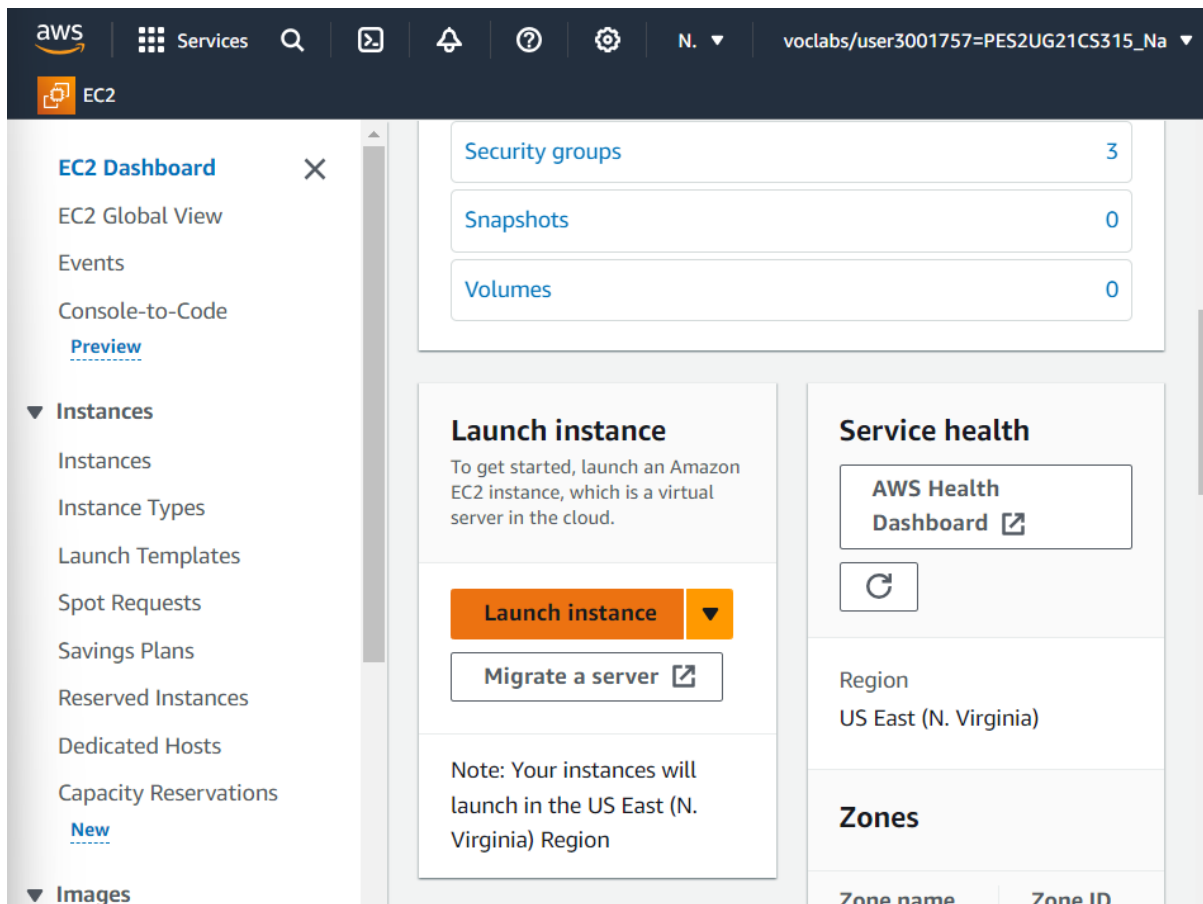


NAME : NAGAVENI L G

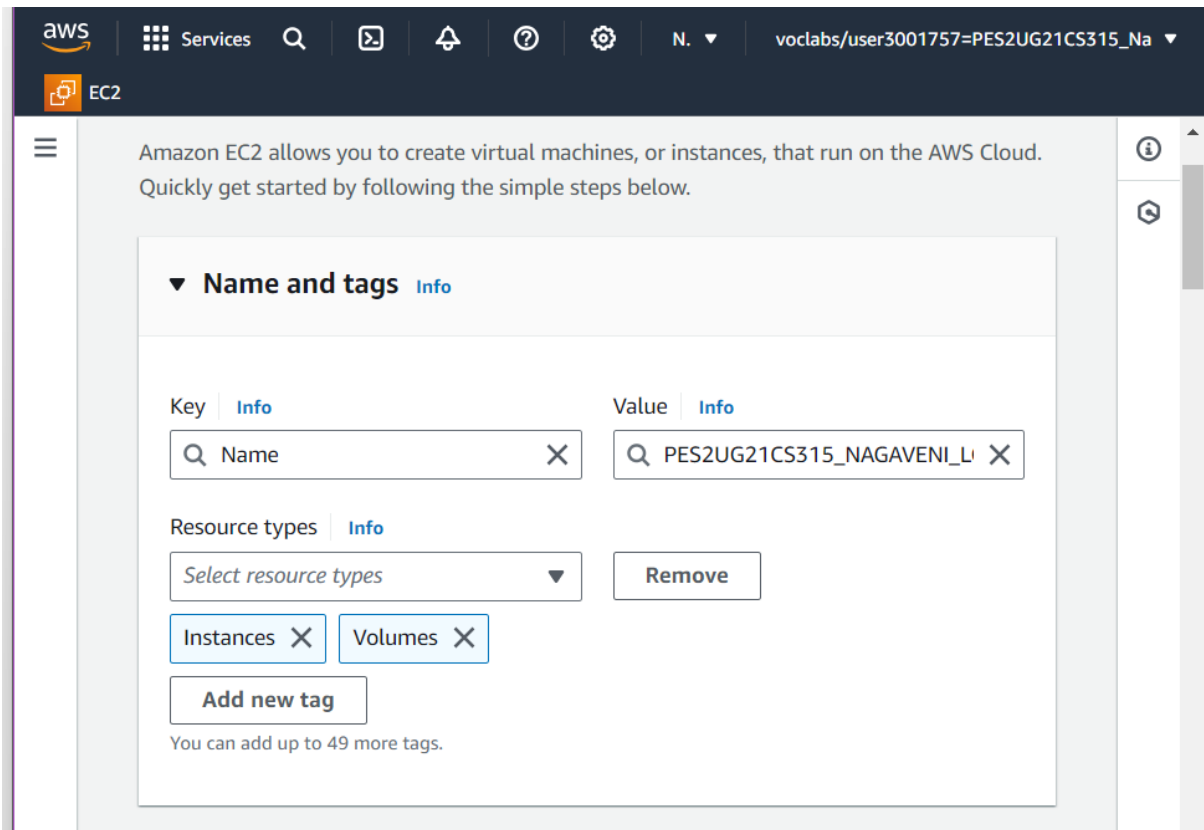
SRN : PES2UG21CS315

SEC : 6F

## Task 1: Launching your EC2 instance

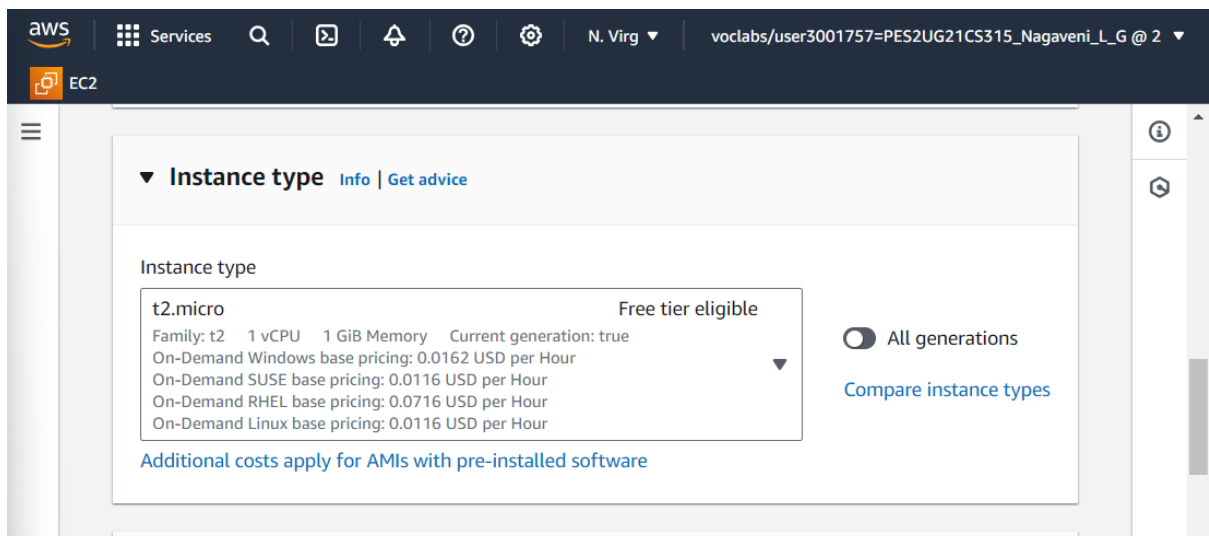


Step 1: Name your EC2 instance



Step 2: Choose an AMI

Step 3: Choose an instance type



Step 4: Configure a key pair

The screenshot shows the AWS Management Console interface for configuring an EC2 instance. The top navigation bar includes the AWS logo, 'Services' menu, search bar, and user profile 'voclabs/user3001757=PES2UG21CS315\_Nagaveni\_L\_G @ 2'. The left sidebar shows the 'EC2' icon. The main content area is titled 'Instance type' and features a dropdown menu set to 't2.micro'. To the right of the dropdown, it says 'Free tier eligible'. Below the dropdown, a list of specifications is shown: 'Family: t2', '1 vCPU', '1 GiB Memory', and 'Current generation: true'. Pricing information for various operating systems is also listed. A 'Compare instance types' link is present. Below this section, the 'Key pair (login)' section is expanded, showing a message about using a key pair for secure connection. A 'Key pair name - required' field has a dropdown menu with 'Proceed without a key pair (Not recommended)' selected. A 'Create new key pair' button is also visible.

**Instance type**

t2.micro Free tier eligible

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

On-Demand Windows base pricing: 0.0162 USD per Hour

On-Demand SUSE base pricing: 0.0116 USD per Hour

On-Demand RHEL base pricing: 0.0716 USD per Hour

On-Demand Linux base pricing: 0.0116 USD per Hour

[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*

Proceed without a key pair (Not recommended) Default value ▼ [Create new key pair](#)

For Windows instances, you use a key pair to decrypt the administrator password. You then use the decrypted password to connect to your instance.

## Step 5: Configure the network settings

The screenshot shows the 'Network settings' section of the AWS Management Console. The top navigation bar and left sidebar are consistent with the previous screenshot. The main content area is titled 'Network settings'. The 'VPC - required' dropdown is set to 'vpc-01973895a1bf70b54 (Lab VPC)'. Below this, the 'Subnet' dropdown is set to 'subnet-09ea2f01a8f532db9 PublicSubnet1'. A 'Create new subnet' button is visible. The 'Auto-assign public IP' dropdown is set to 'Enable'. The 'Firewall (security groups)' section shows a message about security groups and two buttons: 'Create security group' and 'Select existing security group'. The 'Common security groups' dropdown is set to 'Web Server security group sg-0f552e7a49f18224d'. A 'Compare security group rules' button is also present.

