

AWS amazon web service

AWS LAUNCHED IN 2006

Offering 240+ service

We are going to learn 25+ major service

12 services

13 services for resume weightage and live project

(*) What is Cloud computing?

It's a technology which reduce our cost and reduce our physical machines (which is on premises) convert to virtual machines (cloud servers). On demand delivery of resources through internet with {pay as you go model}. In other words, simply says

physical datacenter ----- to virtual datacenter.

physical data center contains (on premises)

1server --- EC2 LAMDA EBS

2 storage --- S3 EFS

3 security --- IAM CM CLOUD TRAIL

4 database --- RDS REDHIFT DYNAMO DB

5 applications -- ELB ASG CW SNS SQS

6 networking --- VPC R53

1 server

A **server** is a software or hardware device that accepts and responds to requests made over a network. The device that makes the request, and receives a response from the server, is called a client.

2 storage

On-premises storage means **your company's server is hosted within your organization's infrastructure and, in many cases, physically onsite**. The server is controlled, administered, maintained, procured, etc. by your company and its in-house IT team

4 database

in computing, a database is an organized collection of data stored and accessed electronically

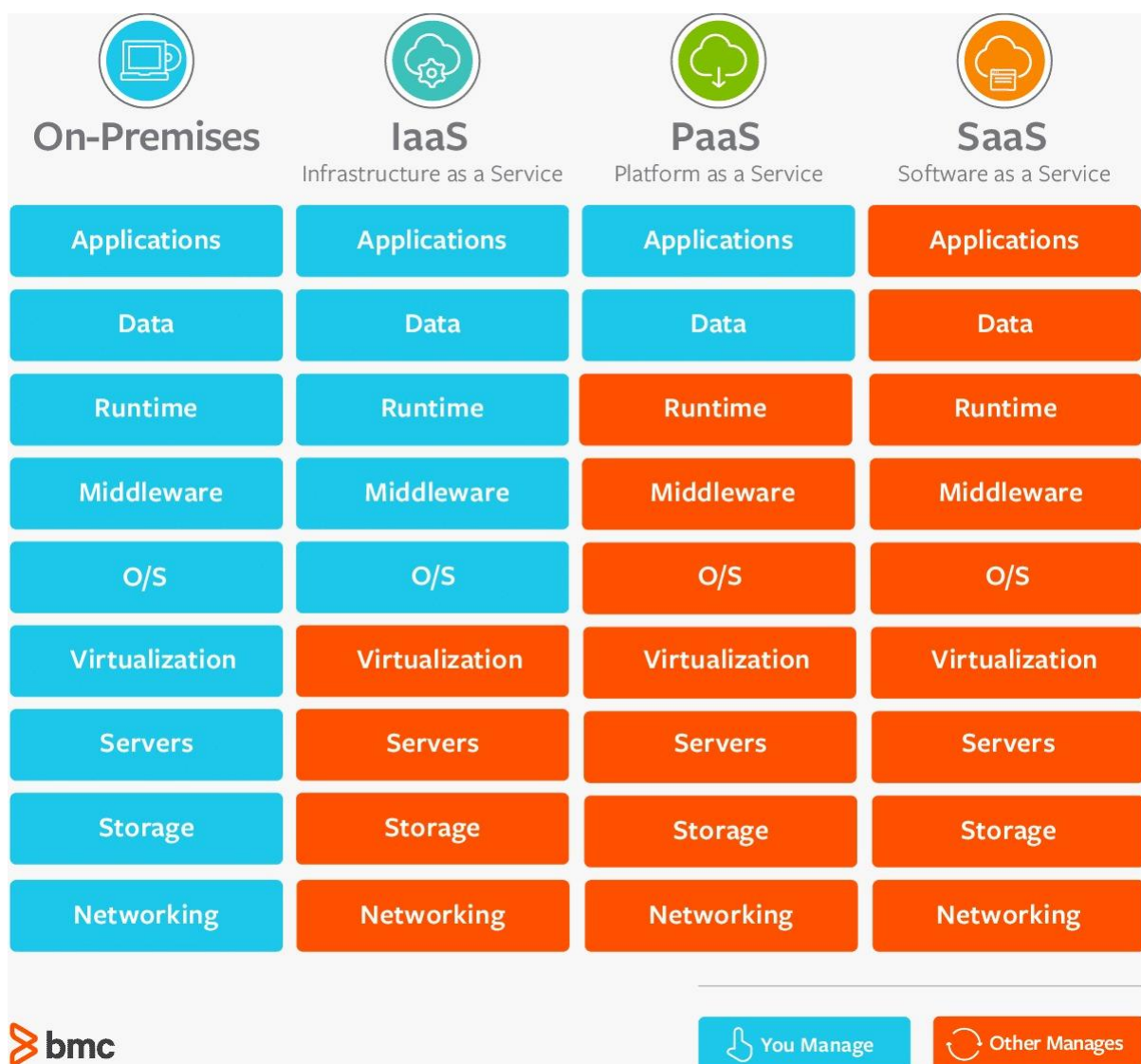
5 applications

An application program is a computer program designed to carry out a specific task other than one relating to the operation of the computer itself, typically to be used by end-users

6 networking

Computer networking refers to **interconnected computing devices that can exchange data and share resources with each other**

Cloud models are common for all platforms like AZURE & GCP etc.



On premises – we need to maintain the following

Blue: IAAS PAAS

31 REGION THROUGHOUT THE WORLD SINGLE REGION CONTAINS 3 DATA CENTERS (Availability zone)

According to client needs we need to create virtual machines in a specific region

1.SERVER

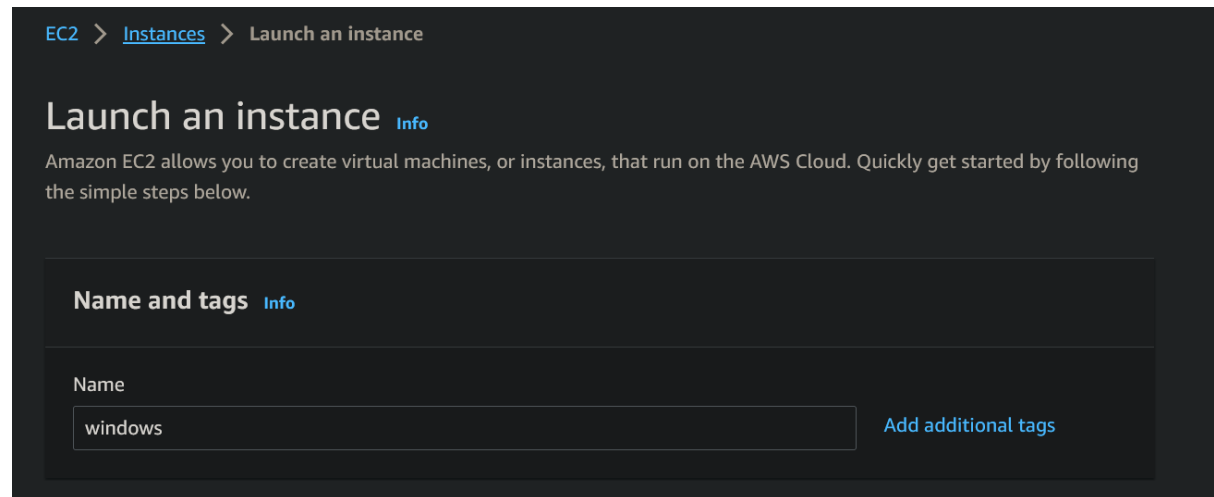
EC2 SERVER ENGINEERING (Elastic compute cloud – virtual server access through internet)

LAUNCH AN INSTANCE WINDOWS& LINUX

EC2 -- INSTANCES — LAUNCH AN INSTANCE

WINDOWS SERVER CREATION

(*) NAME



(*) AMAZON MACHINE IMAGE

SELECT FREE TIER OS

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

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

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

Quick Start

Amazon Linux

macOS

Ubuntu

Windows

Red Hat

SUSE

Q

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Microsoft Windows Server 2022 Base

ami-03394ed0997b5f65a (64-bit (x86))

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

Free tier eligible ▼

Description

Microsoft Windows Server 2022 Full Locale English AMI provided by Amazon

Architecture

AMI ID

64-bit (x86)

ami-03394ed0997b5f65a

Verified provider

(*) RAM SELECTION T2 MICRO FREE TIER ELIGIBLE

▼ Instance type [Info](#)

Instance type

t2.micro

Free tier eligible

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

On-Demand Windows pricing: 0.0192 USD per Hour

On-Demand RHEL pricing: 0.0746 USD per Hour

On-Demand Linux pricing: 0.0146 USD per Hour

On-Demand SUSE pricing: 0.0146 USD per Hour

All generations

Compare instance types

(*) CREATE A NEW KEY PAIR

.PEM for windows

.PPK for Linux

Create key pair

Key pairs allow you to connect to your instance securely.

