

Week 2 lab submission for Cloud Computing Architecture

The screenshot shows the 'Launch an instance' page in the AWS Management Console. The breadcrumb navigation is 'EC2 > Instances > Launch an instance'. The page title is 'Launch an instance' with an 'Info' link. Below the title is a brief description: 'Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.' The main form is divided into two sections. The 'Name and tags' section has a 'Name' field with 'Web Server' entered and an 'Add additional tags' button. The 'Application and OS Images (Amazon Machine Image)' section has a search bar with the placeholder text 'Search our full catalog including 1000s of application and OS images'. On the right, the 'Summary' section shows the following configuration: 'Number of instances' set to 1, 'Software Image (AMI)' as 'Amazon Linux 2 Kernel 5.10 AMI' (ami-090fa75af13c156b4), 'Virtual server type (instance type)' as 't2.micro', 'Firewall (security group)' as 'New security group', and 'Storage (volumes)' as '1 volume(s) - 8 GiB'. At the bottom right are 'Cancel' and 'Launch instance' buttons.

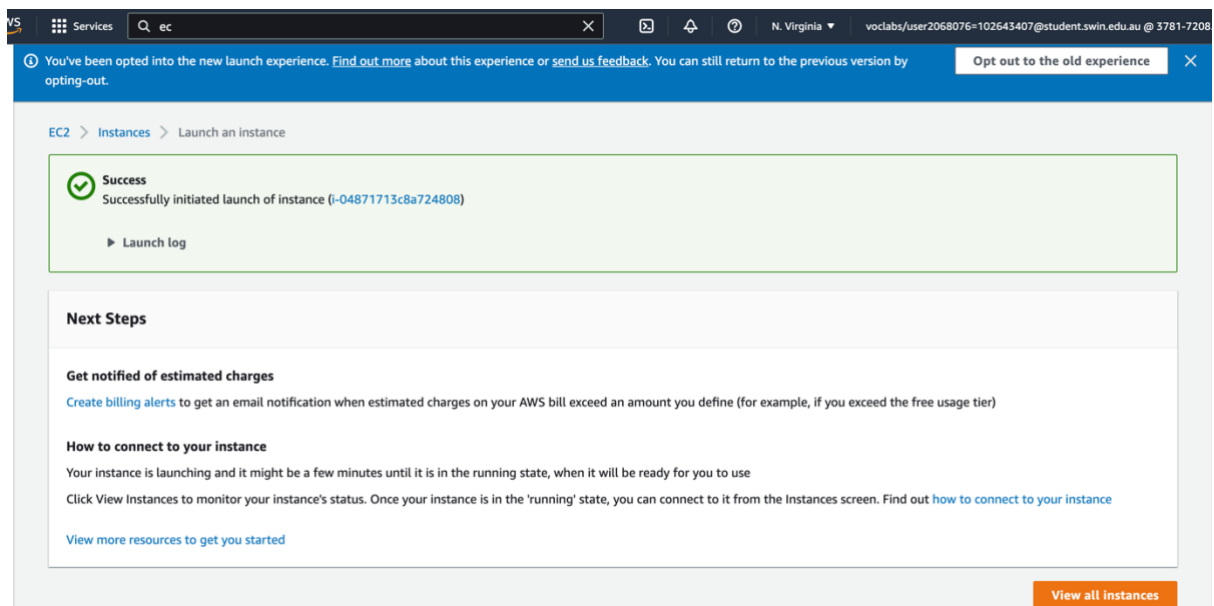
Setup and launch an instance

This screenshot shows the 'Launch an instance' page with the 'User data' section expanded. The 'User data' field contains a bash script:

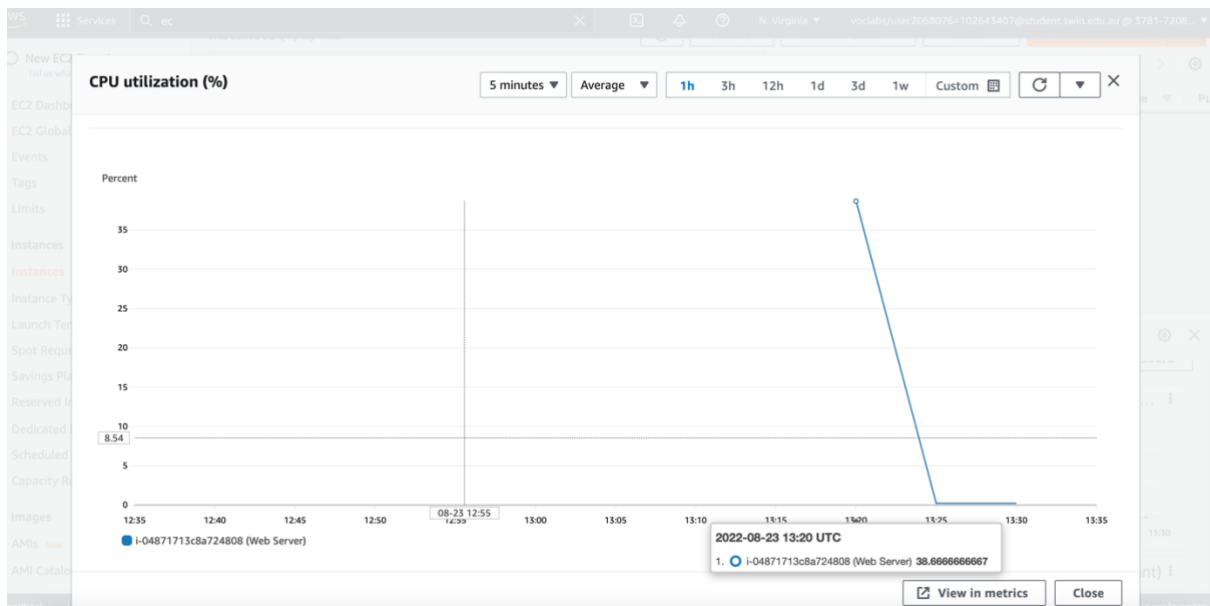
```
#!/bin/bash
yum -y install httpd
systemctl enable httpd
systemctl start httpd
echo '<html><h1>Hello From Your Web Server!</h1></html>' >
/var/www/html/index.html
```

 Below the script is a checkbox labeled 'User data has already been base64 encoded'. The 'Summary' section on the right is identical to the previous screenshot, showing the configuration for 1 t2.micro instance using the Amazon Linux 2 AMI. A 'Free tier' notification is visible at the bottom of the summary, stating: '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'. 'Cancel' and 'Launch instance' buttons are at the bottom right.

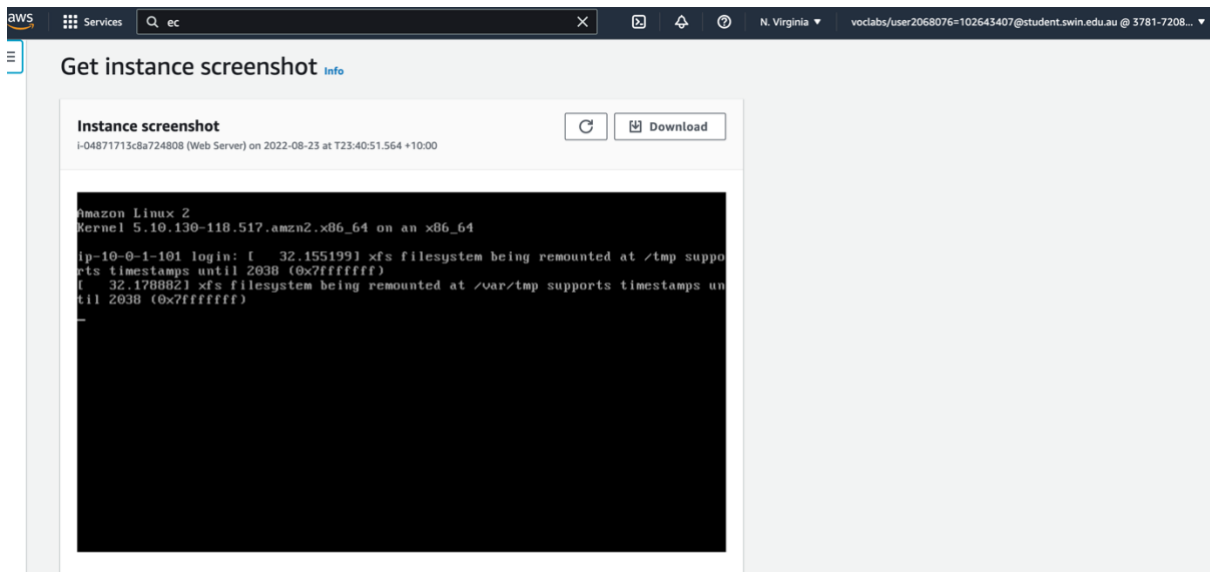
Last setup step before launching instance



