Lab 1: Introduction to Amazon EC2

Lab overview and objectives

This lab provides a basic overview of launching, resizing, managing, and monitoring an Amazon EC2 instance.

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides resizable computing capacity in the cloud. It is designed to make web-scale cloud computing easier for developers.

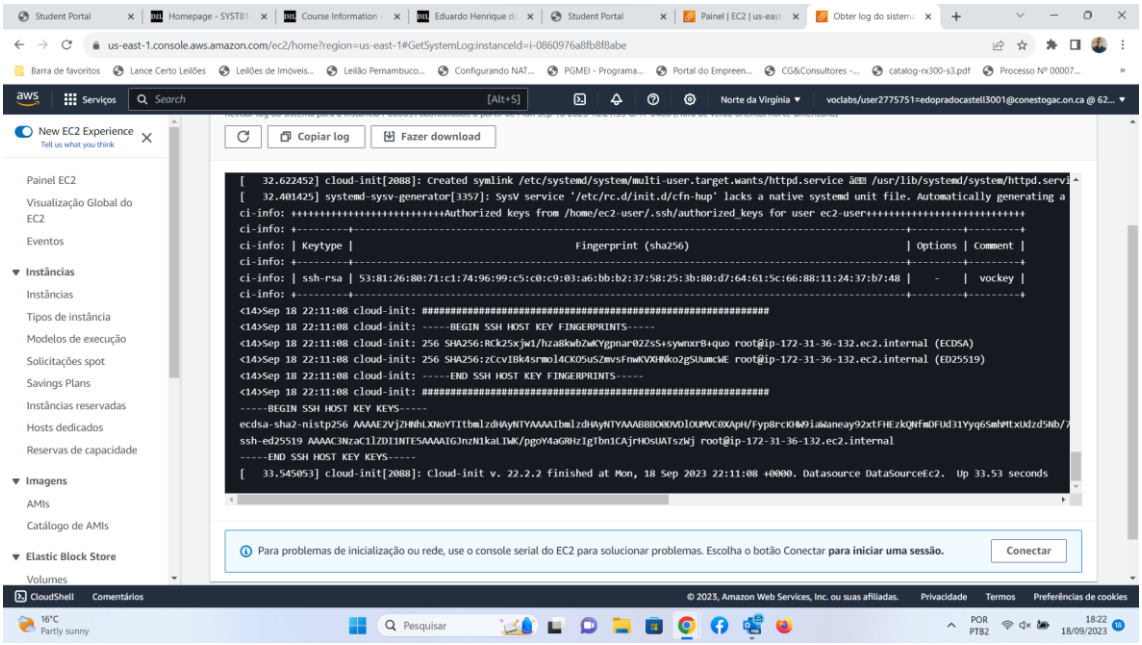
Amazon EC2's simple web service interface allows you to obtain and configure capacity with minimal friction. It controls your computing resources and lets you run on Amazon's proven computing environment. Amazon EC2 reduces the time required to obtain and boot new server instances to minutes, allowing you to quickly scale up and down capacity as your computing requirements change.

Amazon EC2 changes the economics of computing by allowing you to pay only for the capacity that you use. Amazon EC2 allows developers to build failure-resilient applications and isolate themselves from common failure scenarios.

