

Lab 3: Introduction to Amazon EC2

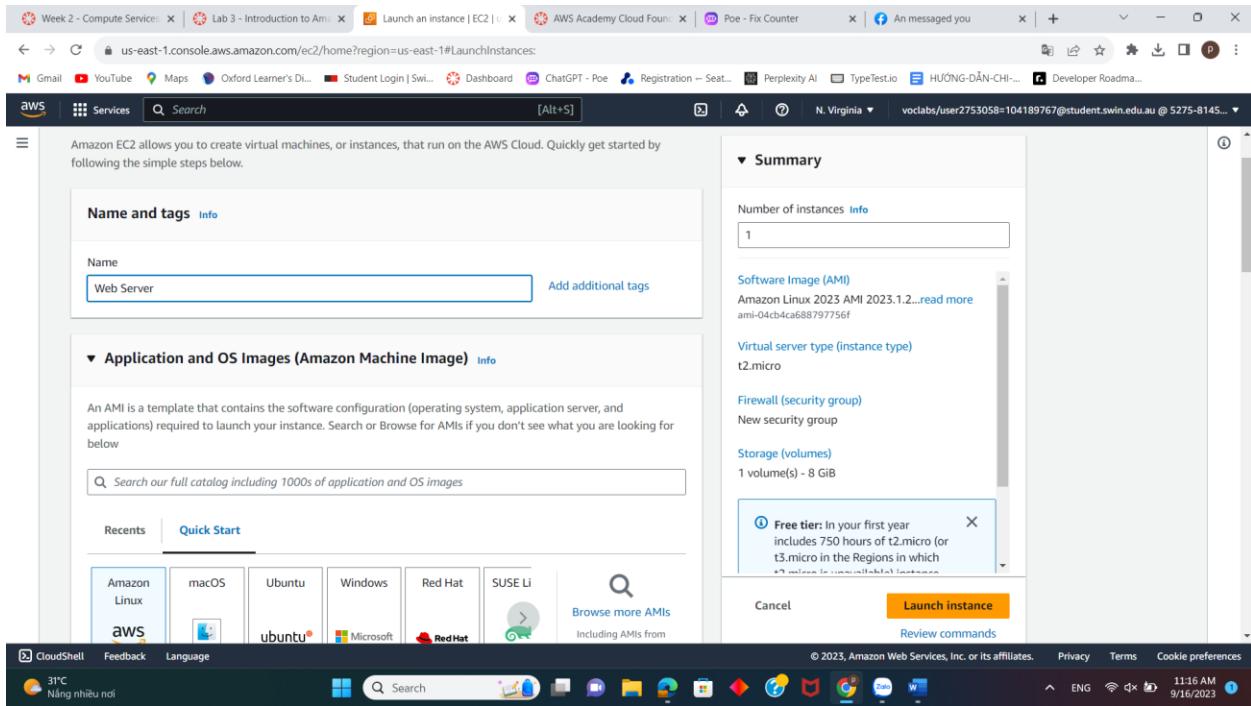
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Student ID: 104189767

