Module 9 Guided Lab - Creating a Highly Available Environment

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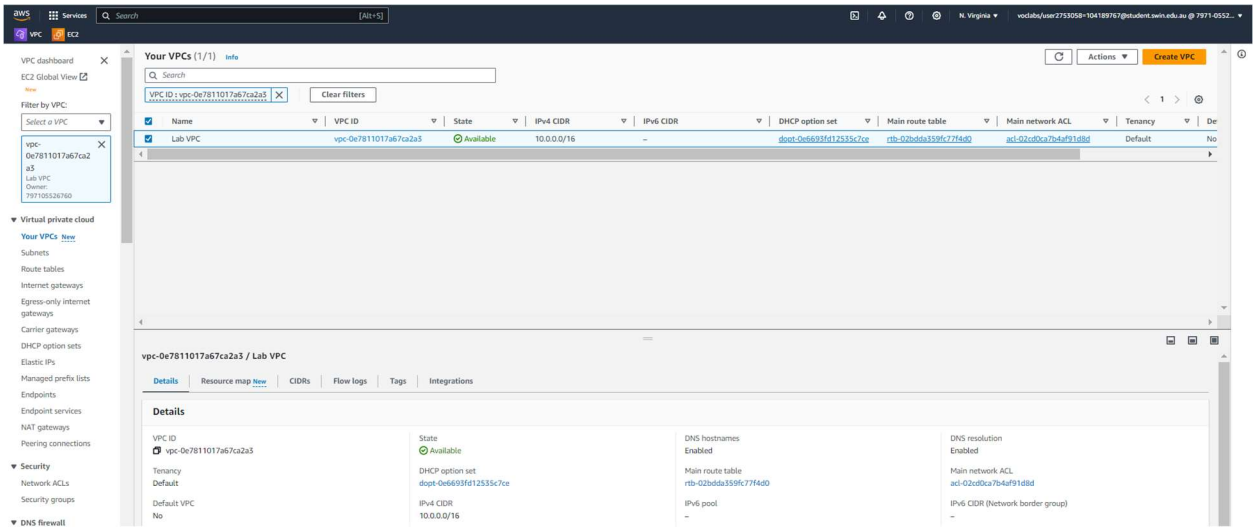
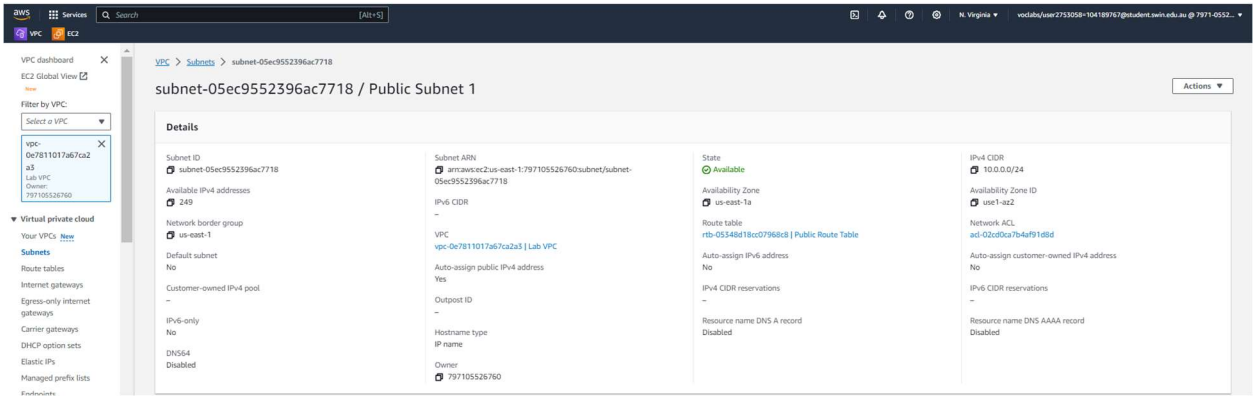
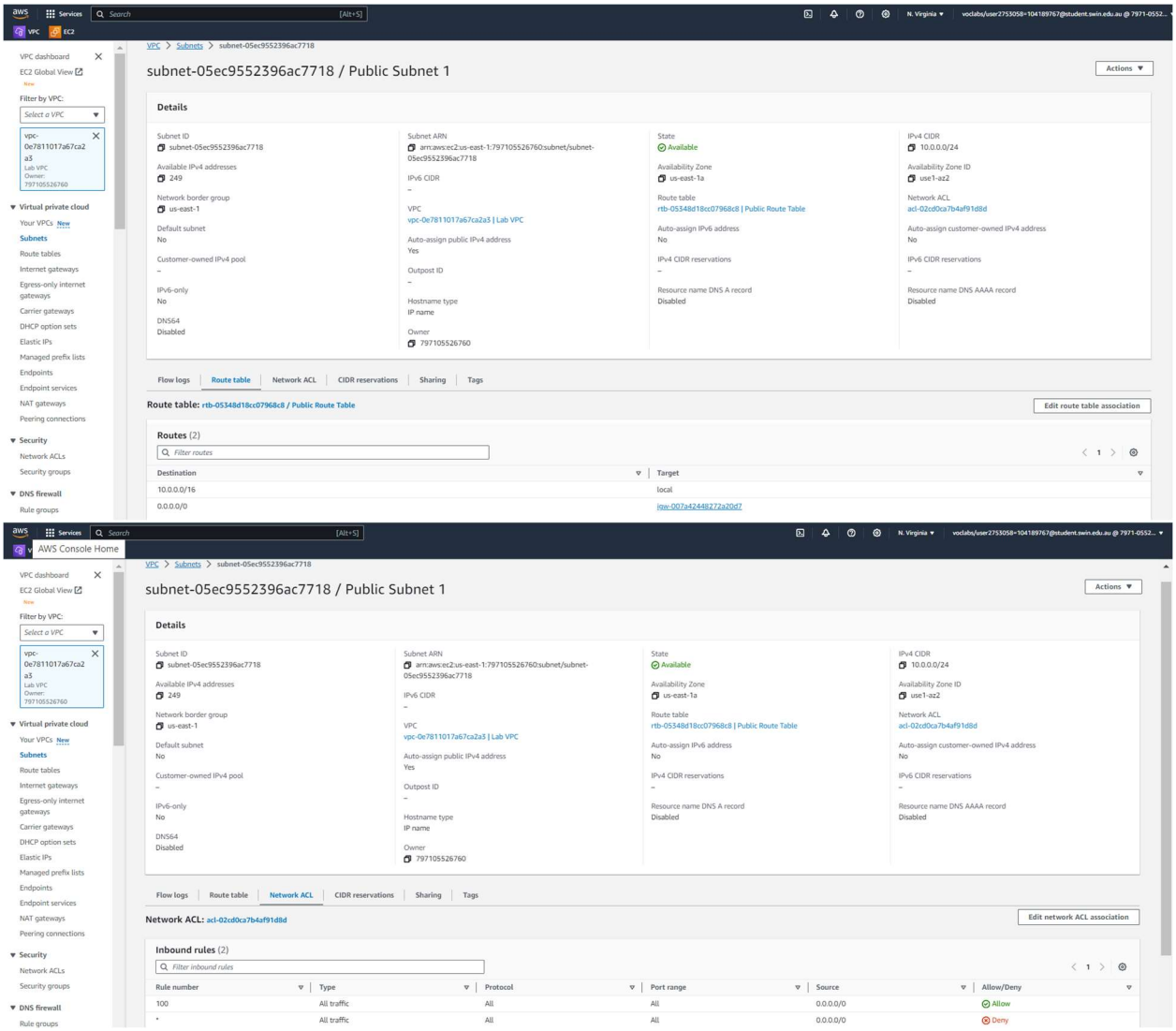
Task 1: Inspecting your VPC



