

# ECS 489: Winter 2026

## Using AWS Academy Learner Lab

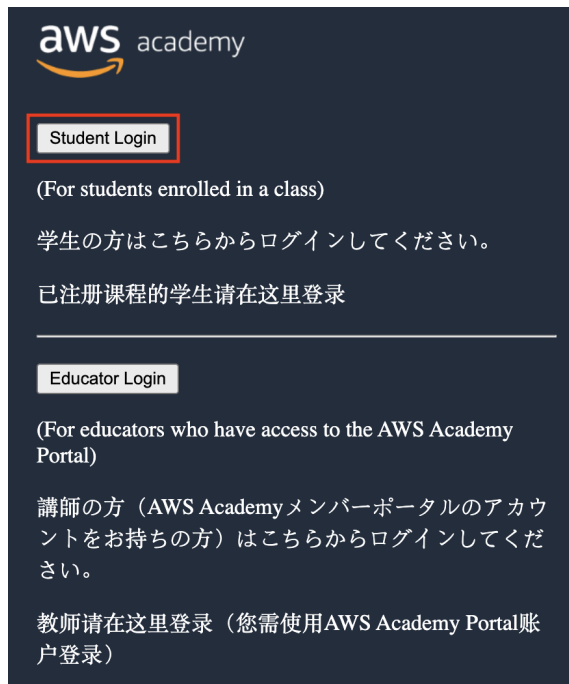
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Muhammad Shahbaz (Instructor)

### 1. Introduction

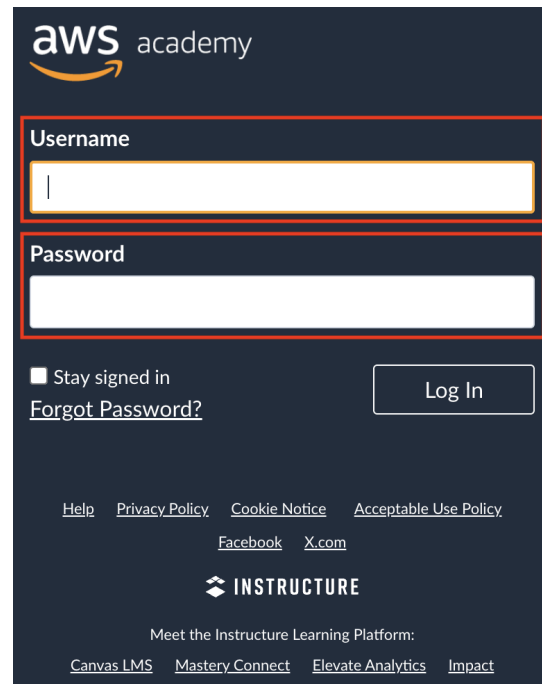
This guide explains how to use **AWS Academy Learner Lab (AWS Lab)** to complete the lab assignments in this course. You will primarily use AWS Lab to access various Amazon Web Services (AWS) as part of different assignments.

### 2. Using AWS Academy Learner Lab

**Step 1:** You should have received an email invitation with instructions for setting up your AWS Lab account. After setup, go to [https://www.awsacademy.com/vforcesite/LMS\\_Login](https://www.awsacademy.com/vforcesite/LMS_Login), choose Student Login, and enter your email and password to sign in.



The screenshot shows the AWS Academy LMS Login page. At the top is the AWS Academy logo. Below it, the 'Student Login' button is highlighted with a red box. Underneath, there is text in English: '(For students enrolled in a class)' and in Japanese: '学生の方はここからログインしてください。' and in Chinese: '已注册课程的学生请在这里登录'. Below this, the 'Educator Login' button is shown. Underneath, there is text in English: '(For educators who have access to the AWS Academy Portal)' and in Japanese: '講師の方（AWS Academyメンバーポータルのアカウントをお持ちの方）はここからログインしてください。' and in Chinese: '教师请在这里登录（您需使用AWS Academy Portal账户登录）'.