Task 1: Launch Your Amazon EC2 Instance

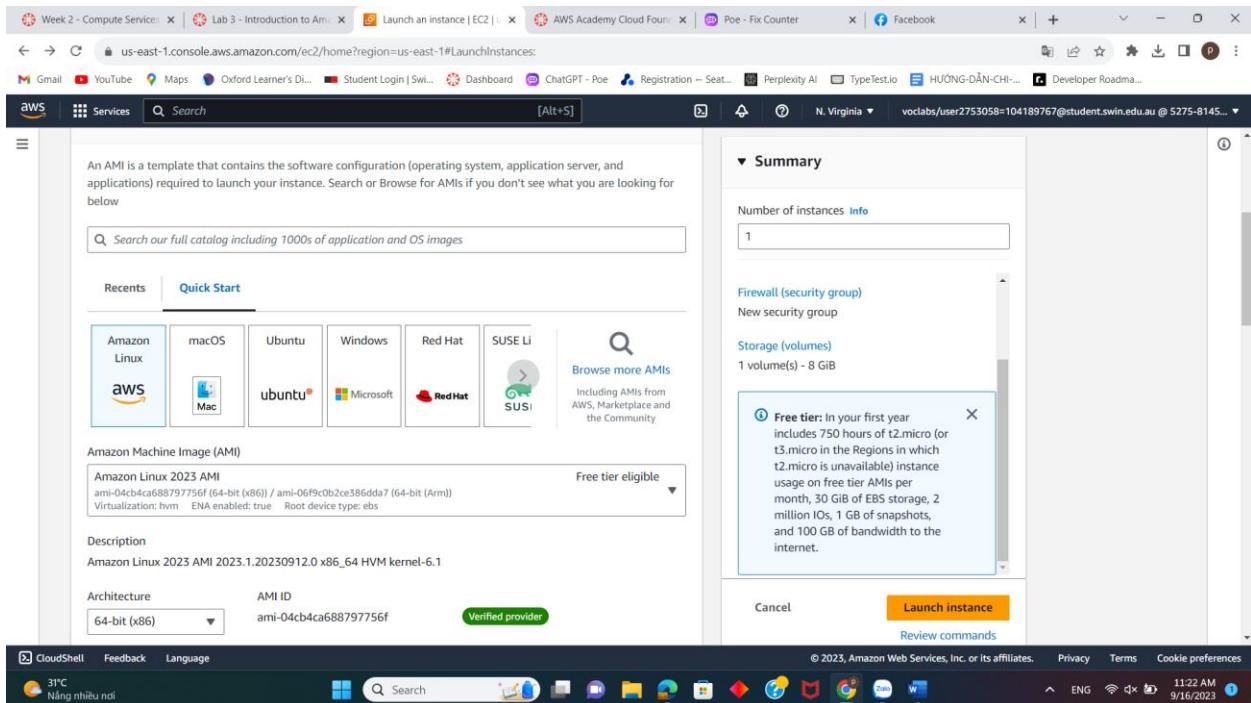
The screenshot shows the AWS EC2 console interface. On the left, a sidebar menu includes options like EC2 Dashboard, Instances, Images, and Elastic Block Store. The main content area displays a summary of resources: 1 running instance, 0 Auto Scaling Groups, 0 Dedicated Hosts, 0 Elastic IPs, 1 instance, 1 key pair, 0 Load balancers, 0 Placement groups, 4 security groups, 0 snapshots, and 1 volume. Below this, the 'Launch instance' section is visible, showing a dropdown menu set to 'Launch instance' and a 'Migrate a server' button. A note states: 'Note: Your instances will launch in the US East (N. Virginia) Region'. To the right, the 'Service health' section shows the AWS Health Dashboard. Further right, the 'Account attributes' section lists the Default VPC (vpc-047a06c54f6ac75d9), Settings (Data protection and security, Zones, EC2 Serial Console, Default credit specification, Console experiments), and an 'Explore AWS' section with a call to action for Graviton-based instances.

Step 1: Name and tags



I type the name as “Web User” to use it as a tag.

Step 2: Application and OS Images (Amazon Machine Image)

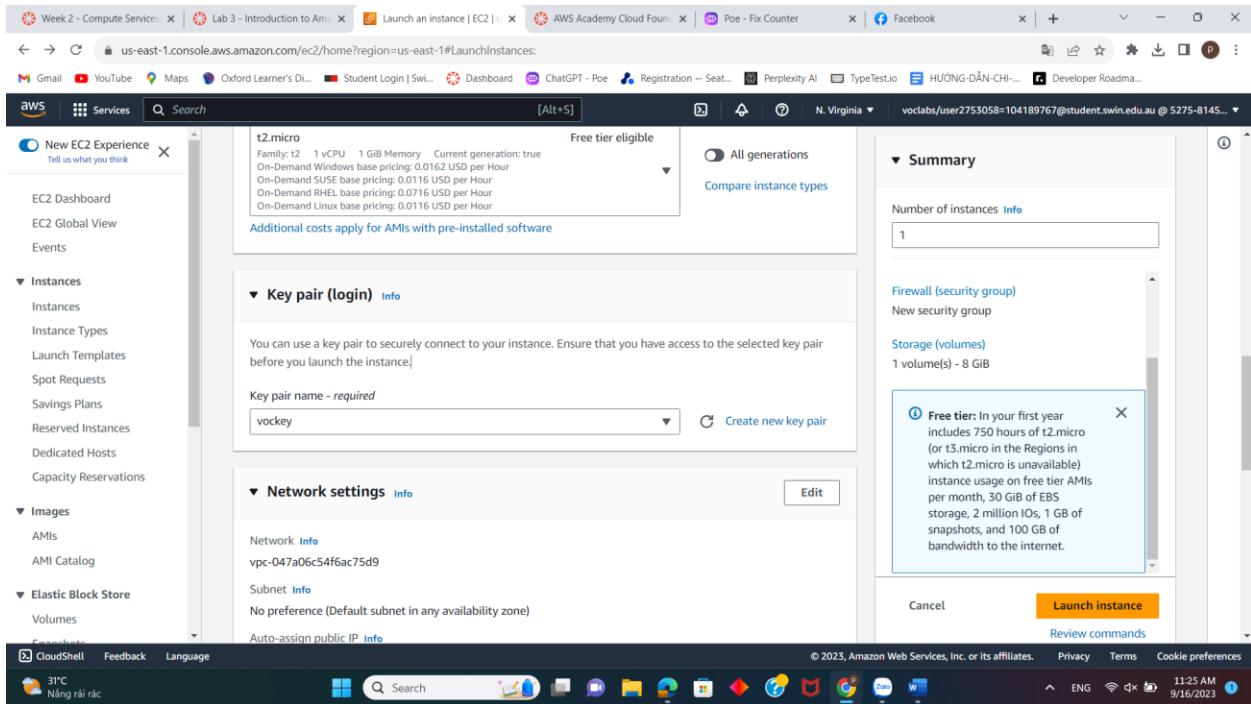


Keep the Quick Start as default.