**▼ Network settings** [Info](#)

**VPC - required** [Info](#)

vpc-01973895a1bf70b54 (Lab VPC)  
10.0.0.0/16

**Subnet** [Info](#)

subnet-09ea2f01a8f532db9 PublicSubnet1

VPC: vpc-01973895a1bf70b54 Owner: 272355783894

Availability Zone: us-east-1a IP addresses available: 251 CIDR: 10.0.1.0/24

[Create new subnet](#)

**Auto-assign public IP** [Info](#)

Enable

**Firewall (security groups)** [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☐ Create security group ☒ Select existing security group

**Common security groups** [Info](#)

Select security groups

Web Server security group sg-0f552e7a49f18224d ×

VPC: vpc-01973895a1bf70b54

[Compare security group rules](#)

## Step 6: Add storage

The screenshot shows the AWS Management Console interface for configuring an EC2 instance. The top navigation bar includes the AWS logo, 'Services', a search bar, and a user profile dropdown. The main header shows 'EC2' and a breadcrumb for 'Advanced network configuration'. The 'Configure storage' section is active, displaying a configuration for 1x 30 GiB gp2 Root volume (Not encrypted). A blue informational box states: 'Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage'. The right sidebar contains an 'Advanced' link and an 'Info' icon.

## Step 7: Configure advanced details

The screenshot shows the AWS Management Console interface for configuring an EC2 instance, specifically the 'Advanced details' section. The top navigation bar is consistent with the previous step. The main header shows 'EC2' and a breadcrumb for '0 x File systems'. The 'Advanced details' section is active, showing options for 'Domain join directory' (a dropdown menu with 'Select' and a 'Create new directory' link) and 'IAM instance profile' (a text field containing the profile name and ARN). The right sidebar contains an 'Edit' link and an 'Info' icon.

aws Services [Search] [Alt+S] N. Virginia voclabs/user3001757=PES2UG21CS315\_Nagaveni\_L\_

EC2

Select

User data - *optional* [Info](#)  
Upload a file with your user data or enter it in the field.

[Choose file](#)

```
wget https://aws-tc-largeobjects.s3.us-west-2.amazonaws.com/CUR-TF-100-EDCOMP-1-DEV/lab-01-ec2/code.zip -outfile "C:\Users\Administrator\Downloads\code.zip"
# Unzipping website code
Add-Type -AssemblyName System.IO.Compression.FileSystem
function Unzip
{
    param([string]$zipfile, [string]$outpath)
    [System.IO.Compression.ZipFile]::ExtractToDirectory($zipfile, $outpath)
}
Unzip "C:\Users\Administrator\Downloads\code.zip" "C:\inetpub\"
# Setting Administrator password
$Secure_String_Pwd = ConvertTo-SecureString "P@ssW0rd!" -AsPlainText -Force
$UserAccount = Get-LocalUser -Name "Administrator"
$UserAccount | Set-LocalUser -Password $Secure_String_Pwd
</powershell>
```

☐ User data has already been base64 encoded

## Step 8: Launch an EC2 instance

aws Services [Search] [Alt+S] N. Virginia voclabs/user3001757=PES2UG21CS315\_Nagaveni\_L\_G @ 2723-5578-3894

EC2

Instances (1/1) [Info](#) [Connect](#) [Instance state](#) [Actions](#) [Launch instances](#)

[Find Instance by attribute or tag \(case-sensitive\)](#)

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4
PES2UG21CS3...	i-0a48362f68dbbb2ab	Running	t2.micro	2/2 checks passed	<a href="#">View alarms</a>	us-east-1a	ec2-34-201-16-104.co...	34.201.16...

Instance: i-0a48362f68dbbb2ab (PES2UG21CS315\_NAGAVENI\_LG)

[Details](#) [Status and alarms](#) [Monitoring](#) [Security](#) [Networking](#) [Storage](#) [Tags](#)

▼ Instance summary [Info](#)

Instance ID i-0a48362f68dbbb2ab (PES2UG21CS315_NAGAVENI_LG)	Public IPv4 address 34.201.16.104 <a href="#">open address</a>	Private IPv4 addresses 10.0.1.134
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-34-201-16-104.compute-1.amazonaws.com <a href="#">open address</a>
Hostname type	Private IP DNS name (IPv4 only)	