Enter the name of the key pair below. 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](#)

Key pair name

machine

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

Private key file format

☒ .pem
For use with OpenSSH

☐ .ppk
For use with PuTTY

Cancel

Create key pair

Public key is created within the machine

Private key is downloaded

(*) network settings

▼ Network settings [Info](#)

Edit

Network [Info](#)

vpc-02ce4aa3940e5bcd1

Subnet [Info](#)

No preference (Default subnet in any availability zone)

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

We'll create a new security group called 'launch-wizard-1' with the following rules:

☒ Allow RDP 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

 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.

×

Remote desktop protocol RDP IS ENABLED PORT NO 3389

(*) configure storage

▼ Configure storage [Info](#)

Advanced


1x

30

GiB

gp2

Root volume (Not encrypted)

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

×

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

0 x File systems

Edit

16 tb of storage can be added in free tier

We can add new volumes till 16 Terabytes (according to client needs)

(*) add volume

The screenshot shows the 'Configure storage' section of the AWS console. It features a dark theme with a blue header bar containing a dropdown arrow, the text 'Configure storage', an 'Info' link, and an 'Advanced' link. Below the header, there are two volume configurations. The first is a 'Root volume' of 30 GiB, type 'gp2', labeled '(Not encrypted)'. The second is an 'EBS volume' of 8 GiB, type 'gp3', also labeled '(Not encrypted)', with a 'Remove' button to its right. At the bottom, a blue-bordered box contains an information icon and the text: 'Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage'.

(*) launch instance

The screenshot shows the 'Launch instance' console. A large blue-bordered box at the top contains an information icon and the text: 'Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.' Below this box, there are two buttons: a 'Cancel' button and a 'Launch instance' button. At the bottom right, there is a link that says 'Review commands'.

(*) instance has been launched for windows

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP	IPv6 IPs	Monitoring	Security group name	Key name
windows1	i-010e7a24ac5a53253	Running	t2.micro	-	No alarms	ap-southeast-1a	ec2-13-213-28-11.ap-s...	13.213.28.11	-	-	disabled	launch-wizard-2	windows1

2. Linux instance

Name and tags

EC2 > Instances > Launch an instance

Launch an instance

Info

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

Info

Name

linux

Add additional tags

(*) amazon machine image

▼ Application and OS Images (Amazon Machine Image)

Info

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

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

Recents

Quick Start

Amazon Linux

macOS

Ubuntu

Windows

Red Hat

SUSE

Q

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI

Free tier eligible

ami-04ddf30efb5385f93 (64-bit (x86), uefi-preferred) / ami-0f7199970f5bdc22c (64-bit (Arm), uefi)

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

Description

Amazon Linux 2023 AMI 2023.0.20230329.0 x86_64 HVM kernel-6.1

Architecture

Boot mode

AMI ID

64-bit (x86)

uefi-preferred

ami-04ddf30efb5385f93

Verified provider

(*) instance type t2 micro

▼ Instance type [Info](#)

Instance type

t2.micro

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

On-Demand Windows pricing: 0.0192 USD per Hour

On-Demand RHEL pricing: 0.0746 USD per Hour

On-Demand Linux pricing: 0.0146 USD per Hour

On-Demand SUSE pricing: 0.0146 USD per Hour

Free tier eligible

☐ All generations

[Compare instance types](#)

(*) create new key pair

PPK file format PUTTY PRIVATE KEY FORMAT

Create key pair

Key pairs allow you to connect to your instance securely.

Enter the name of the key pair below. 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](#)

Key pair name

linux

The name can include upto 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 (Not supported for Windows instances)

Private key file format

☐ .pem
For use with OpenSSH

☒ .ppk
For use with PuTTY

Cancel

Create key pair

(*) NETWORK SETTINGS

ALLOW SSH PROTOCOL PORT NO 22

▼ Network settings [Info](#)

Edit

Network [Info](#)

vpc-02ce4aa3940e5bcd1

Subnet [Info](#)

No preference (Default subnet in any availability zone)

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

We'll create a new security group called 'launch-wizard-3' 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

 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.

×

(*) CONFIGURE STORAGE

▼ Configure storage [Info](#)

Advanced


1x

8

GiB

gp3

Root volume (Not encrypted)

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

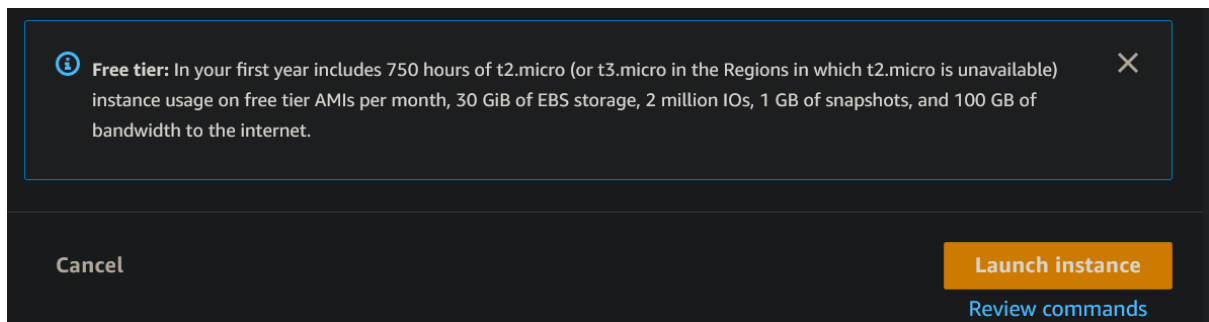
×

Add new volume

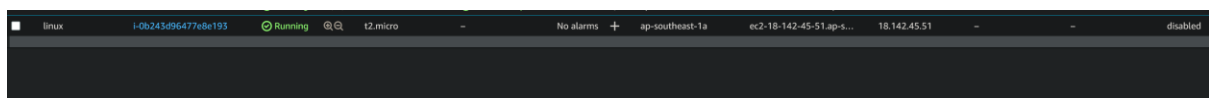
0 x File systems

Edit

(*) LAUNCH INSTANCE



(*) view all instance

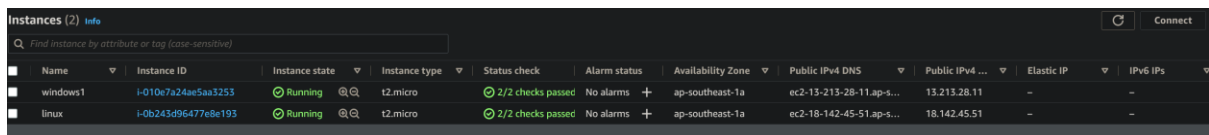


2/2 CHECK PASSED NETWORK AND SYSTEM CHECK

½ CHECK BOX CONNECTIVITY ISSUE

To solve this issue, they will restart the machine.

(*) Opening the machine using connect option



(*) connect using RDP client for windows

EC2 > Instances > i-010e7a24ae5aa3253 > Connect to instance


Connect to instance [Info](#)

Connect to your instance i-010e7a24ae5aa3253 (windows1) using any of these options

Session Manager


RDP client

EC2 serial console


Instance ID
 i-010e7a24ae5aa3253 (windows1)

Connection Type



☒ **Connect using RDP client**
Download a file to use with your RDP client and retrieve your password.

☐ **Connect using Fleet Manager**
To connect to the instance using Fleet Manager Remote Desktop, the SSM Agent must be installed and running on the instance. For more information, see [Working with SSM Agent](#) 


You can connect to your Windows instance using a remote desktop client of your choice, and by downloading and running the RDP shortcut file below:

 **Download remote desktop file**

When prompted, connect to your instance using the following details:

Public DNS  ec2-13-213-28-11.ap-southeast-1.compute.amazonaws.com	User name  Administrator
---	--


Password [Get password](#)

 If you've joined your instance to a directory, you can use your directory credentials to connect to your instance.



Cancel

(*) download remote desktop file

Running the RDP shortcut file below.

 **Download remote desktop file**

When prompted, connect to your instance using the following details:

Public DNS  ec2-13-213-28-11.ap-southeast-1.compute.amazonaws.com	User name  Administrator
---	--

Password [Get password](#)

(*) choose get password

When prompted, connect to your instance using the following details:

Public DNS ec2-13-213-28-11.ap-southeast-1.compute.amazonaws.com	User name Administrator
Password	Get password

(*) get windows password

Get Windows password [Info](#)

Use your private key to retrieve and decrypt the initial Windows administrator password for this instance.

Instance ID
i-010e7a24ae5aa3253 (windows1)

Key pair associated with this instance
windows1

Private key
Either upload your private key file or copy and paste its contents into the field below.

[Upload private key file](#)

Private key contents - *optional*


Private key contents


Cancel [Decrypt password](#)

(*) (upload PEM private key file)


Get Windows password [Info](#)


Use your private key to retrieve and decrypt the initial Windows administrator password for this instance.

Instance ID
 **i-010e7a24ae5aa3253** (windows1)

Key pair associated with this instance
 **windows1**

Private key
Either upload your private key file or copy and paste its contents into the field below.