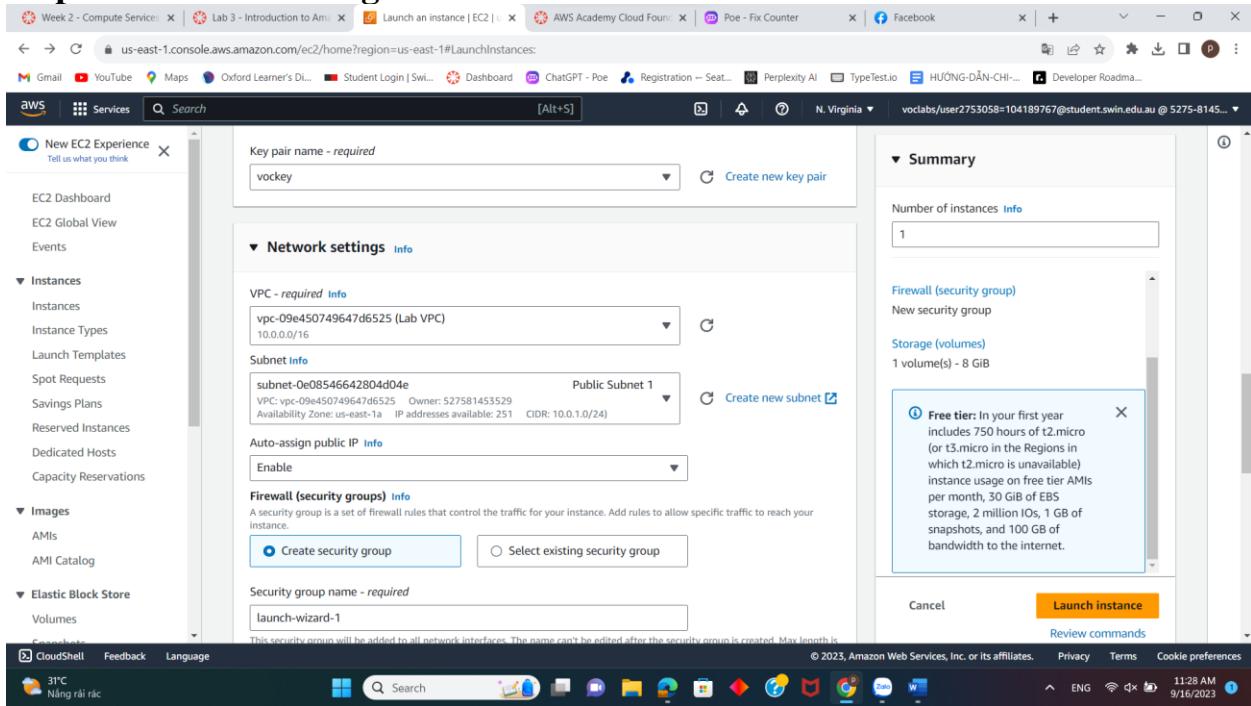
Step 3: Instance type

The screenshot shows the AWS EC2 Launch Instance wizard at Step 3: Instance type. The user has selected the Amazon Linux 2023 AMI and the t2.micro instance type. A tooltip for the t2.micro tier provides information about the Free tier: "In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million I/Os, 1 GiB of snapshots, and 100 GiB of bandwidth to the internet." The "Launch instance" button is highlighted in orange.