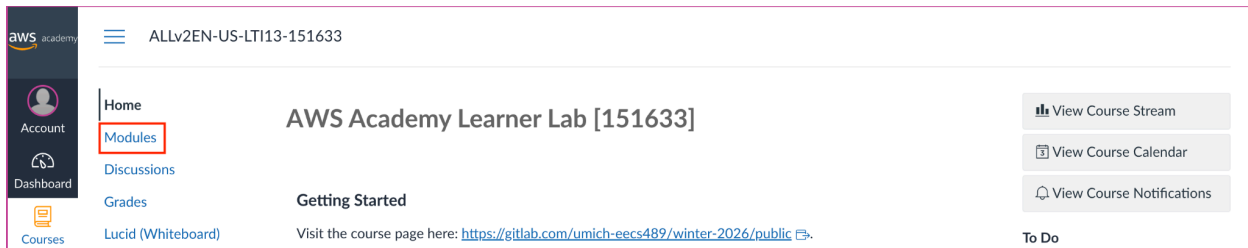


The screenshot shows the AWS Academy LMS Login page with the login form. At the top is the AWS Academy logo. Below it, the 'Username' field is highlighted with a red box. Underneath, the 'Password' field is highlighted with a red box. Below the password field, there is a checkbox for 'Stay signed in' and a 'Log In' button. Below the 'Log In' button, there is a link for 'Forgot Password?'. At the bottom, there are links for 'Help', 'Privacy Policy', 'Cookie Notice', and 'Acceptable Use Policy', as well as social media links for 'Facebook' and 'X.com'. The 'INSTRUCTURE' logo is also present, along with the text 'Meet the Instructure Learning Platform:' and links for 'Canvas LMS', 'Mastery Connect', 'Elevate Analytics', and 'Impact'.

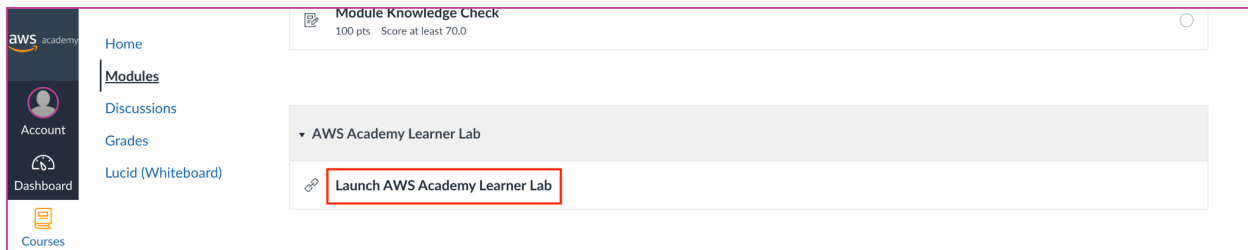
**Step 2:** After logging in, you will see the AWS Lab dashboard. Click on **AWS Academy Learner Lab [151633]** from the available courses.

Course ▾	Nickname ⚡	Course Code ⚡
<a href="#">AWS Academy Learner Lab [151633]</a>	EECS489-WN26	ALLv2EN-US-LTI13-151633

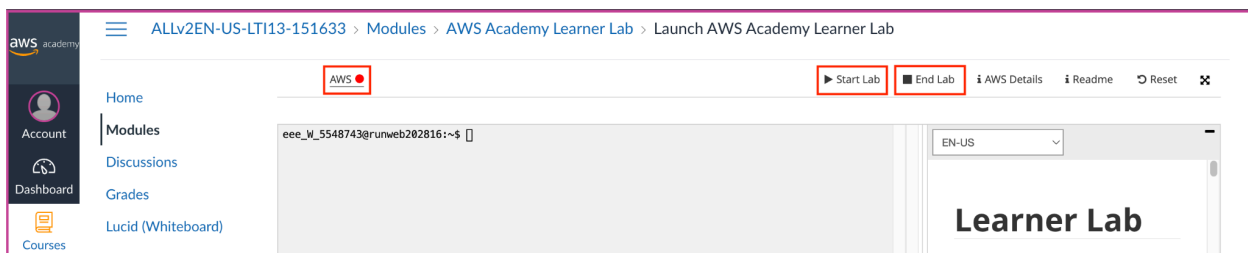
**Step 3:** This takes you to the course homepage. Click on **Modules**.