aws

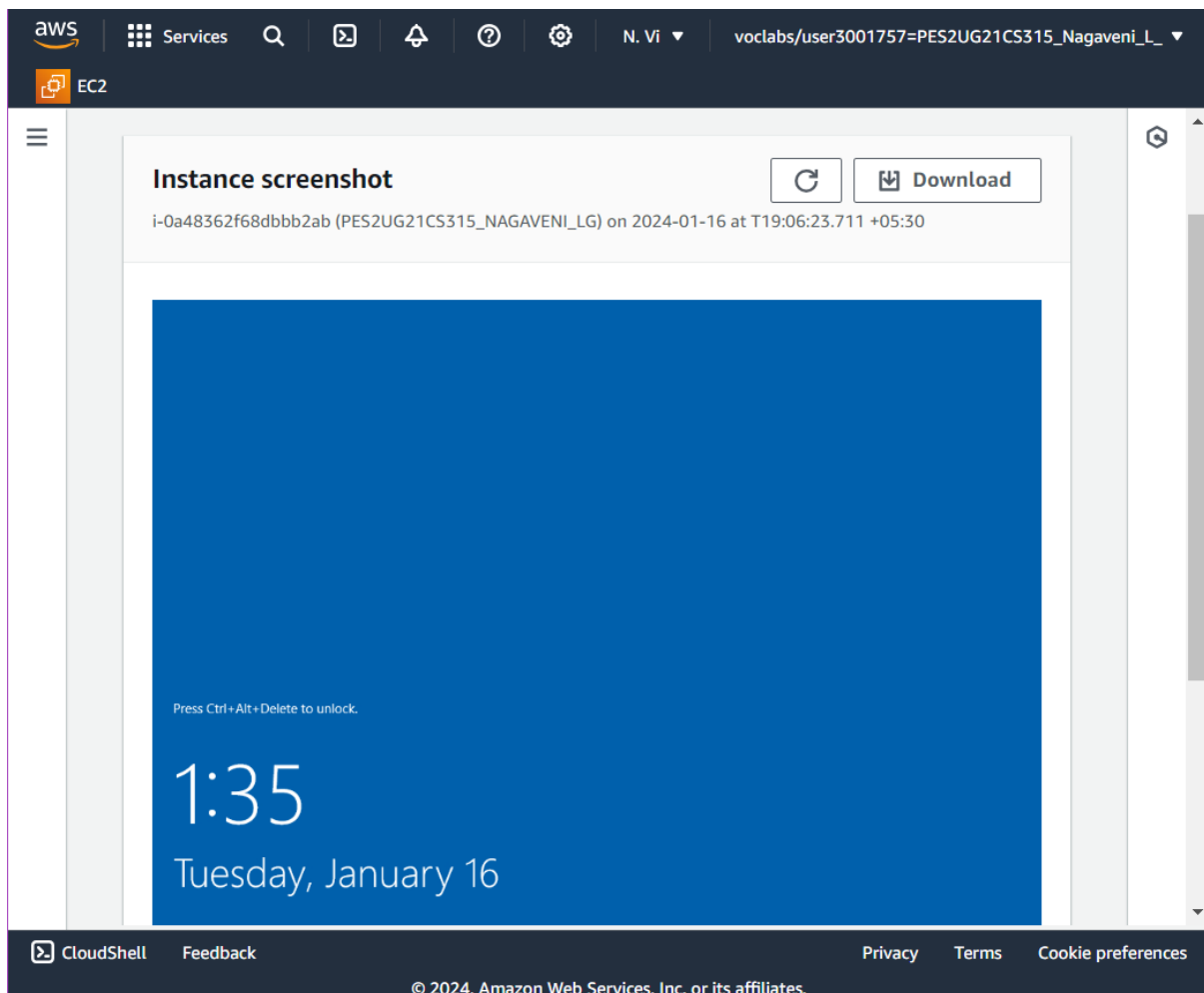
Services

N. Vi

voclabs/user3001757=PES2UG21CS315\_Nagaveni\_L\_

EC2

```
2024/01/16 13:30:25Z: Language: en-US
2024/01/16 13:30:25Z: TimeZone: Coordinated Universal Time
2024/01/16 13:30:25Z: Offset: UTC 00:00:00
2024/01/16 13:30:25Z: AMI-ID: ami-05a51e12074e45142
2024/01/16 13:30:25Z: Instance-ID: i-0a48362f68dbbb2ab
2024/01/16 13:30:25Z: Instance Type: t2.micro
2024/01/16 13:30:32Z: Driver: AWS PV Driver Package v8.4.3
2024/01/16 13:30:32Z: Launch: EC2 Launch v1.3.2004592
2024/01/16 13:30:32Z: SSM: Amazon SSM Agent v3.2.1705.0
2024/01/16 13:30:33Z: RDPCERTIFICATE-SUBJECTNAME: EC2AMAZ-JHEFC00
2024/01/16 13:30:33Z: RDPCERTIFICATE-THUMBPRINT: BD323BB8FCE2AAA6E05897B7BE0
2024/01/16 13:31:14Z: HibernationEnabled: false
2024/01/16 13:31:20Z: EC2LaunchTelemetry: IsTelemetryEnabled=true
2024/01/16 13:31:20Z: EC2LaunchTelemetry: AgentOsArch=windows_amd64
2024/01/16 13:31:20Z: EC2LaunchTelemetry: IsAgentScheduledPerBoot=false
2024/01/16 13:31:20Z: EC2LaunchTelemetry: IsUserDataScheduledPerBoot=false
2024/01/16 13:31:20Z: EC2LaunchTelemetry: AgentCommandErrorCode=0
2024/01/16 13:31:20Z: EC2LaunchTelemetry: AdminPasswordTypeCode=0
2024/01/16 13:31:20Z: Message: Windows is Ready to use
```



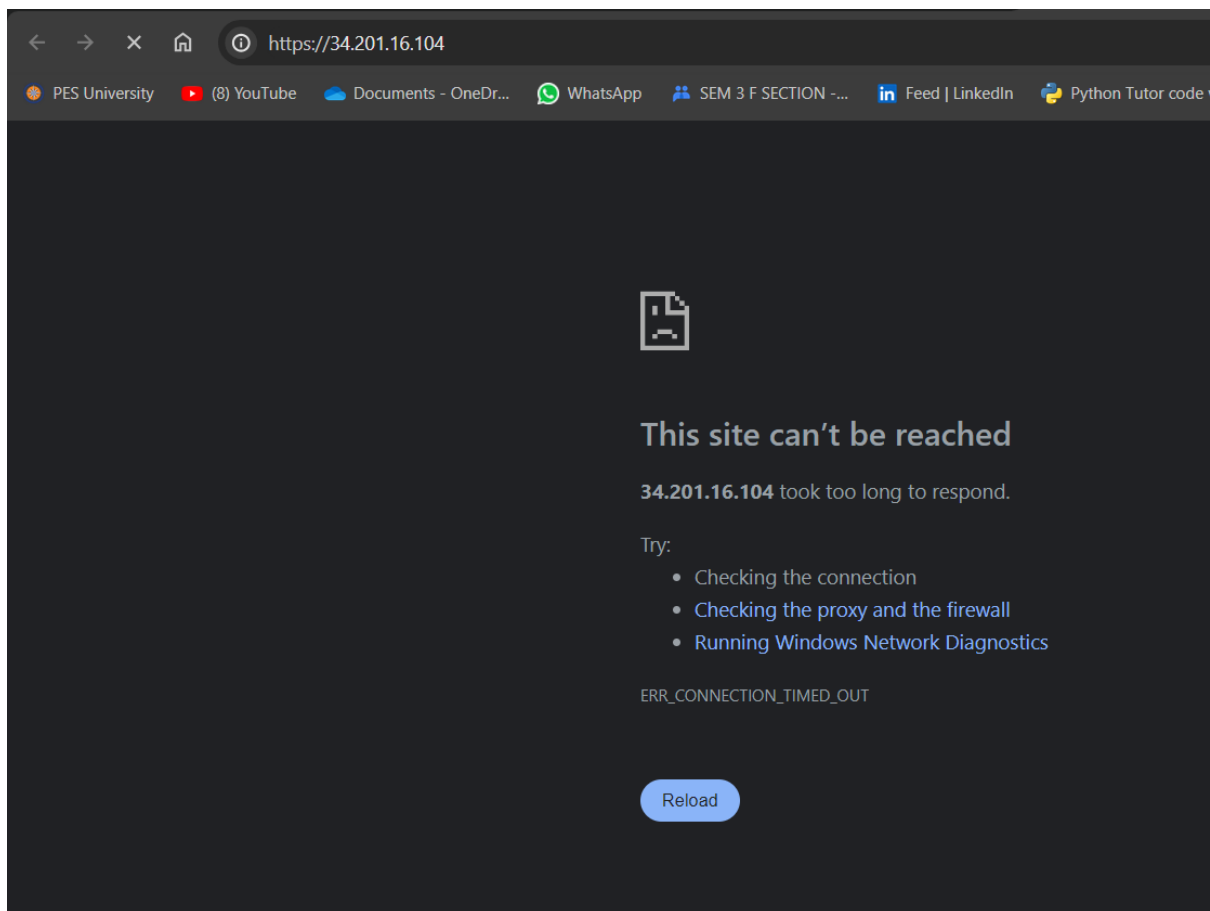
## Task 3: Updating your security group and accessing the web server

