

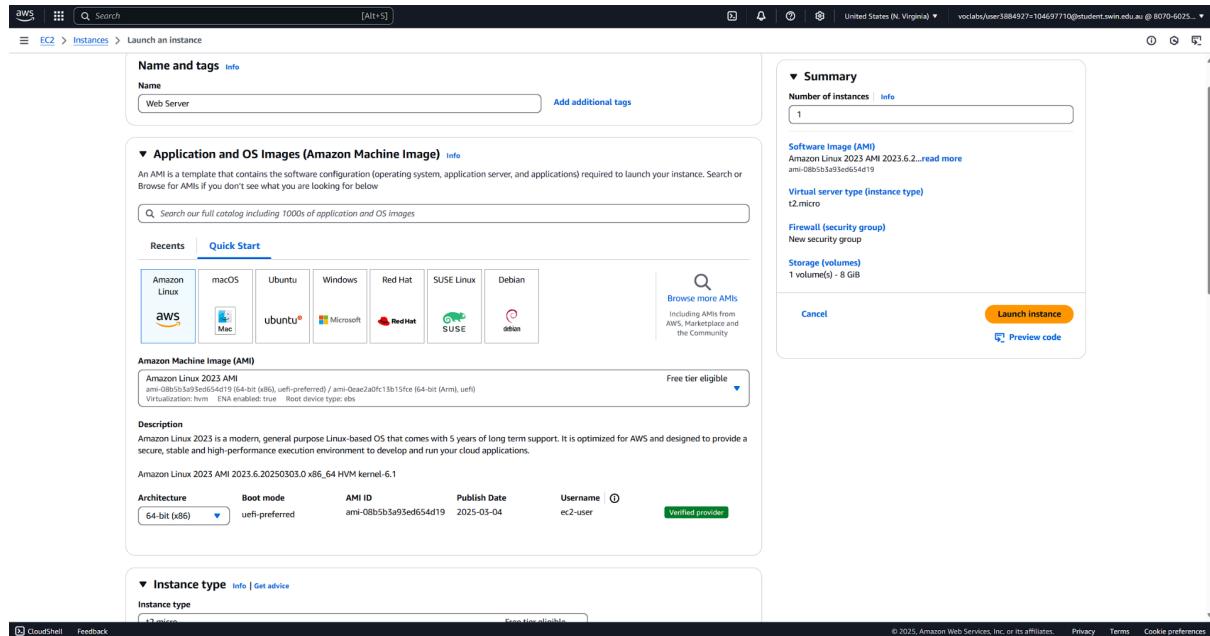
**Student Name: Dave Nguyen (Nguyen Quang Anh).**

