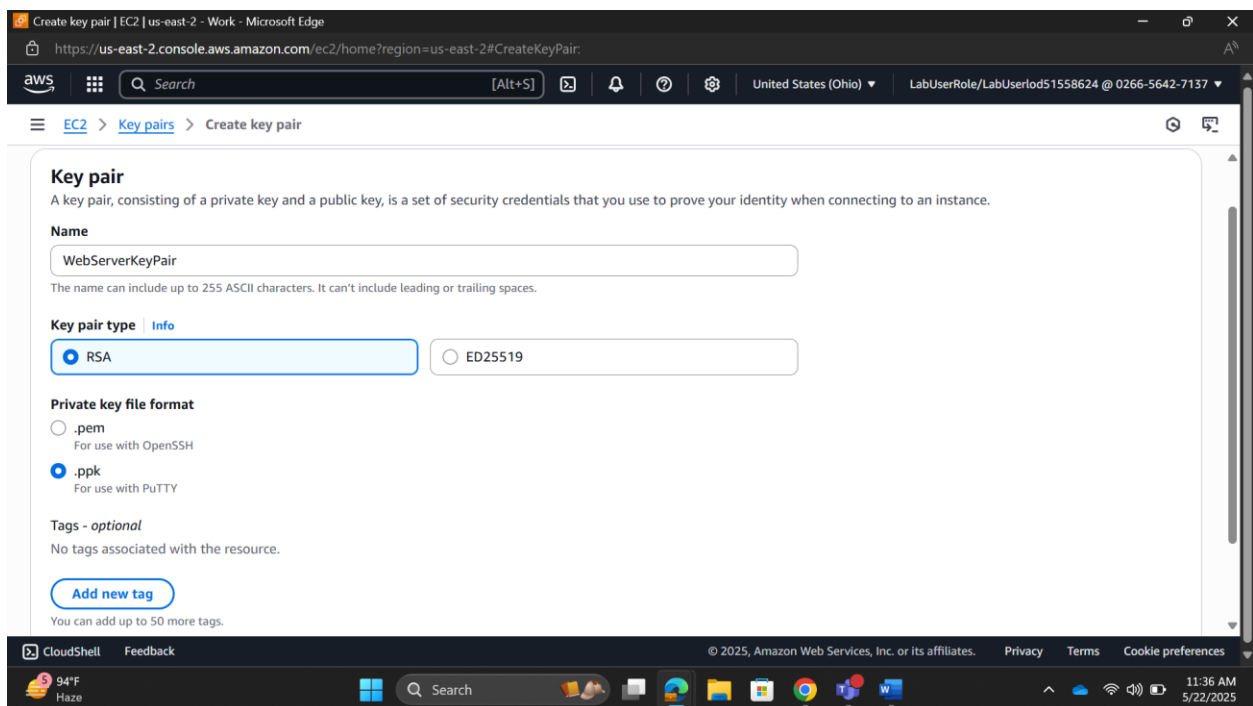


Lab 1: Create and Configure an EC2 Instance

In this challenge, you will create an EC2 instance that contains an Apache web server. First, you will create a key pair to allow remote access to the server. Next, you will create a security group that allows SSH and HTTP traffic. Finally, you will create an EC2 instance that uses a user data script to install an Apache web server, and then you will test the web server. Note: Once you begin the challenge, you will not be able to pause, save, or exit and then return to your challenge. Please ensure that you have set aside enough time to complete the challenge before you start.

Task 1: Create Key Pair

EC2 -> Network and Security -> Key Pair -> Create key pair



Click on create key pair and file will be downloaded automatically

Task 2: Create Security Group

EC2 -> Network and Security -> Security Groups -> Create security group

CreateSecurityGroup | EC2 | us-east-2 - Work - Microsoft Edge

https://us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateSecurityGroup:

aws [Search] [Alt+S] United States (Ohio) LabUserRole/LabUserIod51558624 @ 0266-5642-7137

EC2 > Security Groups > Create security group

Create security group [Info](#)

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Basic details

Security group name [Info](#)

Name cannot be edited after creation.