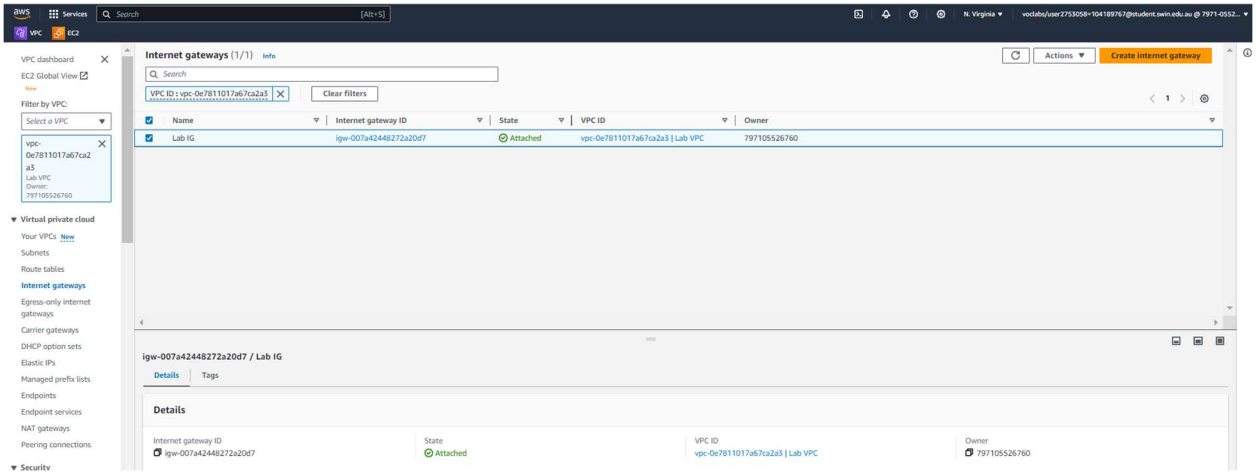
I filter the Lab VPC



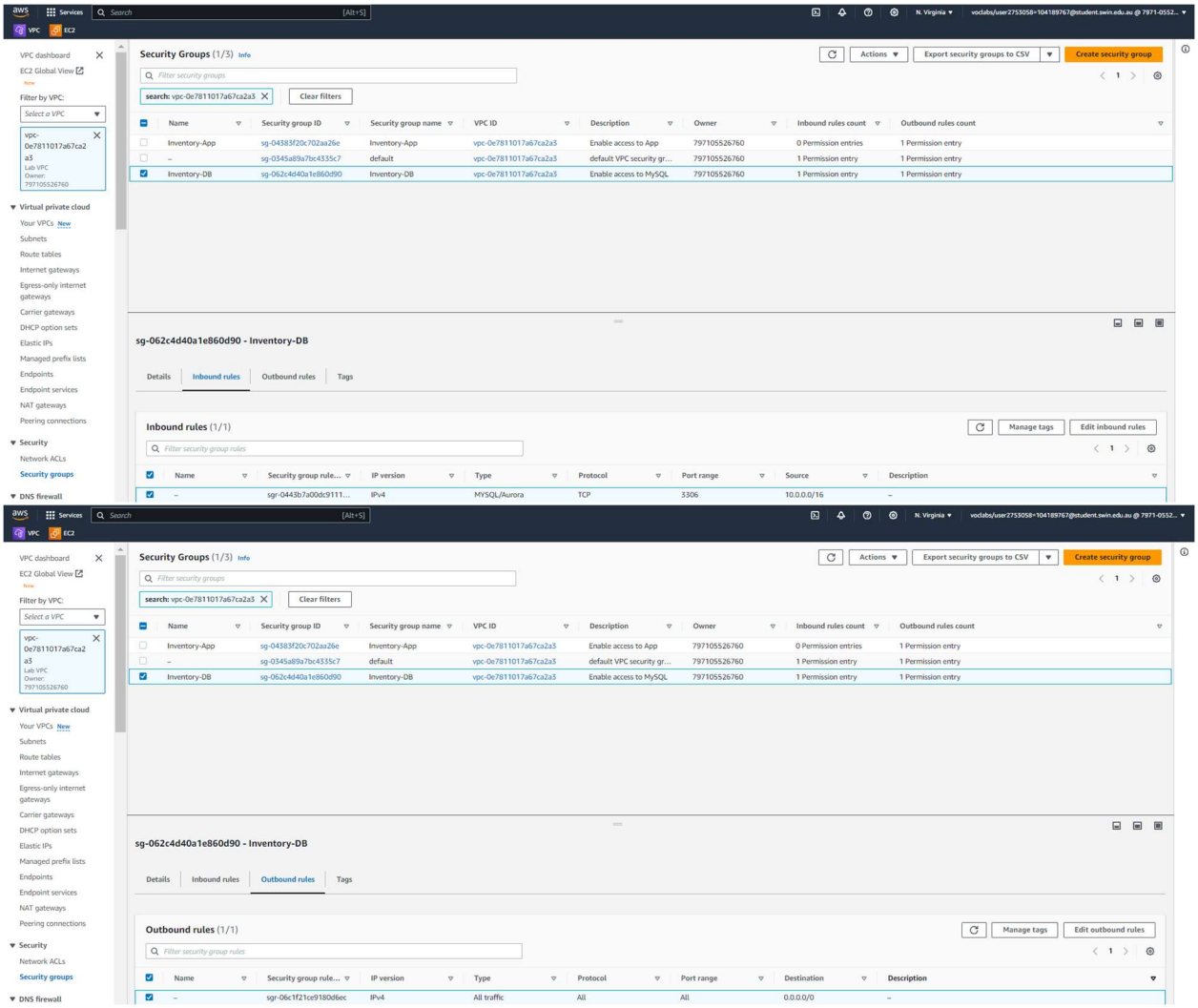
The details of Public Subnet 1



The Route table as well as Network ACL of Public Subnet 1