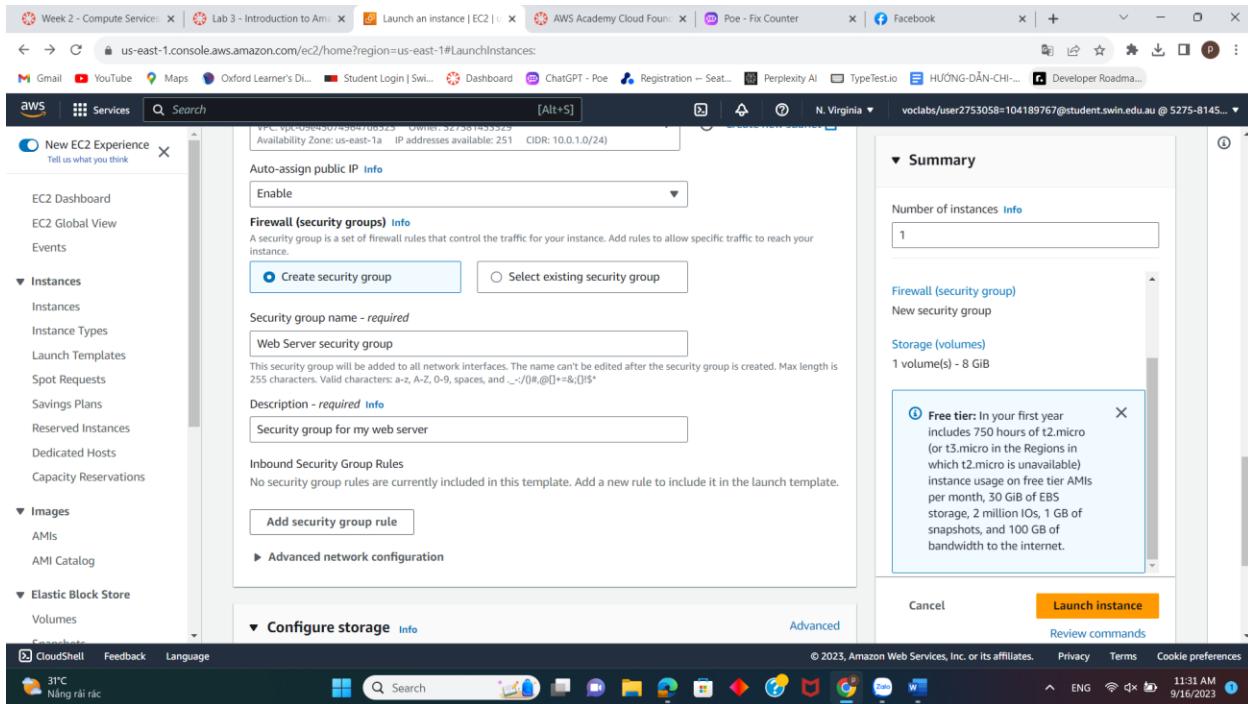
Step 4: Key pair (login)