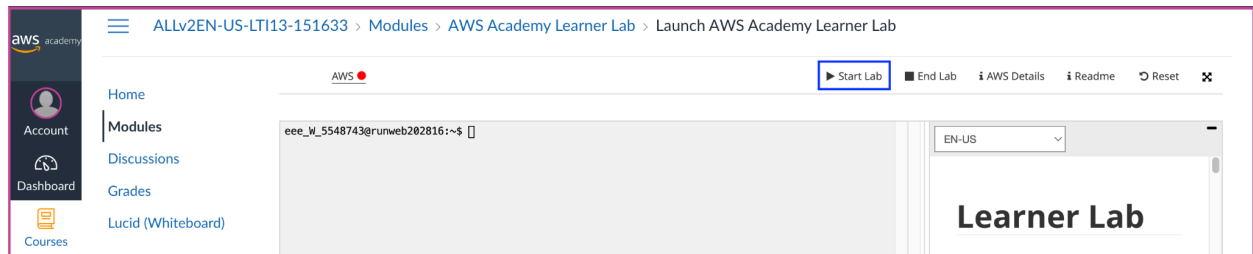
**Step 4:** Select **Launch AWS Academy Learner Lab**.



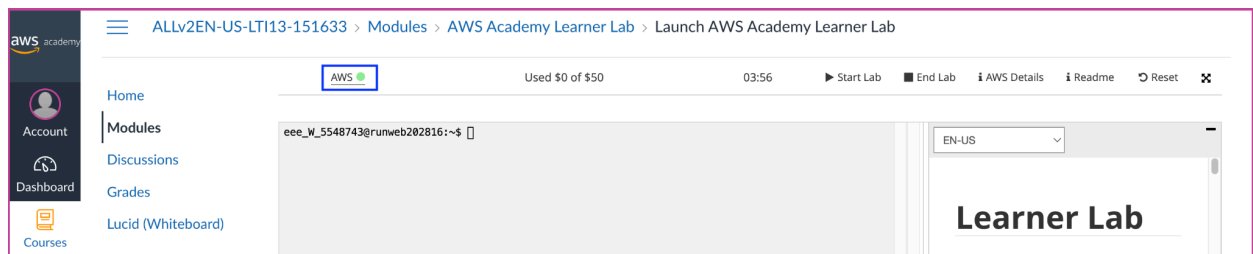
**Step 5:** This is your lab interface. Key controls are marked with red boxes. The Readme section provides helpful documentation for using the lab. (Don't forget to accept the Terms of Use when accessing the interface for the first time.)



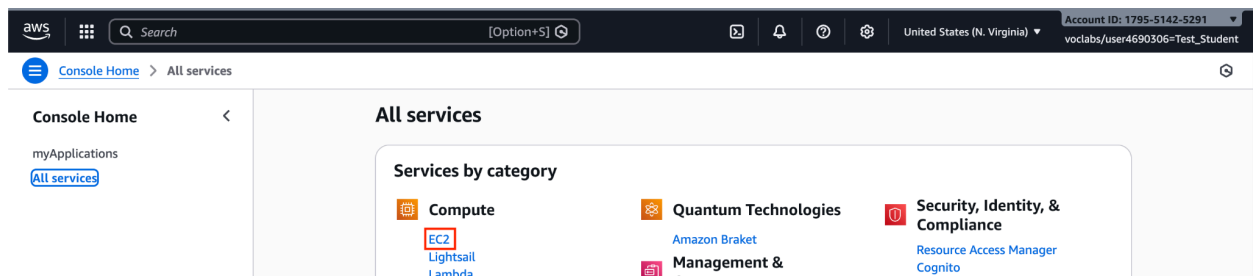
**Step 6:** Click **Start Lab** to begin.



