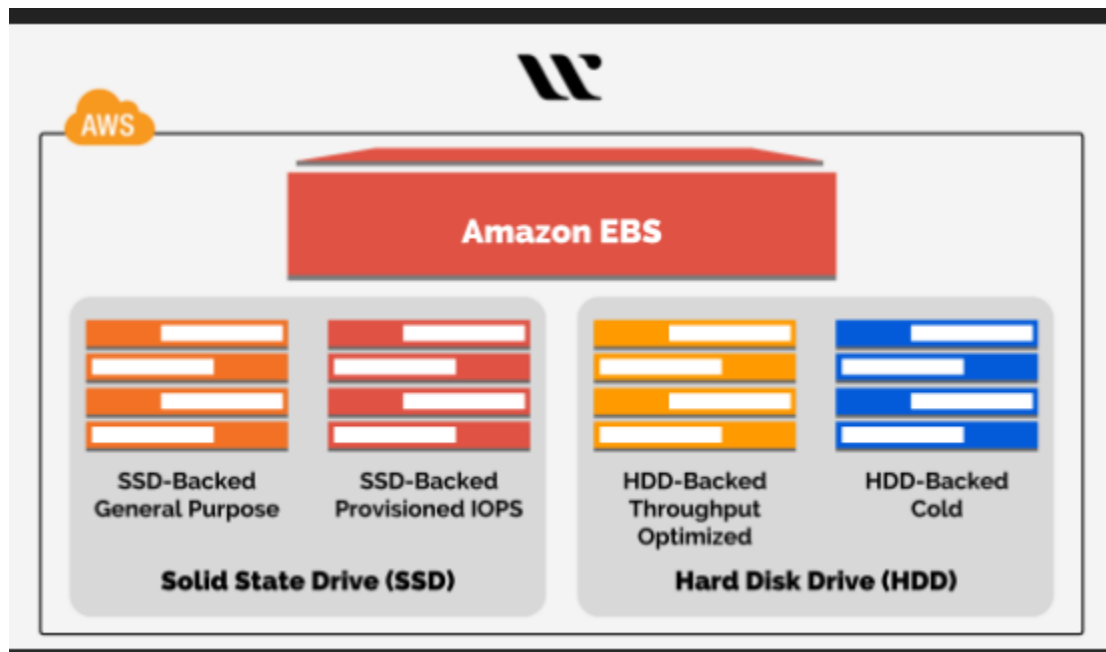


# EBS[ELASTIC BLOCK STORE]



## What is EBS(Elastic Block Store) in AWS

- AWS EBS is a cloud-based storage services that provides durable, high-performance block storage for use with Amazon EC2 instances.

It works like a virtual hard drive, allowing you to store and access data even when your EC2 instances are stopped or terminated.

- Amazon EBS is a block storage services designed to be used with EC2(Elastic Compute Cloud) instances. It provides persistent storage volumes that can be attached to EC2 instances.
- This service is used for hosting database (e.g., MySQL, PostgreSQL), storing files and logos with durability, taking automatic backups using snapshots.