 **Upload private key file**

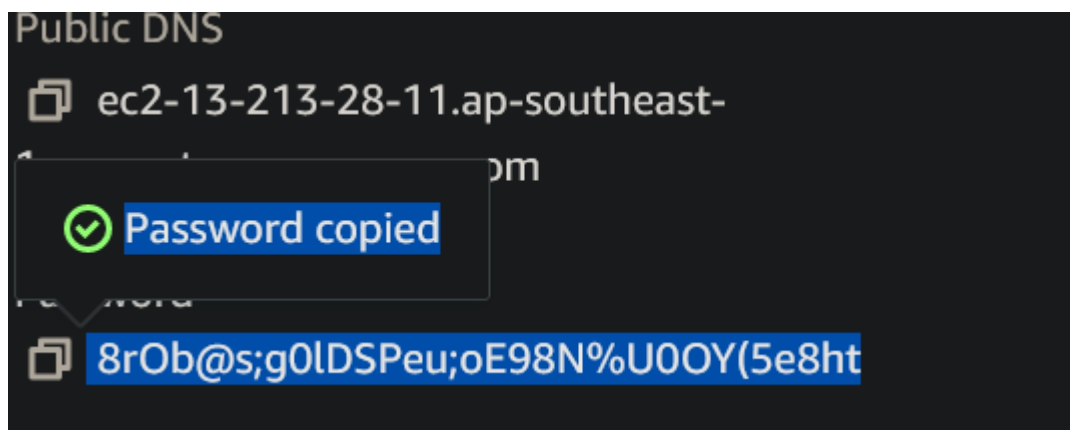
 **windows1.pem**
1.678KB

Private key contents - *optional*

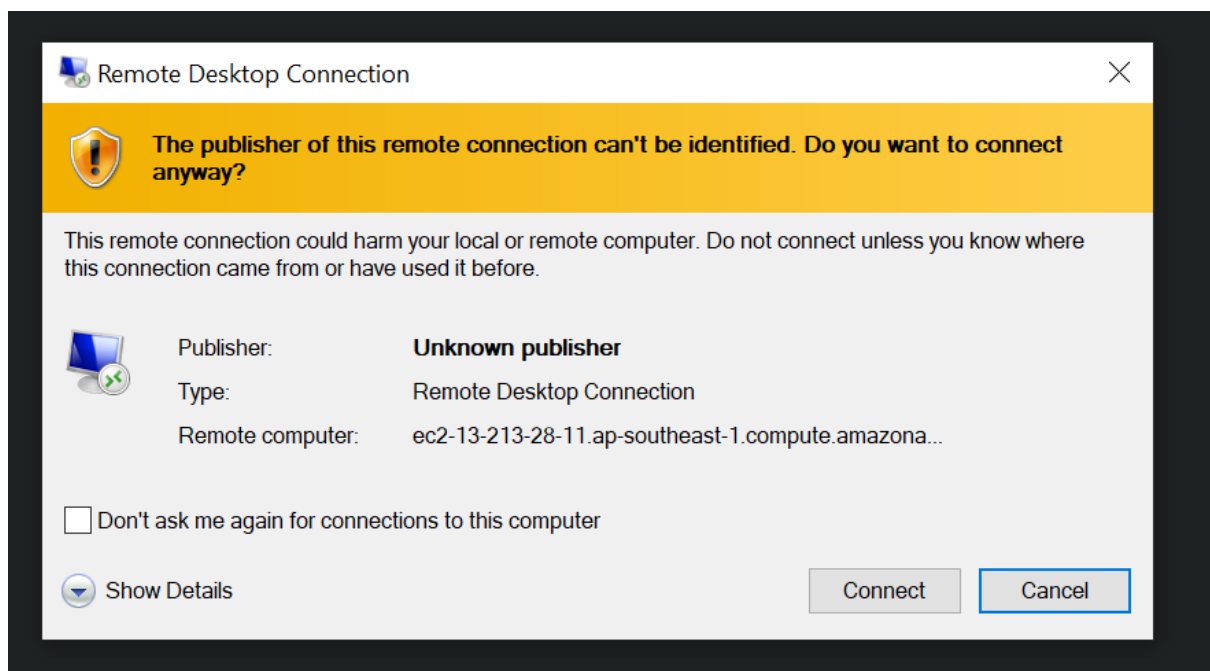
```
D1fNEg5GsCecWtdkFGaR3Sz8zDGjB6mKIEoQFqnajkpzm7h6OemLfit5mvKHR3Ff
p+G7MBbeyEfQWnOjce1Nji3yQh8H0/iXDS3OSjP+T5+dcxkwPAOBO54Fu9/ZwURb
oCjipCXnyl6slynsJcaDhQKBgQCKLij5SZVIRPuxBhdr8w8uqVbJQZAb9BSJUXy
yEneMyNlCLXby1zjY1bXMDm6ylW+VrhQ7Jvy/+MbZfVXSE8Fa3bXXWVAuz+rQhI
W41Aez42r0wB/YWeiFhwUo5mnJJDxvMgv2H7yEmQizN6iohYugGRPh1T9tBnQppX
Ry6YFQKBgQCKo+cxja58lpXNRfwSq5FoEYnEDpfD1v43VwzulOH79n5VvxFO5dMX
DSrjmm0hekn71K1OXaTDirXbBck99iRB7o8MuvMT1bf1Cx2cfjgwa3KqyoizM6QQ
XbgVYjGYNasQDt5xdh67ppmvPcQlqjRWJwH+fe53vjYtIL8RNy6JJg==
-----END RSA PRIVATE KEY-----
```

[Cancel](#) [Decrypt password](#)

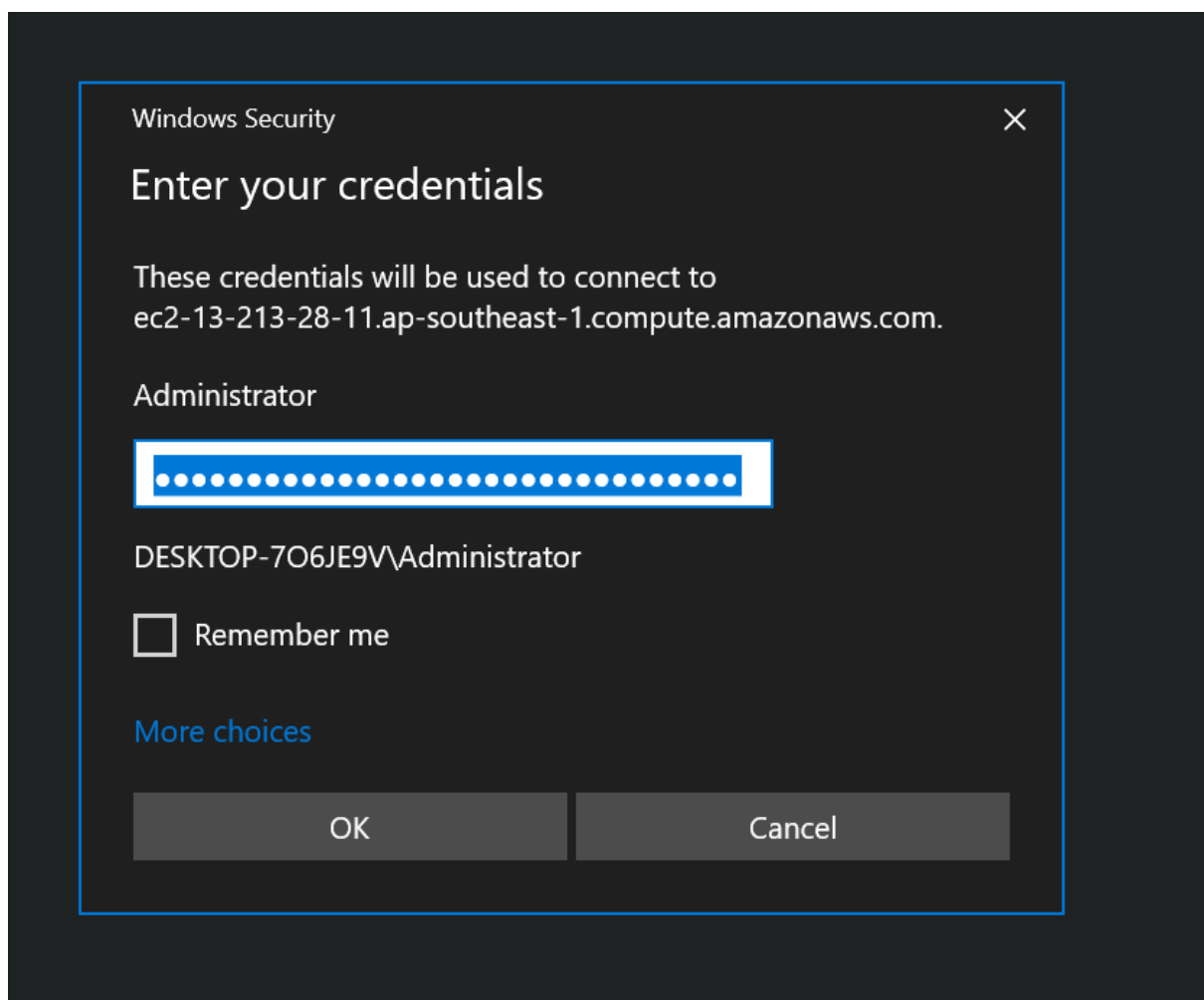
(*) (password copied)