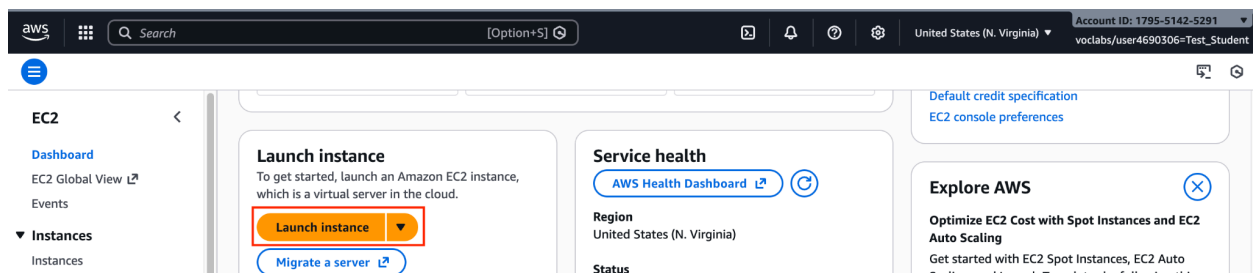
**Step 7:** Once the circle next to AWS turns **green**, click on AWS. (It may take some time to come up.)



**Step 8:** A new browser tab will open to the AWS Console Home. Navigate to **All Services** by clicking the Hamburger Menu (☰), and select the **EC2** service under **Compute**.



**Step 9:** Press the orange **Launch Instance** button.



**Step 10:** To start the VM creation process, first select an **Amazon Machine Image (AMI)**. Choose **Ubuntu 22.04 "Free tier eligible."** (Select **Confirm changes** if a pop-up appears.)

**Application and OS Images (Amazon Machine Image)** [Info](#)

An AMI contains the operating system, application server, and applications for your instance. If you don't see a suitable AMI below, use the search field or choose [Browse more AMIs](#).

Search our full catalog including 1000s of application and OS images

**Quick Start**

Amazon Linux macOS **Ubuntu** Windows Red Hat SUSE Linux Debian

**Amazon Machine Image (AMI)**

Ubuntu Server 22.04 LTS (HVM), SSD Volume Type  
ami-0c398cb65a9304712 (64-bit (x86)) / ami-0f14ad9f1d341c53d (64-bit (Arm))  
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

**Summary**

Number of instances [Info](#)  
1

**Software Image (AMI)**  
Canonical, Ubuntu, 22.04, amd64...[read more](#)  
ami-0c398cb65a9304712

**Virtual server type (instance type)**  
t3.micro

**Firewall (security group)**  
New security group

**Storage (volumes)**  
1 volume(s) - 8 GiB

[Cancel](#) [Launch instance](#)

**Step 11:** Choose the instance type. Select **t3.medium**.

**Instance type** [Info](#) | [Get advice](#)

**Instance type**

**t3.medium**

Family: t3 2 vCPU 4 GiB Memory Current generation: true

On-Demand SUSE base pricing: 0.0979 USD per Hour

On-Demand Windows base pricing: 0.06 USD per Hour

On-Demand Linux base pricing: 0.0416 USD per Hour

On-Demand Ubuntu Pro base pricing: 0.0451 USD per Hour

On-Demand RHEL base pricing: 0.0704 USD per Hour

[Additional costs apply for AMIs with pre-installed software](#)

☒ All generations

[Compare instance types](#)

