# 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
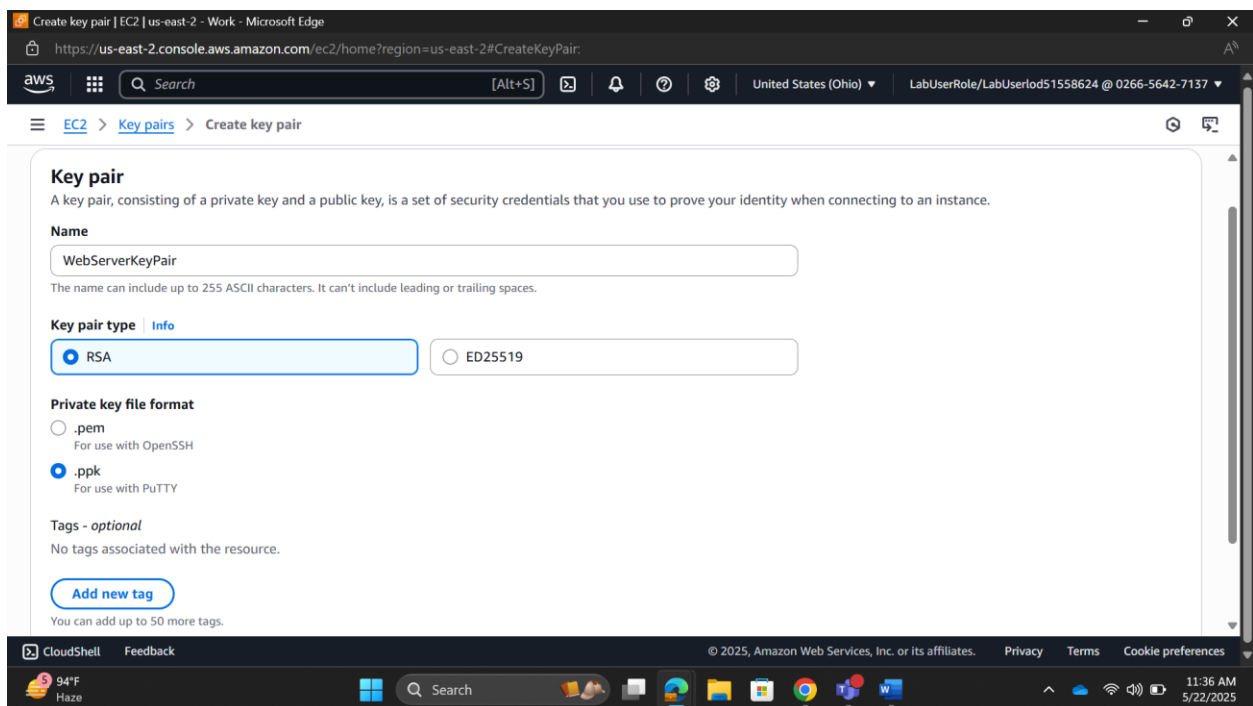
Click on create key pair and file will be downloaded automatically