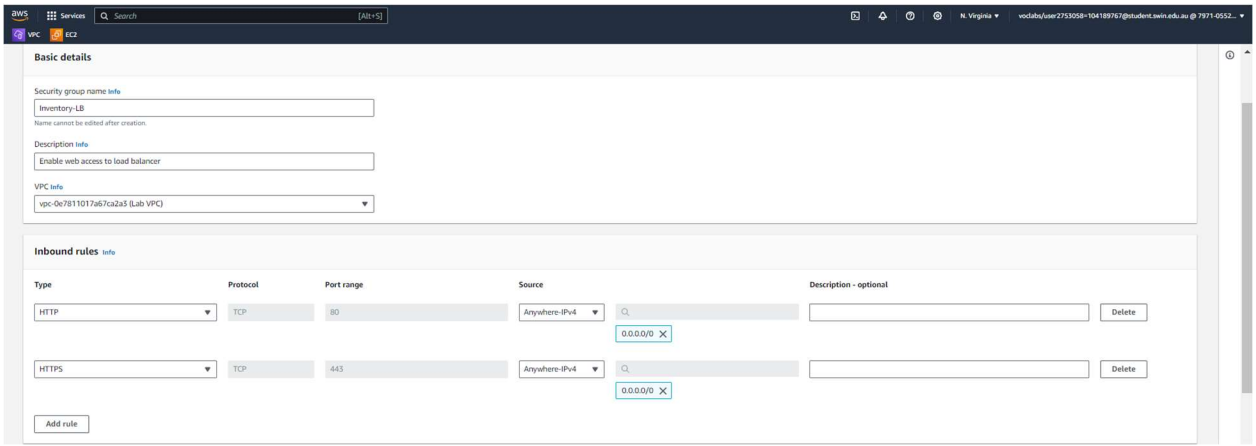


The Internet gateway(Lab IG) is in Lab VPC

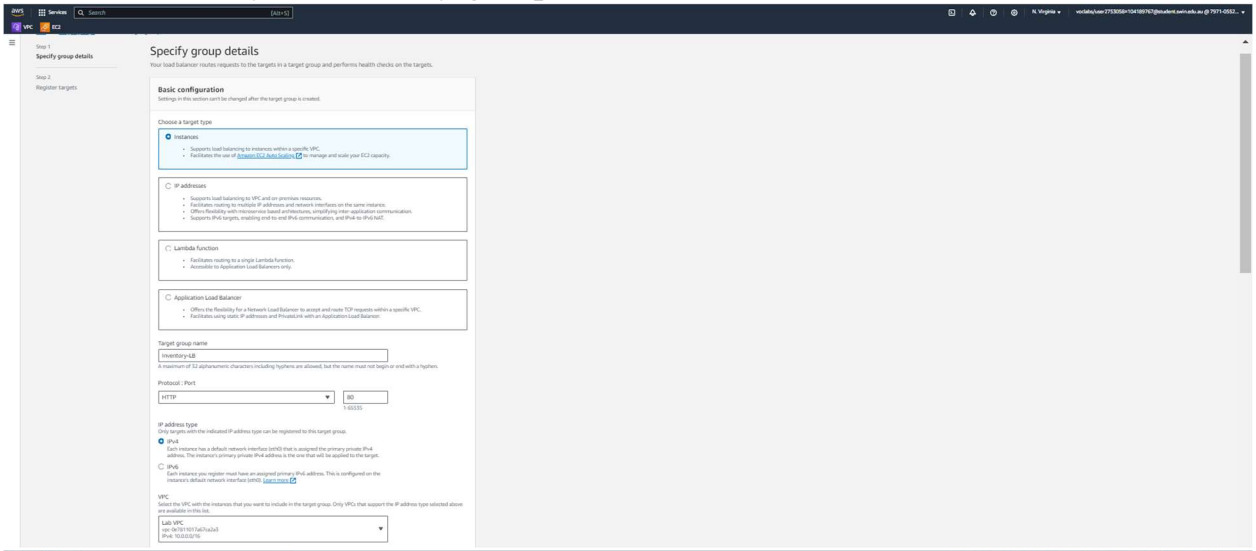


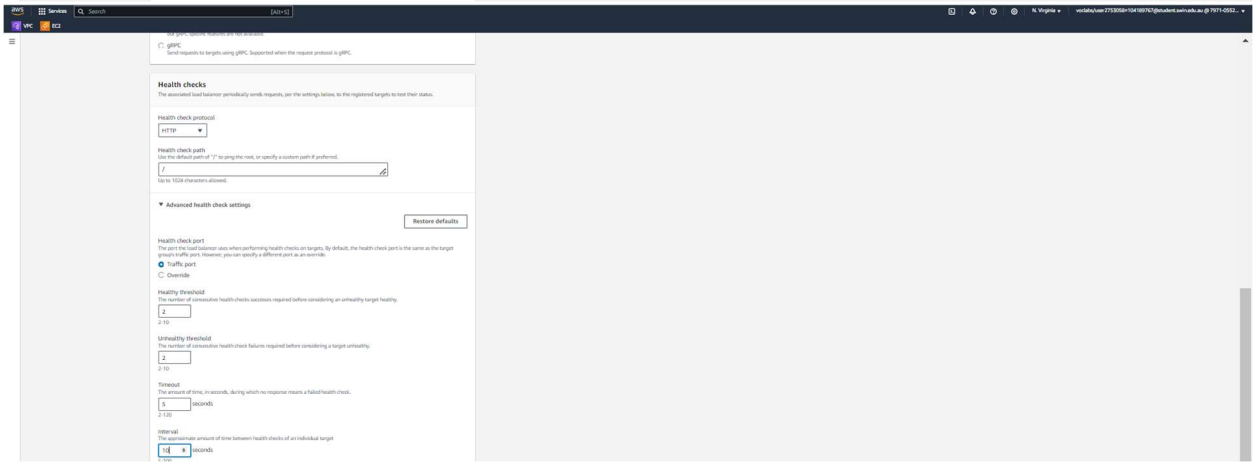
Inbound rules and Outbound rules of Inventory-DB security group.