## Lab Steps

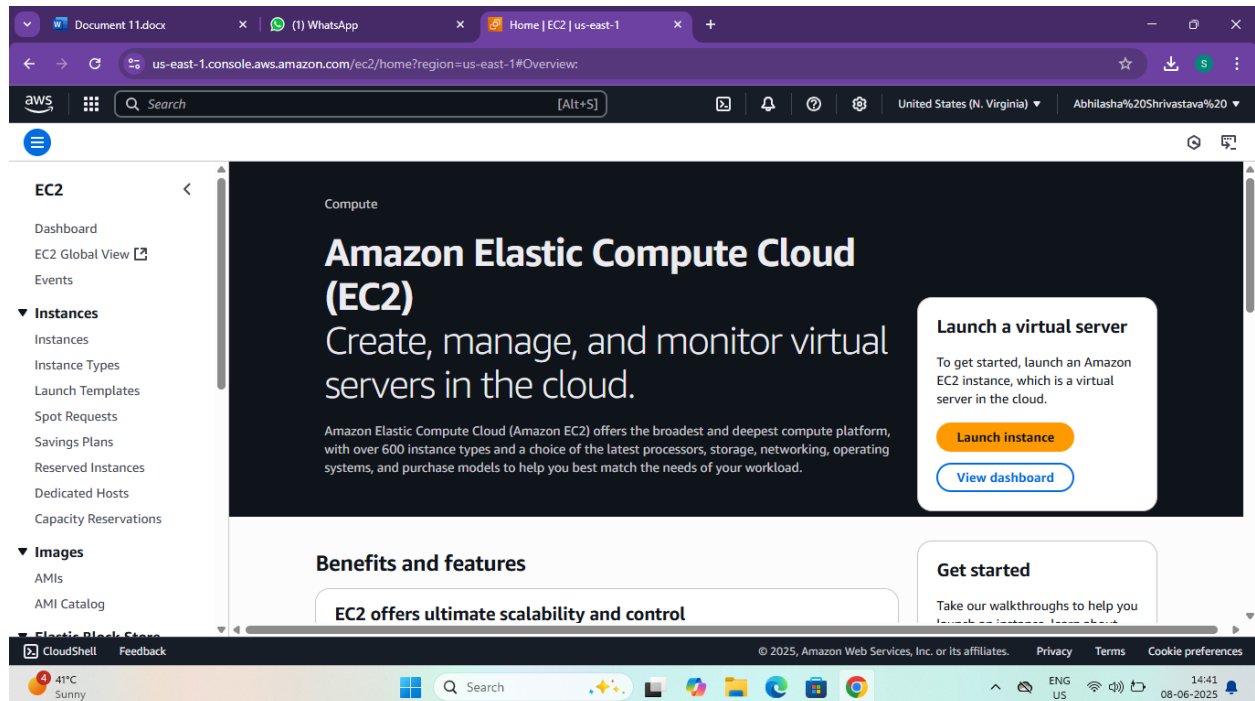
### Task 1: Sign in to AWS Management Console

1. Click on the open console button, and you will get redirected to AWS console in a new browser tab.

2. On the AWS sign-in page,
  - Leave the Account ID as default. Never edit/remove the 12-digit Account ID present in the AWS console. Otherwise, you cannot proceed with the lab.
  - Now copy your username and password in the lab console to the IAM username and password in AWS console and click on the sign-in button.
3. Once signed in to the AWS Management Console, make the default AWS Region as US East (N. Virginia) us-east-1.

## Task 2: Open EC2 Dashboard

1. In the AWS search bar, type EC2 and click on it.
2. You will enter the EC2 Dashboard.



## Task 3: Launch an Instances

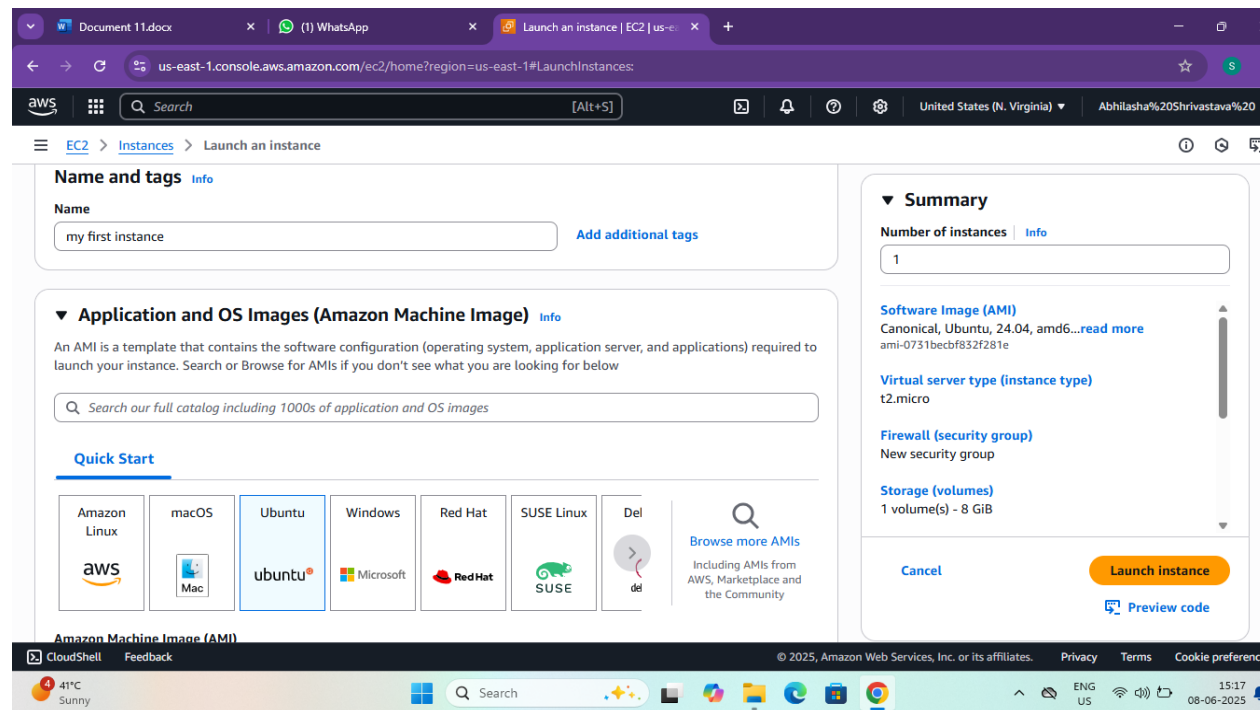
1. Click the “Launch Instances” button.
2. Fill out the following:

### 21. Name and Tags

- Give your instance a name (My first Instance).

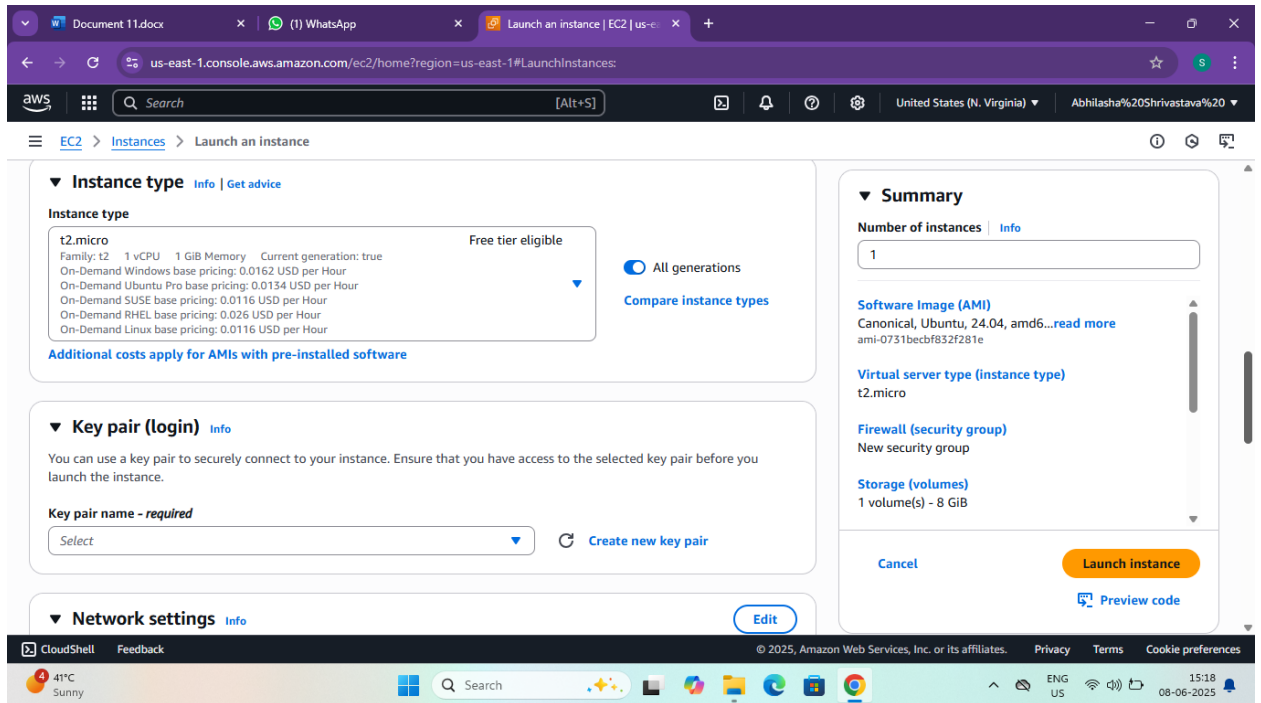
### 2. Application and OS Images (AMI)

- Choose an AMI (Amazon Machine Image):
- Example: ubuntu, windows etc.