Task 2: Create Security Group

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

Click create security group

Click Tags tab -> Manage Tags -> Add Tags -> Enter the values -> Save Changes
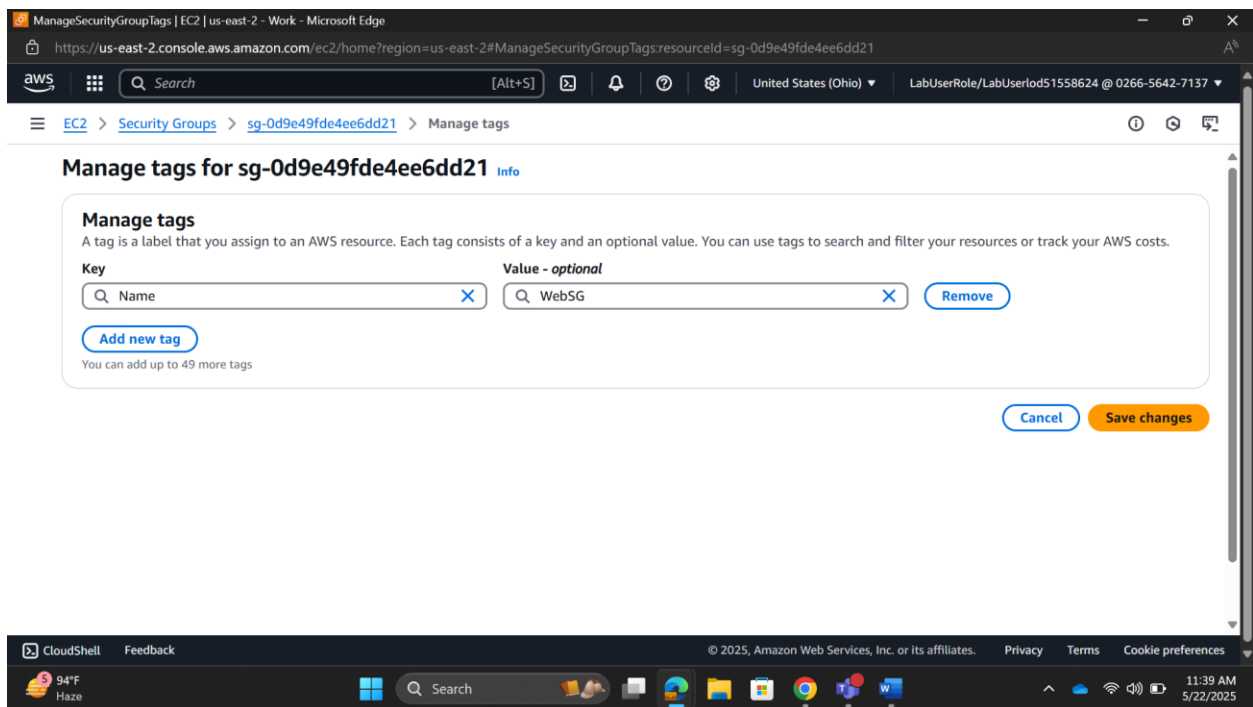
Task 3: Launch an EC2 instance

EC2 -> Instances -> Instances -> Launch Instances

Screenshot 1:

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:

Search [Alt+S]

United States (Ohio) ▼   LabUserRole/LabUserlod51558624 @ 0266-5642-7137 ▼

EC2 > Instances > Launch an instance

Linux
aws | Mac | ubuntu | Microsoft | Red Hat | SUSE

Browse more AMIs
Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI   Free tier eligible
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	Boot mode	AMI ID	Publish Date	Username ⓘ
64-bit ... ▼	uefi-preferred	ami-06c8f2ec674c67112	2025-05-09	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