Task 2: Creating an Application Load Balancer

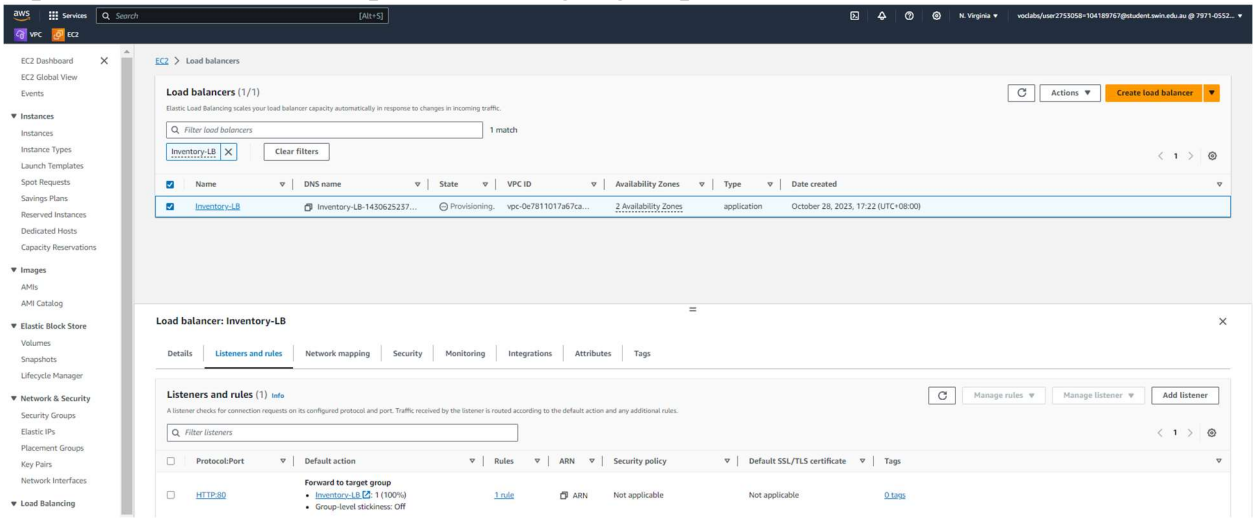


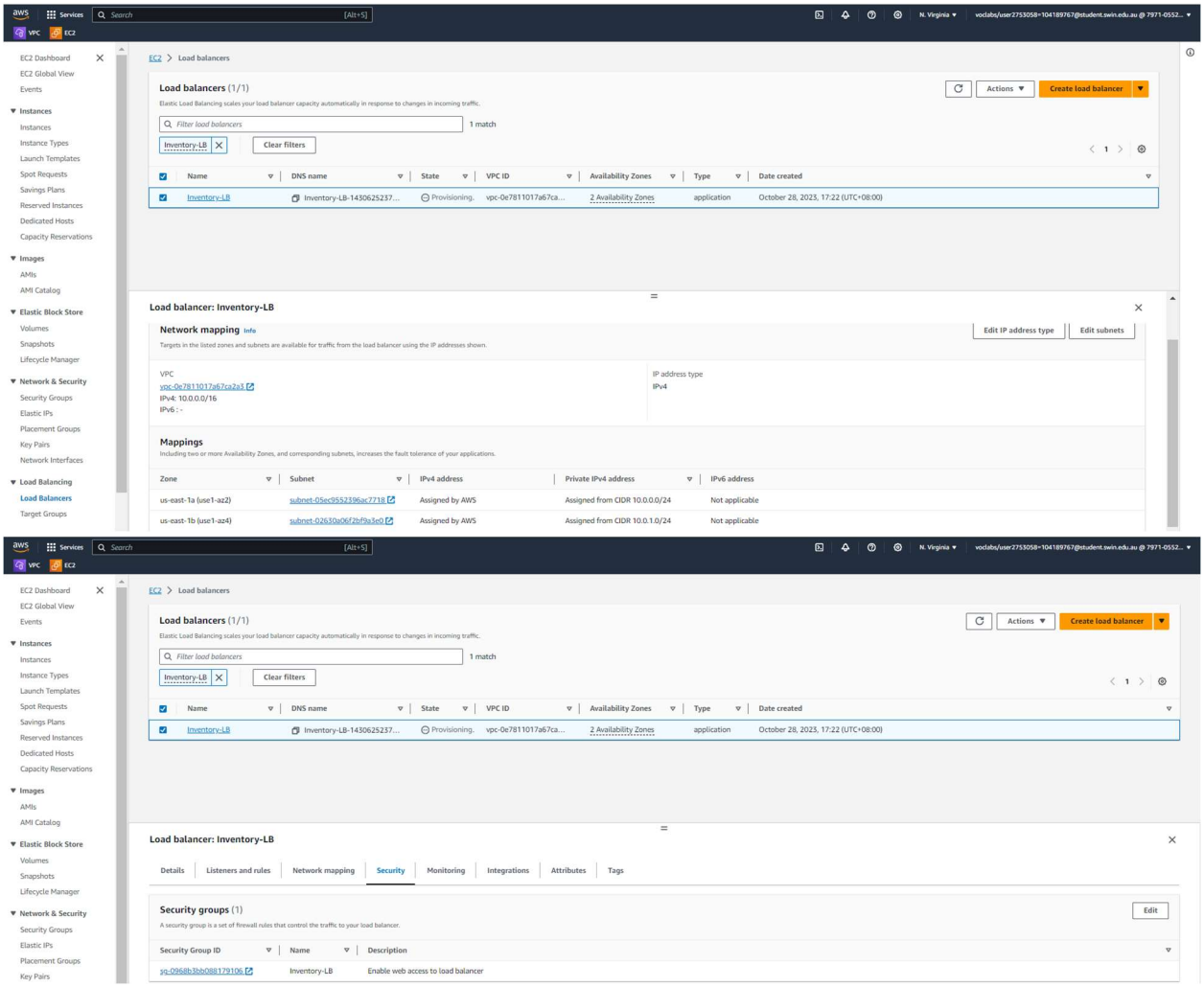
I create Inventory-LB security group for Load Balancer.





2 photos above is the step I create target group for Load Balancer.