Copy the **Public IPv4 address** of your instance to your clipboard.

In your web browser, open a new tab, paste the IP address you just copied, and then press Enter

- not currently able to access your web server because the security group is not permitting inbound traffic on port 80, which is used for HTTP web requests. This step is a demonstration of how to use a security group as a firewall to restrict the network traffic that is allowed in and out of an instance.

To correct this issue, you now update the security group to permit web traffic on port 80.



EDIT INBOUND RULES



aws Services [Search] [Alerts] [Help] [Settings] N. Vi voclabs/user3001757=PES2UG21CS315\_Nagaveni\_L

EC2

### Inbound rule 1 Delete

Security group rule ID: -

Type: HTTP

Protocol: TCP

Port range: 80

Source type: Anywhere-IPv4

Source: 0.0.0.0/0

Description - optional

Add rule

aws Services [Search] [Alerts] [Help] [Settings] N. Vi voclabs/user3001757=PES2UG21CS315\_Nagaveni\_L

EC2

✓ Inbound security group rules successfully modified on security group (sg-0f552e7a49f18224d | [Web Server security group](#)) Details

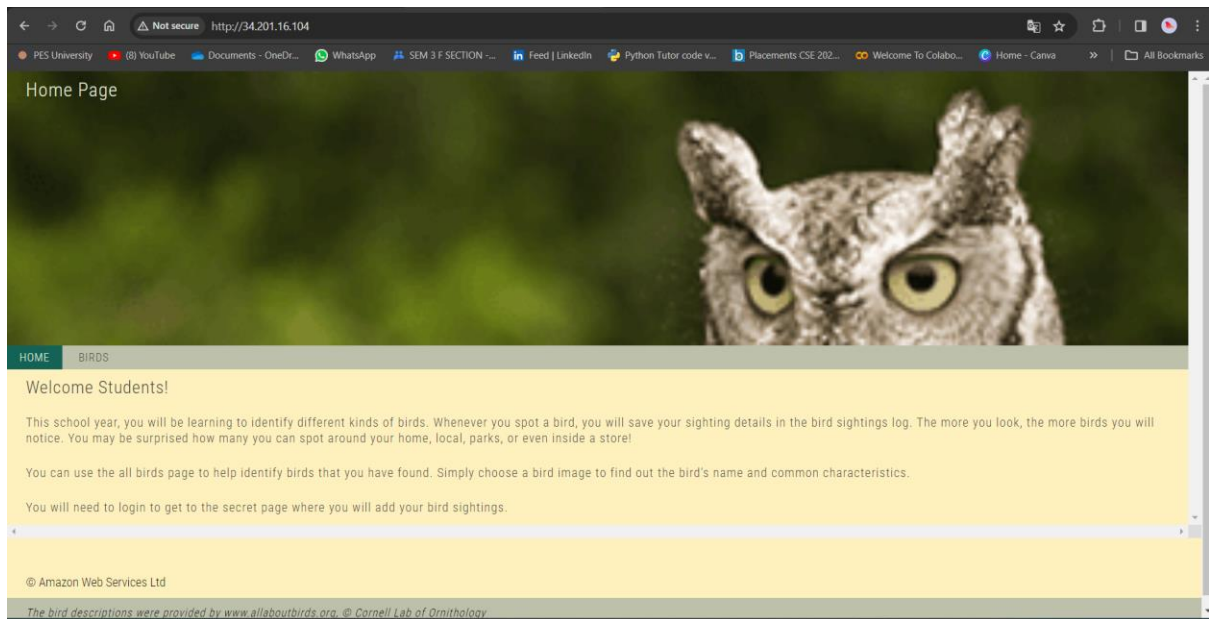
### Security Groups (3) Info

Refresh Actions Export security groups to CSV Create security group

<input type="checkbox"/>	Name	Security group ID	Security group name
<input type="checkbox"/>	-	<a href="#">sg-0f552e7a49f18224d</a>	Web Server security group

Return to the web server browser tab with the public IPv4 address that you previously opened, and choose to refresh the page.