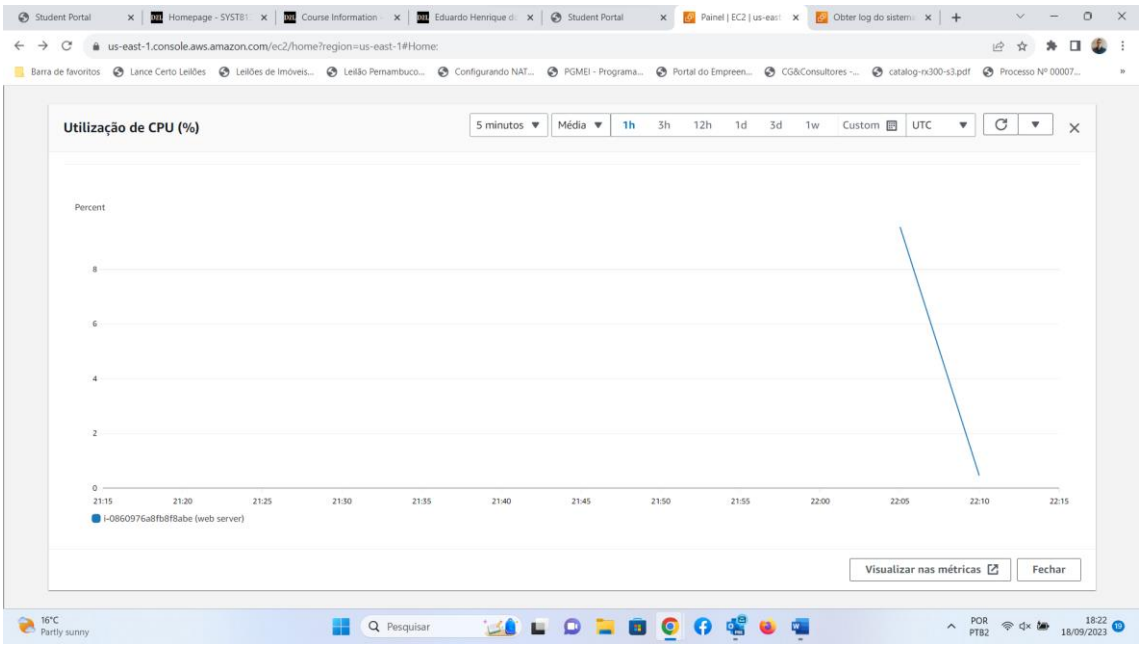
After completing this lab, you should be able to do the following:

- Launch a web server with termination protection enabled.
- Monitor Your EC2 instance.
- Modify the security group that your web server is using to allow HTTP access
- Resize your Amazon EC2 instance to scale
- Explore EC2 limits
- Test termination protection
- Terminate your EC2 instance

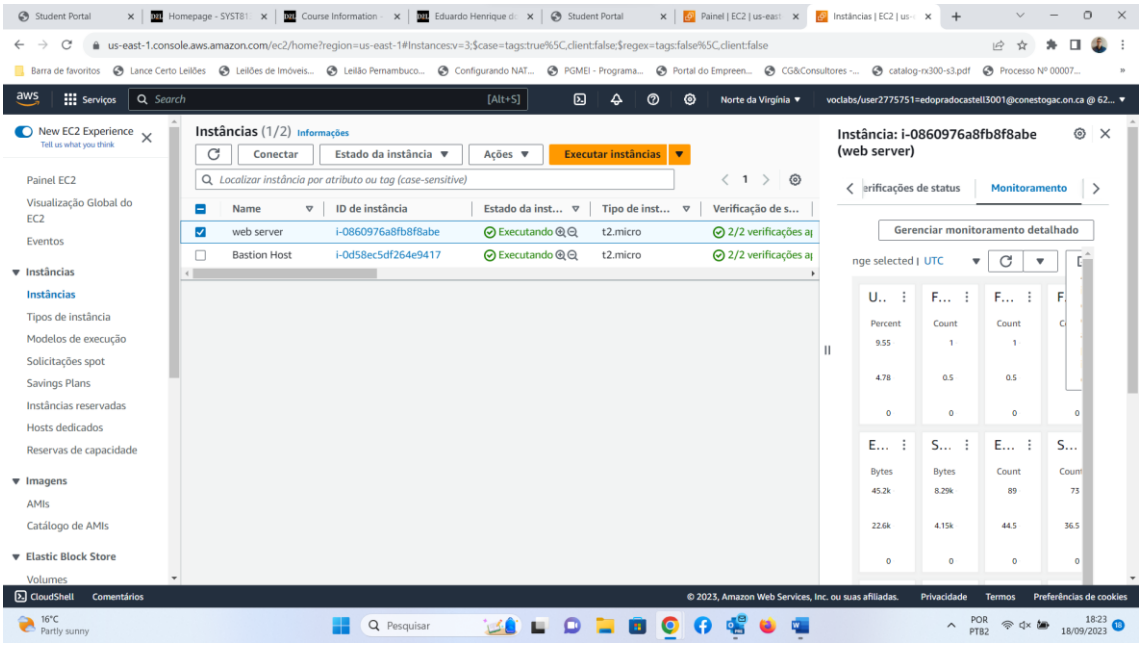
First, the image shows a print screen of the created EC2 instance.