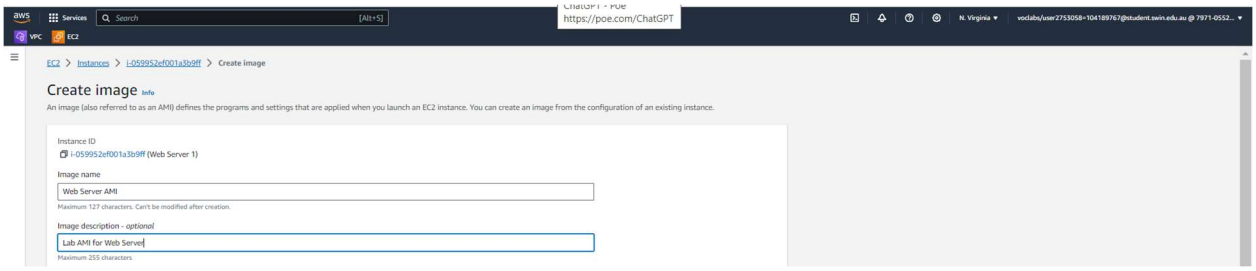




The review of load balancer

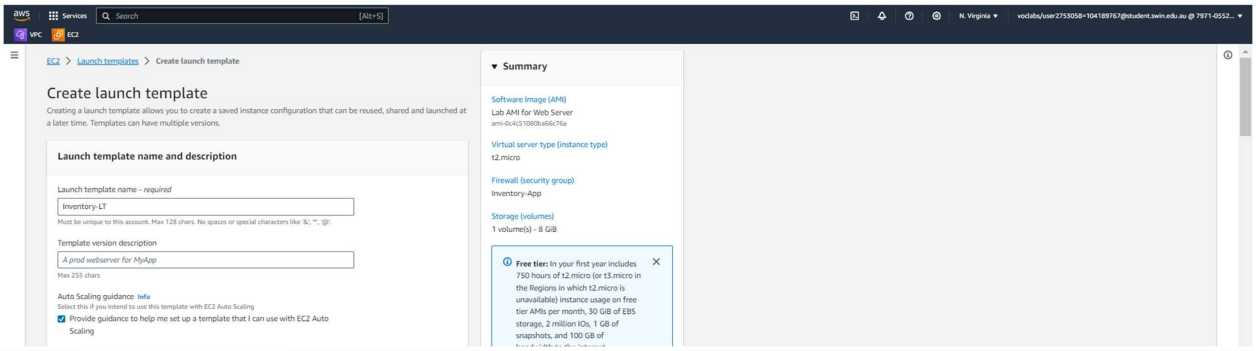
Task 3: Creating an Auto Scaling group

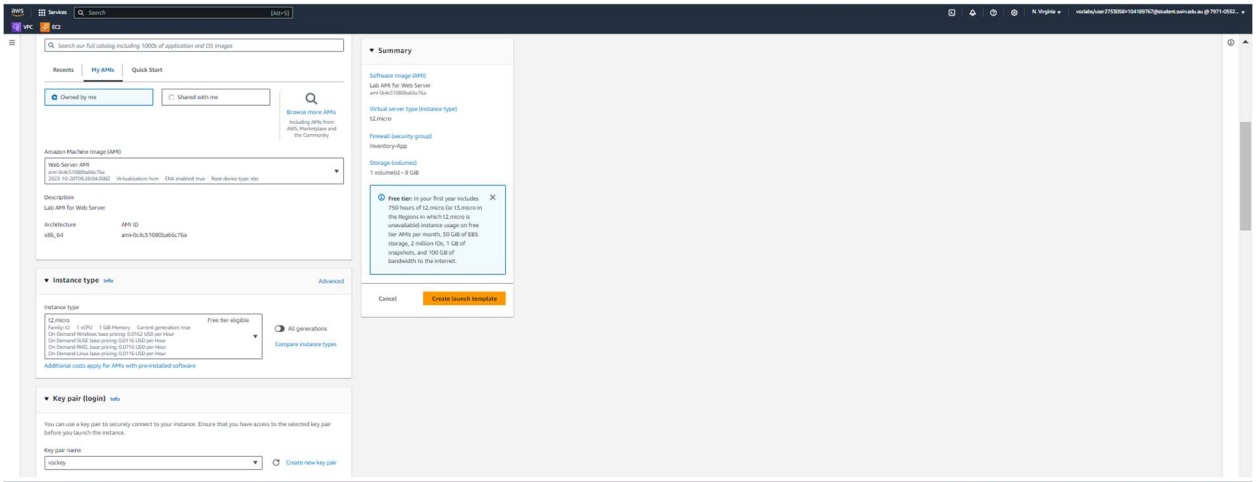
Create an AMI for Auto Scaling

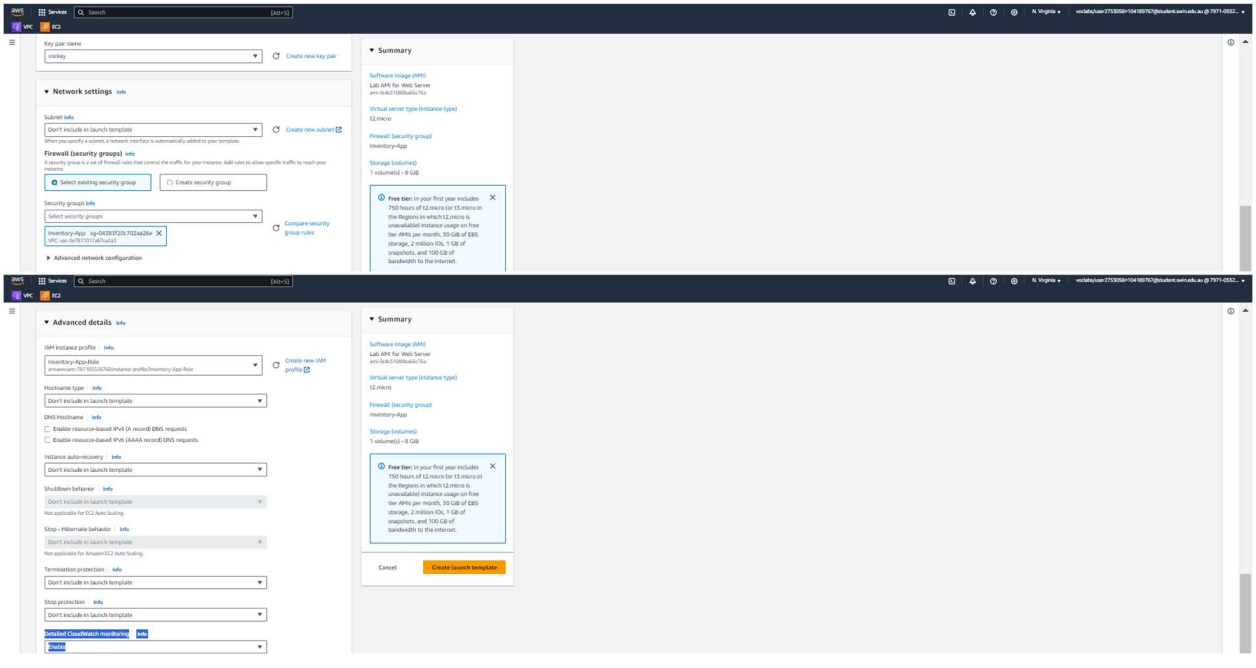


I create image for Auto Scaling

Create a Launch Template and an Auto Scaling Group