You should now find a web website with the message **Welcome Students!**



## Task 4: Connecting to your instance using AWS Systems Manager Fleet Manager

aws

Services

N. V

voclabs/user3001757=PES2UG21CS315\_Nagaven

EC2

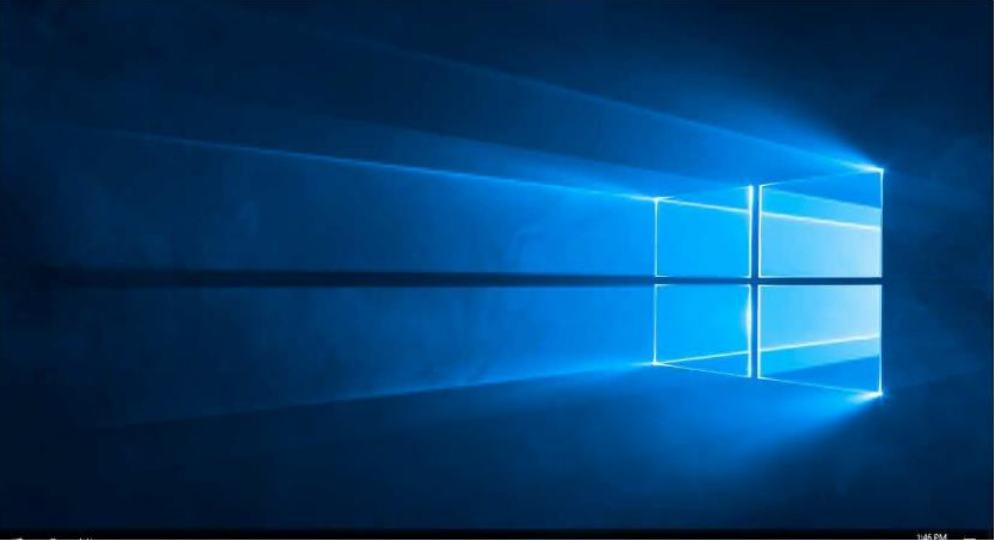
Fleet Manager - Remote Desktop

Add new session

You can connect to a maximum of 4 nodes in this view.

All sessionsi-0a48362f68dbbb2ab

Node ID	Node name	Session time remain	Actions
i-0a48362f68dbbb2ab	PES2UG21CS315_NAGAVE NI_LG	59 minutes	



CloudShellFeedback

PrivacyTermsCookie preferences

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Node IDi-0a48362f68dbbb2abNode namePES2UG21CS315\_NAGAVESession time remainningActions

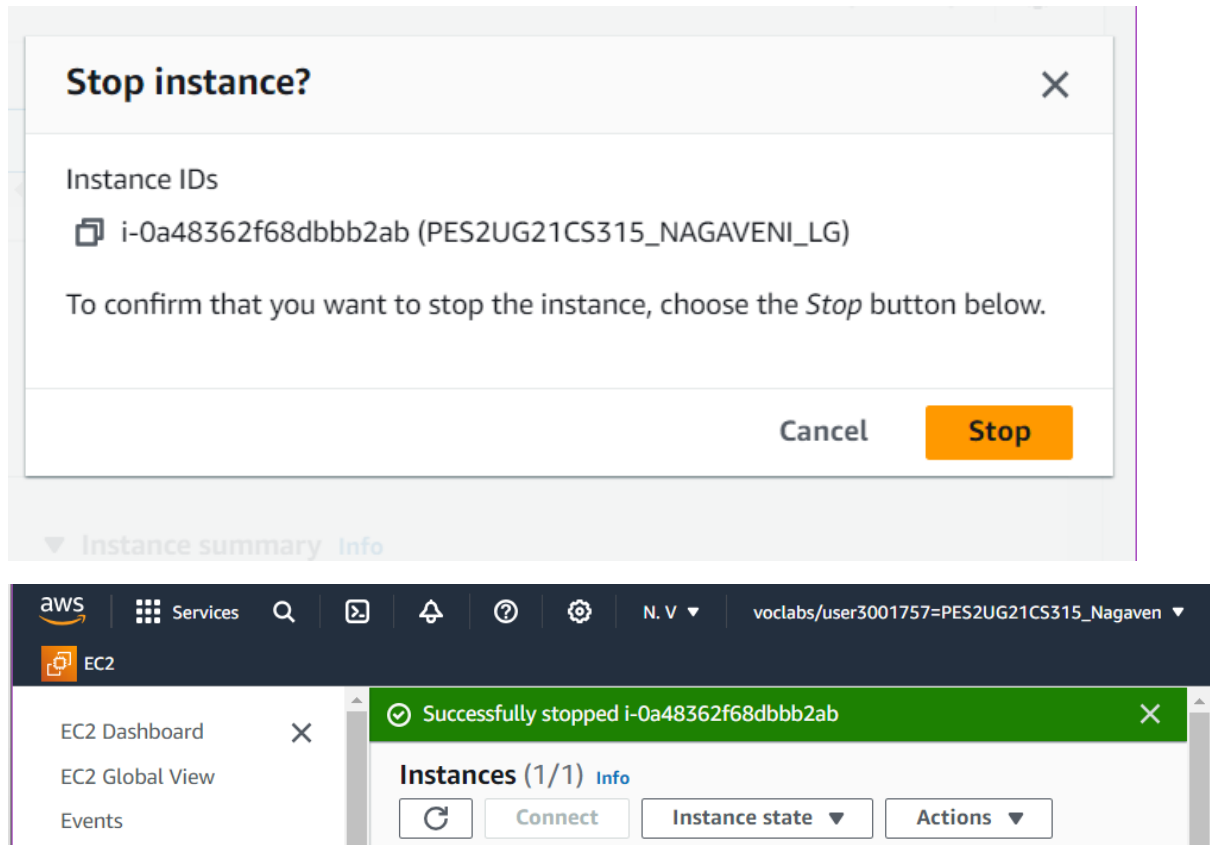
End session for i-0a48362f68dbbb2ab?

Are you sure you want to end your session? Ending the session does not log you out of the node. To reconnect to the node, you must reauthenticate.