**Step 12:** In the Key pair (login) section, click **Create a key pair** if you don't already have one.

**Key pair (login)** [Info](#)

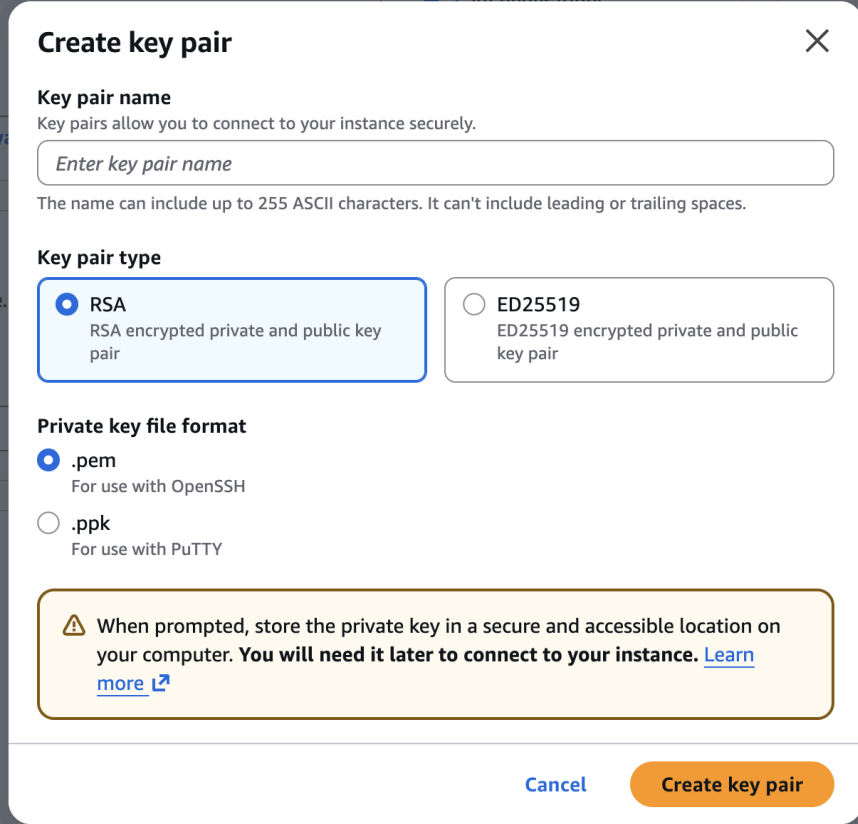
You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

**Key pair name - required**

Select

[Create new key pair](#)

**Step 13:** In the pop-up, enter a name for your key pair and click **Create key pair**. This downloads the .pem key file (e.g., [Key pair name].pem) to your computer. **Important:** Do not lose or damage this file. Without it, you cannot connect to your virtual machine, and it cannot be downloaded again.



The image shows a 'Create key pair' dialog box with a close button (X) in the top right corner. It contains three main sections: 'Key pair name' with a text input field and a note about character limits; 'Key pair type' with two radio button options, 'RSA' (selected) and 'ED25519'; and 'Private key file format' with two radio button options, '.pem' (selected) and '.ppk'. A warning box at the bottom states that the private key must be stored securely and is needed for connection. At the bottom right are 'Cancel' and 'Create key pair' buttons.

**Create key pair** ✕

**Key pair name**  
Key pairs allow you to connect to your instance securely.

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

**Key pair type**

☒ **RSA**  
RSA encrypted private and public key pair

☐ **ED25519**  
ED25519 encrypted private and public key pair

**Private key file format**

☒ **.pem**  
For use with OpenSSH

☐ **.ppk**  
For use with PuTTY

**⚠ When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. [Learn more](#)**

[Cancel](#) [Create key pair](#)

**Step 14:** Under the Summary section, click **Launch Instance** to create your virtual machine.

▼ **Summary**

Number of instances

[Info](#)

**Software Image (AMI)**

Canonical, Ubuntu, 22.04, amd64...[read more](#)

ami-0c398cb65a93047f2

**Virtual server type (instance type)**

t2.large

**Firewall (security group)**


New security group

**Storage (volumes)**

1 volume(s) - 8 GiB


Cancel

Launch instance


 [Preview code](#)


**Step 15:** On the **Launch Status** page, click the instance identifier.


aws



[Option+S]











United States (N. Virginia)

Account ID: 1795-5142-5291

voclabs/user4690306-Test\_Student

EC2 > Instances > Launch an instance

 **Success**

Successfully initiated launch of instance **i-0b401b0a62e2215c7**

► Launch log

**Next Steps**

**Create billing usage alerts**

To manage costs and avoid surprise bills, set up email notifications for billing usage thresholds.

[Create billing alerts](#)

**Connect to your instance**

Once your instance is running, log into it from your local computer.

[Connect to instance](#)

[Learn more](#)

**Connect an RDS database**

Configure the connection between an EC2 instance and a database to allow traffic flow between them.