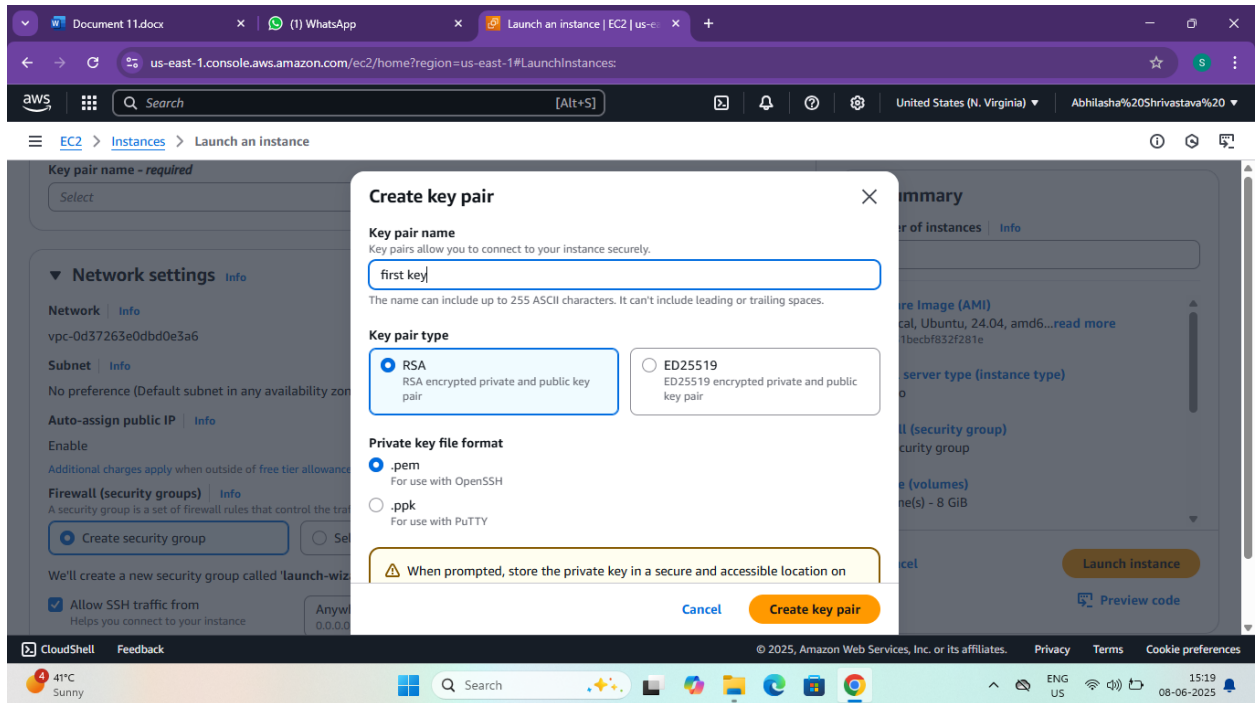
### 3. Instance Type

- Choose an Instances type (default is t2. micro- Free Tier eligible).



#### 4. Key Pair (login)

- Create a new key pair (if you don't have one)
- Download the .pem file- this is needed for SSH access.