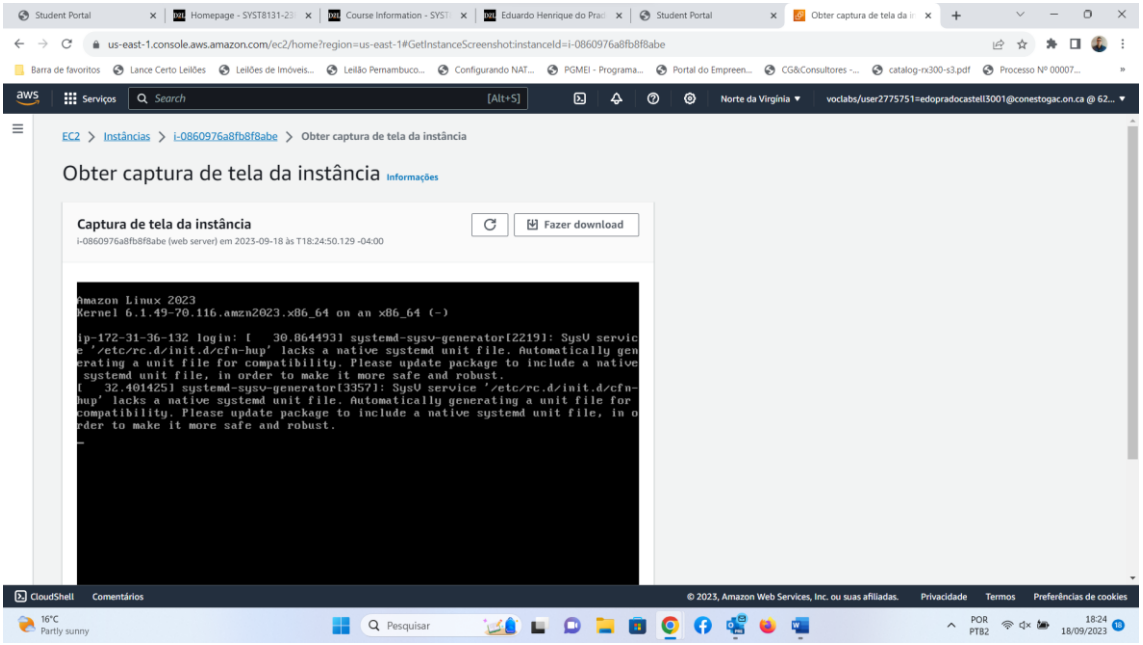
This image shows monitoring the EC2 instance's CPU usage.



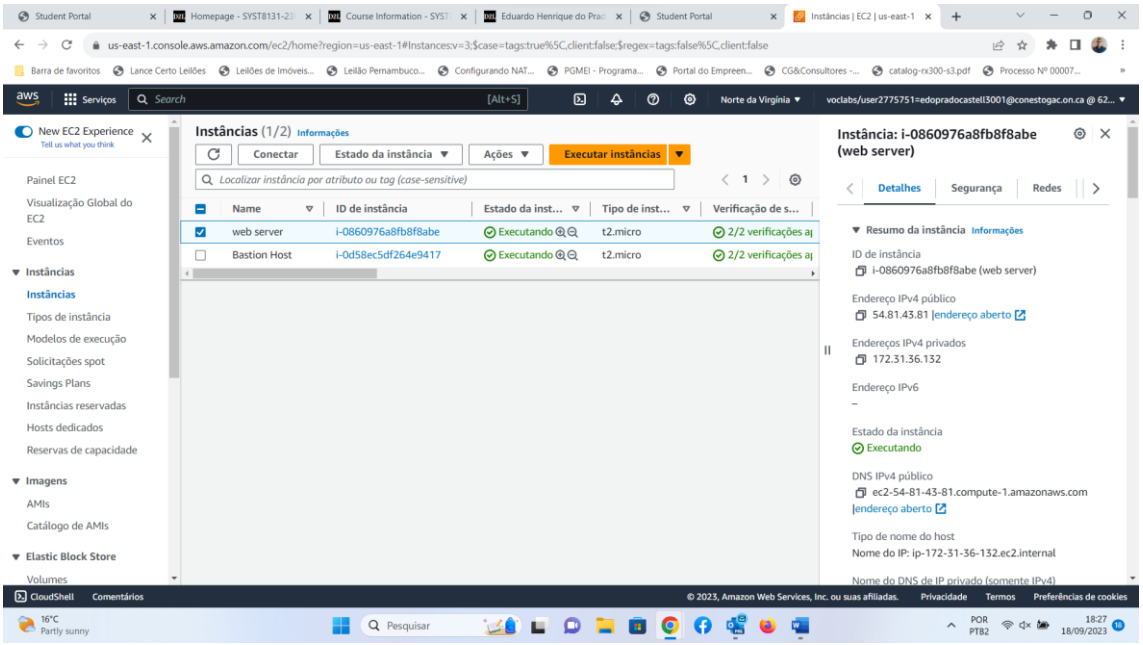
The right side of the image shows the total monitoring EC2 instance.