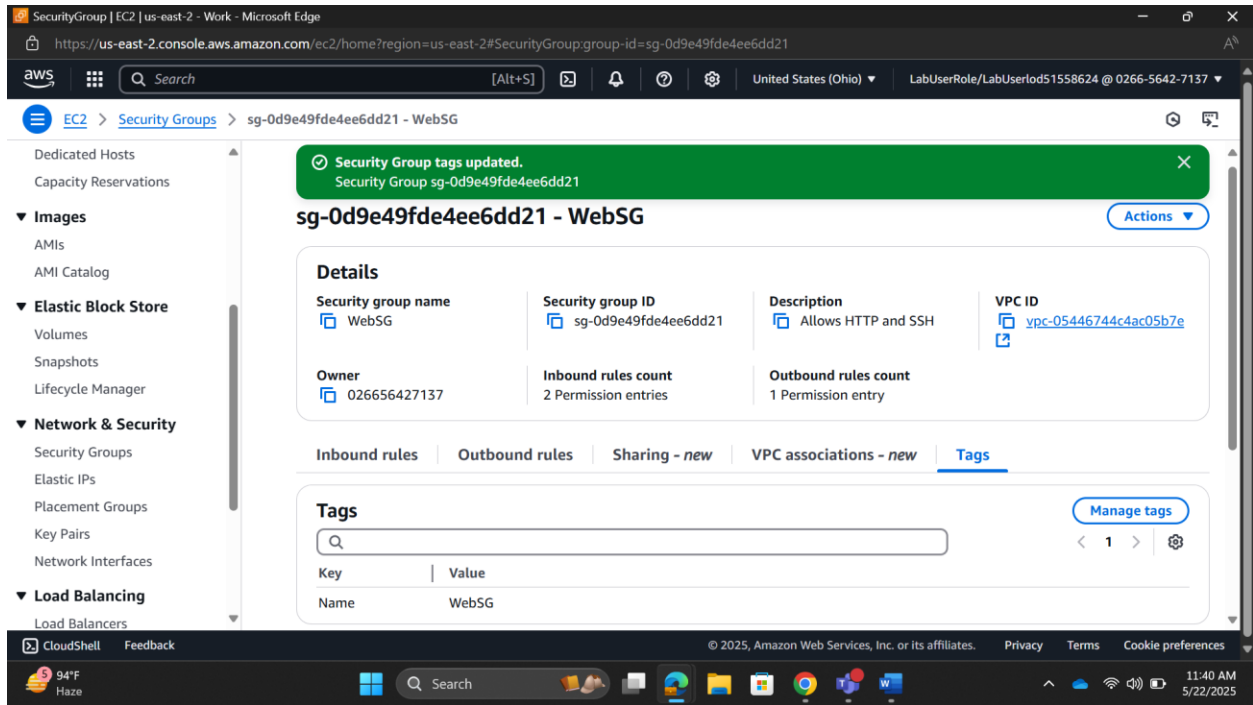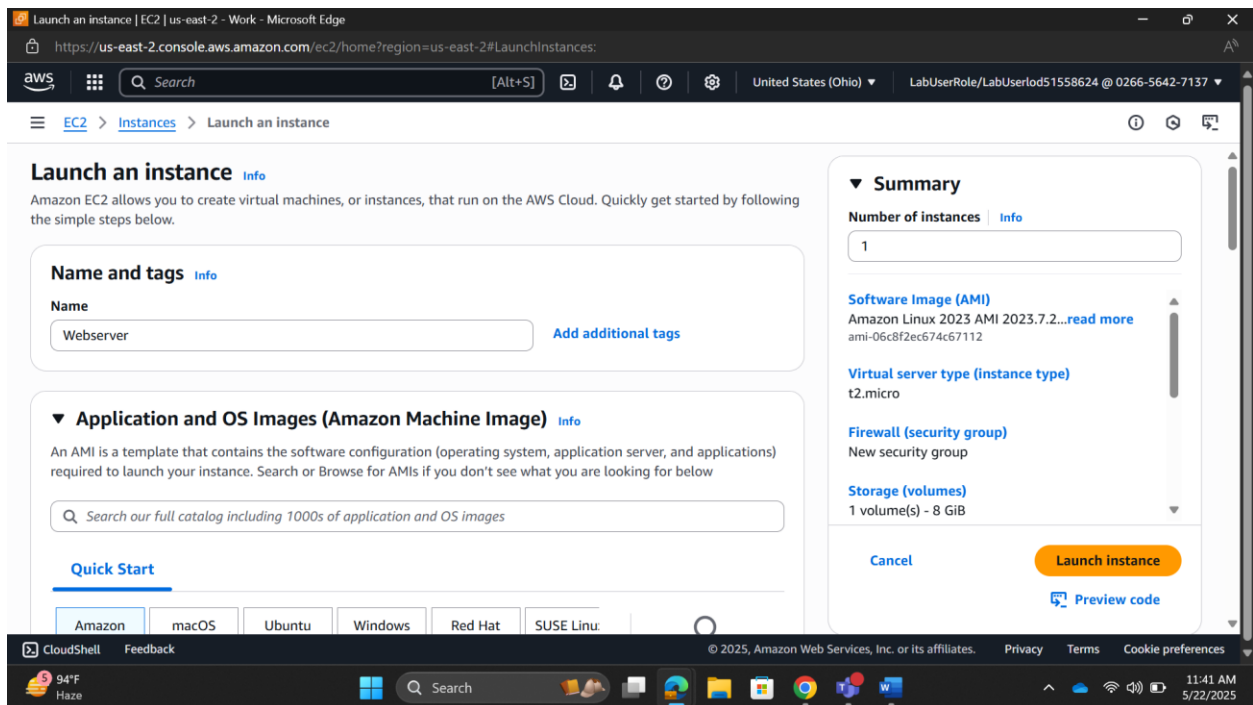Cancel   **Launch instance**