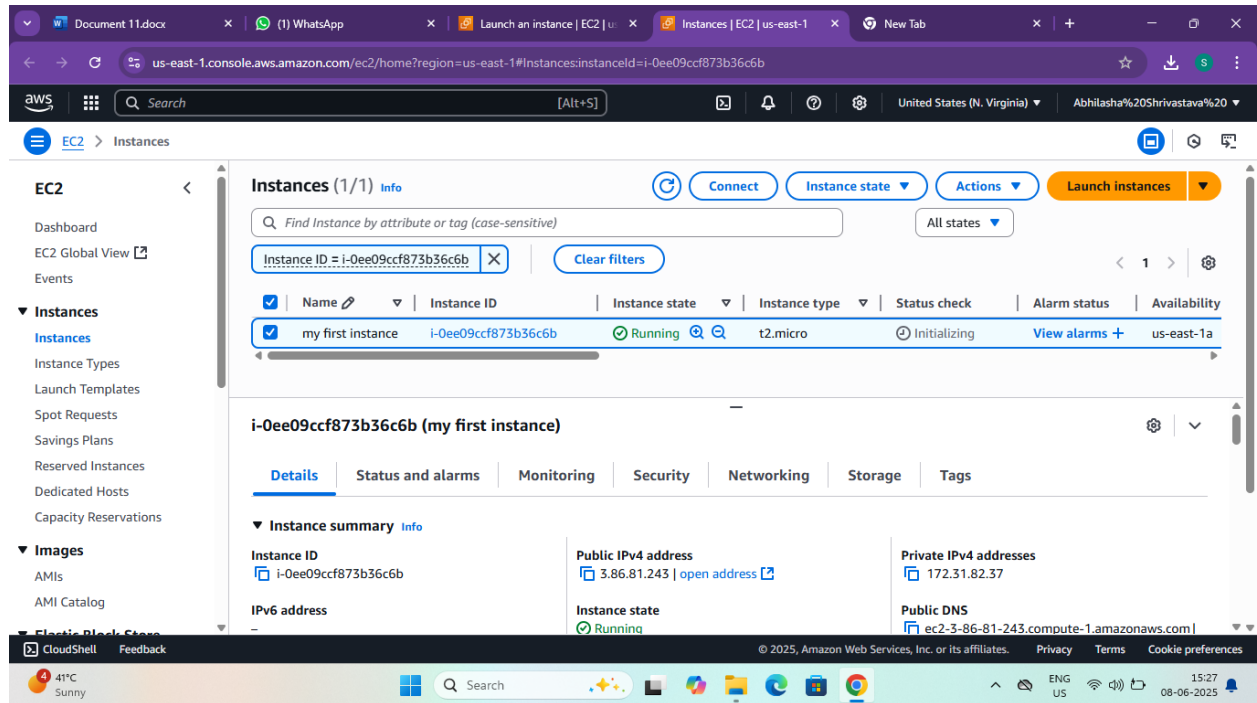
## Task 4: Launch the Instance

1. Click “Launch Instances”.

## Task 5: Connect to the Instances

For Linux:

1. Go to the Instances-> Select your Instances-> Connect.



## Task 6: Go to EC2 Dashboard

- In the AWS search bar, type “EC2” and select EC2.
- In the left menu, scroll to Elastic Block Store and click "volumes".

## Task 7: Create a volume

- Click the “create volume” button.
- Fill the following details:
  1. Volume type- gp3(general purpose SSD)
  2. Size-10 GiB (or more as needed)

Document 11.docx x WhatsApp x Launch an instance | EC2 | u x Create volume | EC2 | us-ea x EC2 Instance Connect | us-e x +

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#CreateVolume:

aws Search [Alt+S]

United States (N. Virginia) Abhilasha%20Shrivastava%20

EC2 > Volumes > Create volume

Create an Amazon EBS volume to attach to any EC2 instance in the same Availability Zone.

### Volume settings

**Volume type** | Info  
General Purpose SSD (gp3)

**Size (GiB)** | Info  
100  
Min: 1 GiB, Max: 16384 GiB.

**IOPS** | Info  
3000  
Min: 3000 IOPS, Max: 16000 IOPS.

**Throughput (MiB/s)** | Info  
125  
Min: 125 MiB, Max: 1000 MiB. Baseline: 125 MiB/s.

**Availability Zone** | Info  
us-east-1a

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3. Availability Zone-Same as your EC2(e.g., us-east-1a)

4. Encrypted-Optional (choose if you want encryption)

Document 11.docx x WhatsApp x Launch an instance | EC2 | u x Create volume | EC2 | us-ea x EC2 Instance Connect | us-e x +

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#CreateVolume:

aws Search [Alt+S]

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EC2 > Volumes > Create volume

Don't create volume from a snapshot

**Encryption** | Info  
Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances.  
☐ Encrypt this volume

**Tags - optional** | Info  
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.  
No tags associated with the resource.  
[Add tag](#)  
You can add 50 more tags.

**Snapshot summary** | Info  
[Click refresh to view backup information](#)  
The volume type that you select and the tags that you assign determine whether the volume will be backed up by any Data Lifecycle Manager policies.