**Student ID: 104697710.**

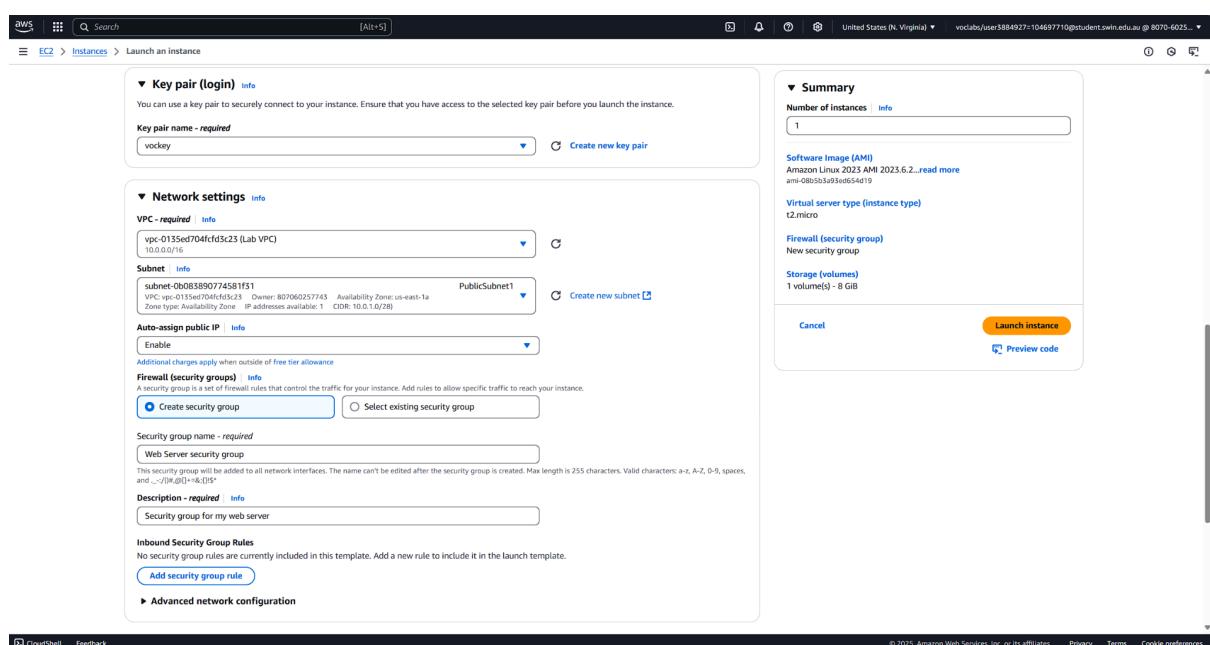
**Date: Mon 10/03/2024.**

## Task 1:

**Explanation:** Task 1 is effortless and straightforward, I need to launch an Amazon EC2 instance with termination protection and stop protection. Termination protection prevents users from accidentally terminating the EC2 instance and stop protection prevents them from accidentally stopping the EC2 instance. Also, in Task 1 I need to deploy a simple website.



### Step 1-3.



## Step 4-5.

The screenshot shows the 'Launch an instance' wizard in the AWS Management Console. The current step is 'Configure Instance Details'. The configuration includes:

- Default active vCPUs:** 1
- Metadata accessible:** Enabled
- Metadata IPv6 endpoint:** Info
- Metadata version:** V2 only (token required)
- For V2 requests, you must include a session token in all instance metadata requests. Applications or agents that use V1 for instance metadata access will break.**
- Metadata response hop limit:** 2
- Allow tags in metadata:** Info
- User data - optional:** Info

The user data field contains a shell script:

```
#!/bin/bash
curl -f -s http://169.254.169.254/latest/meta-data/hostname
systemctl enable httpd
systemctl start httpd
echo <html><h1>Hello From Your Web Server</h1></html> > /var/www/html/index.html
```

On the right side, the 'Summary' section shows:

- Number of instances:** 1
- Software Image (AMI):** Amazon Linux 2023 AMI 2023.6.2... (with a 'read more' link)
- Virtual server type (instance type):** t2.micro
- Firewall (security group):** New security group
- Storage (volumes):** 1 volume(s) - 8 GiB

At the bottom right are 'Cancel', 'Launch instance' (highlighted in orange), and 'Preview code' buttons.

## Step 7.

The screenshot shows the 'Instances' page in the AWS Management Console. The left sidebar is collapsed. The main area displays two instances:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 IP	Elastic IP	IPv6 IPs
Bastion Host	i-0dc90cb0d2195c78	Running	t2.micro	2/2 checks passed	<a href="#">View alarms</a>	us-east-1a	ec2-54-158-94-55.com...	54.158.94.55	-	-
Web Server	i-00730f23e4a46760d	Running	t2.micro	2/2 checks passed	<a href="#">View alarms</a>	us-east-1a	ec2-54-210-158-7.com...	54.210.158.7	-	-

Below the table, the details for the instance 'i-00730f23e4a46760d (Web Server)' are shown. The 'Details' tab is selected. Key details include:

- Public IPv4 address:** 54.210.158.7
- Instance state:** Running
- Private IP DNS name (IPv4 only):** ip-10-0-1-10.ec2.internal
- Instance type:** t2.micro
- VPC ID:** vpc-0135ed704fcfd3c23 (Lab VPC)

On the right side, there are sections for 'Private IPv4 addresses' (10.0.1.10), 'Public IPv4 DNS' (ec2-54-210-158-7.compute-1.amazonaws.com), and 'AWS Compute Optimizer finding' (Opt-in to AWS Compute Optimizer for recommendations).