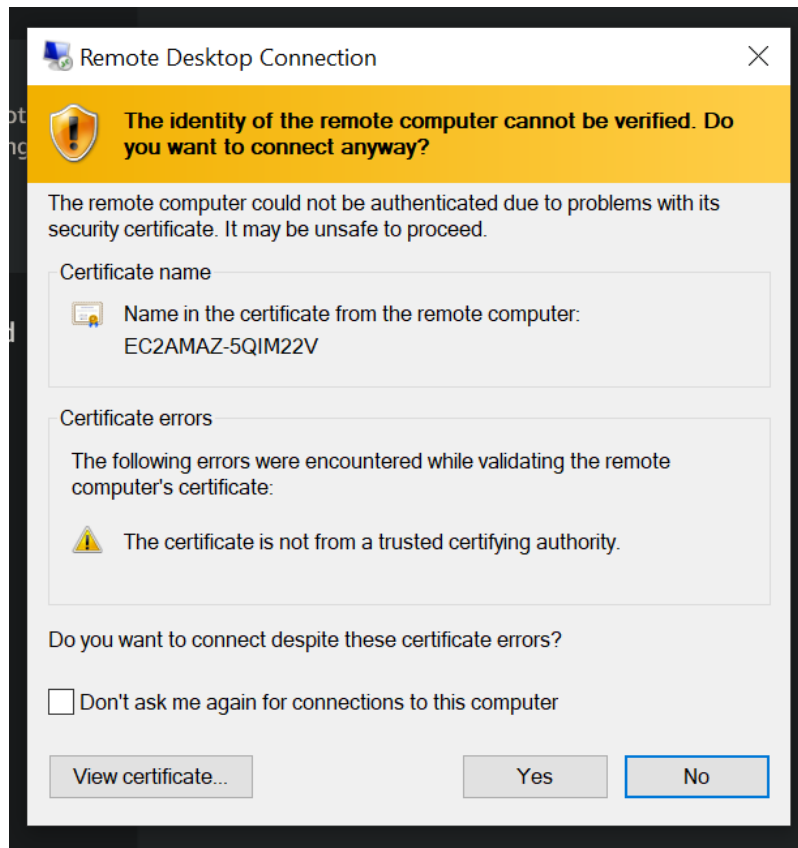


(*) connect using remote desktop file

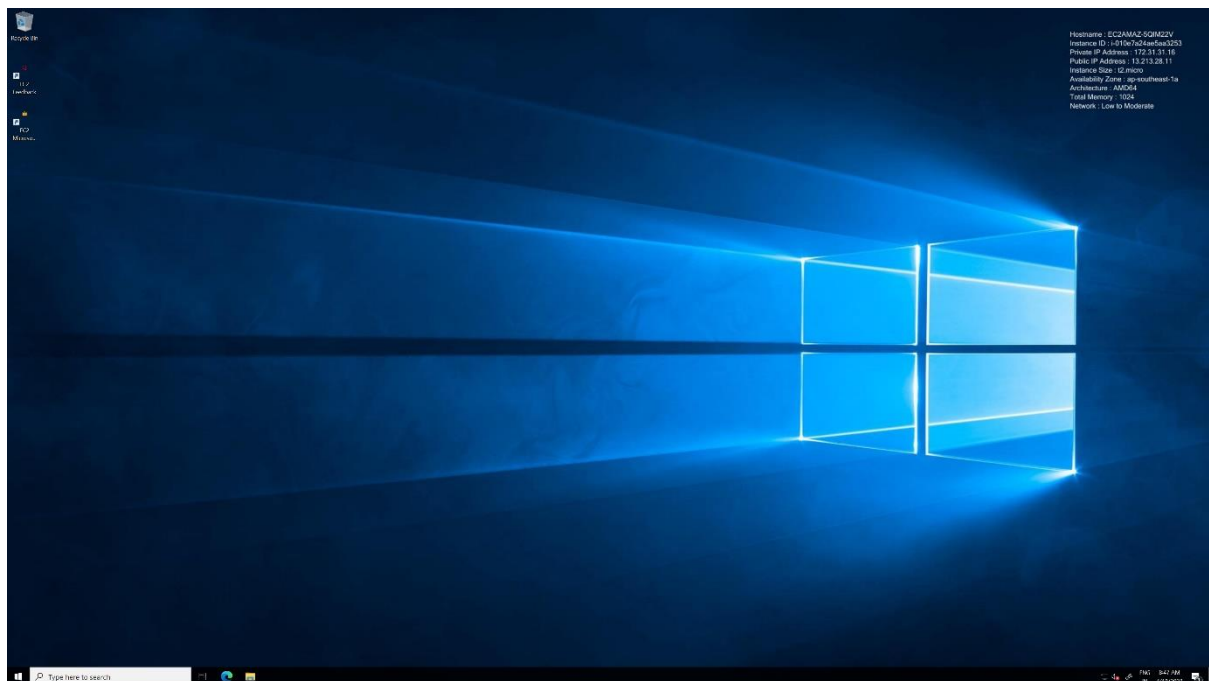


(*) paste decrypted password and press ok





(*) windows machine is connected successfully



NEW VOLUME SHOULD BE ADDED MANUALLY

1.DISK MANAGEMENT

2. ONLINE

3.INITIALIZE DISK

4. NEW SIMPLE VOLUME – NEXT – NEXT -- FINISH

5. NEW VOLUME ADDED SUCCESSFULLY

2. ELASTIC IP ADDRESS

Public ipv4 dynamic address

To cover private Ip

Private ipv4 address is a static Ip address

(*) allocate elastic Ip address

The screenshot shows the 'Allocate Elastic IP address' page in the AWS Management Console. The breadcrumb trail at the top reads 'EC2 > Elastic IP addresses > Allocate Elastic IP address'. The main heading is 'Allocate Elastic IP address' with an 'Info' link. Below this is the 'Elastic IP address settings' section, which includes a search bar for 'Network Border Group' containing 'ap-southeast-1'. Under 'Public IPv4 address pool', three options are listed: 'Amazon's pool of IPv4 addresses' (selected), 'Public IPv4 address that you bring to your AWS account' (disabled), and 'Customer owned pool of IPv4 addresses' (disabled). The 'Global static IP addresses' section contains a description of AWS Global Accelerator and a 'Create accelerator' button. A 'Tags - optional' section explains that tags are labels for AWS resources and shows 'No tags associated with the resource.' with an 'Add new tag' button. At the bottom right, there are 'Cancel' and 'Allocate' buttons.

EC2 > Elastic IP addresses > Allocate Elastic IP address

Allocate Elastic IP address [Info](#)

Elastic IP address settings [Info](#)

Network Border Group [Info](#)

ap-southeast-1

Public IPv4 address pool

- ☒ Amazon's pool of IPv4 addresses
- ☐ Public IPv4 address that you bring to your AWS account (option disabled because no pools found) [Learn more](#)
- ☐ Customer owned pool of IPv4 addresses (option disabled because no customer owned pools found) [Learn more](#)

Global static IP addresses

AWS Global Accelerator can provide global static IP addresses that are announced worldwide using anycast from AWS edge locations. This can help improve the availability and latency for your user traffic by using the Amazon global network. [Learn more](#)

Create accelerator

Tags - optional

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 new tag

You can add up to 50 more tag

Cancel Allocate

(*) ELASTIC IP ADDRESS CREATED

Name	Allocated IPv4 address	Type	Allocation ID	Reverse DNS record	Associated instance ID	Private IP address	Association ID	Network interface owner account	Network Interface ID
-	13.215.225.136	Public IP	eipalloc-0010cc42421c71f8b	-	-	-	-	-	ap-southeast-1

(*) ASSOCIATE ELASTIC IP ADDRESS

EC2 > Elastic IP addresses > Associate Elastic IP address

Associate Elastic IP address [Info](#)

Choose the instance or network interface to associate to this Elastic IP address (13.215.225.136)

Elastic IP address: 13.215.225.136

Resource type
Choose the type of resource with which to associate the Elastic IP address.

☒ Instance

☐ Network interface

⚠ If you associate an Elastic IP address with an instance that already has an Elastic IP address associated, the previously associated Elastic IP address will be disassociated, but the address will still be allocated to your account. [Learn more](#)

If no private IP address is specified, the Elastic IP address will be associated with the primary private IP address.

Instance

Private IP address
The private IP address with which to associate the Elastic IP address.

Reassociation
Specify whether the Elastic IP address can be reassociated with a different resource if it already associated with a resource.

☐ Allow this Elastic IP address to be reassociated

(*) CHOOSE A STOPPED INSTANCE

Instance

Q Choose an instance

i-0b243d96477e8e193 (linux) - stopped

i-010e7a24ae5aa3253 (windows1) - running

The private IP address with which to associate the Elastic IP address.

Q Choose a private IP address

(*) SELECT PRIVATE IP ADDRESS ALLOW THIS ELASTIC IP ADDRESS TO BE REASSOCIATED

Instance

Q i-0b243d96477e8e193

X

Private IP address

The private IP address with which to associate the Elastic IP address.