Description [Info](#)

VPC [Info](#)

Inbound rules

This security group has no inbound rules.

[Add rule](#)

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CreateSecurityGroup | EC2 | us-east-2 - Work - Microsoft Edge

https://us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateSecurityGroup:

aws [Search] [Alt+S] United States (Ohio) LabUserRole/LabUserIod51558624 @ 0266-5642-7137

EC2 > Security Groups > Create security group

Create security group [Info](#)

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Inbound rules

Type	Protocol	Port range	Source	Description - optional
SSH	TCP	22	A... 0.0.0.0/0	Delete
HTTP	TCP	80	A... 0.0.0.0/0	Delete

[Add rule](#)

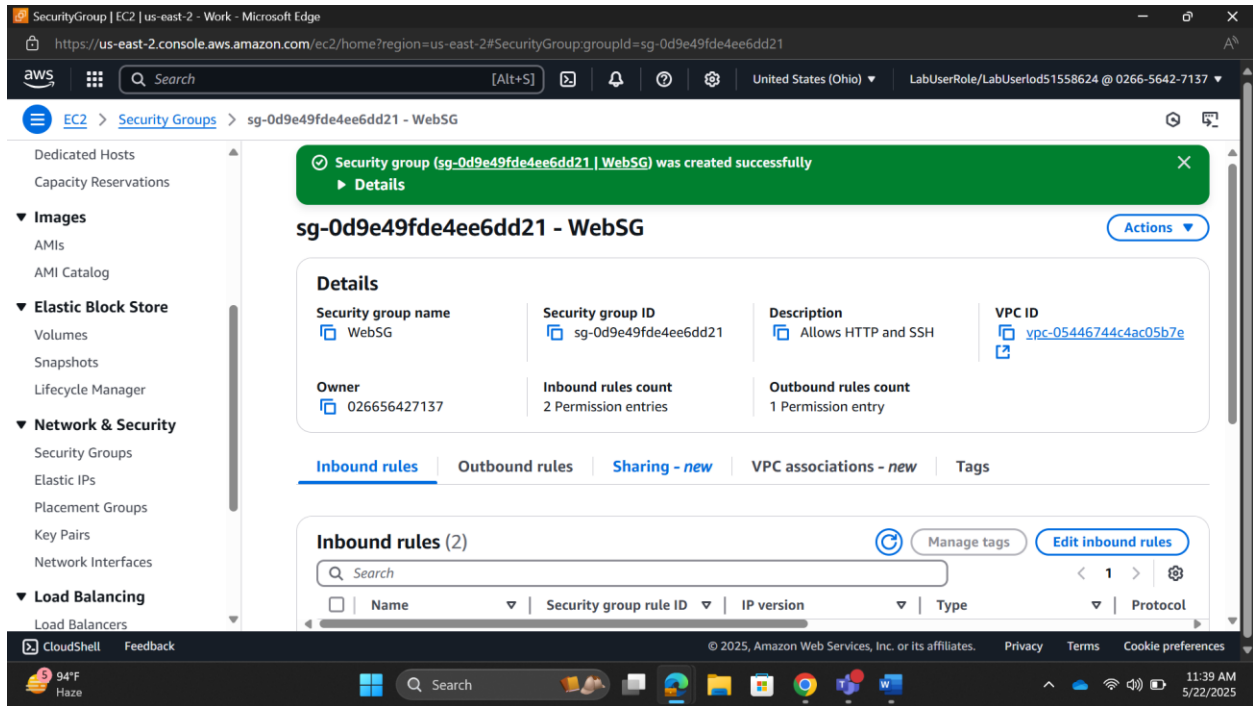
⚠ Rules with source of 0.0.0.0/0 or :::0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Outbound rules