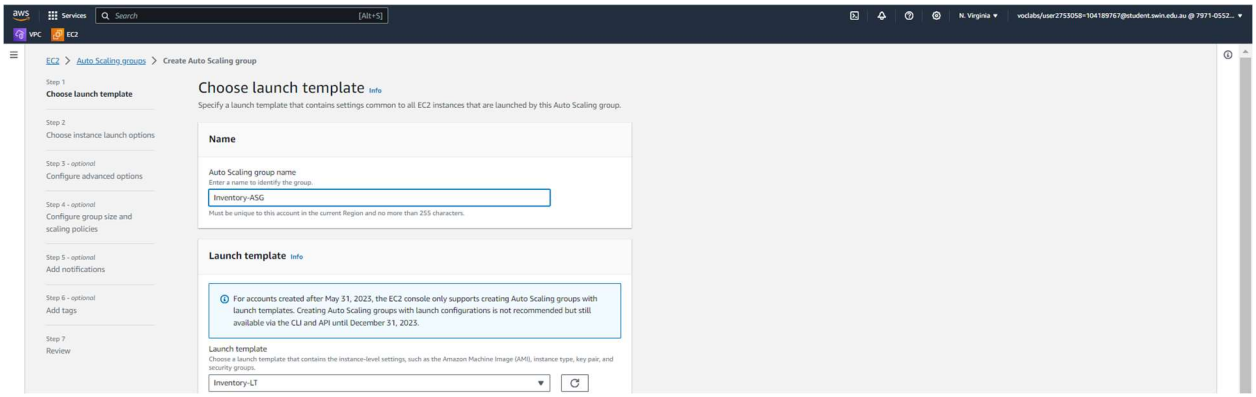




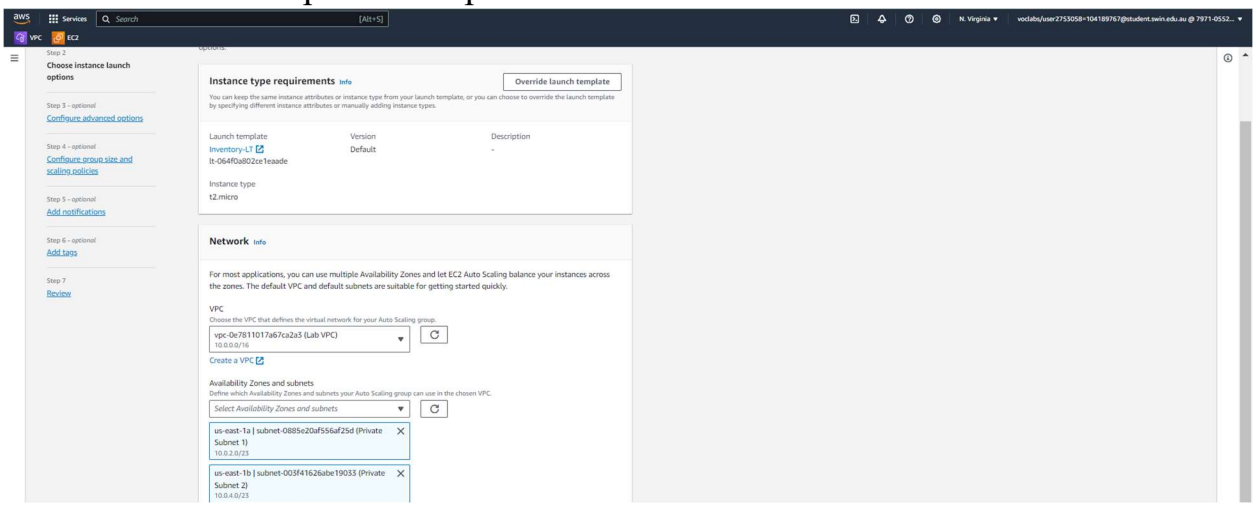


```
#!/bin/bash
# Install Apache Web Server and PHP
yum install -y httpd mysql
amazon-linux-extras install -y php7.2
# Download Lab files
wget https://aws-tc-largeobjects.s3-us-west-2.amazonaws.com/ILT-TF-200-ACACAD-20-EN/mod9-guided/scripts/inventory-app.zip