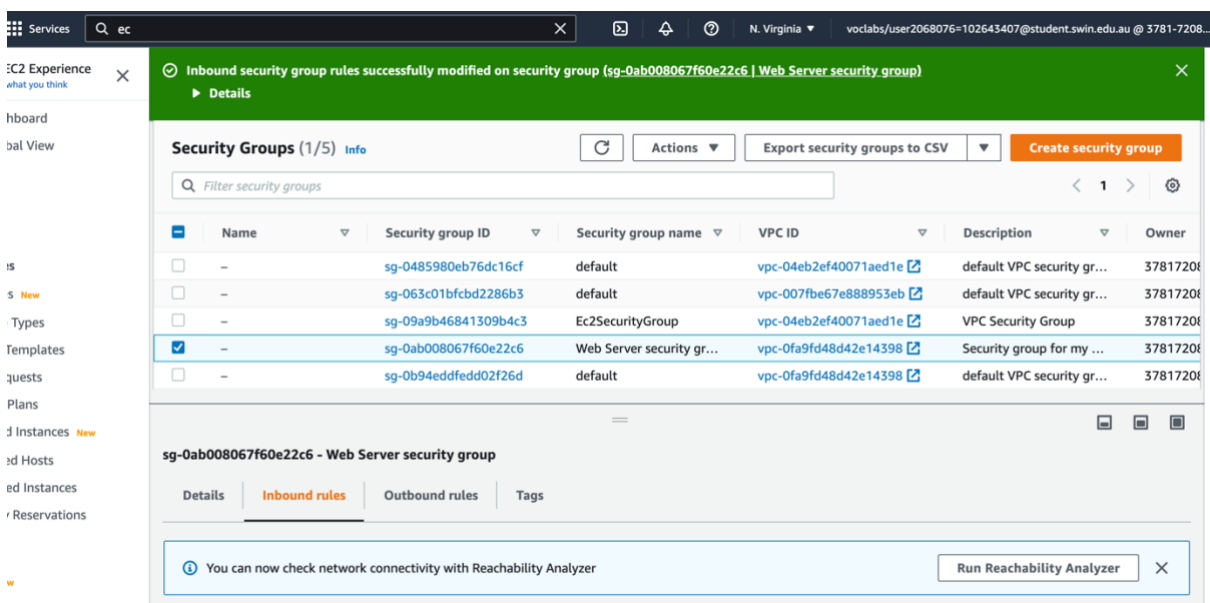
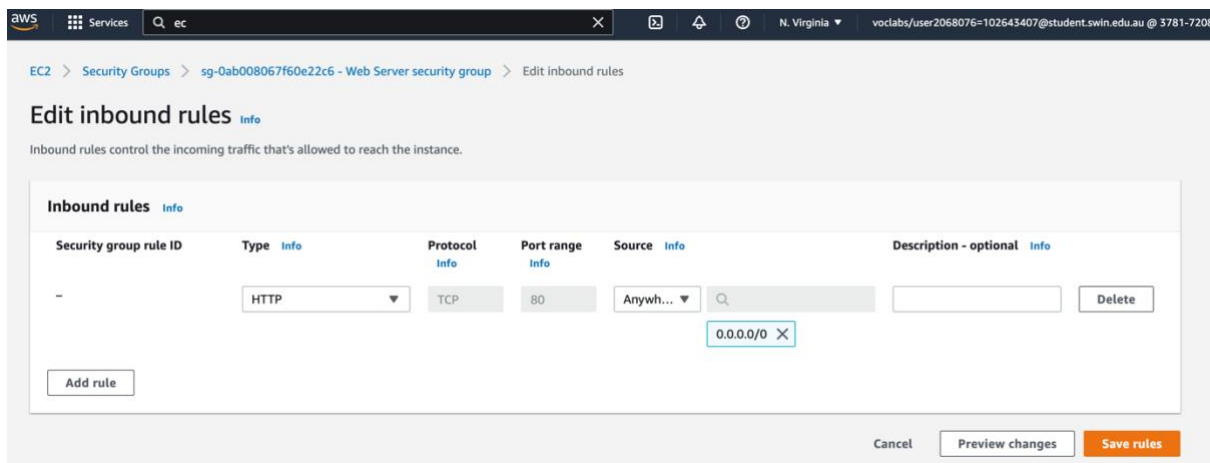
Successfully launching an instance



Enlarge a graph in monitoring tab



Screenshot of E2C instance console



Successfully modify security group

Successfully stopped i-04871713c8a724808

Instances (2) Info

Search

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Publ
<input type="checkbox"/>	Web Server	i-04871713c8a724808	Stopped	t2.micro	-	No alarms	us-east-1a	-
<input type="checkbox"/>	Bastion Host	i-008907d747f8c1aa6	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2-

Stop an instance state to resize instance

EC2 > Instances > i-04871713c8a724808 > 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-04871713c8a724808 (Web Server)

Current instance type
t2.micro

Instance type
t2.small

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

Cancel Apply

Change instance type

EC2 > Volumes > vol-0d699133664483692 > Modify volume

Modify volume Info

Modify the type, size, and performance of an EBS volume.