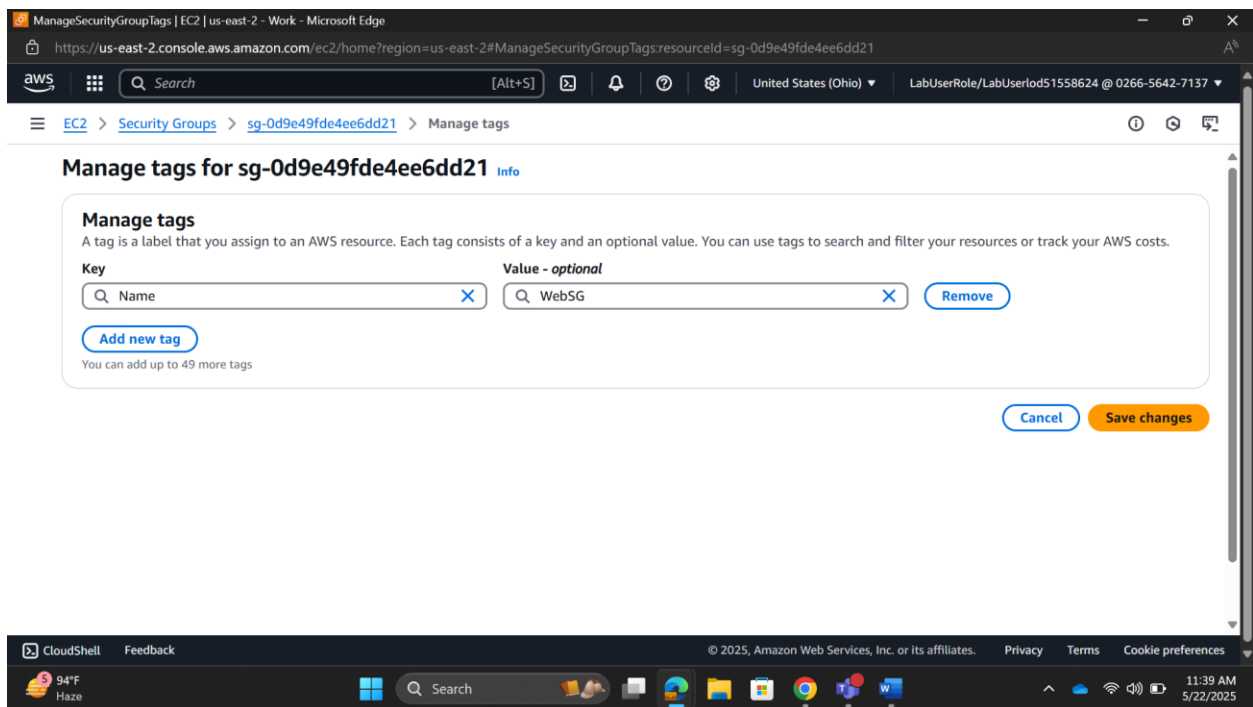
Type	Protocol	Port range	Destination	Description - optional
------	----------	------------	-------------	------------------------

