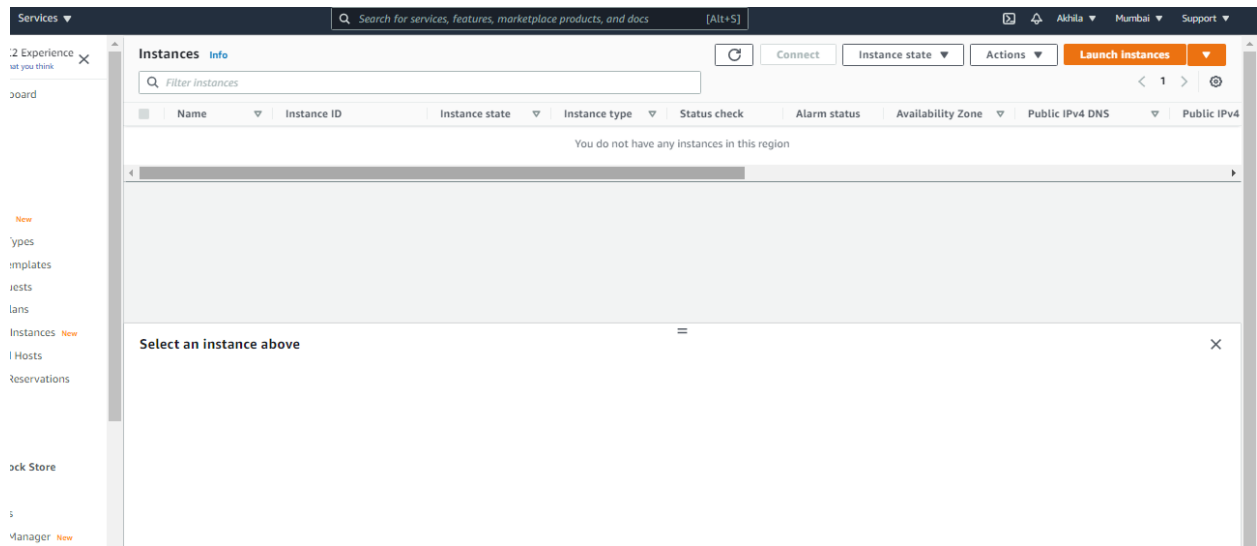


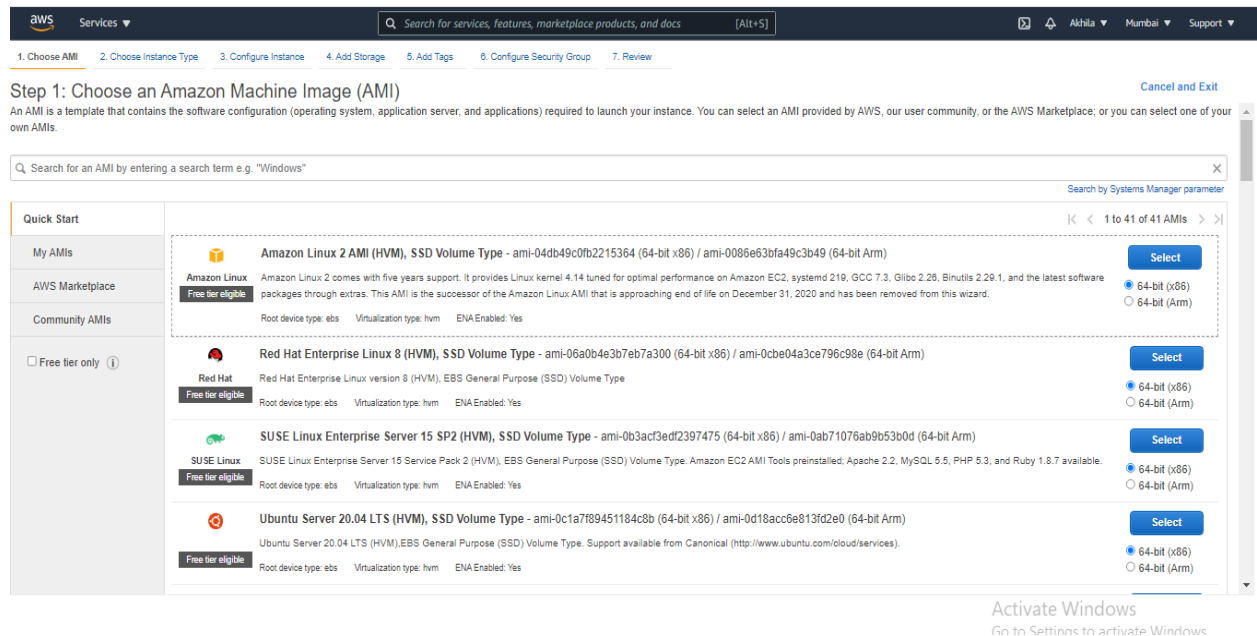
## Assignment-2

### Working with EC2

# Creating an EC2 instance



## Step-1



## Step-2

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance families Current generation Show/Hide Columns

