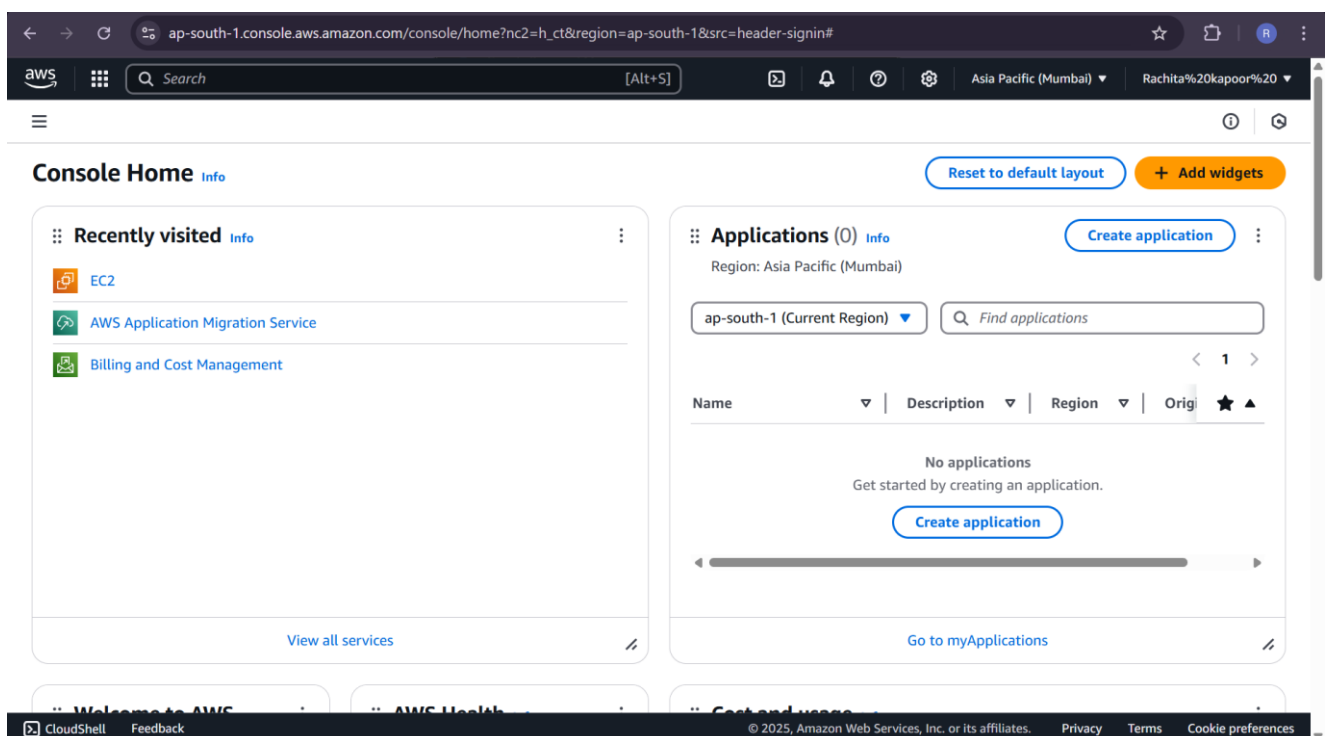
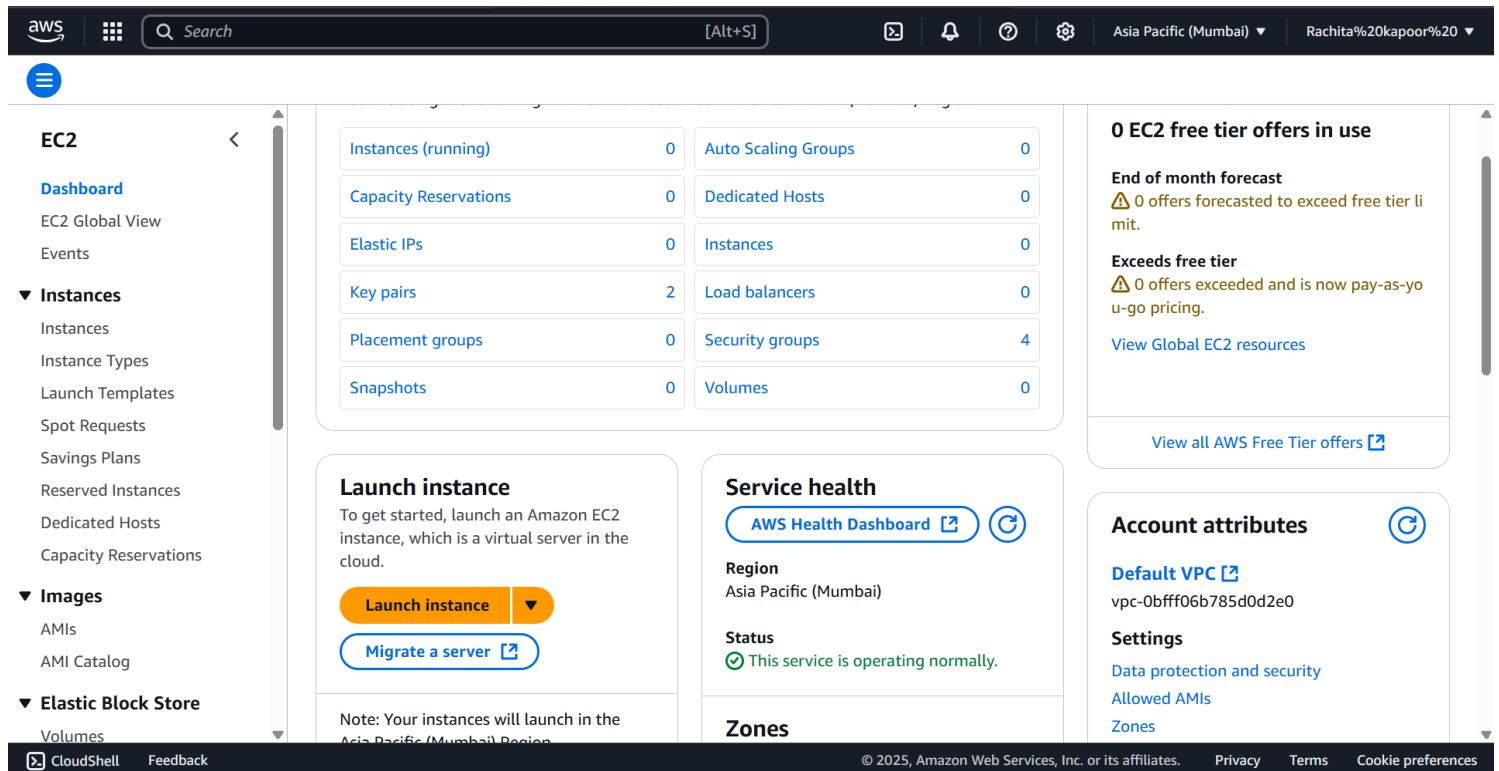