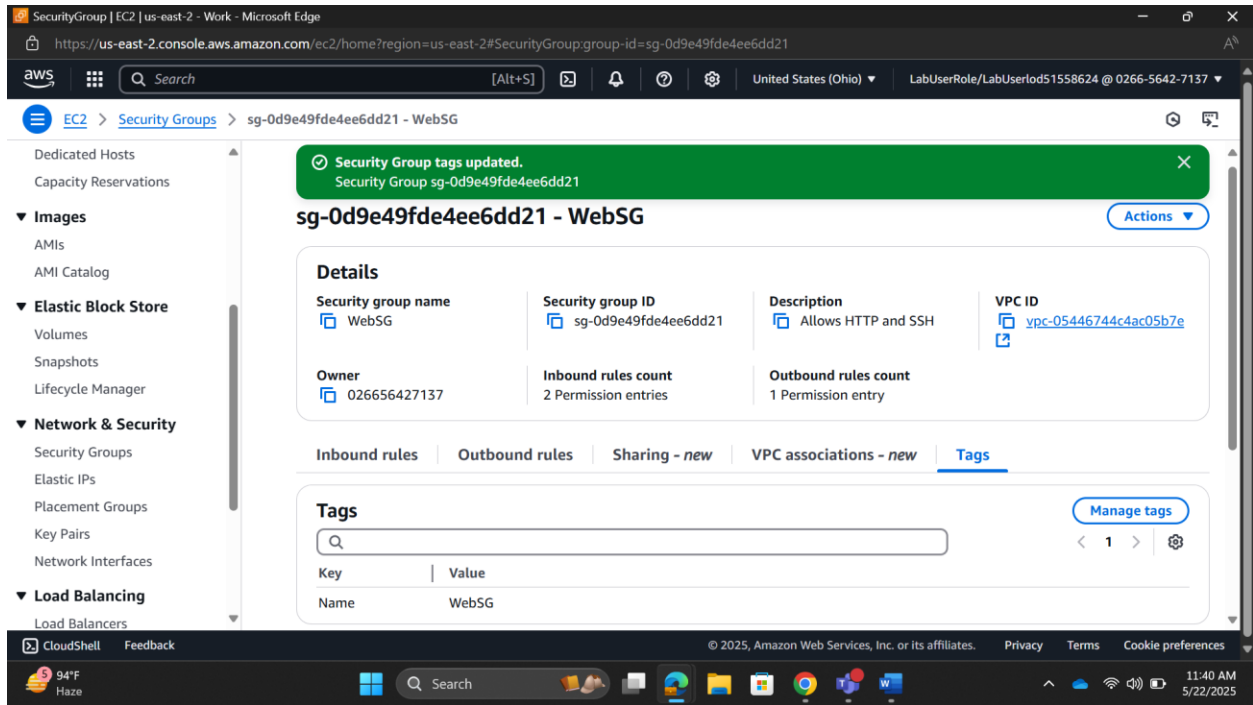
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Click create security group



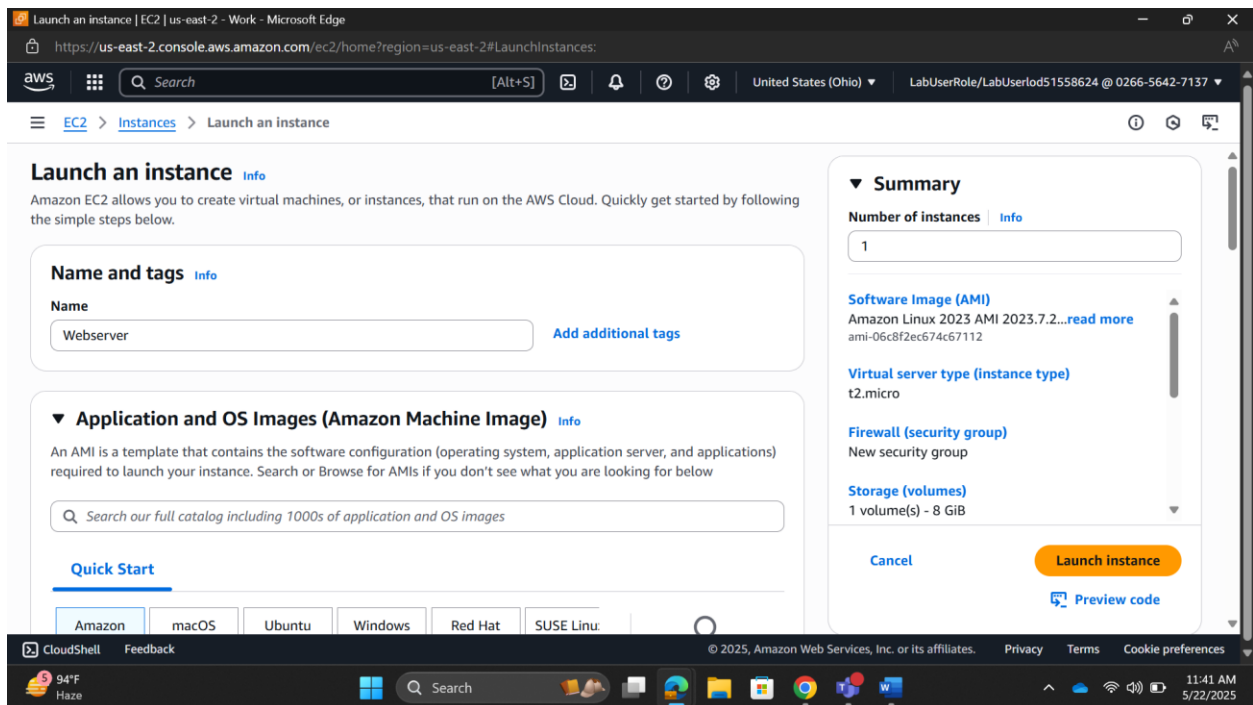
Click Tags tab -> Manage Tags -> Add Tags -> Enter the values -> Save Changes