Q 172.31.29.3

X

Reassociation

Specify whether the Elastic IP address can be reassociated with a different resource if it already associated with a resource.

☒ Allow this Elastic IP address to be reassociated

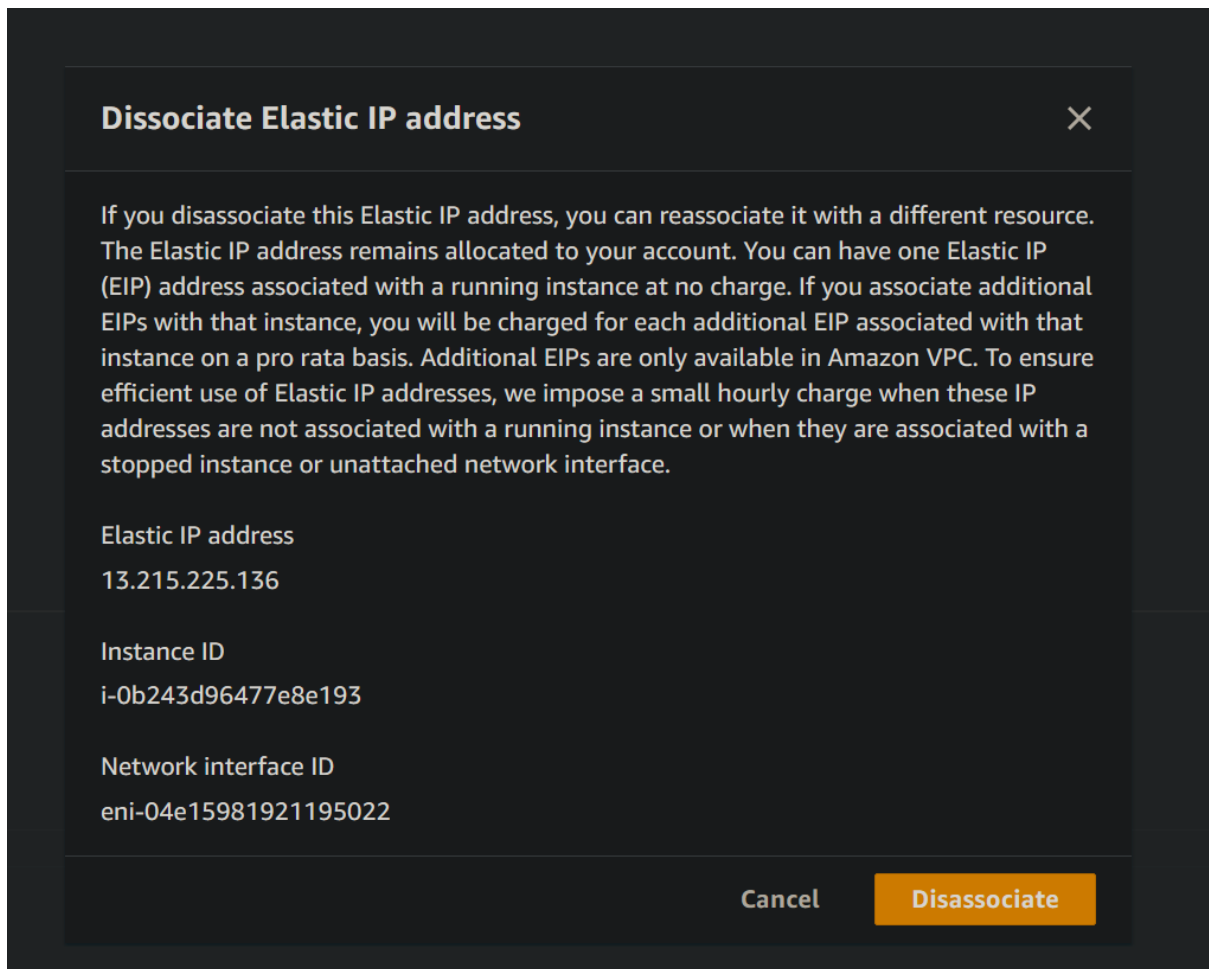
Cancel

Associate

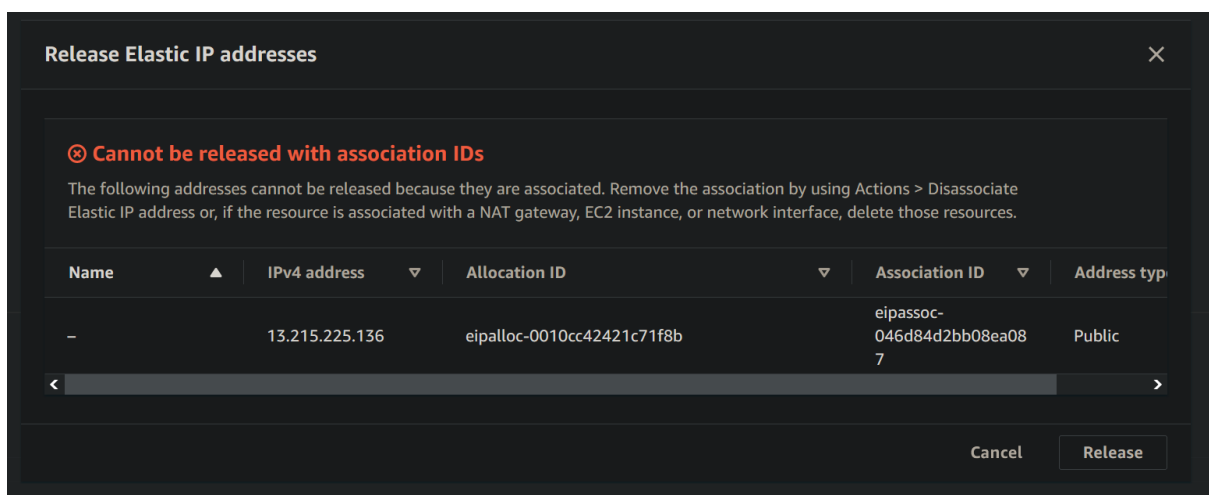
(*) DYNAMIC IP ADDRESS CHANGED TO STATIC

Name	Allocated IPv4 address	Type	Allocation ID	Reverse DNS record	Associated instance ID	Private IP address	Association ID	Network interface owner account	Network interface ID
-	13.215.225.136	Public IP	elpaloc-0010cc42421c71f8b	-	i-0b243d96477e8e193	172.31.29.3	elpassoc-046d84d28508ea087	509636718401	ap-south-1

(*) DISSOCIATE ELASTIC IP ADDRESS AS IT IS NOT FREE OF COST

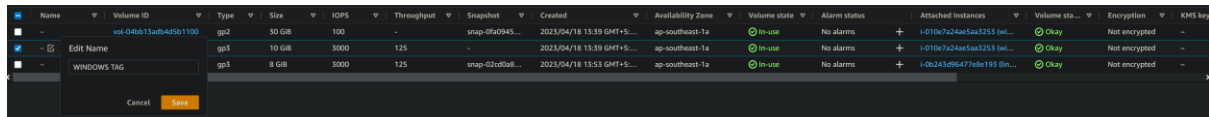


(*) RELEASE ELASTIC IP ADDRESS

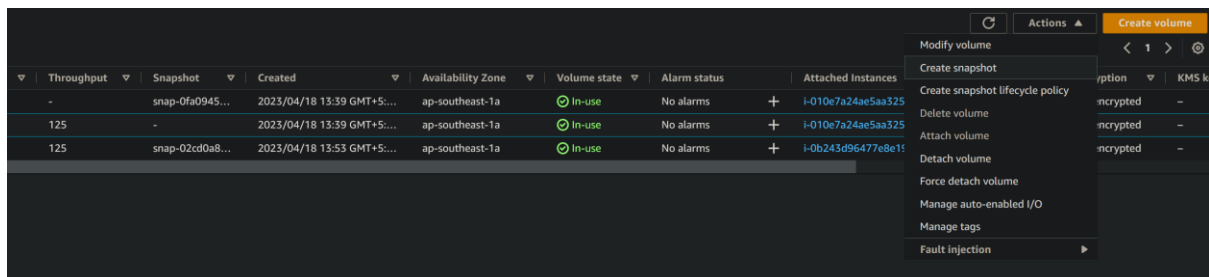


3. CREATING BACKUP

- 1.Go to elastic block store on the side
2. select volumes
3. add tags for the volumes



4.create snapshot




5.create snapshot

EC2 > Volumes > vol-01115dcdc5784614a > Create snapshot

Create snapshot [Info](#)

Create a point-in-time snapshot to back up the data on an Amazon EBS volume to Amazon S3.

Details

Volume ID
 vol-01115dcdc5784614a (WINDOWS TAG)

Description
Add a description for your snapshot

255 characters maximum.