Server Monitoring Dashboard using AWS EC2 & CloudWatch

1. INTRODUCTION

A cloud-based project demonstrating real-time server monitoring using AWS EC2 and CloudWatch. This project involves setting up an EC2 instance, configuring CloudWatch for logs and metrics, and setting alarms for server health monitoring.





2. Objectives

- Deploy an EC2 instance on AWS.
- Connecting EC2 Instance via SSH.
- Configure CloudWatch for real-time monitoring.
- Set up CloudWatch alarms for system health.
- Generate test loads to verify the monitoring setup.

3. Project Setup

Step 1: Creating an EC2 Instance

- Launched an EC2 instance using AWS Free Tier.

EC2 > Instances > Launch an instance

Launch an instance

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.

Name and tags

Name

server-monitoring

Add additional tags

Application and OS Images (Amazon Machine Image)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

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

Recents

Quick Start

Amazon Linux

macOS

Ubuntu

Windows

Red Hat

SUSE Linux

Browse more AMIs

Summary

Number of instances

1

Software Image (AMI)

Canonical, Ubuntu, 24.04, amd64...

read more

ami-0e35ddab05955cf57

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

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

EC2 > Instances > Launch an instance

Amazon Machine Image (AMI)

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type

ami-0e35ddab05955cf57 (64-bit (x86)) / ami-0429d68a1cd41ca80 (64-bit (Arm))

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

Free tier eligible

Description

Ubuntu Server 24.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Canonical, Ubuntu, 24.04, amd64 noble image

Architecture

AMI ID

Publish Date

Username

Verified provider

64-bit ...

ami-0e35ddab05955cf57

2025-03-05

ubuntu

Instance type

Instance type

t2.micro

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

On-Demand Linux base pricing: 0.0124 USD per Hour

On-Demand Windows base pricing: 0.017 USD per Hour

On-Demand RHEL base pricing: 0.0268 USD per Hour

On-Demand Ubuntu Pro base pricing: 0.0142 USD per Hour

Free tier eligible

All generations

Compare instance types

Summary

Number of instances

1

Software Image (AMI)

Canonical, Ubuntu, 24.04, amd64...

read more

ami-0e35ddab05955cf57

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

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

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

aws

Search

[Alt+S]

Asia Pacific (Mumbai)

Rachita Kapoor

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 Linux base pricing: 0.0124 USD per Hour

On-Demand Windows base pricing: 0.017 USD per Hour

On-Demand RHEL base pricing: 0.0268 USD per Hour

On-Demand Ubuntu Pro base pricing: 0.0142 USD per Hour

On-Demand SUSE base pricing: 0.0124 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

cloud-server

Create new key pair

▼ Summary

Number of instances | Info

1

Software Image (AMI)

Canonical, Ubuntu, 24.04, amd64...[read more](#)

ami-0e35ddab05955cf57

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

CloudShell Feedback

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

- Configured security groups and SSH access.

aws

Search

[Alt+S]

Asia Pacific (Mumbai)

Rachita%20kapoor%20

EC2

Instances

Launch an instance

▼ Network settings

Info

Edit

Network

Info

vpc-0bfff06b785d0d2e0

Subnet

Info

No preference (Default subnet in any availability zone)

Auto-assign public IP

Info

Enable

Additional charges apply when outside of free tier allowance

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

We'll create a new security group called 'launch-wizard-4' with the following rules:

☒ Allow SSH traffic from

Helps you connect to your instance

Anywhere

0.0.0.0/0

☐ Allow HTTPS traffic from the internet

To set up an endpoint, for example when creating a web server

☒ Allow HTTP traffic from the internet

To set up an endpoint, for example when creating a web server

▼ Summary

Info

Number of instances

Info

1

Software Image (AMI)

Canonical, Ubuntu, 24.04, amd6...read more

ami-0e35ddab05955cf57

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 10 GiB

Cancel

Launch instance

Preview code

CloudShell

Feedback

© 2025, Amazon Web Services, Inc. or its affiliates.

Privacy

Terms

Cookie preferences

▼ Configure storage

Info

Advanced

1x

10

GiB

gp3

Root volume, 3000 IOPS, Not encrypted

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage

X

Add new volume

The selected AMI contains more instance store volumes than the instance allows. Only the first 0 instance store volumes from the AMI will be accessible from the instance

Click refresh to view backup information

The tags that you assign determine whether the instance will be backed up by any Data Lifecycle Manager policies.