Step 5: Network settings

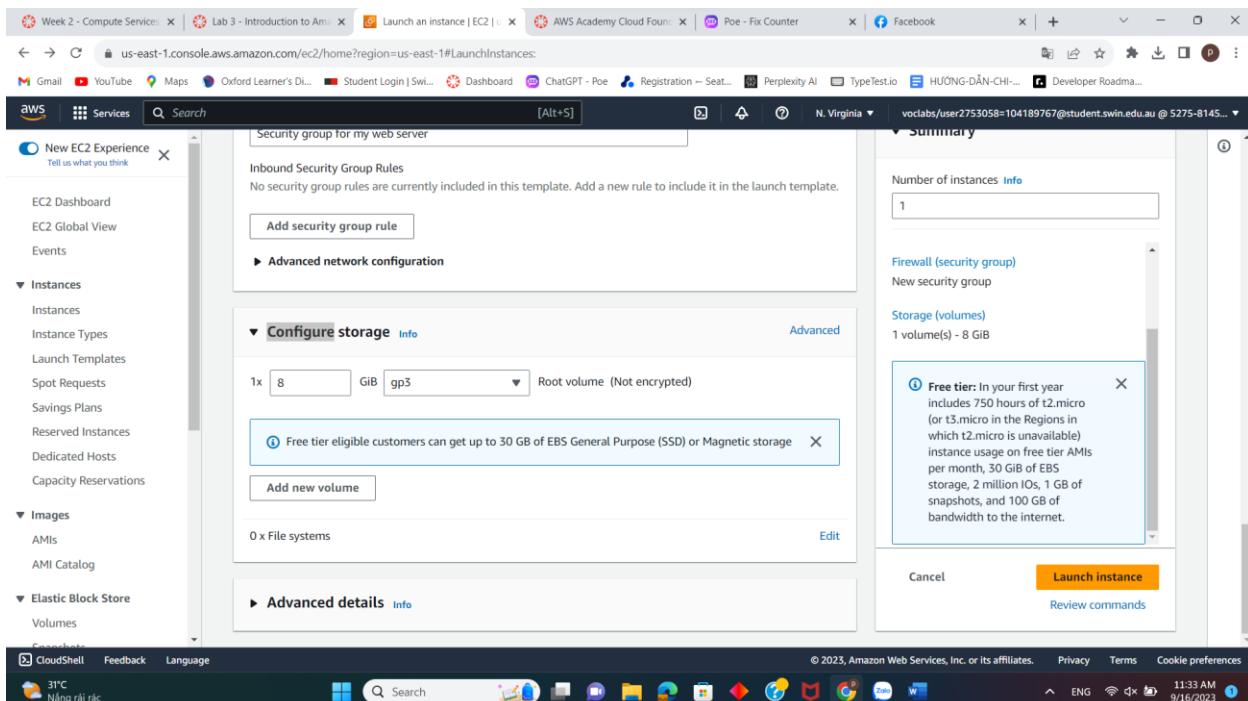


Select Lab VPC



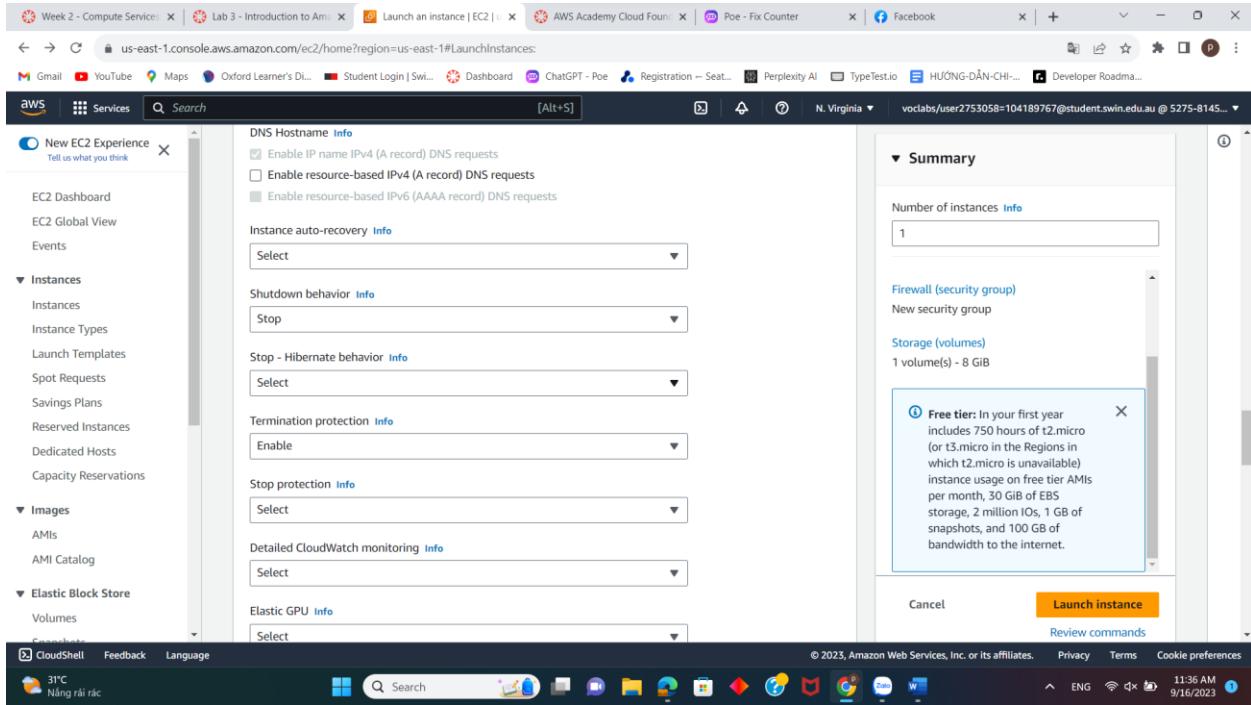
Security task.