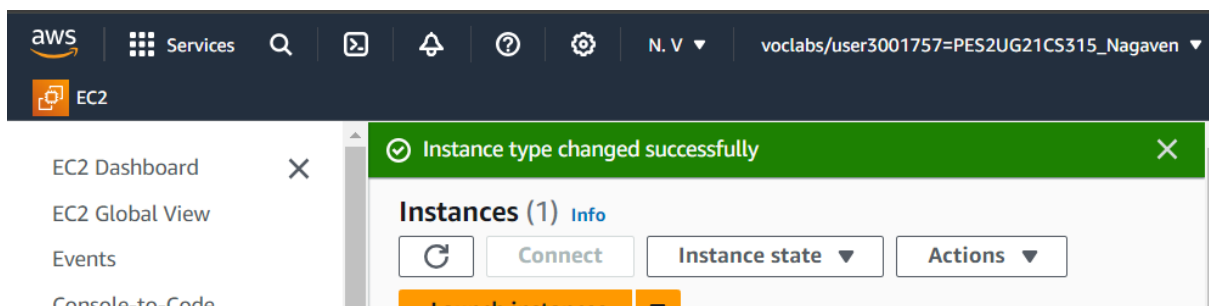
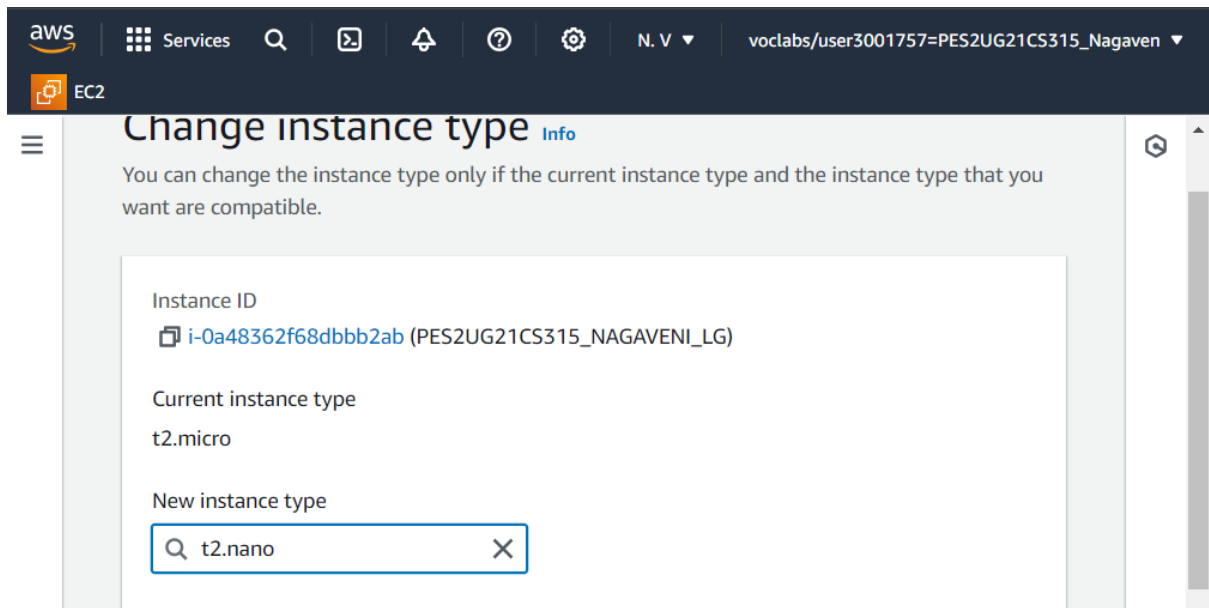
CancelEnd session

## Task 5: Resizing your instance

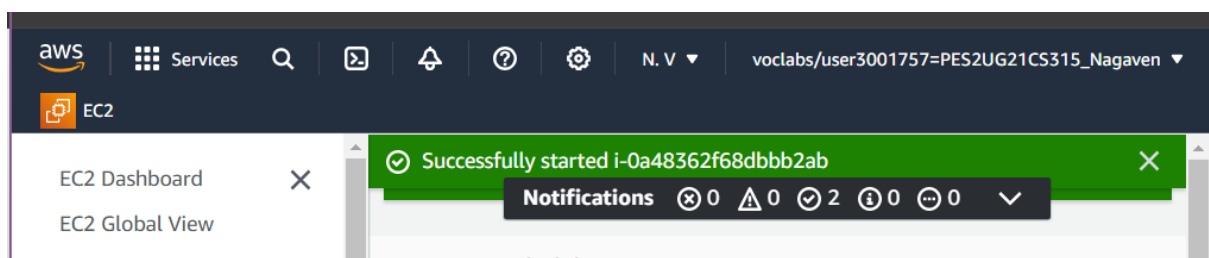
### Stop your instance



### Change the instance type




Start the resized instance





## Task 6: Testing termination protection

## Terminate instance?



 On an EBS-backed instance, the default action is for the root EBS volume to be deleted when the instance is terminated. Storage on any local drives will be lost.

Are you sure you want to terminate these instances?

Instance ID	Termination protection
 i-0a48362f68dbbb2ab (PES2UG21CS315_NAGAVENI_LG )	 Enabled


To confirm that you want to terminate the instances, choose the terminate button below. Instances with termination protection enabled will not be terminated. Terminating the instance cannot be undone.

Cancel

Terminate

## Change termination protection



To prevent your instance from being accidentally terminated, you can enable termination protection for the instance. [Learn more](#) 

Instance ID

 i-0a48362f68dbbb2ab (PES2UG21CS315\_NAGAVENI\_LG)