Currently selected: t2.micro (- ECUs, 1 vCPUs, 2.5 GHz -, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	t2	t2.micro	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.large	2	8	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.xlarge	4	16	EBS only	-	Moderate	Yes
<input type="checkbox"/>	t2	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
<input type="checkbox"/>	t3	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.small	2	2	EBS only	Yes	Up to 5 Gigabit	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

## Step-3 Enabling Termination protection

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances: 1 Launch into Auto Scaling Group

Purchasing option: ☐ Request Spot instances

Network: vpc-0ed11965 (default) Create new VPC

Subnet: No preference (default subnet in any Availability Zone) Create new subnet

Auto-assign Public IP: ☐ Use subnet setting (Enable)

Placement group: ☐ Add instance to placement group

Capacity Reservation: Open

Domain join directory: No directory Create new directory

IAM role: None Create new IAM role

Shutdown behavior: Stop

Stop - Hibernate behavior: ☐ Enable hibernation as an additional stop behavior

Enable termination protection: ☒ Protect against accidental termination

Monitoring: ☐ Enable CloudWatch detailed monitoring Additional charges apply.

Tenancy: Shared - Run a shared hardware instance Additional charges will apply for dedicated tenancy.

Cancel Previous Review and Launch Next: Add Storage

# Step-4

← → ↻ ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard: 🔍 ☆ 📄 ⋮

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1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

### Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type ⓘ	Device ⓘ	Snapshot ⓘ	Size (GiB) ⓘ	Volume Type ⓘ	IOPS ⓘ	Throughput (MB/s) ⓘ	Delete on Termination ⓘ	Encryption ⓘ
Root	/dev/xvda	snap-0bdcc50b291983cea	8	General Purpose SSD (gp2) ▾	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted ▾

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

Cancel Previous **Review and Launch** Next: Add Tags

Go to Settings to activate Windows.

# Step-5 Added tag

← → ↻ ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard: 🔍 ☆ 📄 ⋮

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1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

### Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver. A copy of a tag can be applied to volumes, instances or both. Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key (128 characters maximum)	Value (256 characters maximum)	Instances ⓘ	Volumes ⓘ	Network Interfaces ⓘ
Name	myfirstinstance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Add another tag (Up to 50 tags maximum)

Cancel Previous **Review and Launch** Next: Configure Security Group

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# Step-6

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1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

### Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☒ Create a new security group ☐ Select an existing security group

Security group name:

Description:

Type	Protocol	Port Range	Source	Description
All traffic	All	0 - 65535	Anywhere 0.0.0.0/0, ::/0	e.g. SSH for Admin Desktop

Add Rule

Warning

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

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Cancel Previous Review and Launch

# Step-7

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1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

### Step 7: Review Instance Launch

**Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-04db49c0fb2215364**

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.29, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is a...

Root Device Type: ebs Virtualization type: hvm

**Instance Type** [Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	-	1	1	EBS only	-	Low to Moderate

**Security Groups** [Edit security groups](#)

Security group name: launch-wizard-2  
Description: launch-wizard-2 created 2021-08-02T17:46:15.541+05:30

Type	Protocol	Port Range	Source	Description
All traffic	All	All	0.0.0.0/0	
All traffic	All	All	::/0	

**Instance Details** [Edit instance details](#)

**Storage** [Edit storage](#)

**Tags** [Edit tags](#)

Launch

Activate Windows  
Go to Settings to activate Windows.

Cancel Previous Launch

## Instance Launch

Linux 2 AMI (HVM), SSD Volume Type - ami-04db49c0fb2215364

Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.28, Binutils 2.29.1, and the latest software packages through extras. This AMI is the latest Linux AMI that is available.

Storage: ebs Virtualization type: hvm

ECUs	vCPUs	Memory (GiB)
-	1	1

launch-wizard-2  
launch-wizard-2 created 2021-08-02T17:40:00Z

Protocol ⓘ

All

All

### Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key** file that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Create a new key pair

Key pair name

myfirstinstance

Download Key Pair



You have to download the **private key file** (\*.pem file) before you can continue. Store it in a **secure and accessible location**. You will not be able to download the file again after it's created.

Cancel

Launch Instances

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## Launch Status



Your instances are now launching

The following instance launches have been initiated: j-03c1a5650671bca38 [View launch log](#)



Get notified of estimated charges

Create [billing alerts](#) to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

### How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

Click [View Instances](#) to monitor your instances' status. Once your instances are in the **running** state, you can connect to them from the **Instances** screen. [Find out](#) how to connect to your instances.