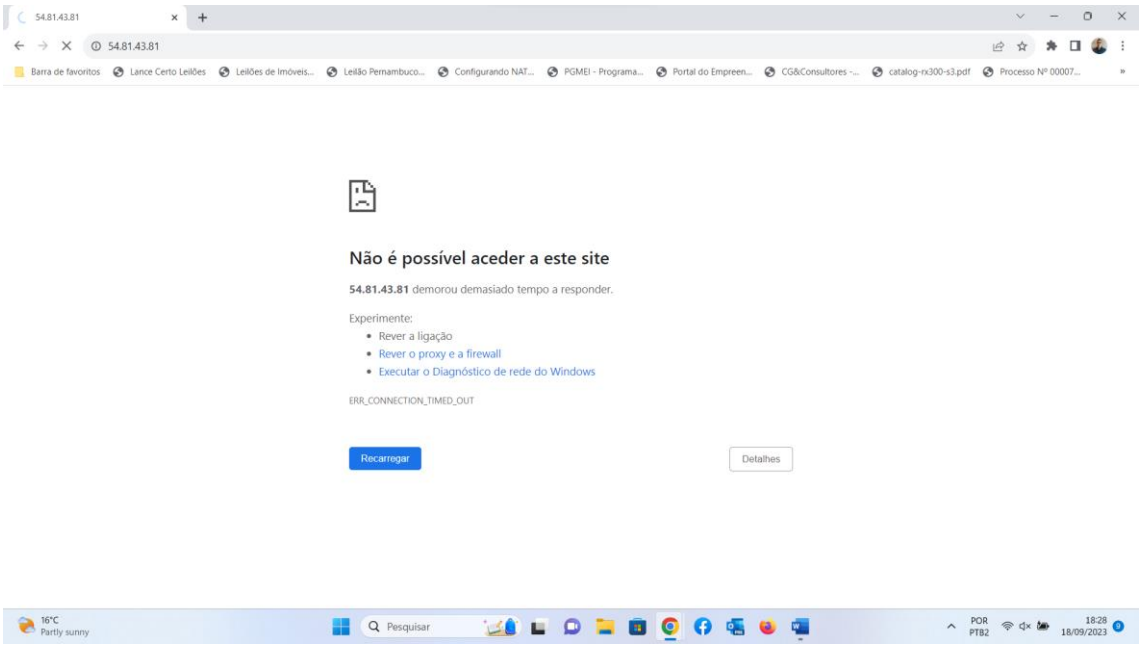
This image shows a screenshot of the EC2 instance with image descriptions, ip address, kernel, etc...