Volume details

Volume ID
vol-0d699133664483692

Volume type
General Purpose SSD (gp2)

Size (GiB)
10
Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS
100/3000
Baseline of 3 IOPS per GiB with a minimum of 100 IOPS, burstable to 3000 IOPS.

Cancel Modify

Increase the size of the disk

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EC2 Experience

Dashboard Global View

Instances (2) Info

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP address
<input type="checkbox"/>	Web Server	i-04871713c8a724808	Running	t2.small	Initializing	No alarms +	us-east-1a	ec2-18-154-203-100.us-east-1.amazonaws.com
<input type="checkbox"/>	Bastion Host	i-008907d747f8c1aa6	Running	t2.micro	2/2 checks passed	No alarms +	us-east-1a	ec2-18-154-203-100.us-east-1.amazonaws.com

Select an instance

Run the instance again

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EC2 Experience

Dashboard Global View

Auto scaling limits: There was an error loading the limits

Limits

<input type="checkbox"/>	Name	Limit type	Current limit	Description
<input type="checkbox"/>	Security groups per instance	Running instances	8	The number of security groups per instance
<input type="checkbox"/>	Security groups	Running instances	-	The total number of security groups for this Region.
<input type="checkbox"/>	Reserved Instances	Running instances	20	The total number of instances corresponding to new res...
<input type="checkbox"/>	Running On-Demand All Trn I...	Running instances	0 vCPUs	Running On-Demand Trn instances
<input type="checkbox"/>	Running On-Demand All Stan...	Running instances	256 vCPUs	Running On-Demand Standard (A, C, D, H, I, M, R, T, Z) I...
<input type="checkbox"/>	Running On-Demand All DL in...	Running instances	96 vCPUs	Running On-Demand DL instances
<input type="checkbox"/>	Running On-Demand All High...	Running instances	0 vCPUs	Running On-Demand High Memory instances
<input type="checkbox"/>	Running On-Demand All X ins...	Running instances	0 vCPUs	Running On-Demand X instances
<input type="checkbox"/>	Running On-Demand All F ins...	Running instances	64 vCPUs	Running On-Demand F instances
<input type="checkbox"/>	Running On-Demand All Inf in...	Running instances	8 vCPUs	Running On-Demand Inf instances
<input type="checkbox"/>	Running On-Demand All P ins...	Running instances	0 vCPUs	Running On-Demand P instances

Explore limit

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EC2 Experience

Dashboard Global View

Successfully removed termination protection for instance i-04871713c8a724808. The instance can be terminated.

Instances (1/2) Info

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP address
<input checked="" type="checkbox"/>	Web Server	i-04871713c8a724808	Running	t2.small	Initializing	No alarms +	us-east-1a	ec2-18-154-203-100.us-east-1.amazonaws.com
<input type="checkbox"/>	Bastion Host	i-008907d747f8c1aa6	Running	t2.micro	2/2 checks passed	No alarms +	us-east-1a	ec2-18-154-203-100.us-east-1.amazonaws.com

Instance: i-04871713c8a724808 (Web Server)

Details Security Networking

Instance summary info

Instance ID: i-04871713c8a724808 (Web Server)

Termination protection

☐ Enable

Change termination protection status

Services ec

EC2 Experience

Successfully removed termination protection for instance i-04871713c8a724808. The instance can be terminated.

Successfully terminated i-04871713c8a724808

Instances (2) Info

Search

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
<input type="checkbox"/>	Web Server	i-04871713c8a724808	Shutting-down	t2.small	-	No alarms +	us-east-1a	ec2-
<input type="checkbox"/>	Bastion Host	i-008907d747f8c1aa6	Running	t2.micro	2/2 checks passed	No alarms +	us-east-1a	ec2-

Select an instance

Successfully terminate an instance

Details AWS Start Lab End Lab 00:00:00 Instructions

End Lab

Region: us-east-1
Lab ID: arn:aws:cloudformation:us-east-1:378172084866:stack/c58971a104958312520368t1w378172084866/7f26eeb0-22e0-11ed-80df-12d3c1165e55
Creation Time: 2022-08-23T05:38:32-0700
You may close this message box now. Lab resources are terminating ...

Additional Resources

End lab