Encryption [Info](#)
Not encrypted

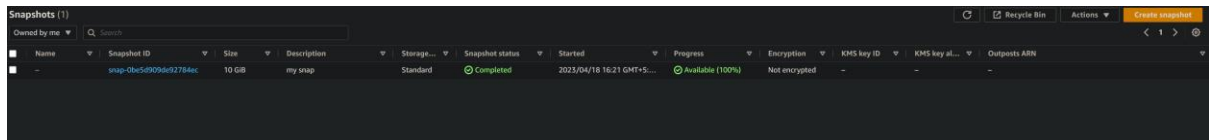
Tags [Info](#)

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.

You can add 50 more tags.

6. backup is created go to snapshot there you will see

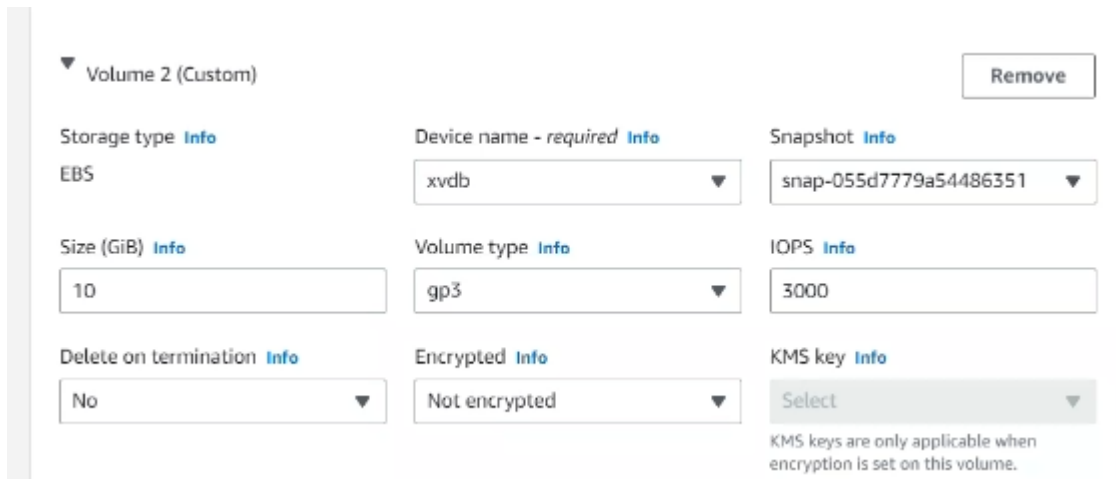


The screenshot shows the AWS Snapshots console. At the top, there's a search bar and a 'Create snapshot' button. Below is a table with columns: Name, Snapshot ID, Size, Description, Storage type, Snapshot status, Started, Progress, Encryption, KMS key ID, KMS key ARN, and Outposts ARN. One snapshot is listed with ID 'snap-0bc59096d02764ec', size '10 GB', description 'my snap', storage type 'Standard', status 'Completed', started time '2023/04/18 16:21 GMT+5...', progress 'Available (100%)', and encryption 'Not encrypted'.

Name	Snapshot ID	Size	Description	Storage type	Snapshot status	Started	Progress	Encryption	KMS key ID	KMS key ARN	Outposts ARN
-	snap-0bc59096d02764ec	10 GB	my snap	Standard	Completed	2023/04/18 16:21 GMT+5...	Available (100%)	Not encrypted	-	-	-

7. create a new machine (instance)

8. add a new volume and add my snap to the volume



The screenshot shows the 'Volume 2 (Custom)' configuration page in the AWS console. It includes a 'Remove' button at the top right. The configuration is organized into three columns: Storage type (EBS), Device name (xvdb), and Snapshot (snap-055d7779a54486351). Other fields include Size (10 GiB), Volume type (gp3), IOPS (3000), Delete on termination (No), Encrypted (Not encrypted), and KMS key (Select). A note at the bottom states: 'KMS keys are only applicable when encryption is set on this volume.'

Storage type	Device name - required	Snapshot
EBS	xvdb	snap-055d7779a54486351

Size (GiB)	Volume type	IOPS
10	gp3	3000

Delete on termination	Encrypted	KMS key
No	Not encrypted	Select

KMS keys are only applicable when encryption is set on this volume.

9. click on create instance

10. then connect using remote desktop file

11. NEW VOLUMES SHOULD BE ADDED MANUALLY

12. DISK MANAGEMENT

13. ONLINE

14. INITIALIZE DISK

15. NEW SIMPLE VOLUME – NEXT – NEXT -- FINISH

16. NEW VOLUME ADDED SUCCESSFULLY with backups

4. Elastic block store – lifecycle manager scheduling backups

(*) EBS snapshot policy



(*) specify settings

Specify settings

Target resources [Info](#)
Specify the resources that are to be targeted by this policy.

Target resource types
Select the type of resources that are to be targeted.
☒ Volume
☐ Instance

Target resource tags
All resources of the selected type that have at least one of these tags will be targeted by the policy.

Name X
WINDOWS TAG

44 tags remaining of 45.

Description

Policy description

IAM role [Info](#)
This policy must be associated with an IAM role that has the appropriate permissions. If you choose to create a new role, you must grant relevant role permissions and set up trust relationships correctly. If you are unsure of what role to use, choose Default role.
☒ Default role

If the default role already exists, Amazon Data Lifecycle Manager will use that role. If it does not exist yet, it will be automatically created with all the required permissions.

► View default role permissions

☐ Choose another role

Policy status

Specify whether to enable the policy immediately after creation or modification. If you do not enable the policy now, then it will not begin creating snapshots or AMLs until you manually set its activation status to enabled.

- ☒ Enabled
- ☐ Not enabled


Cancel

Next

(*) configure schedule

Configure schedule 1 - Schedule 1

Schedules define how often the policy runs and the specific actions that are to be performed. The policy must have at least one schedule.

 You can add 3 more schedules to this policy. They must have the same retention type as Schedule 1, but they can have their own retention count or age. Snapshot archiving can be enabled for one schedule only.

Schedule details [Info](#)

Remove schedule

Add another schedule

Schedule name

Schedule 1

Frequency

Daily

Every

12 hours

Starting at

09:00

UTC

Retention type

Count

Keep

▼

snapshots in standard tier

Advanced settings - optional

- ▶ Tagging [Info](#)
- ▶ Snapshot archiving [Info](#)
- ▶ Fast snapshot restore [Info](#)
- ▶ Cross-Region copy [Info](#)
- ▶ Cross-account sharing [Info](#)