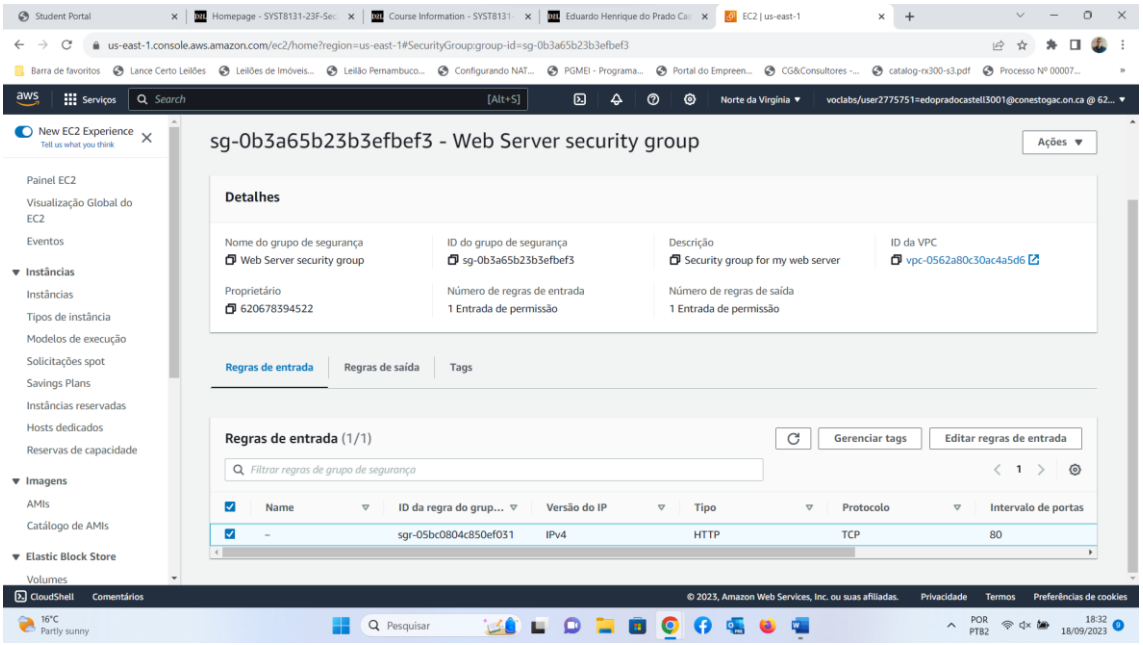
This image has the EC2 instance with name web server with IPv4 address 54.81.43.81 with public access.



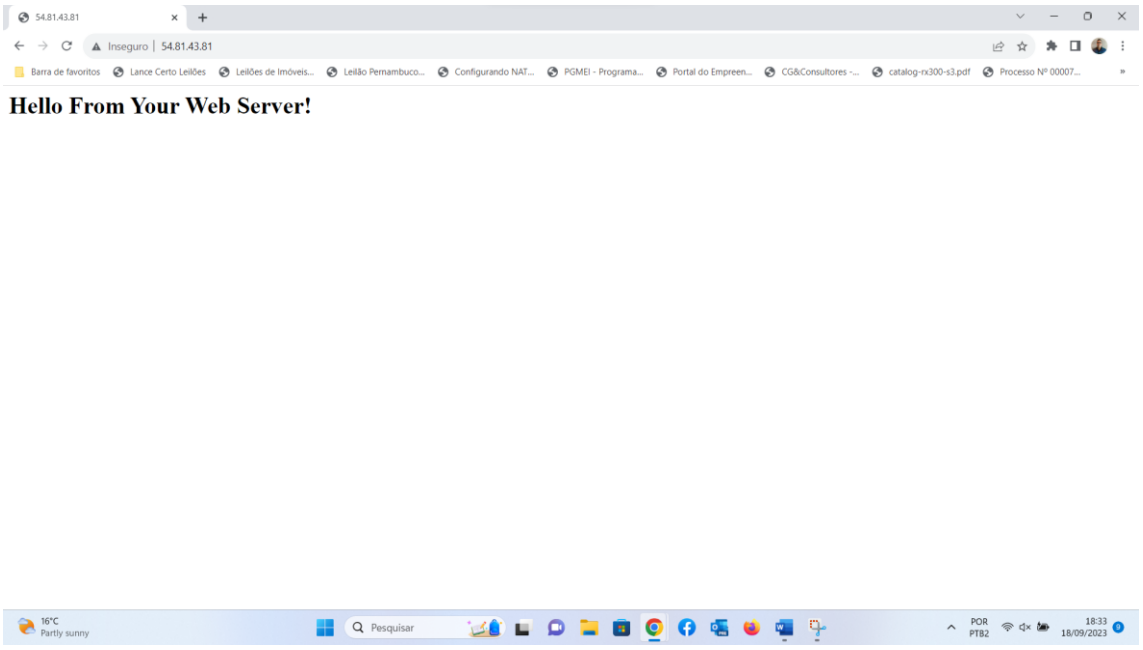
This image shows that it is impossible to access the instance even though it has a public IP address.