0 x File systems

Edit

► Advanced details

Info

▼ Summary

Info

Number of instances

Info

1

Software Image (AMI)

Canonical, Ubuntu, 24.04, amd6...read more

ami-0e35ddab05955cf57

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 10 GiB

Cancel

Launch instance

Preview code

CloudShell

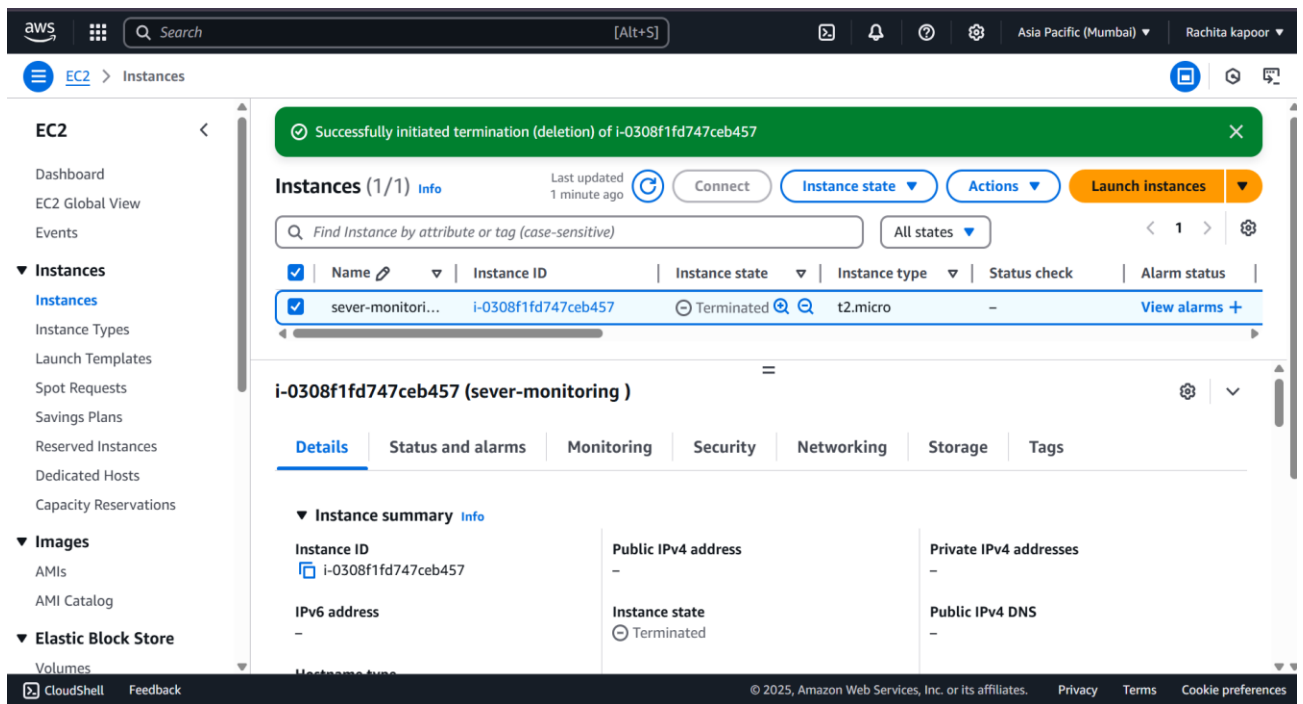
Feedback

© 2025, Amazon Web Services, Inc. or its affiliates.

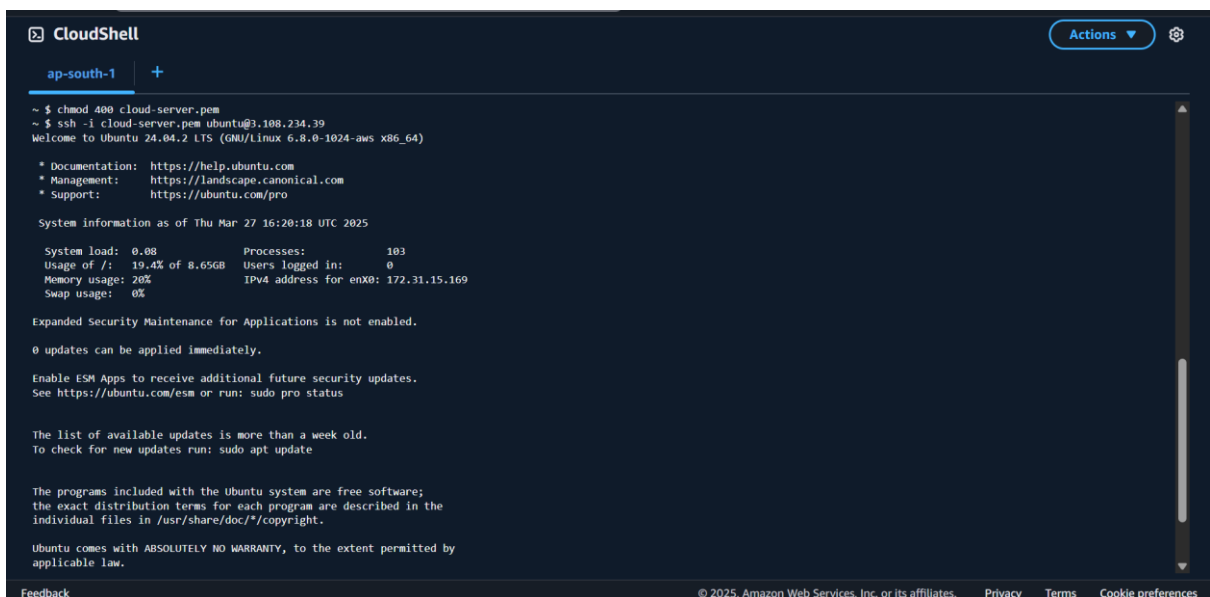
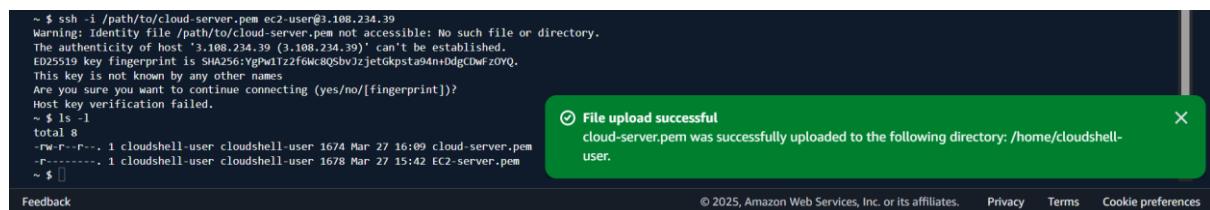
Privacy