Step 6: Configure storage

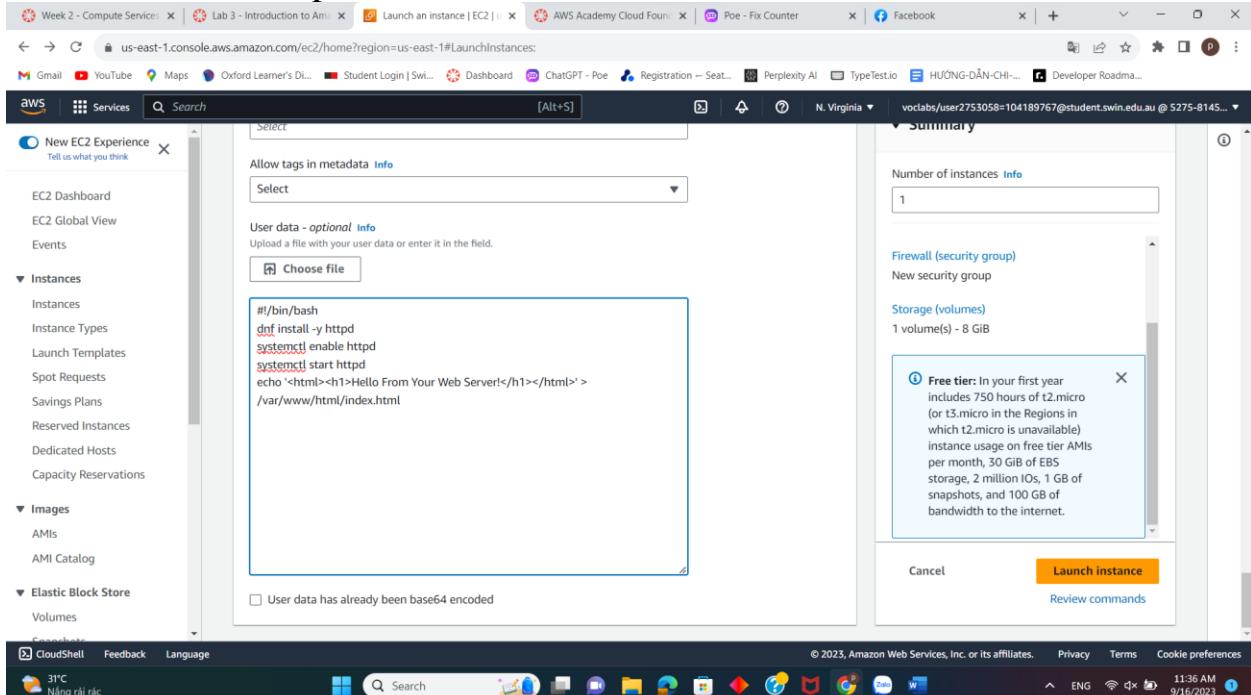


Keep the default

Step 7: Advanced details



Enable Termination protection



Copy the code.

View all instance I have. I can read the information of Web user instance in the details tab.

Task 2: Monitor Your Instance

Week 2 - Compute Services | Lab 3 - Introduction to Amazon CloudWatch | Get system log | EC2 | us-east-1 | AWS Academy Cloud Foundry | Poe - Fix Counter | Facebook | +

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#GetSystemLog:instanceId=i-0033f05a22dacc805

Gmail YouTube Maps Oxford Learner's Dictionary Student Login | Swap Dashboard ChatGPT - Poe Registration -- Seats Perplexity AI TypeT actions 1/1 N. Virginia voclabs/user2753058:104189767@student.swin.edu.au at 5275-8145...

AWS Services Search [Alt+5] 🔍

New EC2 Experience Tell us what you think

EC2 Dashboard EC2 Global View Events

Instances Instances Instance Types Launch Templates Spot Requests Savings Plans Reserved Instances Dedicated Hosts Capacity Reservations

Images AMIs AMI Catalog

Elastic Block Store Volumes Connect to instance

CloudShell Feedback Language

31°C Nắng ráo rác

EC2 > Instances > i-0033f05a22dacc805 > Get system log

Get system log Info

When you experience issues with your EC2 instance, reviewing system logs can help you pinpoint the cause.

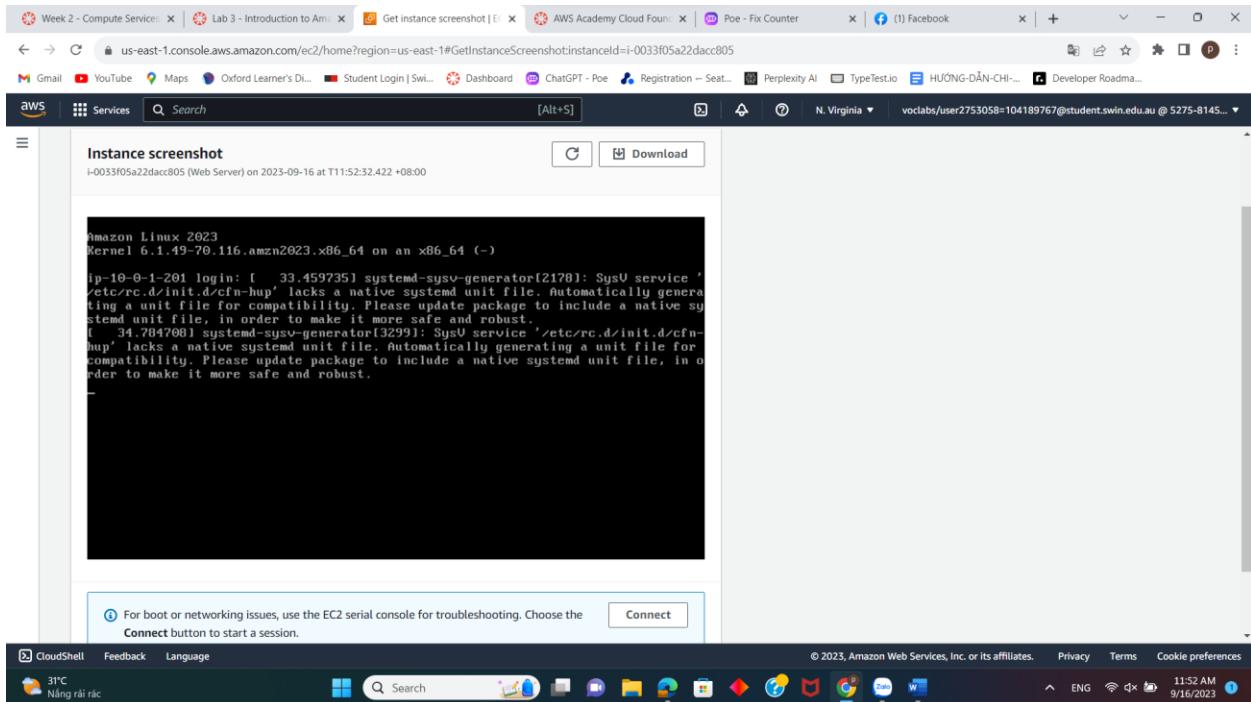
System log

Review system log for instance i-0033f05a22dacc805 as of Sat Sep 16 2023 11:50:18 GMT+0800 (Singapore Standard Time)