### Here are some helpful resources to get you started

- [How to connect to your Linux instance](#)
- [Amazon EC2: User Guide](#)
- [Learn about AWS Free Usage Tier](#)
- [Amazon EC2: Discussion Forum](#)

While your instances are launching you can also

- [Create status check alarms](#) to be notified when these instances fail status checks. (Additional charges may apply)
- [Create and attach additional EBS volumes](#) (Additional charges may apply)
- [Manage security groups](#)

[View Instances](#) ▾

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EC2 > Instances > i-03c1a5650671bca38 > Connect to instance

Connect to instance Info

Connect to your instance i-03c1a5650671bca38 (myfirstinstance) using any of these options

EC2 Instance Connect

Session Manager

SSH client

Instance ID

i-03c1a5650671bca38 (myfirstinstance)

Public IP address

13.232.156.206

User name

ec2-user

Connect using a custom user name, or use the default user name ec2-user for the AMI used to launch the instance.

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

Cancel

Connect

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ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2-user/i-03c1a5650671bca38

Amazon Linux 2 AMI

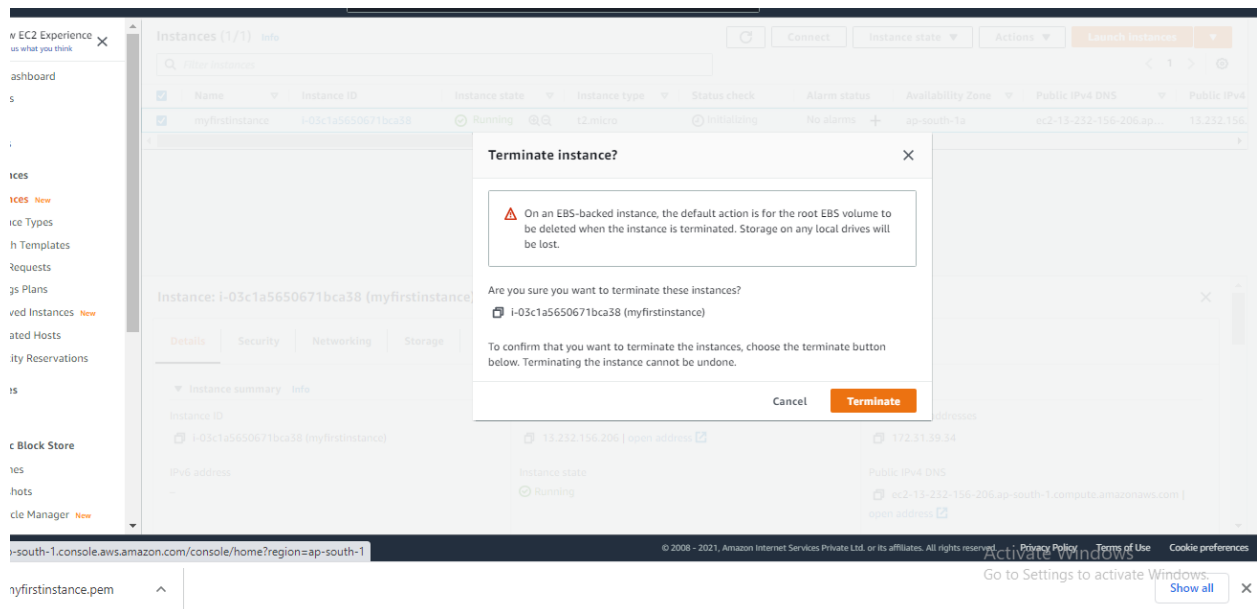
https://aws.amazon.com/amazon-linux-2/  
[ec2-user@ip-172-31-39-34 ~]\$

i-03c1a5650671bca38 (myfirstinstance)