## Step 8.

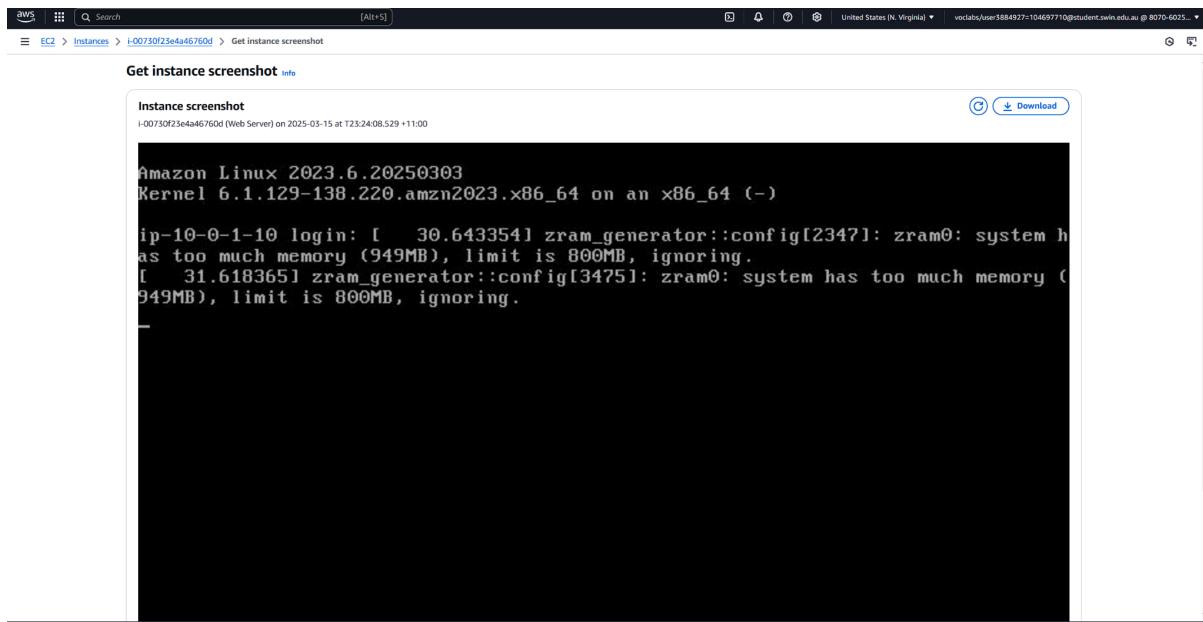
## Task 2:

**Explanation:** Task 2 is where I will learn about monitoring my instance, it is an essential part of maintaining the reliability, availability, and performance of my Amazon EC2 instances and my AWS solutions.

The screenshot shows the AWS EC2 Instances page. On the left, there's a navigation sidebar with sections like Dashboard, EC2 Global View, Events, Instances (with sub-options like Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations), Images (AMIs, AMI Catalog), Elastic Block Store (Volumes, Snapshots, Lifecycle Manager), Network & Security (Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces), Load Balancing (Load Balancers, Target Groups, Trust Stores), and Auto Scaling. The main content area displays a table of instances. The first row is a 'Bastion Host' with ID i-0dk90cb0dc2195c78, running on t2.micro, in us-east-1a, with Public IPv4 54.159.94.55 and Elastic IP 54.159.94.55. The second row is a 'Web Server' with ID i-00730f23e4a46760d, running on t2.micro, in us-east-1a, with Public IPv4 54.210.158.7 and Elastic IP 54.210.158.7. Both instances have 2/2 checks passed. Below the table, there's a detailed view for the Web Server instance, showing Status checks, Metrics, and Alarms. A note says "Recently launched instances can take up to 5 minutes to display associated alarms." At the bottom, there are links for CloudShell and Feedback.

The screenshot shows the 'Get system log' page for the Web Server instance (i-00730f23e4a46760d). The left sidebar is identical to the previous screenshot. The main content area shows a terminal window displaying the system log. The log output includes messages from cloud-init, such as "cloud-init[2214]: mod-lua-2.4-62-1.aerb2021.v66\_64 completed", and SSH key management logs. A note at the bottom says "For boot or networking issues, use the EC2 serial console for troubleshooting. Choose the Connect button to start a session." There are 'Copy log' and 'Download' buttons above the terminal window.