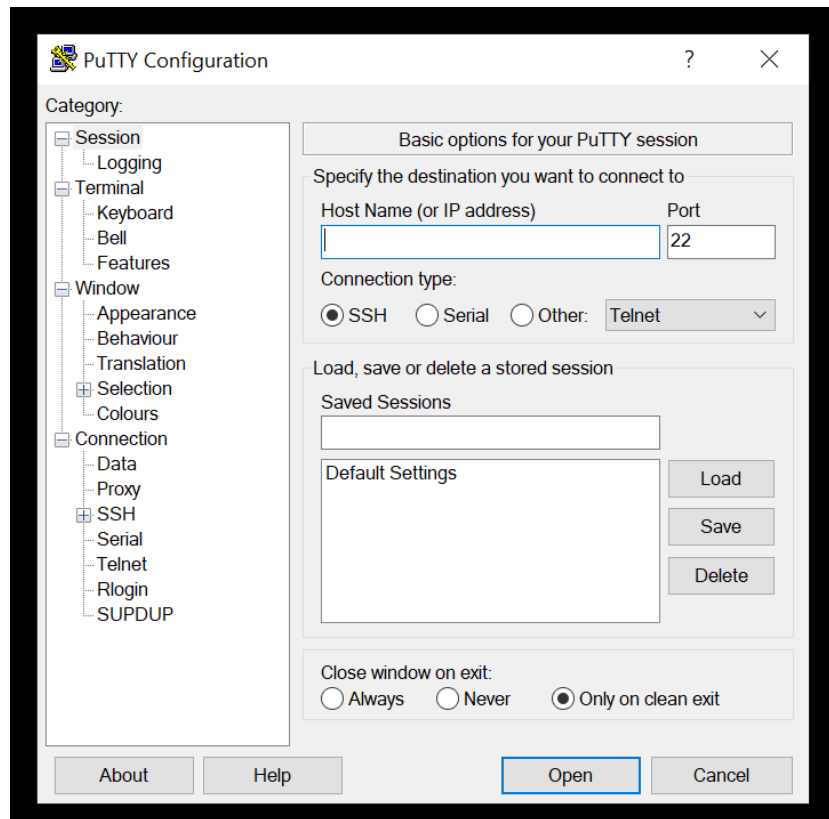
Cancel

Previous

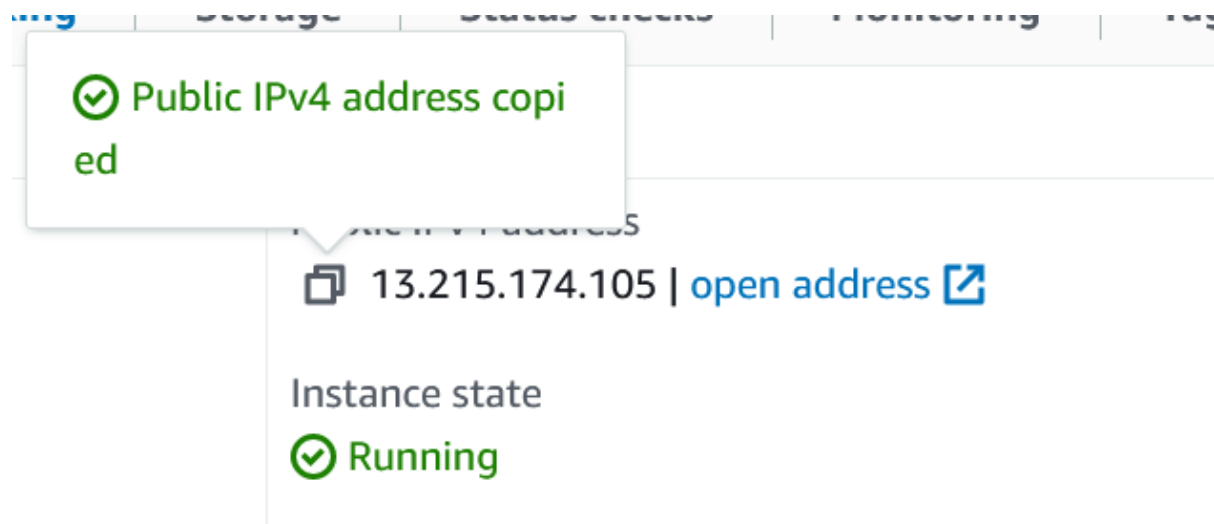
Review policy

5. Linux

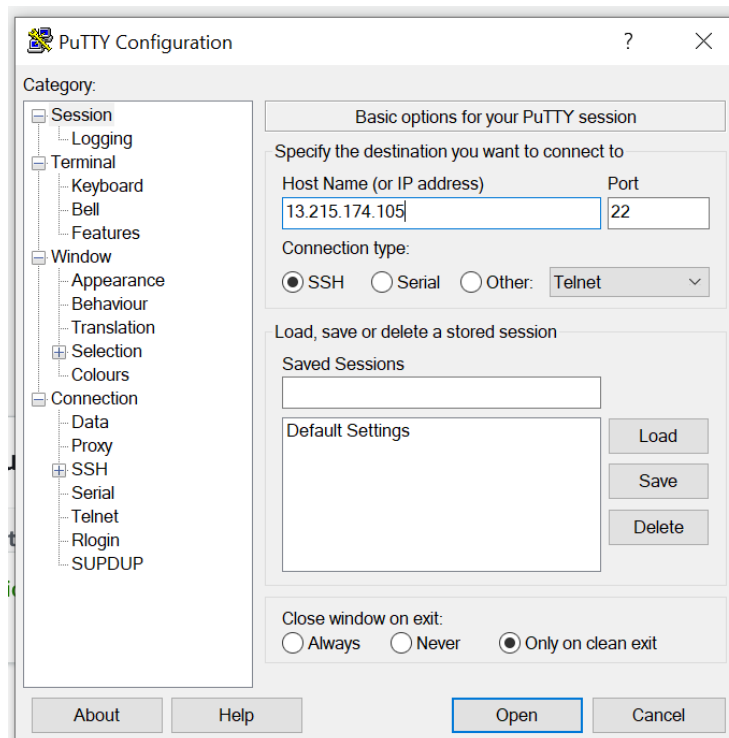
(*) putty configuration `putty.org` -- alternative binary file – 64bit exe



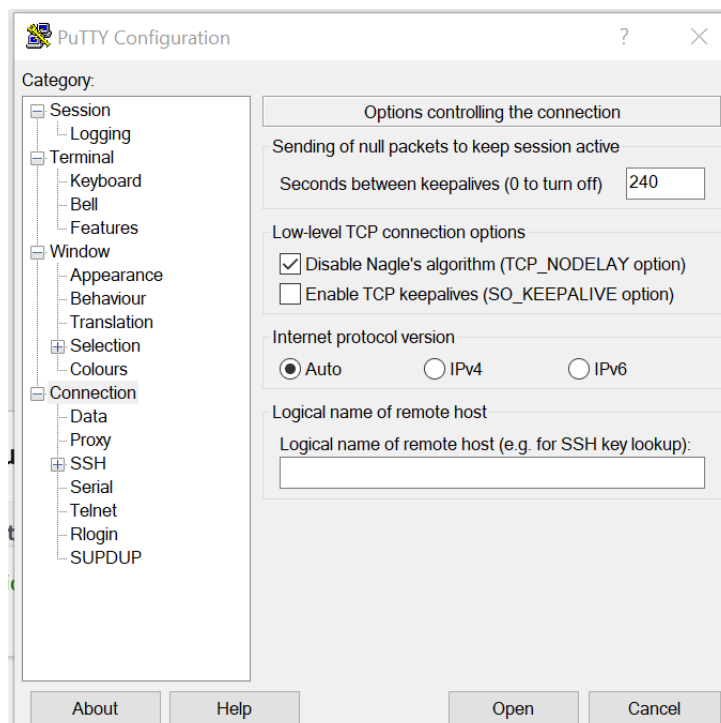
(*) copy Linux Ip address



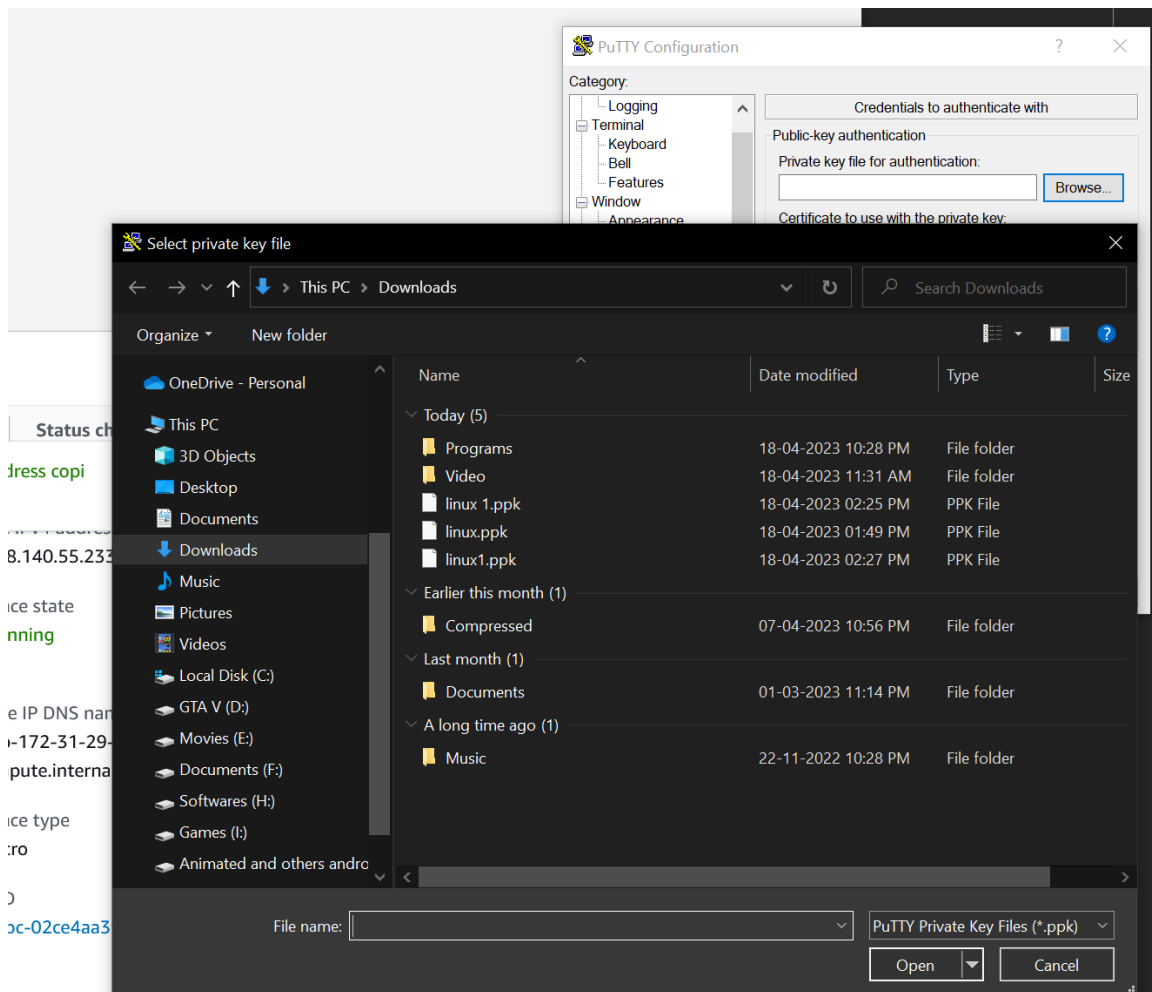
(*) putty configuration session



(*) connection seconds between keepalive 240



(*) select private key file using authentication – credentials – browse --- linux PPK file