Terms

Cookie preferences



- Connected to the instance using SSH.



Individual files in /usr/share/doc/ /copyright.

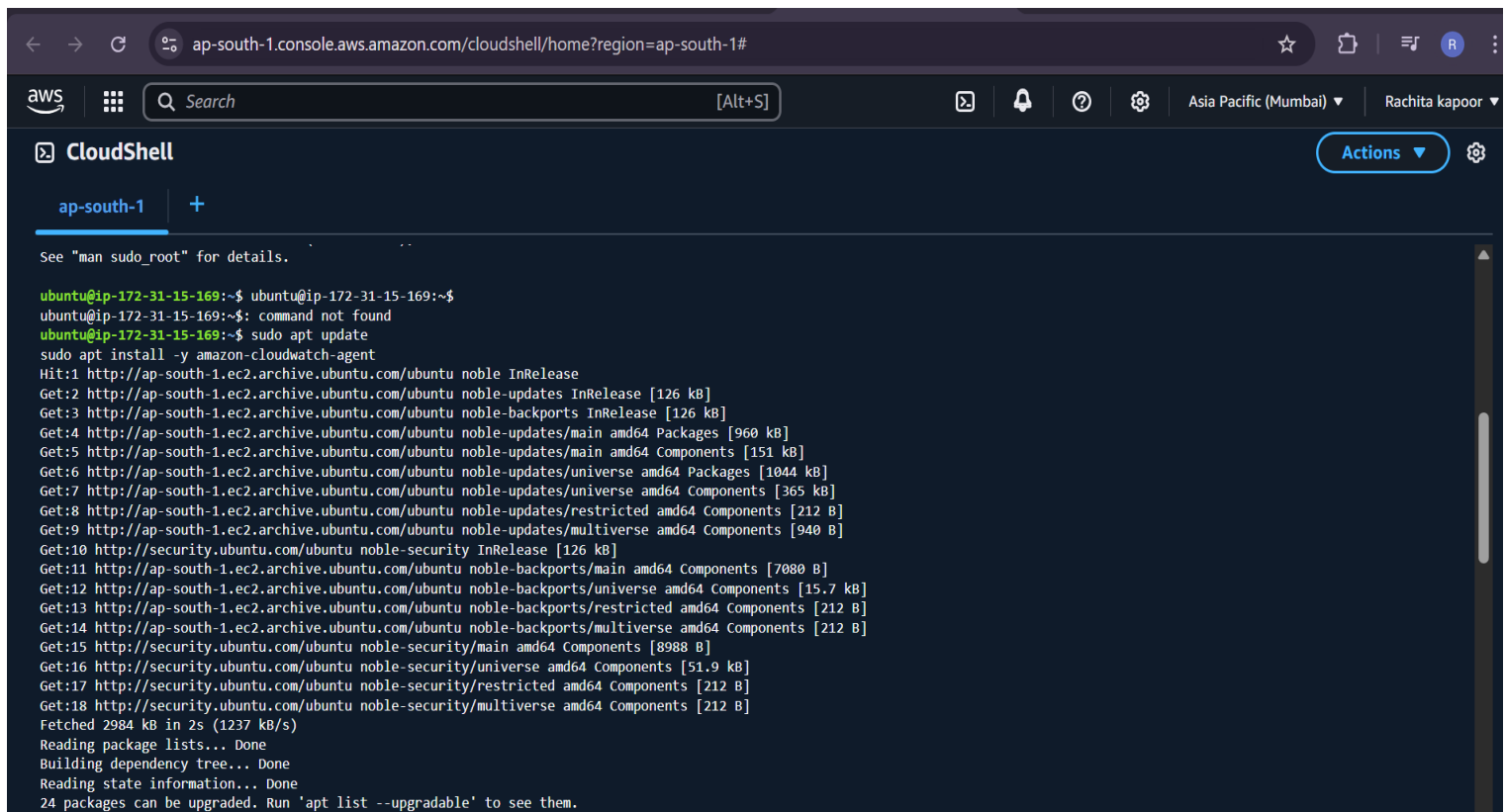
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.