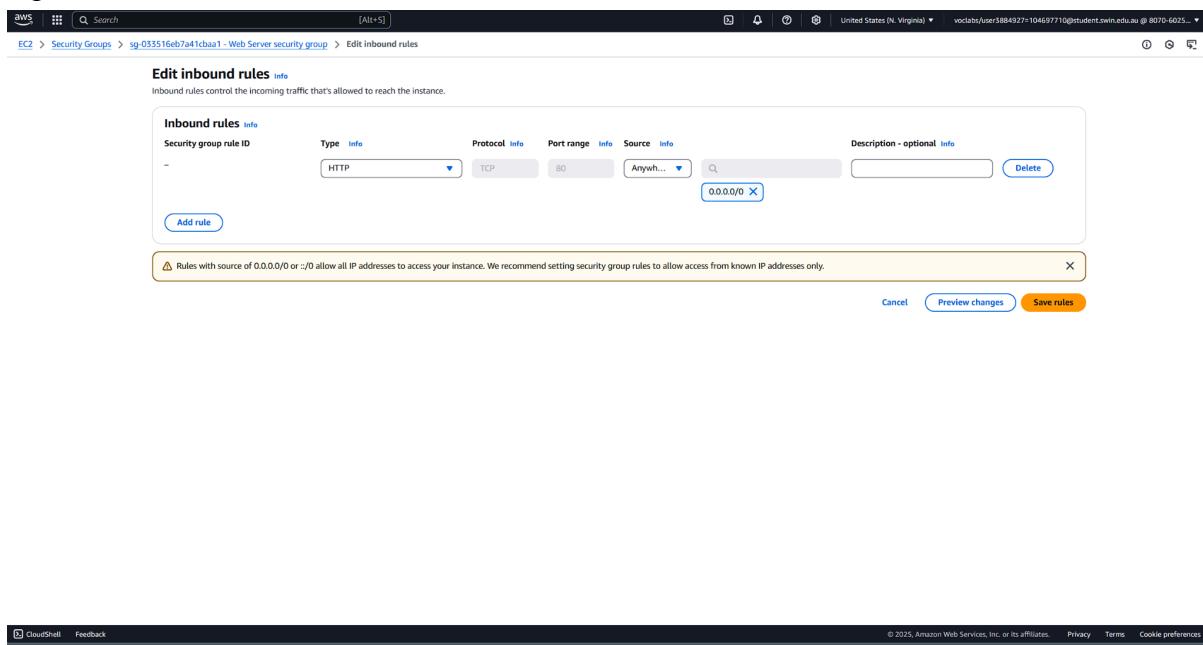
Task 2 System logs.

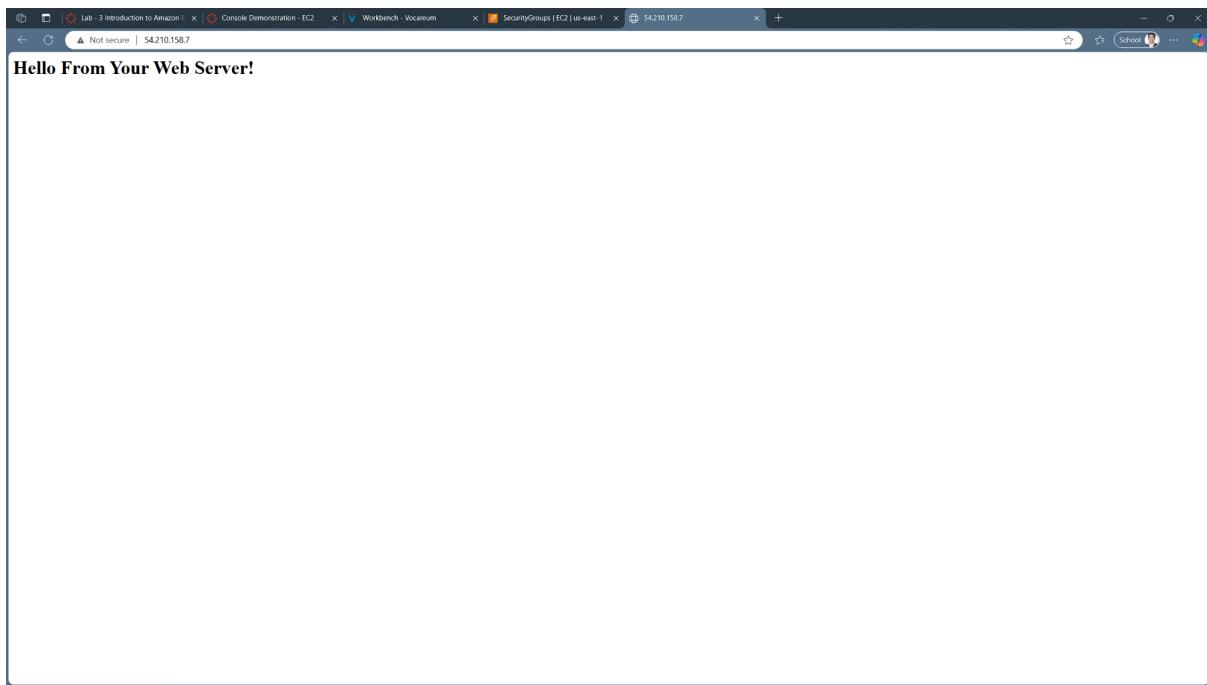


Task 2 Instance screenshot.