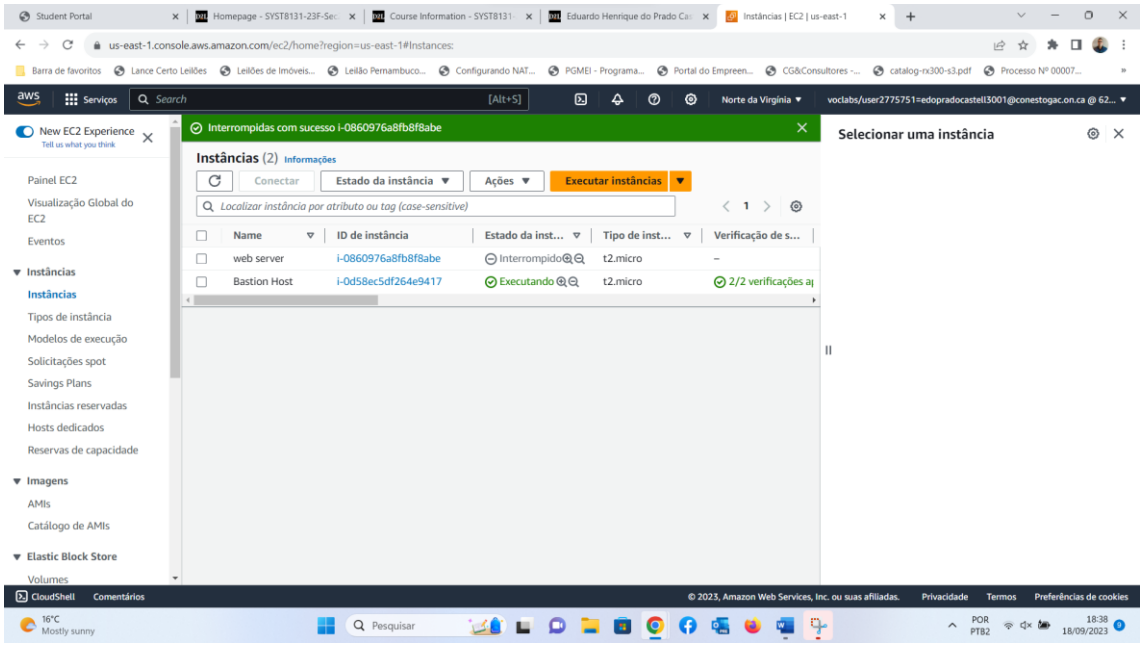
To allow access via the web, I navigated to the security group and added the inbound rule, allowing access via HTTP on port 80.



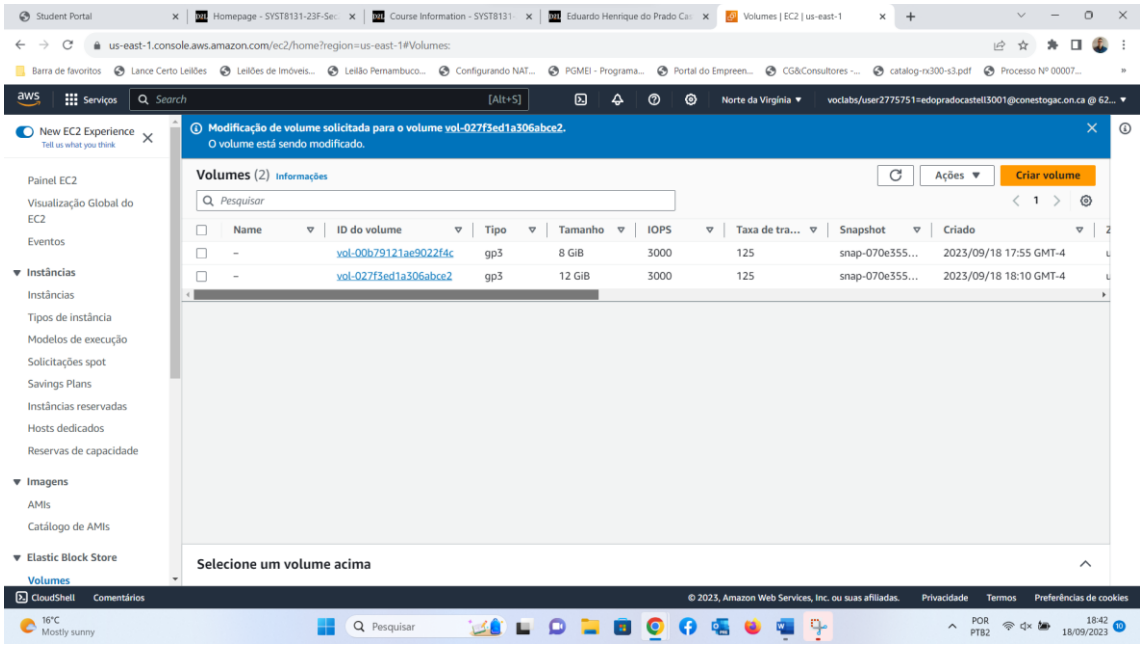
This image shows that the permission rule works perfectly and allows access to the server