To run a command as administrator (user "root"), use "sudo <command>". See "man sudo_root" for details.

```
ubuntu@ip-172-31-15-169:~$  
ubuntu@ip-172-31-15-169:~$
```

Step 2: Installing and Configuring CloudWatch

- Installed CloudWatch Agent on the instance.
- Created CloudWatch dashboards for visual monitoring.



```
< > ↺ ap-south-1.console.aws.amazon.com/cloudshell/home?region=ap-south-1#  
aws [Search] [Alt+S] Asia Pacific (Mumbai) Rachita Kapoor  
CloudShell Actions  
ap-south-1 +  
See "man sudo_root" for details.  
  
ubuntu@ip-172-31-15-169:~$ ubuntu@ip-172-31-15-169:~$  
ubuntu@ip-172-31-15-169:~$: command not found  
ubuntu@ip-172-31-15-169:~$ sudo apt update  
sudo apt install -y amazon-cloudwatch-agent  
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease  
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]  
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]  
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [960 kB]  
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [151 kB]  
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1044 kB]  
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [365 kB]  
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]  
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]  
Get:10 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]  
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [7080 B]  
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [15.7 kB]  
Get:13 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [212 B]  
Get:14 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]  
Get:15 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [8988 B]  
Get:16 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [51.9 kB]  
Get:17 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]  
Get:18 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [212 B]  
Fetched 2984 kB in 2s (1237 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
24 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

```
ubuntu@ip-172-31-15-169:~$ ^[[200-sudo apt update
sudo: command not found
ubuntu@ip-172-31-15-169:~$ sudo apt install -y amazon-cloudwatch-agent
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
amazon-cloudwatch-agent is already the newest version (1.300053.0b1046-1).
0 upgraded, 0 newly installed, 0 to remove and 24 not upgraded.
ubuntu@ip-172-31-15-169:~$ sudo systemctl start amazon-cloudwatch-agent
sudo systemctl enable amazon-cloudwatch-agent
ubuntu@ip-172-31-15-169:~$ sudo /opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-agent-ctl -a status
{
  "status": "running",
  "starttime": "2025-03-29T08:41:52+00:00",
  "configstatus": "configured",
  "version": "1.300053.0b1046"
}
ubuntu@ip-172-31-15-169:~$
```

i-0b5e4a06aa704316f (server-monitoring)

PublicIPs: 3.108.234.39 PrivateIPs: 172.31.15.169

- Configured CloudWatch to track:
 - CPU Utilization
 - Memory Usage
 - Disk I/O
 - Network Traffic
- Created CloudWatch dashboards for visual monitoring.

CloudWatch > Dashboards

CloudWatch

Favorites and recents

Dashboards

Alarms

In alarm

All alarms

Logs

Log groups

Log Anomalies

Live Tail

Logs Insights

Contributor Insights

Metrics

X-Ray traces

Events

Custom dashboards

Automatic dashboards

Custom Dashboards (1)

Share dashboard

Delete

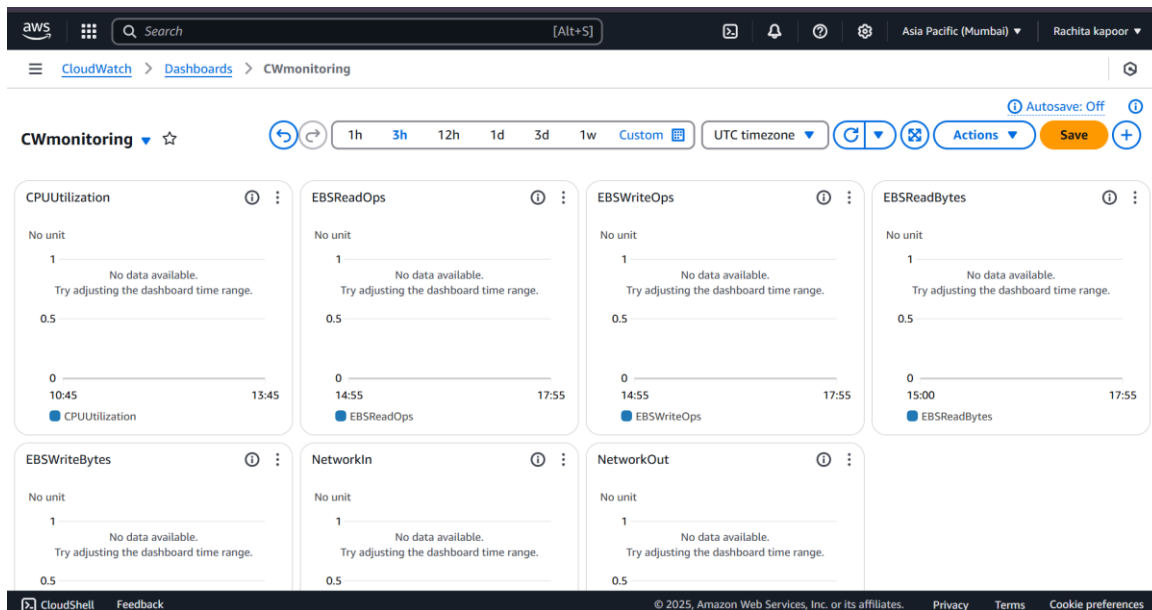
Create dashboard

Filter dashboards

< 1 >

⚙️

Name	Sharing	Favorite	Last update (UTC)
CWmonitoring		☆	2025-03-29 21:36



Step 3: Setting Up Alarms

- Configured alarms for:
 - High CPU usage
 - Disk read/write operations
 - Network traffic spikes
- Set up notifications using Amazon SNS.
- Set up logs for maintain records.

The screenshot shows the AWS CloudWatch Alarms console. The left sidebar contains navigation links for CloudWatch, Alarms, Favorites and recents, Dashboards, Alarms (7), Logs, Metrics, X-Ray traces, and Events. The main content area displays a list of 7 alarms:

Name	State	Last state update (UTC)	Conditions
CPUt_alert	Insufficient data	2025-03-29 20:01:02	CPUUtilization > 70 for 1 datapoints within minutes
Write_ByteAlert	Insufficient data	2025-03-29 19:49:55	EBSWriteBytes > 10485760 for 1 datapoint within 5 minutes
Read_byteAlert	Insufficient data	2025-03-29 19:14:45	EBSReadBytes > 10485760 for 1 datapoint within 1 minute
Write_ops_alarm	Insufficient data	2025-03-29 19:13:05	EBSWriteOps > 300 for 1 datapoints within minutes
Read_ops_alarm	Insufficient data	2025-03-29 19:10:08	EBSReadOps > 300 for 1 datapoints within minutes
NET_IN	Insufficient data	2025-03-29 19:05:21	Net_In > 3145728 for 1 datapoints within minutes
NetOUT_Alarm	Insufficient data	2025-03-29 13:48:06	NetworkOut > 2097152 for 1 datapoints within 5 minutes

The bottom of the console includes a footer with '© 2025, Amazon Web Services, Inc. or its affiliates.' and links for Privacy, Terms, and Cookie preferences.

aws

Search

[Alt+S]

Asia Pacific (Mumbai)

Rachita Kapoor

CloudWatch

Alarms

Create alarm

Step 2

Configure actions

Step 3

Add name and description

Step 4

Preview and create

Notification

Alarm state trigger

Define the alarm state that will trigger this action.

☒ In alarm

The metric or expression is outside of the defined threshold.

☐ OK

The metric or expression is within the defined threshold.

☐ Insufficient data

The alarm has just started or not enough data is available.

Remove

Send a notification to the following SNS topic

Define the SNS (Simple Notification Service) topic that will receive the notification.

☒ Select an existing SNS topic

☐ Create new topic

☐ Use topic ARN to notify other accounts

Send a notification to...

Q CW_Alert

X

Only topics belonging to this account are listed here. All persons and applications subscribed to the selected topic will receive notifications.

Email (endpoints)

Topic has no endpoints - View in SNS Console

Add notification

CloudShell

Feedback

© 2025, Amazon Web Services, Inc. or its affiliates.

Privacy

Terms

Cookie preferences

aws

Search

[Alt+S]

Asia Pacific (Mumbai)

Rachita Kapoor

Amazon SNS

Topics

CW_Alert

Amazon SNS

Dashboard

Topics

Subscriptions

Mobile

Push notifications

Text messaging (SMS)

New Feature

Amazon SNS now supports High Throughput FIFO topics. Learn more

X

CW_Alert

Edit

Delete

Publish message

Details

Name

CW_Alert

Display name

-

ARN

arn:aws:sns:ap-south-1:257394450360:CW_Alert

Topic owner

257394450360

Type

Standard

Subscriptions

Access policy

Data protection policy

Delivery policy (HTTP/S)

Delivery status

Subscriptions (0)

Edit

Delete

Request confirmation

Confirm subscription

Create subscription

CloudShell

Feedback

© 2025, Amazon Web Services, Inc. or its affiliates.

Privacy




Terms

Cookie preferences

CloudWatch <

Favorites and recents ▶

Dashboards

▼ Alarms  0  0  7

In alarm

All alarms

▼ Logs

[Log groups](#) [New](#)

[Log Anomalies](#)

[Live Tail](#)

[Logs Insights](#) [New](#)

[Contributor Insights](#)


► Metrics

► X-Ray traces [New](#)

► Events

Log groups (1)

By default, we only load up to 10000 log groups.

☐ Exact match < 1 > 

<input type="checkbox"/>	Log group	Log class	Anomaly d...	Da...	Se...	Retenti
<input type="checkbox"/>	EC2-System-Logs	Standard	Configure	-	-	Never e

- Verifying the CloudWatch Agent