## Task 3:

Explanation: Task 3 is just deploying a simple web page as I have mentioned in Task 1 explanations.

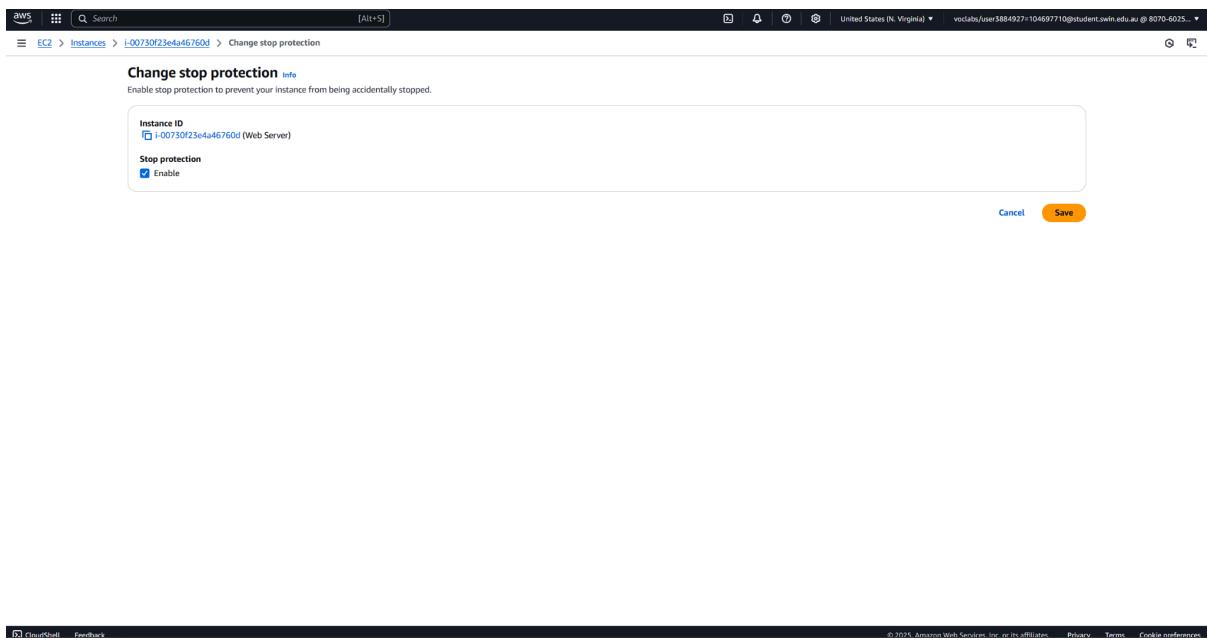


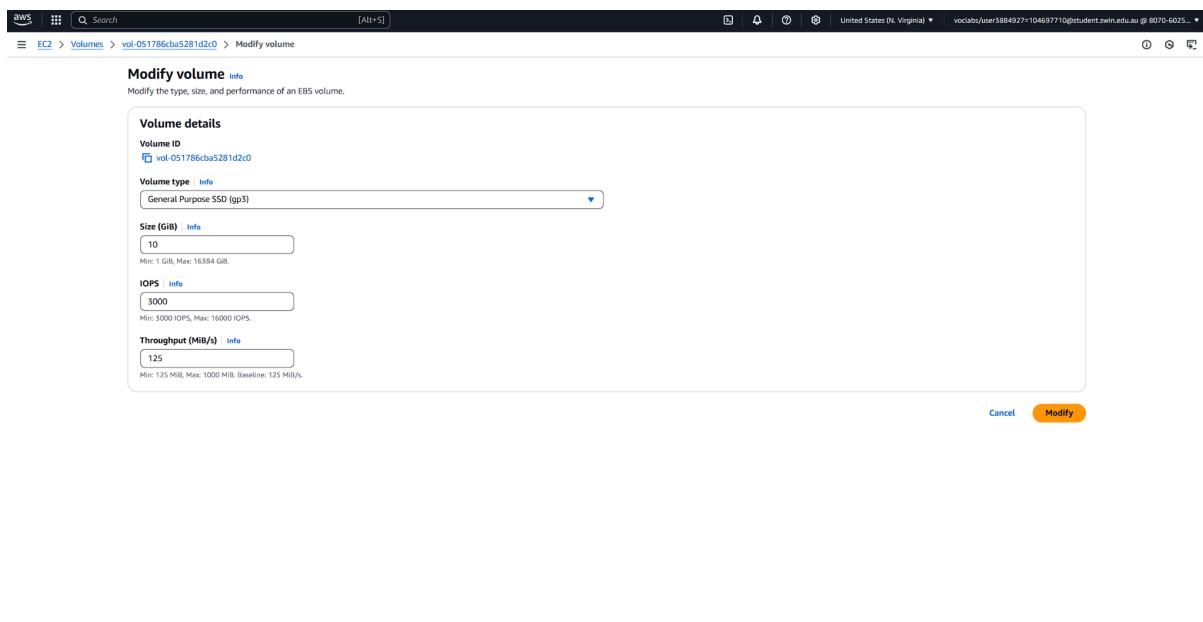


### Task 3 Web confirm.

#### Task 4:

Explanation: Task 4 is where I get to know about changing instance types and size of a disk for different workloads.

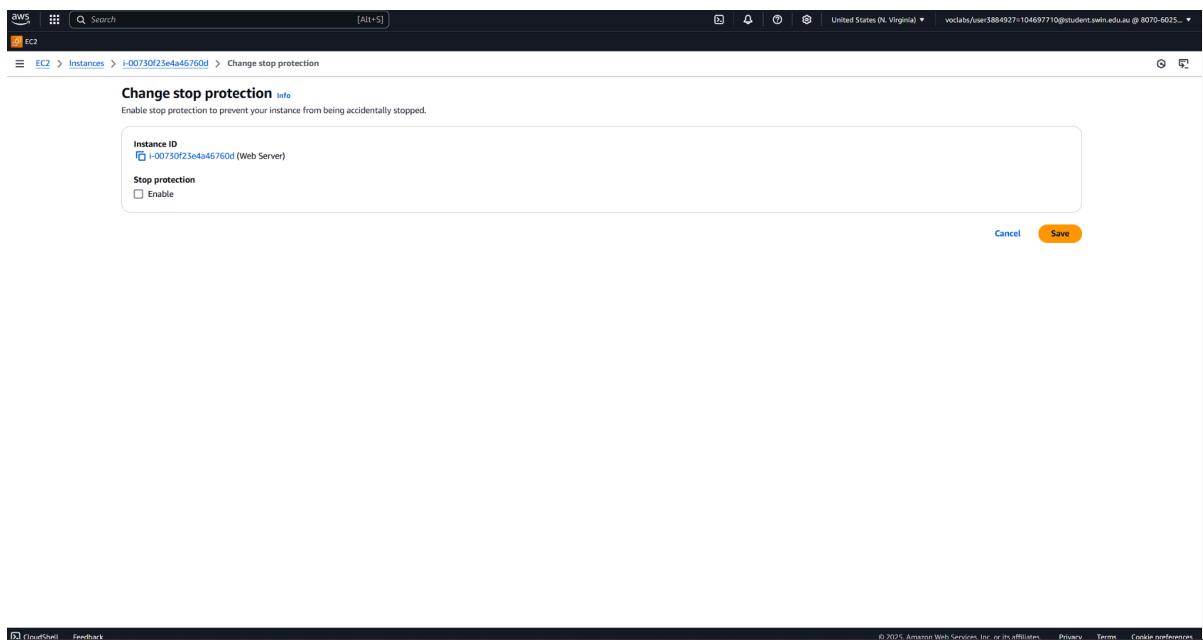




## Task 4 Modifying volum.

### Task 6:

Explanation: Task 6 is just getting to know how to use “Stop Protection”.



## Week 2 AWS Lab results:

A screenshot of a software application window, likely a learning management system or lab environment. The top bar includes standard window controls (minimize, maximize, close) and icons for a gradebook (A), star, list, School (with a user profile picture), three dots, and a colorful gear.

The main content area shows a lab summary:

Total score	25/25
Task 1 - EC2 instance created correctly	5/5
Task 2 - get system log requested	5/5
Task 3 - security group updated	5/5
Task 4 - EC2 instance updated	5/5
Task 6 - Instance stopped on second try	5/5

Below the summary, there are buttons for "Submit", "Submission Report", and "Grades". The "Submit" button is highlighted in black, while the others are greyed out. The "Submission Report" and "Grades" buttons are also greyed out.