[Connect an RDS database](#)

[Create a new RDS database](#)

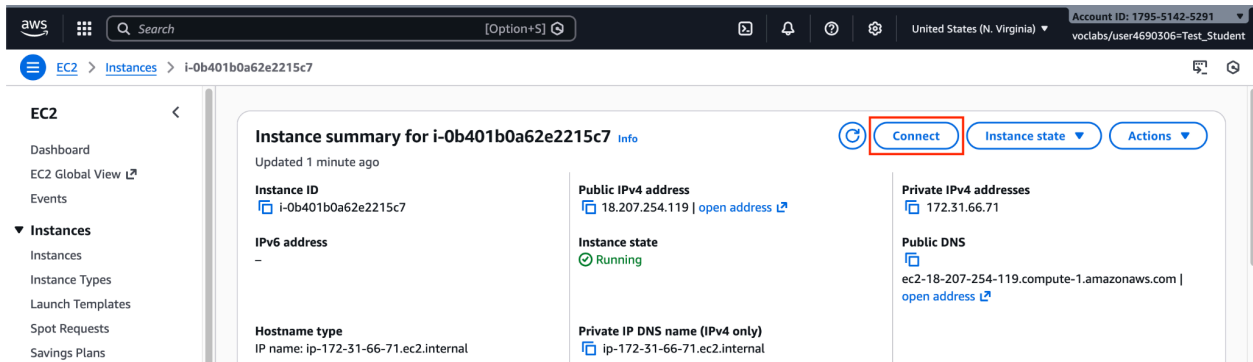
[Learn more](#)

**Create EBS snapshot policy**

Create a policy that automates the creation, retention, and deletion of EBS snapshots

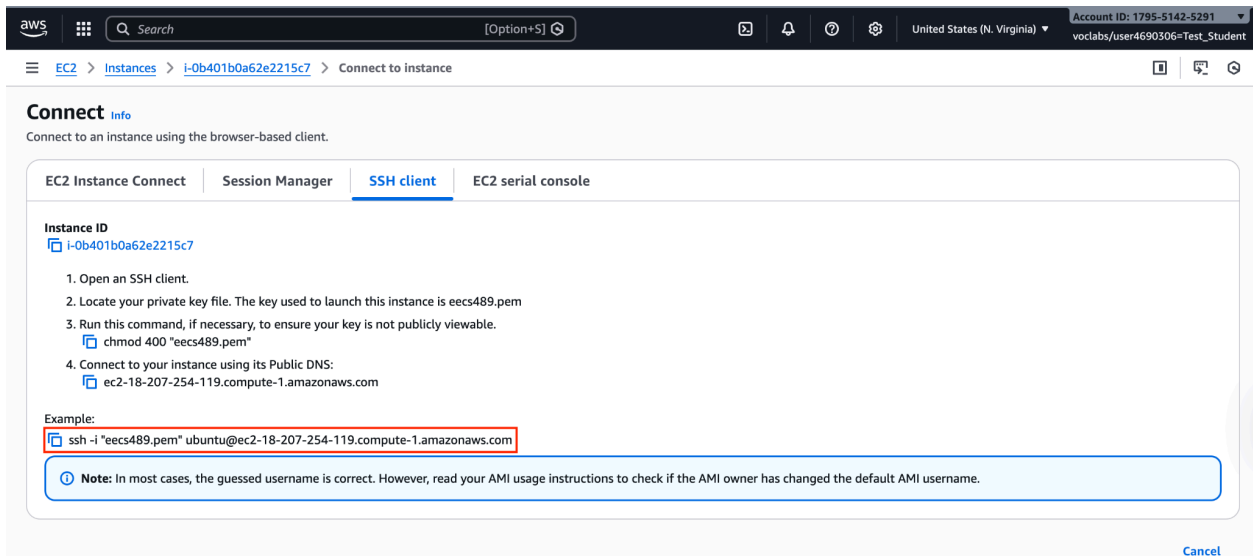
[Create EBS snapshot policy](#)

**Step 16:** You'll now see key information about your EC2 instance, such as instance ID, public IPv4 address, and DNS. Click **Connect**.