Copy log Download

```
[ 34.889286] cloud-init[2887]: Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service → /usr/lib/systemd/system/httpd.service
[ 34.784708] systemd-sysv-generator[3299]: SysV service '/etc/rc.d/init.d/fn-hup' lacks a native systemd unit file. Automatically generating a
ci-info: +-----+
ci-info: |+-----+Authorized keys from /home/ec2-user/.ssh/authorized_keys for user ec2-user+-----+
ci-info: +-----+
ci-info: | Keypair | Fingerprint (sha256) | Options | Comment |
ci-info: +-----+
ci-info: | ssh-rsa | 05:4d:ab:c5:e5:2b:ee:ca:53:2d:29:e9:4d:2e:75:5d:3f:a0:72:a3:94:e9:ca:0b:6d:dd:aa:8a:83:14:80:36 | - | vockey |
ci-info: +-----+
<14>Sep 16 03:38:40 cloud-init: #####
<14>Sep 16 03:38:40 cloud-init: -----BEGIN SSH HOST KEY FINGERPRINTS-----
<14>Sep 16 03:38:40 cloud-init: 256 SHA256:h2puQjiaQz3hMaudD6hpW/hfKqjhKzvbkyk3prlkk root@ip-10-0-1-201.ec2.internal (EDDSA)
<14>Sep 16 03:38:40 cloud-init: 256 SHA256:q6iU9gjSozy7wYZFdV7yLoGCoKmNOP+XkQF8xeg root@ip-10-0-1-201.ec2.internal (ED25519)
<14>Sep 16 03:38:40 cloud-init: -----END SSH HOST KEY FINGERPRINTS-----
<14>Sep 16 03:38:40 cloud-init: #####
-----BEGIN SSH HOST KEY KEYS-----
ecdsa-sha2-nistp256 AAAE2VjZHNhLXnoItbtbdhAyNTYAAA1bm1zdHdYNTYAAAABBBhu4UJ2XPk61A1KrsgoOejfyC0Se8avQcOpptswcrqn6NmztZ2dHYNcsfjKnmx4s2ml
ssh-ed25519 AAAAC3NzaC1lZDI1NTESAAA1Kdpv3EfobN4mY5sEfIMt4Y5g42rui7Qwf5hpwd root@ip-10-0-1-201.ec2.internal
-----END SSH HOST KEY KEYS-----
```

Get System log



Instance screenshot

Task 3: Update Your Security Group and Access the Web Server

AWS Academy Cloud Foundations [46508]

To Do

Nothing for now

Recent Feedback

Nothing for now

Answer: It can't access to the web server because the security group is not permitting inbound traffic.

Inbound rules [Info](#)

Security group rule ID	Type Info	Protocol Info	Port range Info	Source Info	Description - optional Info
-	HTTP	TCP	80	Anywhere	<input type="text" value="0.0.0.0/0"/> X

Add rule Cancel Preview changes Save rules

Edit inbound rules

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Not secure | 3.215.178.82

Gmail YouTube Maps Oxford Learner's Dictionary Student Login | Swi... Dashboard ChatGPT - Poe Registration - Seat... Perplexity AI TypeTest.io HƯỚNG-DẪN-CHI... Developer Roadma...

Hello From Your Web Server!



Yeahhh, you can access the page now.

Task 4: Resize Your Instance: Instance Type and EBS Volume

Lab 3 - Introduction to Amazon | Instances | EC2 us-east-1 | 3.215.178.82 | Poe - Fix Counter | Facebook | +

New EC2 Experience Tell us what you think

Instances (1/3) Info

Find instance by attribute or tag (case-sensitive)

Instance state (client) t=running Instance state (client) t=running Instance state (client) t=running

Show more (+3) Clear filters

Instances

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
Web Server	i-0033f05a22dacc805	Stopping	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2-3-215-178-8
Bastion Host	i-0aee0ee62c134bb06	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2-44-204-210-
Web Server	i-068896d8e0d01425c	Running	t2.micro	2/2 checks passed	No alarms	us-east-1d	ec2-3-87-254-10

Instance: i-0033f05a22dacc805 (Web Server)

Details Security Networking Storage Status checks Monitoring Tags

Instance summary Info

Instance ID i-0033f05a22dacc805 (Web Server)	Public IPv4 address 3.215.178.82 [open address]	Private IPv4 addresses 10.0.1.201
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-3-215-178-82.compute-1.amazonaws.com [open address]
Hostname type	Private IP DNS name (IPv4 only)	

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I stop the instance.

Lab 3 - Introduction to Amazon | Change instance type | EC2 us-east-1 | 3.215.178.82 | Poe - Fix Counter | Facebook | +

EC2 > Instances > i-0033f05a22dacc805 > Change instance type

Change instance type Info

You can change the instance type only if the current instance type and the instance type that you want are compatible.