Cancel Create volume

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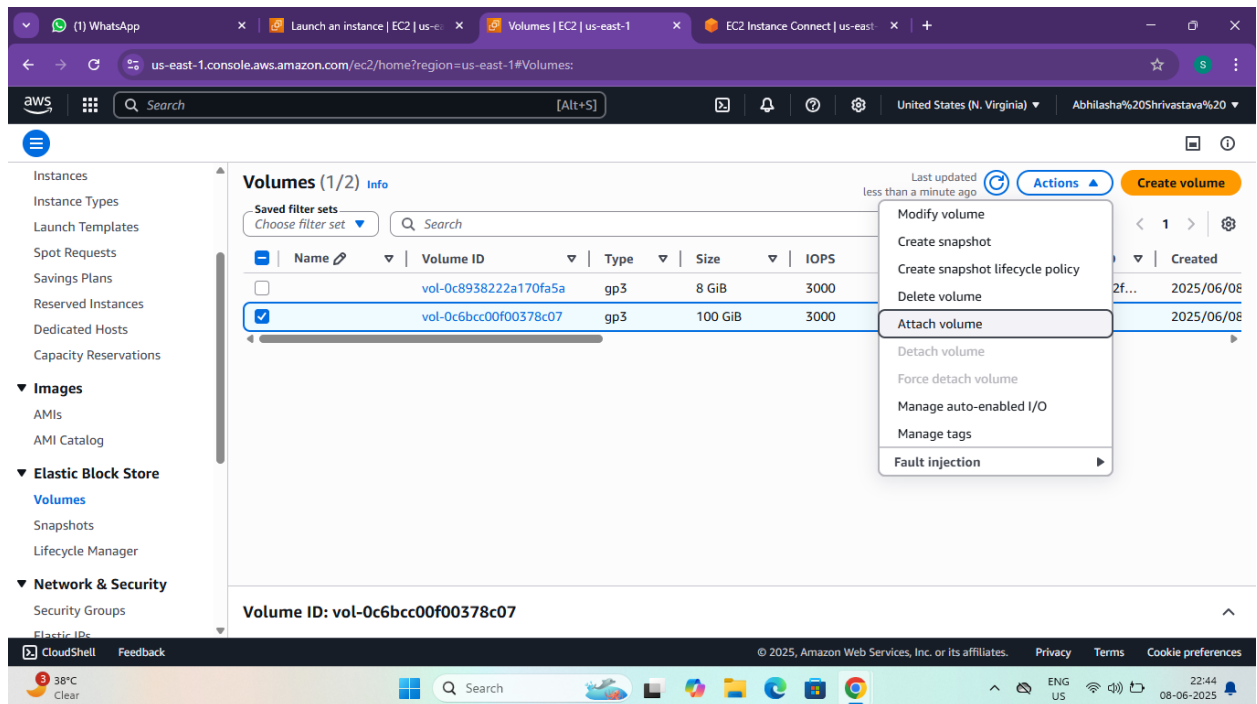
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- Click create Volume.



## Task 8: Attach Volume to EC2 Instance

1. After creation, Select the new volume.
2. Click Actions-> Attach volume.



3. Choose the EC2 instances (must be in the same availability zone).
4. Click Attach.

WhatsApp

Launch an instance | EC2 | us-east-1

Attach volume | EC2 | us-east-1

EC2 Instance Connect | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#AttachVolume:volumeId=vol-0c6bcc00f00378c07

aws

Search

[Alt+S]

United States (N. Virginia)

Abhilasha%20Shrivastava%20

EC2 > Volumes > vol-0c6bcc00f00378c07 > Attach volume

Volume ID

vol-0c6bcc00f00378c07

Availability Zone

us-east-1a

Instance

i-0ee09ccf873b36c6b

(my first instance) (running)

Only instances in the same Availability Zone as the selected volume are displayed.

Device name

/dev/sdb

Recommended device names for Linux: /dev/sda1 for root volume, /dev/sd[f-p] for data volumes.

Newer Linux kernels may rename your devices to /dev/xvdf through /dev/xvdp internally, even when the device name entered here (and shown in the details) is /dev/sdf through /dev/sdp.

Cancel

Attach volume

CloudShell

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