(*) login as ec2 user

```
login as: ec2-user
Authenticating with public key "linux"

#_
~\_####_      Amazon Linux 2023
~~\_#####\
~~\_####|
~~\_#/       https://aws.amazon.com/linux/amazon-linux-2023
~~V~'-'>
~~~~
~~.-.
~~/_m/'-_/
```

[ec2-user@ip-172-31-29-3 ~]\$ █

df -h for viewing file system

(*) elastic book store – volume – create volume

Volumes (5)

Search

Actions

Create volume

<

1

>

<input type="checkbox"/>	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	
<input type="checkbox"/>	-	vol-0a7da85be2a1fab4e	gp3	10 GiB	3000	125	snap-0be5d90...	2
<input type="checkbox"/>	-	vol-0f0c385df1d69237c	gp2	30 GiB	100	-	snap-0fa0945...	2
<input type="checkbox"/>	-	vol-04bb13adb4d5b1100	gp2	30 GiB	100	-	snap-0fa0945...	2
<input type="checkbox"/>	WINDOWS TAG	vol-01115dcdc5784614a	gp3	10 GiB	3000	125	-	2
<input type="checkbox"/>	-	vol-0698fd6937334874e	gp3	8 GiB	3000	125	snap-02cd0a8...	2

(*) create volume 12gb

volume settings

Volume type [Info](#)
General Purpose SSD (gp2) ▼

Size (GiB) [Info](#)
 I ▼
Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS [Info](#)
100 / 3000
Baseline of 3 IOPS per GiB with a minimum of 100 IOPS, burstable to 3000 IOPS.

Throughput (MiB/s) [Info](#)
Not applicable

Availability Zone [Info](#)
ap-southeast-1a ▼

Snapshot ID - optional [Info](#)
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

(*) select the available storage --- actions --- attach volume

Volumes (1/6) **Actions** ▲ **Create volume**

Q Search

	Name ▼	Volume ID ▼	Type ▼	Size ▼
<input type="checkbox"/>	-	vol-0a7da85be2a1fab4e	gp3	10 GiB
<input type="checkbox"/>	-	vol-0f0c385df1d69237c	gp2	30 GiB
<input type="checkbox"/>	-	vol-04bb13adb4d5b1100	gp2	30 GiB
<input type="checkbox"/>	WINDOWS TAG	vol-01115dcdc5784614a	gp3	10 GiB
<input type="checkbox"/>	-	vol-0698fd6937334874e	gp3	8 GiB
<input checked="" type="checkbox"/>	-	vol-00c92f2c8d810b8db	gp2	12 GiB

Modify volume

Create snapshot

Create snapshot lifecycle policy

Delete volume

Attach volume

Detach volume

Force detach volume

Manage auto-enabled I/O

Manage tags

Fault injection ▶


Snapshot ▼	Cr
snap-0be5d90...	20
snap-0fa0945...	20
snap-0fa0945...	20
-	20
snap-02cd0a8...	20
-	20

(*) select Linux instance


Attach volume [Info](#)

Attach a volume to an instance to use it as you would a regular physical hard disk drive.

Basic details

Volume ID
 `vol-00c92f2c8d810b8db`


Availability Zone
`ap-southeast-1a`

Instance [Info](#)
`i-0b243d96477e8e193` 

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

Device name [Info](#)
`/dev/sdf`

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](#)

(*) use `lsblk` to view the file system then use `(mkfs -t ext4 /dev/xvdf)`

```
root@ip-172-31-29-3:/home/ec2-user
[root@ip-172-31-29-3 ec2-user]# df -h
bash: df -h: command not found
[root@ip-172-31-29-3 ec2-user]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        4.0M   0  4.0M   0% /dev
tmpfs           477M   0  477M   0% /dev/shm
tmpfs           191M  2.8M  188M   2% /run
/dev/xvda1      8.0G  1.6G  6.5G  19% /
tmpfs           477M   0  477M   0% /tmp
tmpfs           96M    0   96M   0% /run/user/1000
[root@ip-172-31-29-3 ec2-user]# lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
xvda        202:0    0    8G  0 disk 
├─xvda1     202:1    0    8G  0 part /
├─xvda127   259:0    0    1M  0 part 
├─xvda128   259:1    0   10M  0 part 
└─xvdf      202:80   0   12G  0 disk 
[root@ip-172-31-29-3 ec2-user]# mkfs -t ext4 /dev/xvdf
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 3145728 4k blocks and 786432 inodes
Filesystem UUID: 9be5b4e4-be85-4677-8947-7fbd00430dd3
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

[root@ip-172-31-29-3 ec2-user]#
```

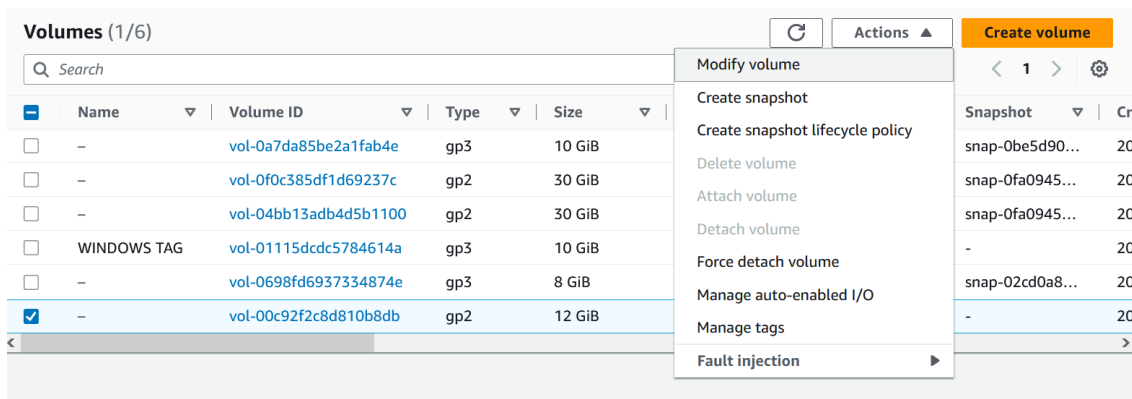
(*) create a new directory mkdir

Mount dev/xvdf greens

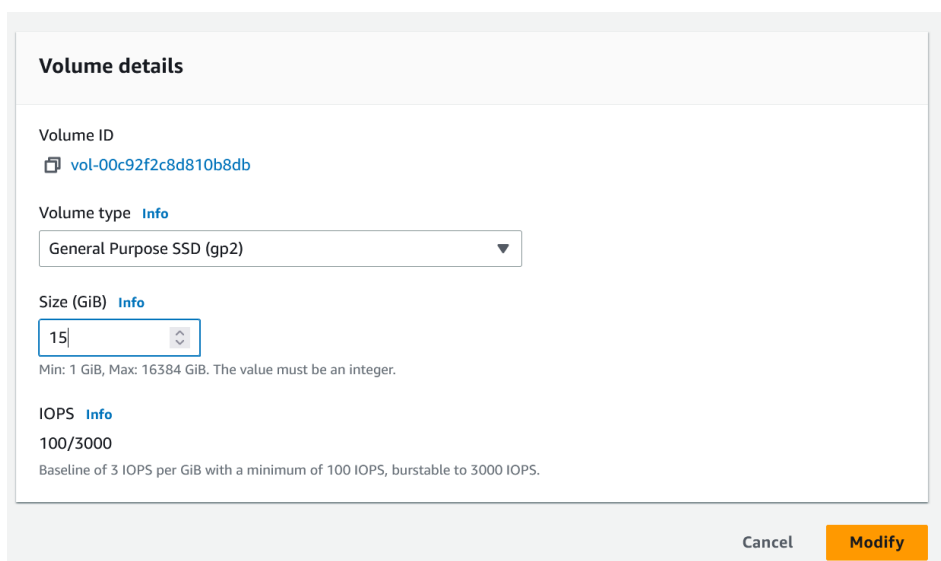
Df -h

```
root@ip-172-31-29-3 ec2-user]# mkdir greens
root@ip-172-31-29-3 ec2-user]# mount /dev/xvdf greens
root@ip-172-31-29-3 ec2-user]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        4.0M   0    4.0M   0% /dev
tmpfs           477M   0    477M   0% /dev/shm
tmpfs           191M  2.8M   188M   2% /run
/dev/xvda1       8.0G  1.6G   6.5G  19% /
tmpfs           477M   0    477M   0% /tmp
tmpfs           96M    0     96M   0% /run/user/1000
/dev/xvdf       12G   24K   12G    1% /home/ec2-user/greens
root@ip-172-31-29-3 ec2-user]#
```

(*) To modify volume, go to elastic block store – volume-- actions-- modify volume



(*) size 15gb click modify



(*) use lsblk command

```
[ec2-user@ip-172-31-29-3 ~]$ sudo su
[root@ip-172-31-29-3 ec2-user]# lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
xvda         202:0    0   8G  0 disk
├─xvda1      202:1    0   8G  0 part /
├─xvda127    259:0    0    1M  0 part
├─xvda128    259:1    0   10M  0 part
xvdf         202:80   0   15G  0 disk /home/ec2-user/greens
[root@ip-172-31-29-3 ec2-user]#
```