Instance ID: i-0033f05a22dacc805 (Web Server)

Current instance type: t2.micro

Instance type: t2.small

EBS-optimized: EBS-optimized is not supported for this instance type

Cancel Apply

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Change the instance type

The screenshot shows the AWS Management Console with the URL us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#ModifyVolume?volumeld=vol-0fbdb2437b011188bd. The page is titled "Modify volume" and displays "Volume details". The volume ID is `vol-0fbdb2437b011188bd`, type is "General Purpose SSD (gp3)", size is 10 GiB, IOPS is 3000, and throughput is 125 MiB/s. The status bar at the bottom indicates "Successfully started i-0033f05a22dacc805".

Modify the size of volume

The screenshot shows the AWS Management Console with the URL us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances. A green notification bar at the top says "Successfully started i-0033f05a22dacc805". The main pane shows the "Instances (1/3)" list with one item: "Web Server" (i-0033f05a22dacc805) running on t2.small. Below it, a detailed view for "Instance: i-0033f05a22dacc805 (Web Server)" shows a table for "Filter block devices" with one entry: Volume ID `vol-0fbdb2437b011188bd`, Device name `/dev/xvda`, Volume size (GiB) 10, Attachment status Attached, Attachment time 2023/09/16 11:37 GMT+8, Encrypted No, and KMS key ID -. The status bar at the bottom indicates "Successfully started i-0033f05a22dacc805".

Start the modified instance.

Task 5: Explore EC2 Limits

The screenshot shows the AWS Service Quotas console. On the left, there's a sidebar with links like Dashboard, AWS services, Quota request history, and Organization. The main area has a heading "Service quotas info" with a sub-section "View your applied quota values, default quota values, and request quota increases for quotas. [Learn more](#)". A search bar at the top right contains the query "running ori" with a result of "10 matches". Below is a table with columns: Quota name, Applied quota value, AWS default quota value, and Adjustability. The table lists various On-Demand instance types with their respective quota values and default values.

Quota name	Applied quota value	AWS default quota value	Adjustability
Running On-Demand DL instances	96	0	Account-level
Running On-Demand F instances	64	0	Account-level
Running On-Demand G and VT instances	0	0	Account-level
Running On-Demand High Memory instances	0	0	Account-level
Running On-Demand HPC instances	192	0	Account-level
Running On-Demand Inf instances	8	0	Account-level
Running On-Demand P instances	0	0	Account-level
Running On-Demand Standard (A, C, D, H, I, M, R, T, Z) instances	256	5	Account-level
Running On-Demand Trn instances	0	0	Account-level
Running On-Demand X instances	0	0	Account-level

This screenshot shows the "Request quota increase" dialog for the "Running On-Demand Standard (A, C, D, H, I, M, R, T, Z) instances" quota. The dialog includes fields for Requested for (Account ID), Utilization (2), AWS default quota value (5), and Applied quota value (256). Below the form is a note about quota values and a support note about language availability. At the bottom right are "Cancel" and "Request" buttons.

Request quota increase: Running On-Demand Standard (A, C, D, H, I, M, R, T, Z) instances

Quota name	Requested for
Running On-Demand Standard (A, C, D, H, I, M, R, T, Z) instances	Account (527581453529)
Description	Utilization
Maximum number of vCPUs assigned to the Running On-Demand Standard (A, C, D, H, I, M, R, T, Z) instances.	2
Region	AWS default quota value
US East (N. Virginia) us-east-1	5
Applied quota value	256

Increase quota value
Enter in the total amount that you want the quota to be. [Learn more](#)

256
Must be a number greater than your current quota value of 256

While Service Quotas Console is available in many different languages, the AWS Support assistance on cases created via Service Quotas Console and SDK is only offered in English. If you need support in other languages, please create the quota increase request via [Support Center](#) and choose the correct preferred contact language option.

Cancel Request

Request the increasement

The screenshot shows the AWS EC2 Instances page. A prominent green notification bar at the top center reads "Successfully terminated i-0033f05a22dacc805". Below this, the main table displays three instances:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
Web Server	i-0033f05a22dacc805	Shutting-down	t2.small	2/2 checks passed	No alarms	us-east-1a	ec2-3-235-156-1
Bastion Host	i-0ae00ee62c134bb06	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2-44-204-210-1
MySQL Server	i-0033f05a22dacc805	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2-3-235-156-1

Details for the terminated instance (i-0033f05a22dacc805) are shown in the Instance summary section:

- Instance ID: i-0033f05a22dacc805 (Web Server)
- Public IPv4 address: 52.35.156.12 [open address]
- Private IP4 addresses: 10.0.1.201
- Public IPv4 DNS: ec2-3-235-156-12.compute-1.amazonaws.com [open address]
- Instance state: Running
- Private IP4 DNS name (IPv4 only):

Terminate protection successfully.