```
aws [Search] [Alt+S] Asia Pacific (Mumbai) Rachita Kapoor
ubuntu@ip-172-31-15-169:~$ ssh -i cloud-server.pem ubuntu@15.206.88.11
The authenticity of host '15.206.88.11 (15.206.88.11)' can't be established.
ED25519 key fingerprint is SHA256:YgPw1Tz2f6Wc8QsbvJzjetGkpsta94n+DdgCDwFzOYQ.
This host key is known by the following other names/addresses:
  ~/.ssh/known_hosts:1: [hashed name]
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '15.206.88.11' (ED25519) to the list of known hosts.
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@                WARNING: UNPROTECTED PRIVATE KEY FILE!                @
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
Permissions 0664 for 'cloud-server.pem' are too open.
It is required that your private key files are NOT accessible by others.
This private key will be ignored.
Load key "cloud-server.pem": bad permissions
ubuntu@15.206.88.11: Permission denied (publickey).
ubuntu@ip-172-31-15-169:~$ chmod 400 cloud-server.pem
ubuntu@ip-172-31-15-169:~$ ls -l cloud-server.pem
-r----- 1 ubuntu ubuntu 1674 Mar 31 12:06 cloud-server.pem
ubuntu@ip-172-31-15-169:~$ chmod 400 cloud-server.pem
ubuntu@ip-172-31-15-169:~$
```

► Events

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

```
ubuntu@ip-172-31-15-169:~$ ssh -i "cloud-server.pem" ubuntu@15.206.88.11
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1025-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Mon Mar 31 12:55:21 UTC 2025

System load:  0.0          Processes:            109
Usage of /:   29.4% of 8.65GB Users logged in:      1
Memory usage: 22%         IPv4 address for enX0: 172.31.15.169
Swap usage:   0%

 * Ubuntu Pro delivers the most comprehensive open source security and
   compliance features.

https://ubuntu.com/aws/pro

Expanded Security Maintenance for Applications is not enabled.