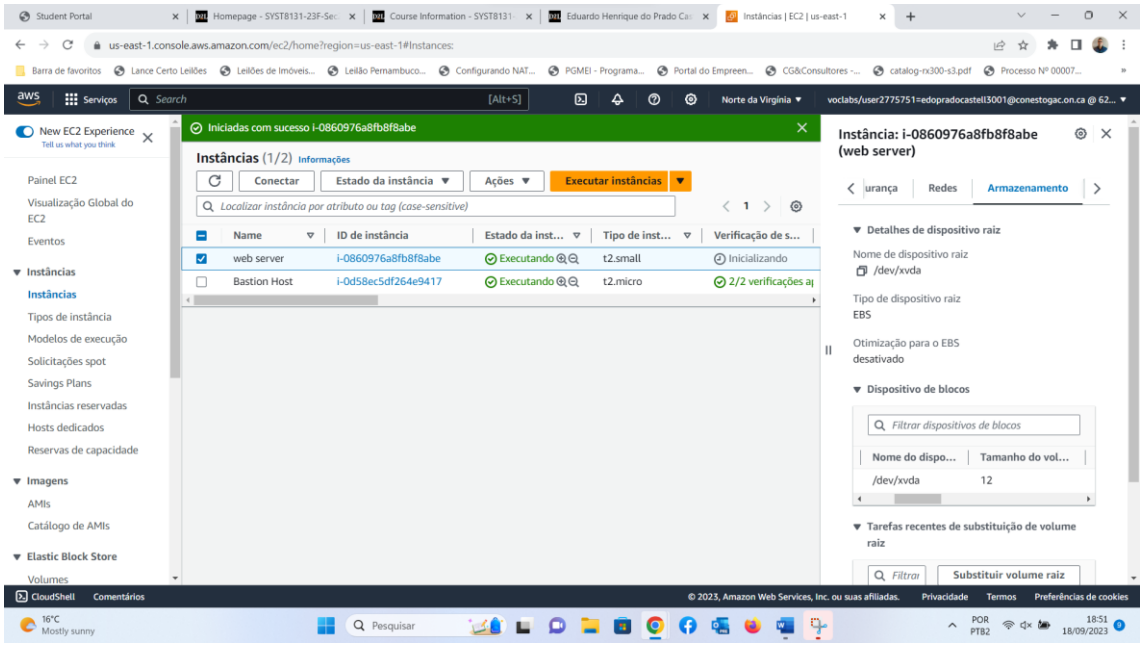
In this image it is necessary to stop the ec2 instance, to change the instance type from t2.micro to t2.smalL and also the volume size, which is currently 8GB.