Task 3: Launch an EC2 instance

EC2 -> Instances -> Launch Instances



Launch an instance | EC2 | us-east-2 - Work - Microsoft Edge

https://us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#LaunchInstances:

aws

Search

[Alt+S]

United States (Ohio)

LabUserRole/LabUserlod51558624 @ 0266-5642-7137

EC2 > Instances > Launch an instance

Linux

Mac

ubuntu

Microsoft

Red Hat

SUSE

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Free tier eligible

Amazon Linux 2023 AMI

ami-06c8f2ec674c67112 (64-bit (x86), uefi-preferred) / ami-0aa527419c9e68f0b (64-bit (Arm), uefi)

Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Amazon Linux 2023 is a modern, general purpose Linux-based OS that comes with 5 years of long term support. It is optimized for AWS and designed to provide a secure, stable and high-performance execution environment to develop and run your cloud applications.

Amazon Linux 2023 AMI 2023.7.20250512.0 x86_64 HVM kernel-6.1

Architecture

64-bit ...

Boot mode

uefi-preferred

AMI ID

ami-06c8f2ec674c67112

Publish Date

2025-05-09

Username

ec2-user

Verified provider

Summary

Number of instances

Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.7.2...read more

ami-06c8f2ec674c67112

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Cancel

Launch instance

Preview code

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Search

11:42 AM 5/22/2025

Launch an instance | EC2 | us-east-2 - Work - Microsoft Edge

https://us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#LaunchInstances:

aws

Search

[Alt+S]

United States (Ohio)

LabUserRole/LabUserlod51558624 @ 0266-5642-7137

EC2 > Instances > Launch an instance

Instance type

Info | Get advice

Instance type

t2.micro

Family: t2 1 vCPU 1 GiB Memory Current generation: true

On-Demand Ubuntu Pro base pricing: 0.0134 USD per Hour

On-Demand Linux base pricing: 0.0116 USD per Hour

On-Demand SUSE base pricing: 0.0116 USD per Hour

On-Demand Windows base pricing: 0.0162 USD per Hour

On-Demand RHEL base pricing: 0.026 USD per Hour

Free tier eligible

All generations

Compare instance types

Additional costs apply for AMIs with pre-installed software

Key pair (login)

Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

WebServerKeyPair

Create new key pair

Network settings

Info

Edit

Summary

Number of instances

Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.7.2...read more

ami-06c8f2ec674c67112

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Cancel

Launch instance

Preview code

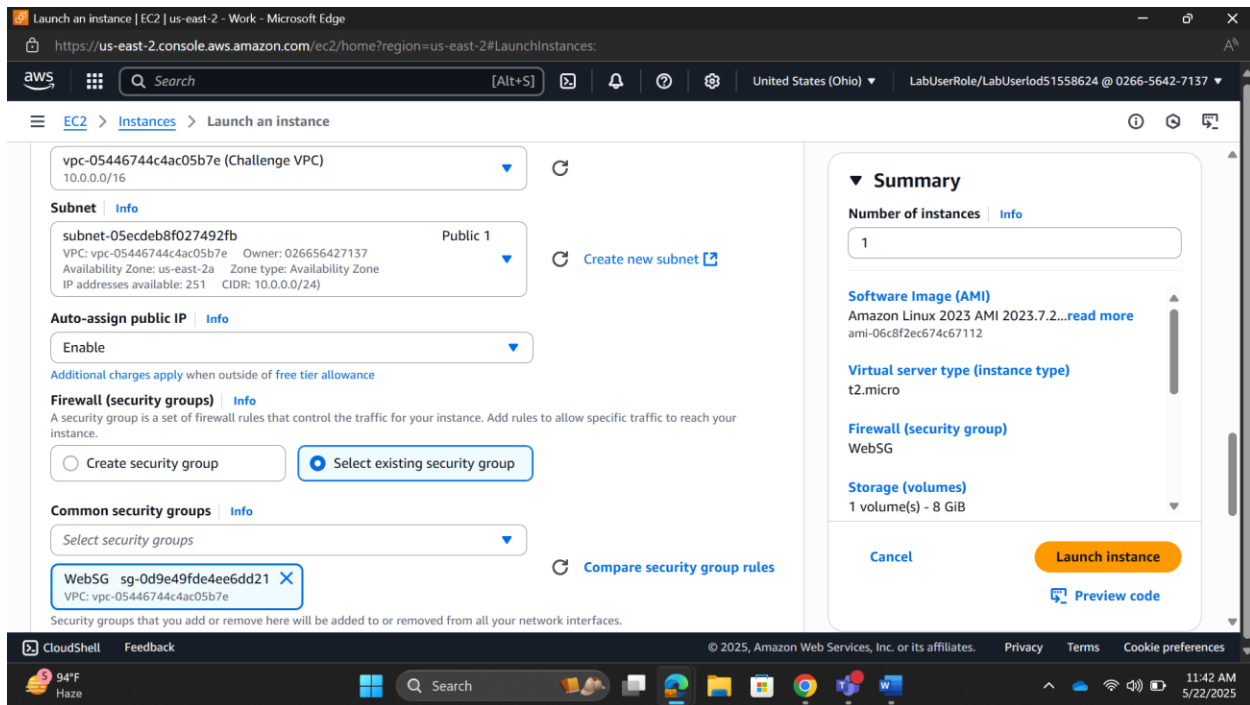
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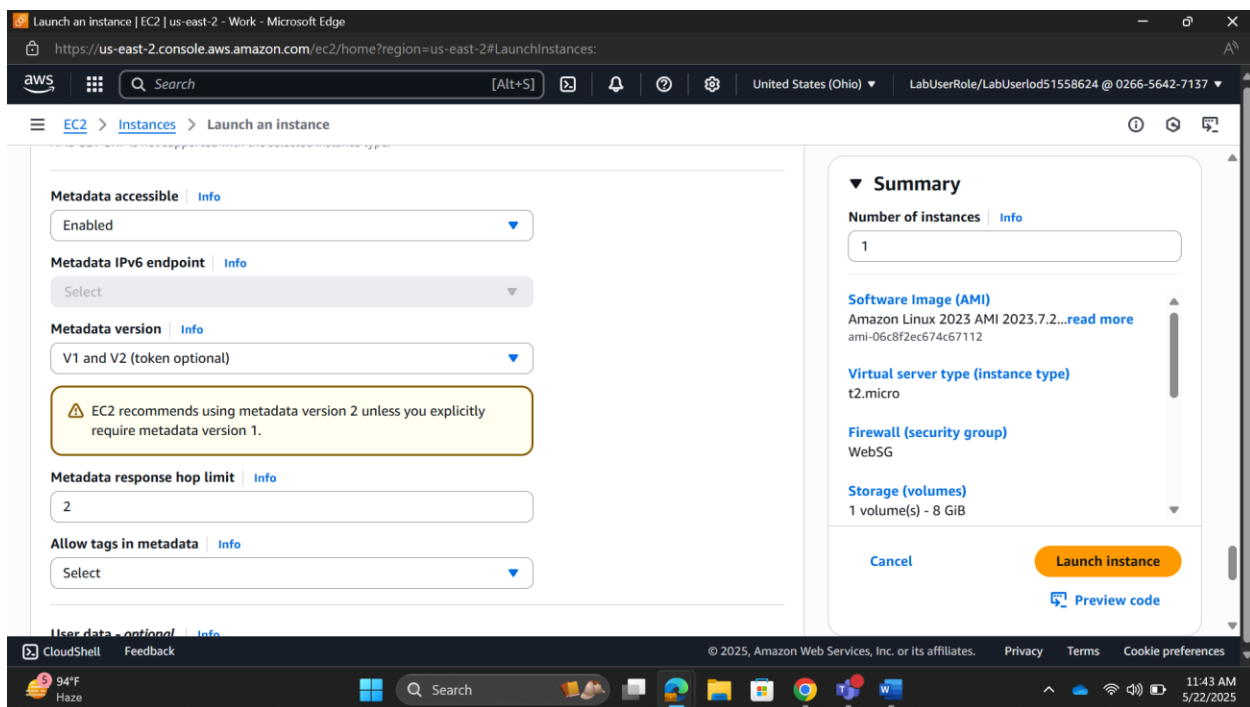
94°F Haze