21 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
```

```
21 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

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

Last login: Mon Mar 31 12:51:42 2025 from 13.233.177.4
ubuntu@ip-172-31-15-169:~$ ls -l
total 4
-r----- 1 ubuntu ubuntu 1674 Mar 31 12:06 cloud-server.pem
ubuntu@ip-172-31-15-169:~$ sudo apt-get install amazon-cloudwatch-agent
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
amazon-cloudwatch-agent is already the newest version (1.300053.0b1046-1).
0 upgraded, 0 newly installed, 0 to remove and 21 not upgraded.
ubuntu@ip-172-31-15-169:~$ sudo amazon-cloudwatch-agent-ctl -a status
{
  "status": "running",
  "starttime": "2025-03-31T10:30:25+00:00",
  "configstatus": "configured",
  "version": "1.300053.0b1046"
}
ubuntu@ip-172-31-15-169:~$
```

i-0b5e4a06aa704316f (server-monitoring)

PublicIPs: 15.206.88.11 PrivateIPs: 172.31.15.169

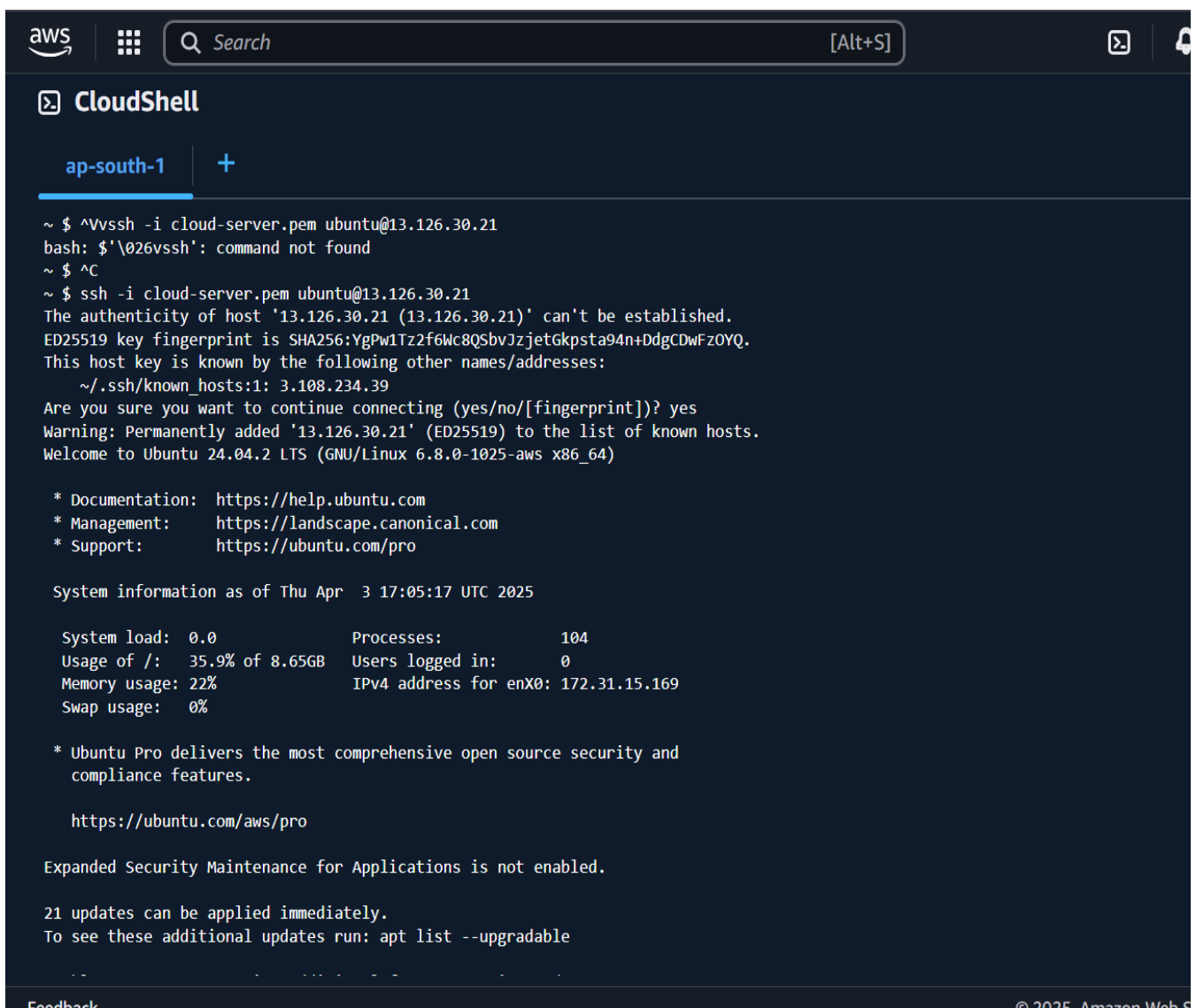
```
  "status": "running",
  "starttime": "2025-03-31T10:30:25+00:00",
  "configstatus": "configured",
  "version": "1.300053.0b1046"
}
ubuntu@ip-172-31-15-169:~$ sudo nano /opt/aws/amazon-cloudwatch-agent/etc/amazon-cloudwatch-agent.json
ubuntu@ip-172-31-15-169:~$ sudo amazon-cloudwatch-agent-ctl -a fetch-config -m ec2 -c file:/opt/aws/amazon-cloudwatch-agent/etc/amazon-cloudwatch-agent.json -s
***** processing amazon-cloudwatch-agent *****
I! Trying to detect region from ec2 D! [EC2] Found active network interface I! imds retry client will retry 1 timesSuccessfully fetched the config and saved in /opt/aws/amazon-cloudwatch-agent/etc/amazon-cloudwatch-agent.d/file_amazon-cloudwatch-agent.json.tmp
Start configuration validation...
2025/03/31 13:03:51 Reading json config file path: /opt/aws/amazon-cloudwatch-agent/etc/amazon-cloudwatch-agent.d/file_amazon-cloudwatch-agent.json.tmp ...
2025/03/31 13:03:51 I! Valid Json input schema.
2025/03/31 13:03:51 Configuration validation first phase succeeded
I! Detecting run_as_user...
I! Trying to detect region from ec2
D! [EC2] Found active network interface
I! imds retry client will retry 1 times
/opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-agent -schematest -config /opt/aws/amazon-cloudwatch-agent/etc/amazon-cloudwatch-agent.toml
Configuration validation second phase succeeded
Configuration validation succeeded
ubuntu@ip-172-31-15-169:~$
```

i-0b5e4a06aa704316f (server-monitoring)

PublicIPs: 15.206.88.11 PrivateIPs: 172.31.15.169

4. Testing the Setup

- **Generated CPU load** to trigger CPU utilization alarms.
- **Simulated network traffic** to test NetworkIn & NetworkOut alarms.
- **Performed disk activity tests** for EBS read/write operations.
- Verified real-time logs and metrics in CloudWatch.



The screenshot shows the AWS CloudShell interface. At the top, there's an AWS logo, a search bar, and a keyboard shortcut [Alt+S]. Below the header, the CloudShell title bar shows 'ap-south-1' and a plus sign. The terminal window displays the following text:

```
~ $ ^Vvssh -i cloud-server.pem ubuntu@13.126.30.21
bash: $'\026vssh': command not found
~ $ ^C
~ $ ssh -i cloud-server.pem ubuntu@13.126.30.21
The authenticity of host '13.126.30.21 (13.126.30.21)' can't be established.
ED25519 key fingerprint is SHA256:YgPw1Tz2f6Wc8QsBvJzjetGkpsta94n+DdgCDwFzOYQ.
This host key is known by the following other names/addresses:
~/.ssh/known_hosts:1: 3.108.234.39
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '13.126.30.21' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1025-aws x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/pro

System information as of Thu Apr  3 17:05:17 UTC 2025

System load:  0.0          Processes:            104
Usage of /:   35.9% of 8.65GB Users logged in:          0
Memory usage: 22%         IPv4 address for enX0: 172.31.15.169
Swap usage:   0%

* Ubuntu Pro delivers the most comprehensive open source security and
  compliance features.

https://ubuntu.com/aws/pro

Expanded Security Maintenance for Applications is not enabled.

21 updates can be applied immediately.
To see these additional updates run: apt list --upgradable
```

At the bottom of the terminal, there is a feedback link and a copyright notice: © 2025 Amazon Web Services.

aws

Search

[Alt+S]

Asia Pacific (Mumbai)

Rachita Kapoor

CloudShell

Actions

ap-south-1

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

Last login: Mon Mar 31 17:24:40 2025 from 13.233.177.5
`ubuntu@ip-172-31-15-169:~$ sudo apt install stress -y # Installing stress tool`
`stress -cpu 2 --timeout 60 # Running CPU stress for 60 sec`
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
 stress
0 upgraded, 1 newly installed, 0 to remove and 21 not upgraded.
Need to get 18.1 kB of archives.
After this operation, 52.2 kB of additional disk space will be used.
Get:1 <http://ap-south-1.ec2.archive.ubuntu.com/ubuntu/noble/universe/amd64/stress> amd64 1.0.7-1 [18.1 kB]
Fetched 18.1 kB in 0s (1057 kB/s)
Selecting previously unselected package stress.
(Reading database ... 101208 files and directories currently installed.)
Preparing to unpack .../stress-1.0.7-1_amd64.deb ...
Unpacking stress (1.0.7-1) ...
Setting up stress (1.0.7-1) ...
Processing triggers for man-db (2.12.0-4build2) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

Feedback

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
`ubuntu@ip-172-31-15-169:~$ wget http://speed.hetzner.de/100MB.bin`
`--2025-04-03 17:06:54-- http://speed.hetzner.de/100MB.bin`
Resolving speed.hetzner.de (speed.hetzner.de)... 88.198.248.254, 2a01:4f8:0:59ed::2
Connecting to speed.hetzner.de (speed.hetzner.de)[88.198.248.254]:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1059 (1.0K) [text/html]
Saving to: '100MB.bin'

100MB.bin 100%[=====>] 1.03K --.-KB/s in 0s

2025-04-03 17:06:54 (171 MB/s) - '100MB.bin' saved [1059/1059]

`ubuntu@ip-172-31-15-169:~$ dd if=/dev/zero of=testfile bs=1M count=100`
100+0 records in
100+0 records out
104857600 bytes (105 MB, 100 MiB) copied, 0.0567659 s, 1.8 GB/s
`ubuntu@ip-172-31-15-169:~$`

Feedback

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

CloudShell

Actions

ap-south-1 x ap-south-1 x +

Last login: Thu Apr 3 17:05:17 2025 from 13.201.94.162

ubuntu@ip-172-31-15-169:~\$ sudo apt update && sudo apt upgrade

Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease

Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]

Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]

Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]

Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [982 kB]

Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [216 kB]

Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [151 kB]

Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1049 kB]

Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [264 kB]

Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [365 kB]

Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [881 kB]

Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [179 kB]

Get:13 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]

Get:14 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]

Get:15 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [7060 B]

Get:16 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [15.8 kB]

Get:17 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]

Get:18 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]

Get:19 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [734 kB]

Get:20 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [140 kB]

Get:21 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [8936 B]

Get:22 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [828 kB]

Get:23 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [180 kB]

Get:24 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [52.0 kB]

Get:25 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [844 kB]

Get:26 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [170 kB]

Get:27 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]

Get:28 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [212 B]

Fetched 7446 kB in 12s (605 kB/s)

Reading package lists... Done

Building dependency tree... Done

Feedback

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

(Dummy load generation for cpu)

- Verified real-time metrics in CloudWatch.