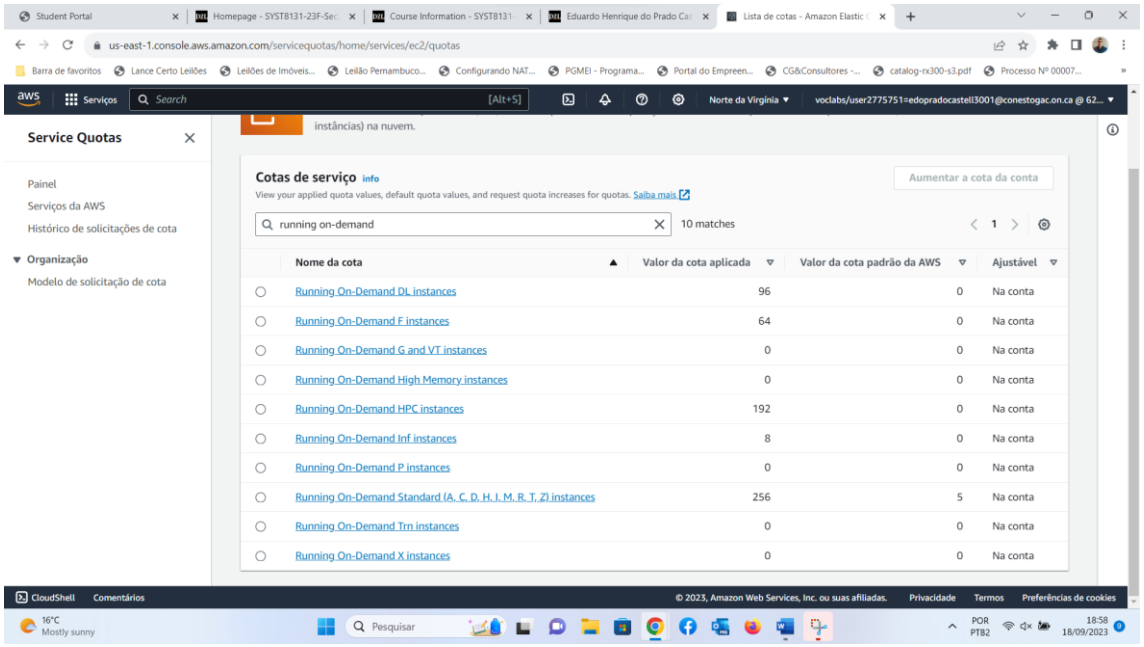


This image shows the resizing already carried out from 8GB to 12GB.

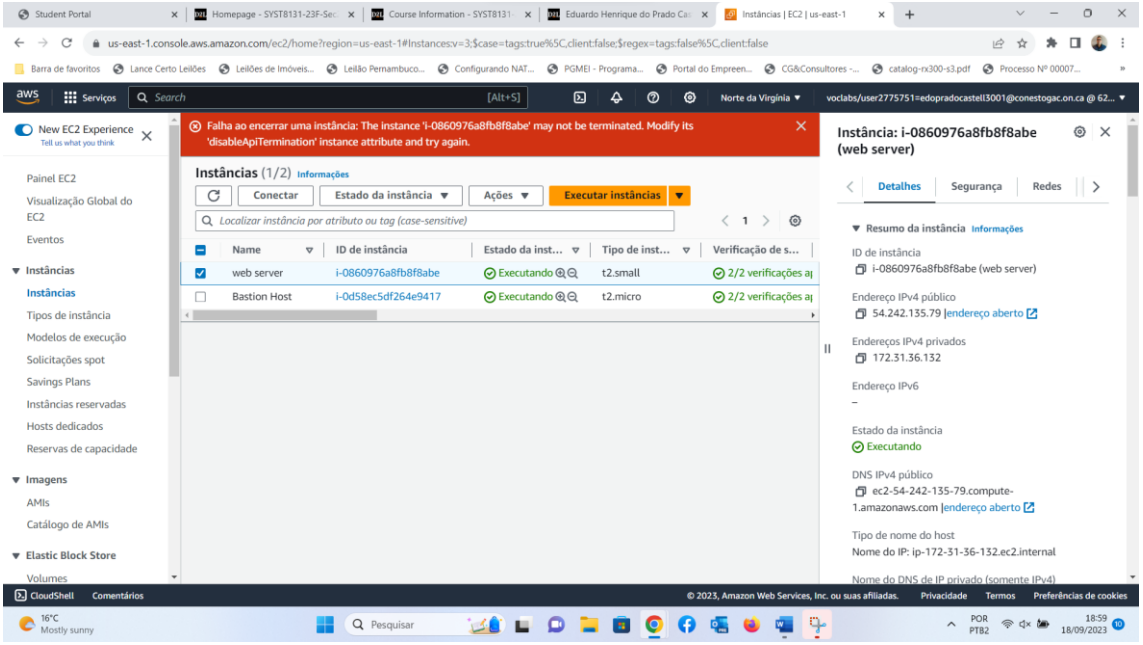


This image shows the resizing of the 12GB volume and also type of instance to t2.small working.





This image below shows the failure to terminate the EC2 instance.



After removing the protection against deleting the instance, I was able to delete the EC2 instance. The image does not show that it is completely closed because I forgot to refresh the screen, but the green message informs me of this.