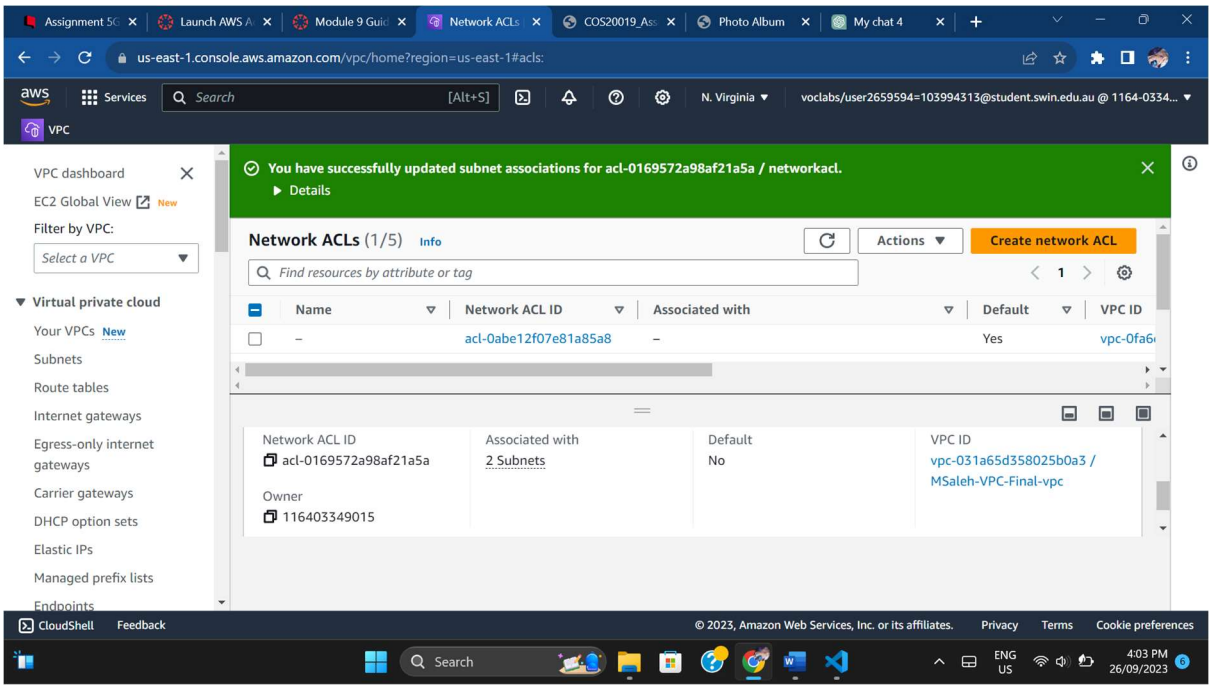


My DBServerSG was already configured to only accept traffic from WebServerSG-FINAL.

The problem is that this broke my website. Even returning WebServerSG to previous settings with all traffic allowed did not return it somehow. I tried editing the inbound rules of the DBServerSG but that did nothing.



Anyway, I created a DevServerSG as well. Finally, I created a network ACL to block traffic to and from the DevServer



After this I did some testing:

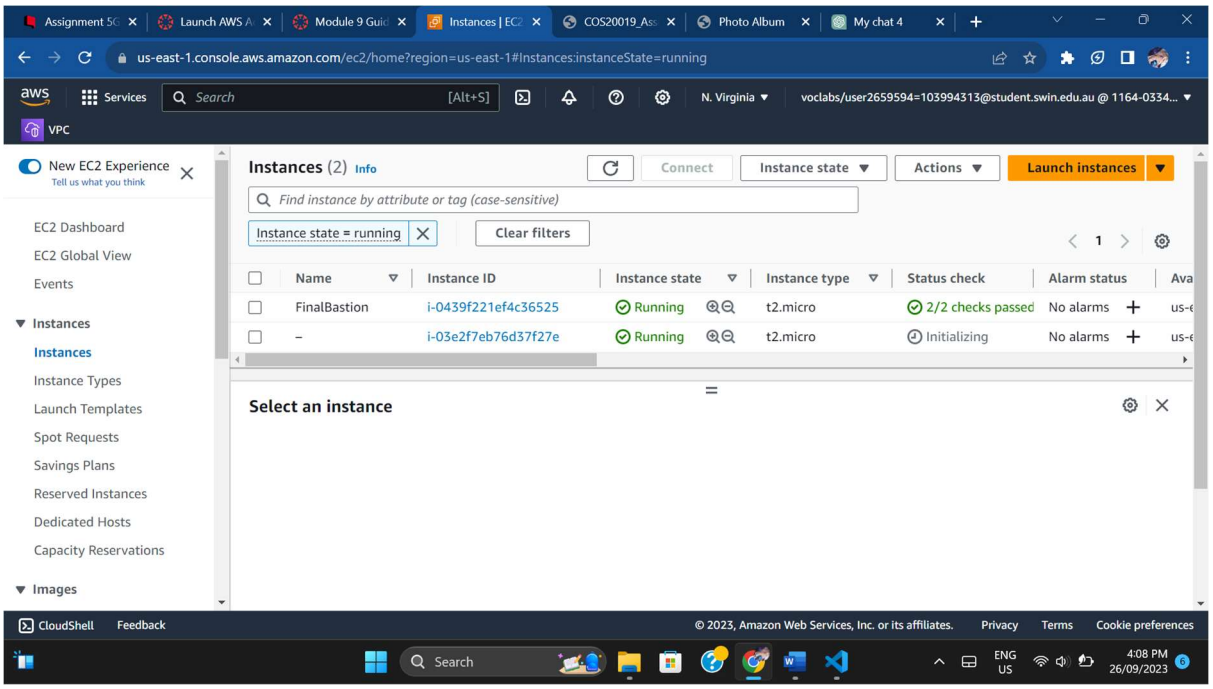
• Check the S3 bucket to see if photos are actually uploaded and if their resized versions are created. Check the database to see if their meta-data is recorded.