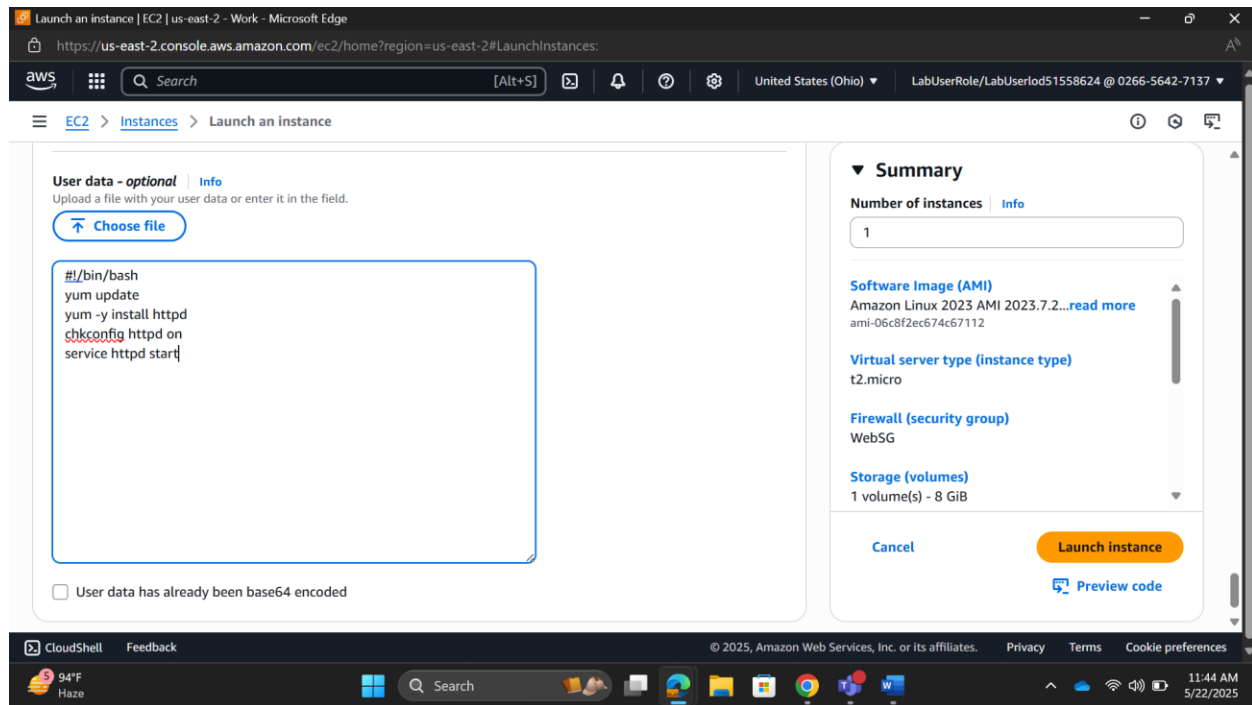
Search

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Select Metadata version





```
#!/bin/bash
```

```
yum update
```