🖥 Preview code

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94°F Haze   Search   11:42 AM 5/22/2025

Screenshot 2:

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:

Search [Alt+S]

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EC2 > Instances > Launch an instance

▼ Instance type Info | Get advice

Instance type

t2.micro   Free tier eligible
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

⚪ 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**

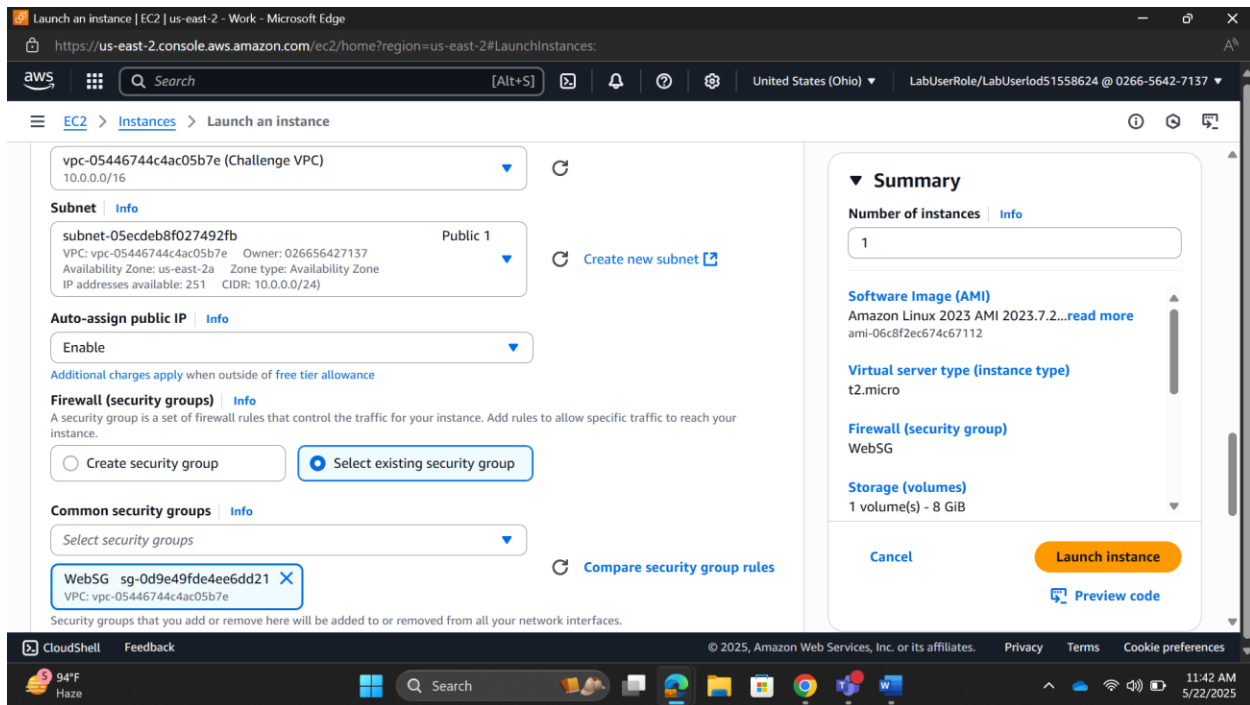🖥 Preview code