The screenshot shows the AWS Management Console interface for an EC2 instance. The left sidebar contains navigation links for EC2, Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, and Savings Plans. The main content area displays the 'Instance summary for i-0b401b0a62e2215c7'. The summary includes the Instance ID (i-0b401b0a62e2215c7), Public IPv4 address (18.207.254.119), Private IPv4 addresses (172.31.66.71), Instance state (Running), and Public DNS (ec2-18-207-254-119.compute-1.amazonaws.com). The 'Connect' button is highlighted with a red box.

**Step 17:** Under the **SSH client** tab, follow the listed steps to connect to your instance. Copy the provided **ssh** command and paste it into your terminal. (Remember to set the security permissions of your **.pem** file by running "**chmod 600 <key>.pem**".)

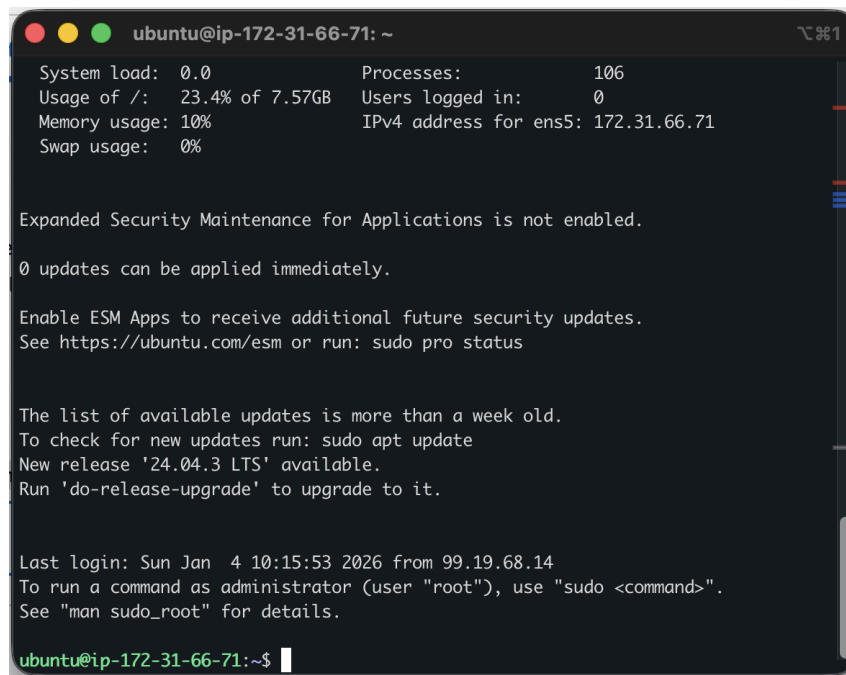


The screenshot shows the 'Connect' page in the AWS Management Console. The page title is 'Connect' and the subtitle is 'Connect to an instance using the browser-based client.' The 'SSH client' tab is selected. The page displays the Instance ID (i-0b401b0a62e2215c7) and a list of steps to connect to the instance. The 'ssh' command is highlighted with a red box.

```
ssh -i "eecs489.pem" ubuntu@ec2-18-207-254-119.compute-1.amazonaws.com
```

**Note:** In most cases, the guessed username is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

**Step 18:** 🎉 You're now connected to your remote virtual machine and ready to use it (responsibly)!

A terminal window titled 'ubuntu@ip-172-31-66-71: ~' with standard Ubuntu window controls (red, yellow, green buttons) and a zoom icon. The terminal displays system statistics, update status, and login information.

```
System load: 0.0          Processes:            106
Usage of /:  23.4% of 7.57GB Users logged in:       0
Memory usage: 10%        IPv4 address for ens5: 172.31.66.71
Swap usage:  0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update
New release '24.04.3 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Sun Jan  4 10:15:53 2026 from 99.19.68.14
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-66-71:~$
```

**Step 19: Always remember to end your lab session when you're done.** Use the **End Lab** button in the AWS Lab console. This shuts down all AWS services (including VMs) used in the lab. When you restart the lab, AWS will bring the services back up, but your VM might receive new network information (like IPv4 or DNS). Your key pairs will remain the same. To reconnect, just follow Steps 16 and 17 again.