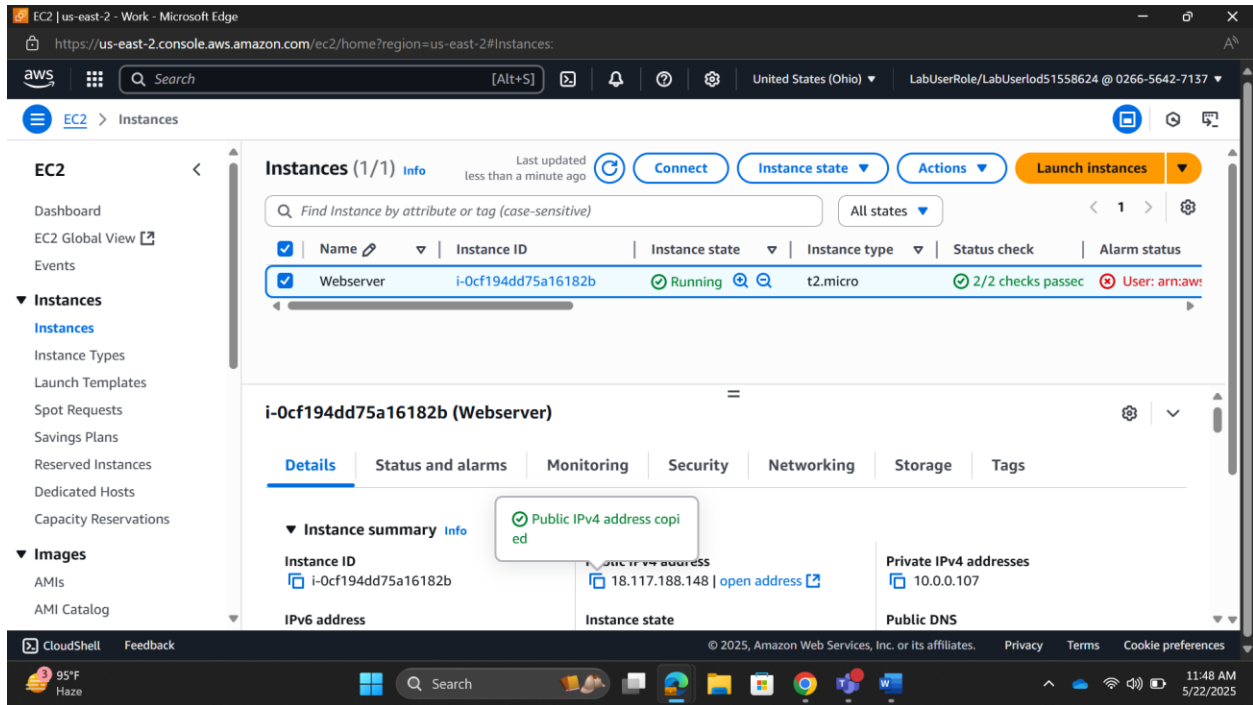
```
yum -y install httpd
```

```
chkconfig httpd on
```

```
service httpd start
```

Click Launch Instance and wait until you get status check as 2/2 check passed. Till then refresh timely.

Copy the IPv4 public address to check whether the instance is working properly or not on browser.



18.117.188.148

Write this address in browser with http// and run it ... don't use https// - not supported




It works!



labclient.labondemand.com/instructions/ExamResult/6b9924ad-aca9-4ca8-a8f4-b1ae3d1bc37e - Work - Microsoft Edge
https://labclient.labondemand.com/instructions/ExamResult/6b9924ad-aca9-4ca8-a8f4-b1ae3d1bc37e

Amazing work! [Print](#)

Enjoy the success you've worked so hard to achieve!



Areas where you excelled

- **Create a key pair**
After completing this section, it's obvious you know what you're talking about.
- **Create a security group**
Looks like you have a strong grasp on this material.
- **Create an EC2 instance**

Air: Very Poor Now
Search
11:54 AM 5/22/2025

You are done with the Lab!!!!