unzip inventory-app.zip -d /var/www/html/
# Download and install the AWS SDK for PHP
wget https://github.com/aws/aws-sdk-php/releases/download/3.62.3/aws.zip
unzip aws -d /var/www/html
# Turn on web server
chkconfig httpd on
service httpd start
```

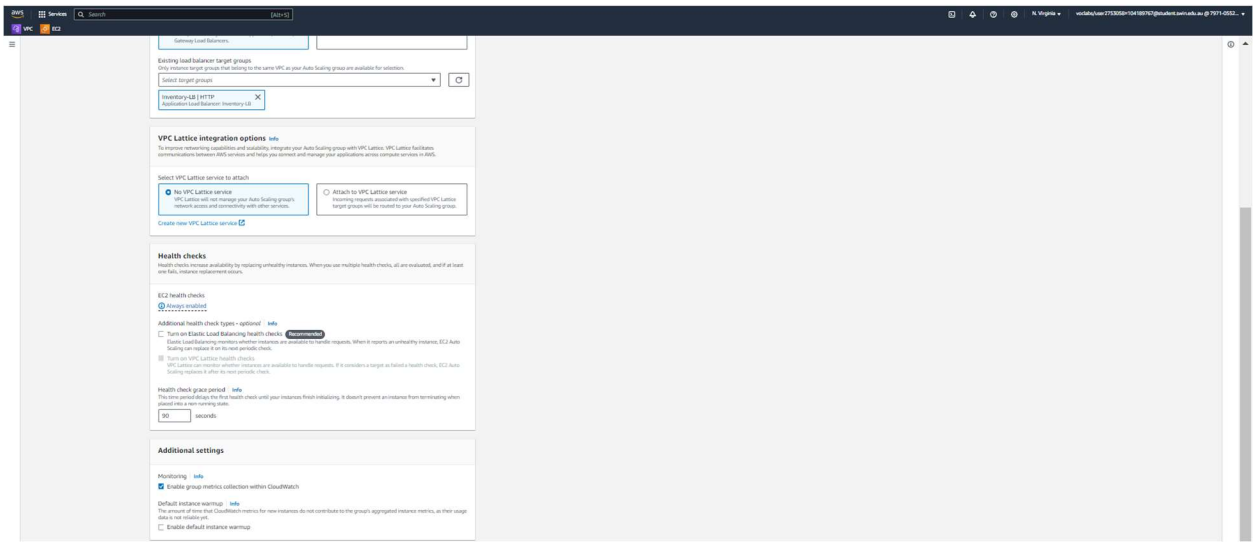
These images below are the steps to create launch template.