Termination protection

☐ Enable

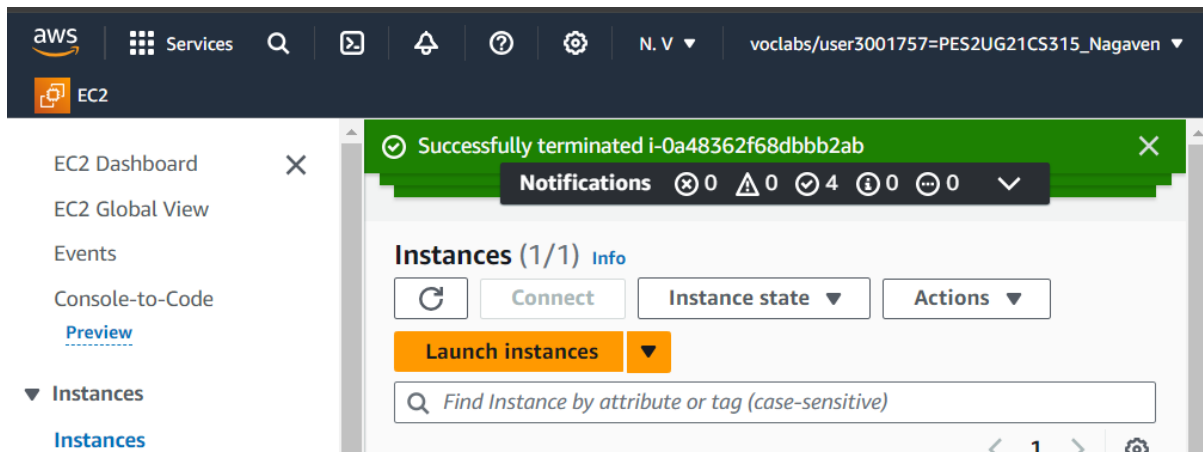
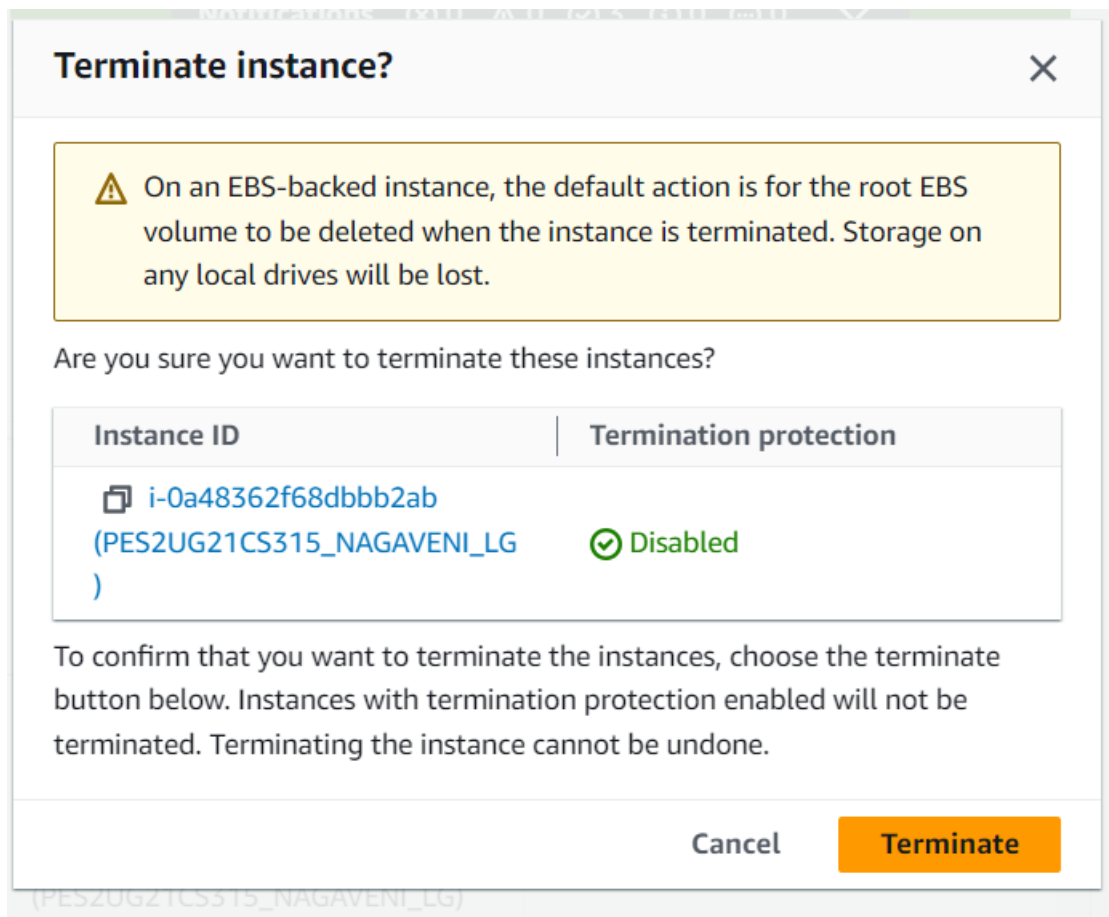


### Termination protection disabled.

The instance is no longer protected against accidental termination. If the instance is terminated, data stored on ephemeral storage is lost.

Cancel

Save



## Task 7: Exploring EC2 limits

Service Quotas

Dashboard

AWS services

Quota request history

Organization

Quota request template

Service Quotas

AWS services

Amazon Elastic Compute Cloud (Amazon EC2)

Amazon Elastic Compute Cloud (Amazon EC2)

Amazon Elastic Compute Cloud (EC2) provides resizable compute capacity through virtual machines (VM's or instances) in the cloud.

Service quotas

info

Request increase at account-level

View your applied quota values, default quota values, and request quota increases for quotas. [Learn more](#)

Search by quota name

Quota name

Applied account-level quota value

AWS default quota value

Adjustability

All DL Spot Instance Requests

96

0

Account-level

All F Spot Instance Requests

64

0

Account-level

All G and VT Spot Instance Requests

0

0

Account-level

All Inf Spot Instance Requests

8

0

Account-level

All P4, P3 and P2 Spot Instance Requests

0

0

Account-level

All P5 Spot Instance Requests

0

0

Account-level

Lab complete

Are you sure you want to end the lab?

Yes

No

End Lab

Region: us-east-1  
Lab ID: arn:aws:cloudformation:us-east-1:272355783894:stack/c57966a100792015602347c1w272355783894/bd913110-b470-11ee-bda7-0a0c72162429  
Creation Time: 2024-01-16T05:11:20-0800  
You may close this message box now. Lab resources are terminating ...



## Final assessment results

---

Your Score: 86.66% (130 points)

Passing Score: 70% (105 points)

---

Result:

Congratulations! You passed.

[Review Quiz](#)

[Retry Quiz](#)

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