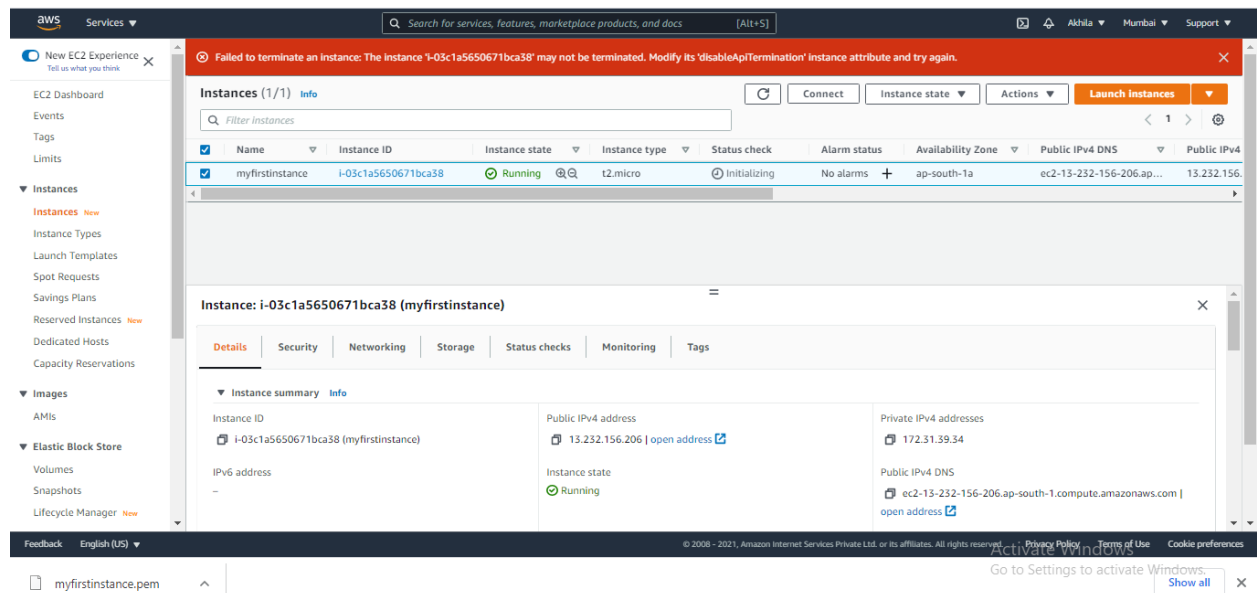
Public IPs: 13.232.156.206 Private IPs: 172.31.39.34

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## Process of terminating instance after disabling “Termination protection”





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Dedicated Hosts

Capacity Reservations

Images

AMIs

Elastic Block Store

Volumes

Snapshots

Lifecycle Manager New

Instances (1/1) Info

Filter Instances

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
myfirstinstance	i-03c1a5650671bca38	Running	t2.micro	2/2 checks passed		ap-south-1

Actions

- Connect
- View details
- Manage instance state
- Instance settings
- Networking
- Security
- Image and templates
- Monitor and troubleshoot

Attach to Auto Scaling Group

Change instance type

Change Nitro Enclaves

Change termination protection

Change shutdown behavior

Change credit specification

Modify instance placement

Modify Capacity Reservation settings

Edit user data

Manage tags

Instance: i-03c1a5650671bca38 (myfirstinstance)

Details Security Networking Storage Status checks Monitoring Tags

Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-03c1a5650671bca38 (myfirstinstance)	13.232.156.206   open address	172.31.39.34
IPv6 address	Instance state	Public IPv4 DNS
-	Running	ec2-13-232-156-206.ap-south-1.compute.amazonaws.com   open address

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EC2 > Instances > i-03c1a5650671bca38 > Change termination protection

Change termination protection Info

Enable termination protection to prevent your instance from being accidentally terminated.

Instance ID

i-03c1a5650671bca38 (myfirstinstance)

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

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Images AMIs

Elastic Block Store Volumes Snapshots Lifecycle Manager New

Disabled termination protection for i-03c1a5650671bca38

Instances (1) Info

Filter Instances

myfirstinstance i-03c1a5650671bca38 Running t2.micro 2/2 checks passed No alarms ap-south-1a ec2-13-232-156-206.ap... 13.232.156.

Select an instance above

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Instances Instances New Instance Types Launch Templates Spot Requests Savings Plans Reserved Instances New Dedicated Hosts Capacity Reservations

Images AMIs

Elastic Block Store Volumes Snapshots Lifecycle Manager New

Disabled termination protection for i-03c1a5650671bca38

Successfully terminated i-03c1a5650671bca38

Instances (1/1) Info

Filter Instances

myfirstinstance i-03c1a5650671bca38 Shutting-down t2.micro 2/2 checks passed No alarms ap-south-1a ec2-13-232-156-206.ap... 13.232.156.

Instance: i-03c1a5650671bca38 (myfirstinstance)

Details Security Networking Storage Status checks Monitoring Tags

Instance summary Info

Instance ID i-03c1a5650671bca38 (myfirstinstance)

Public IPv4 address 13.232.156.206 | open address

Private IPv4 addresses 172.31.39.34

IPv6 address -

Instance state Shutting-down

Public IPv4 DNS ec2-13-232-156-206.ap-south-1.compute.amazonaws.com | open address

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Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Images

AMIs

Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Instances (1/1)

Info

Filter instances

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4
myfirstinstance	i-03c1a5650671bca38	Terminated	t2.micro	—	No alarms	ap-south-1a	—	—

Instance: i-03c1a5650671bca38 (myfirstinstance)

Details

Security

Networking

Storage

Status checks

Monitoring

Tags

Instance summary

Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-03c1a5650671bca38 (myfirstinstance)	—	—
IPv6 address	Instance state	Public IPv4 DNS
—	Terminated	—
Private IPv4 DNS	Instance type	Elastic IP addresses
—	—	—

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