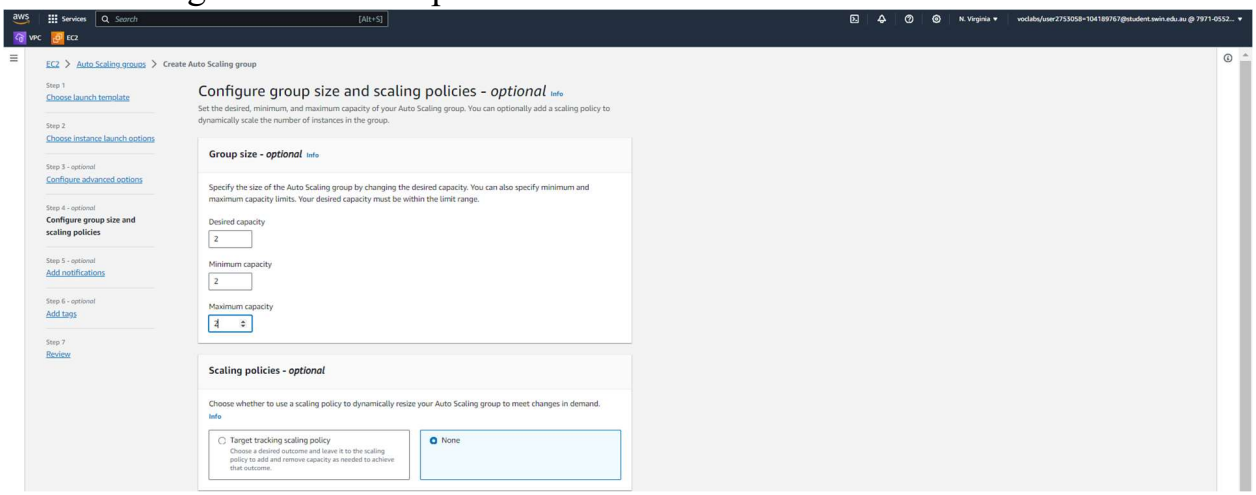
I choose launch template in step 1



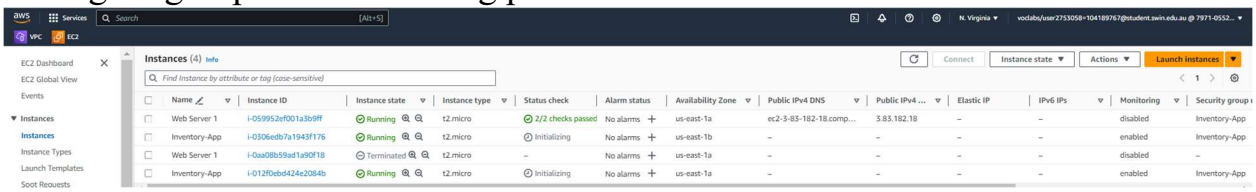
I choose instance launch options in step 2



Create configure advanced options



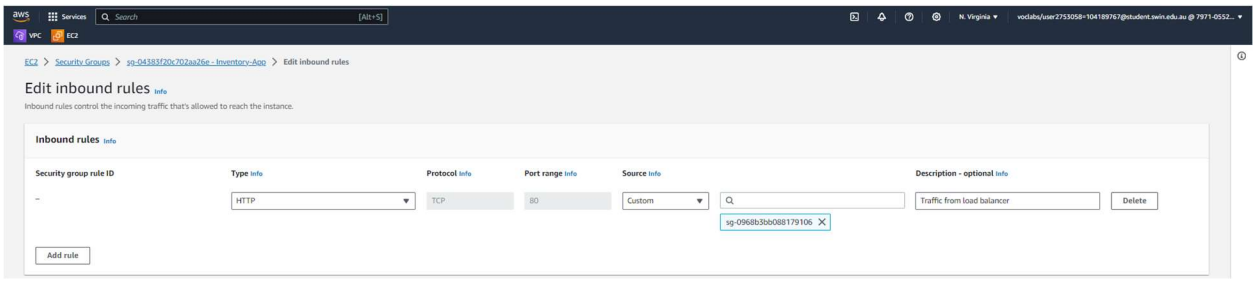
Configure group size and scaling policies.



There are 2 instances created.

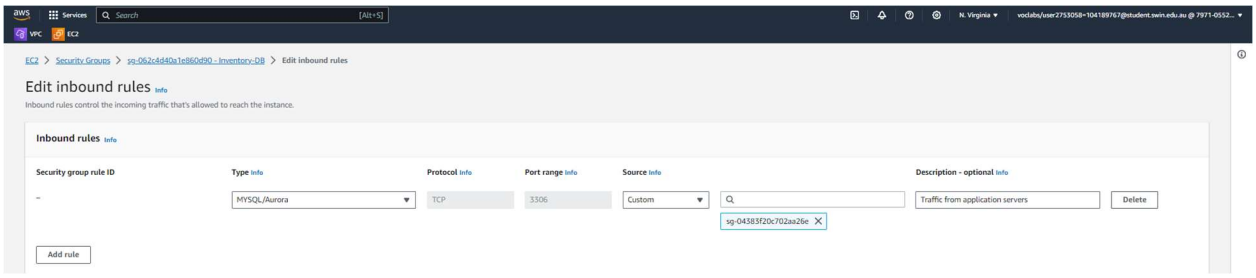
Task 4: Updating security groups

Application security group



Edit inbound rules for application security group.

Database security group

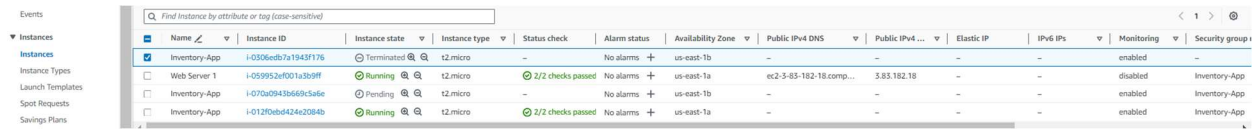


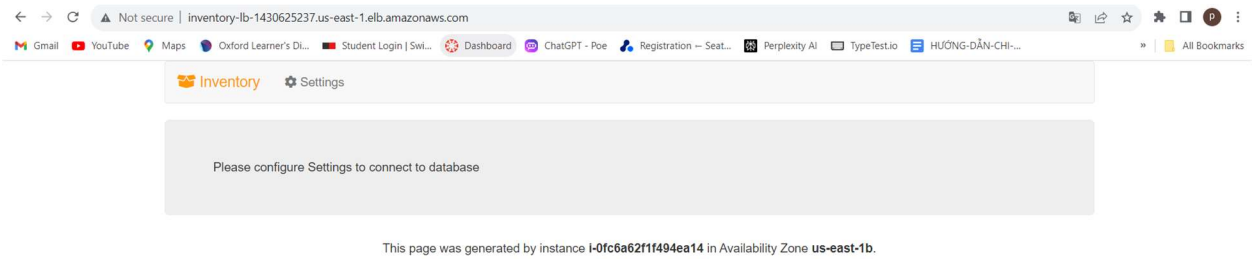
Edit inbound rules for database security group

Task 5: Testing the application

I test the application

Task 6: Testing high availability





I test high availability