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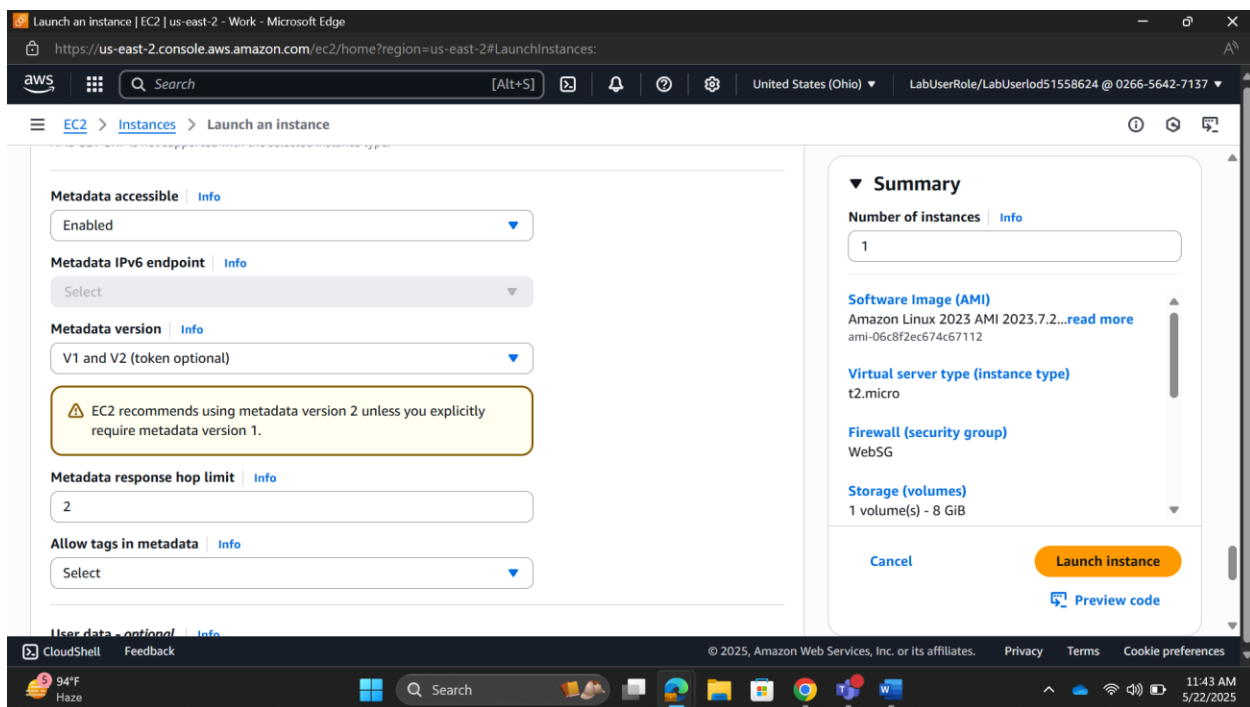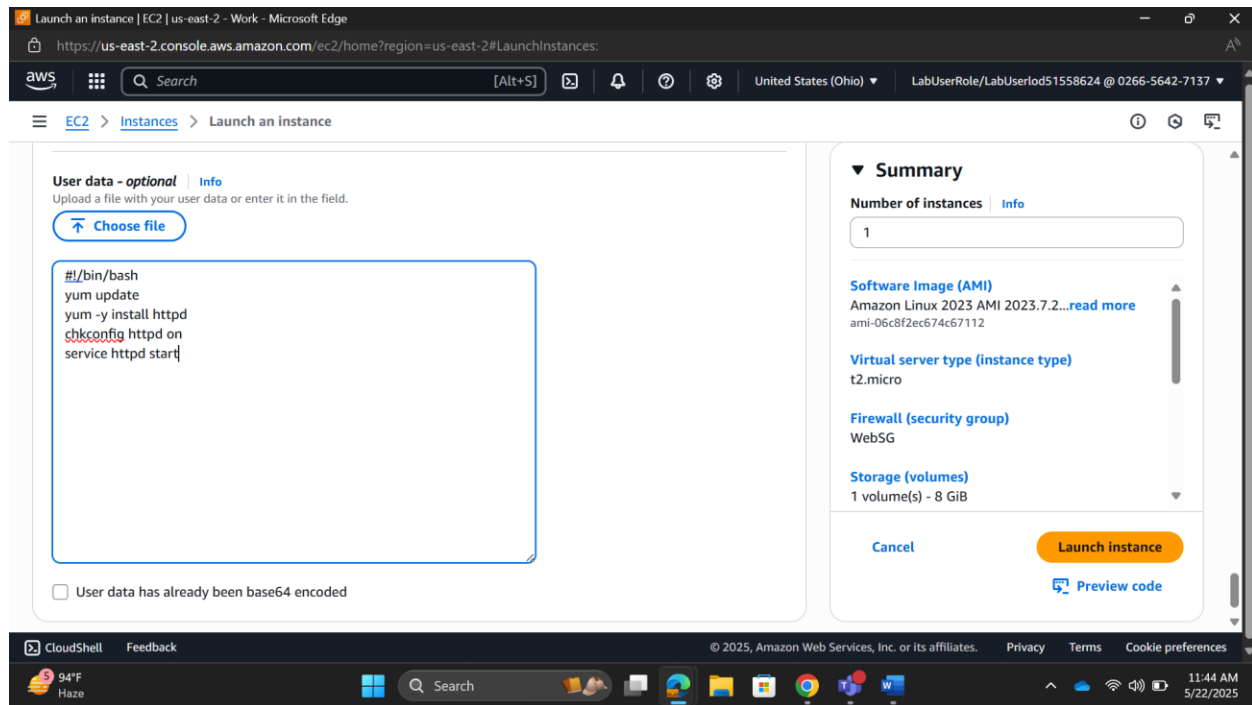
94°F Haze   Search   11:42 AM 5/22/2025
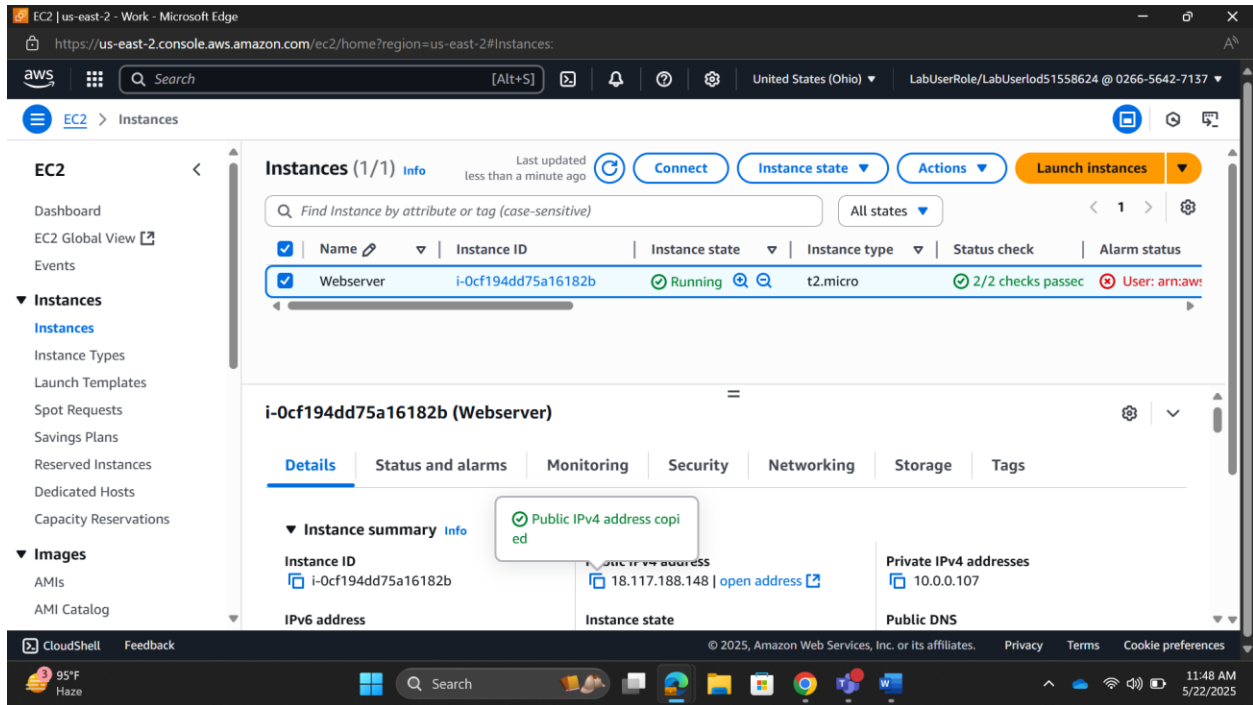
Select Metadata version

#!/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!

You are done with the Lab!!!!