This did not work due to the error with the lambda function.

• The PhotoAlbum website is accessible through the load balancer only.

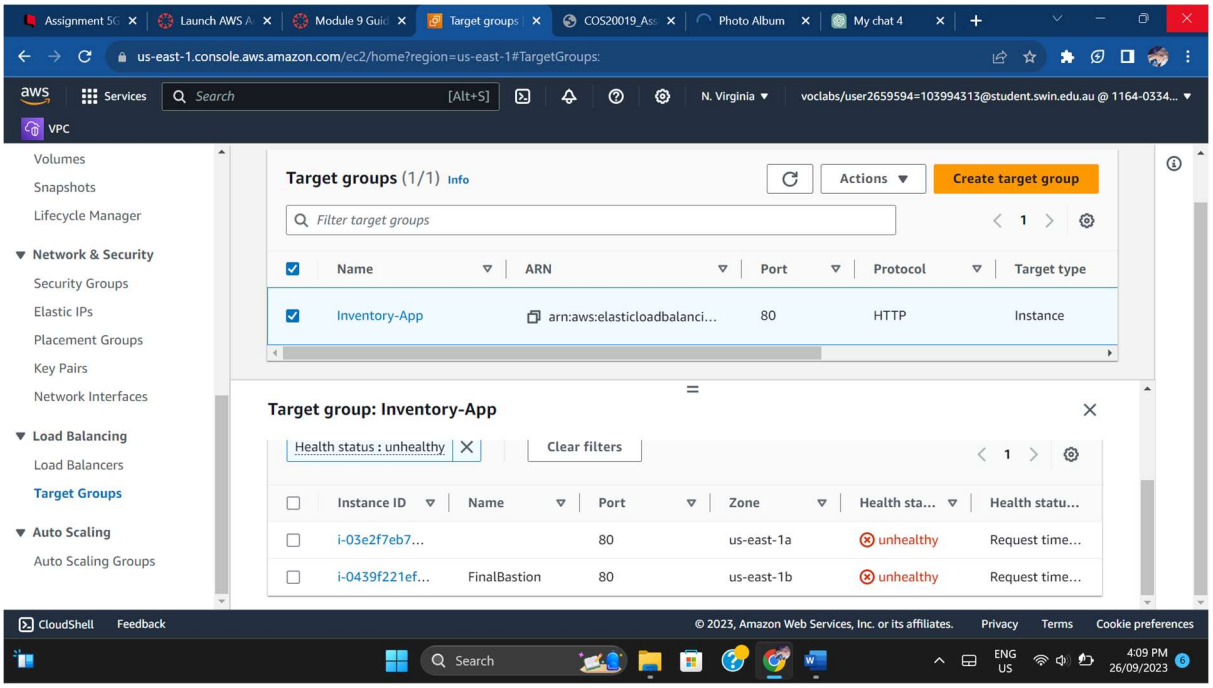
This is true

• Terminate servers then check to see if replacement EC2 instances are automatically deployed by the ASG. Thoroughly test the functionality of the website again once new instances have been launched.



This worked. Another instance was launched and the websites was still as functional as before

• All EC2 targets are healthy.



No

• Test direct access to your S3 photos, which should not be publicly accessible.

They are not publicly accessible

• Double check all security groups and IAM roles, make sure they follow the leastprivilege principle.

They do