



### ASSIGNMENT - 01

COURSE : DEVOPS

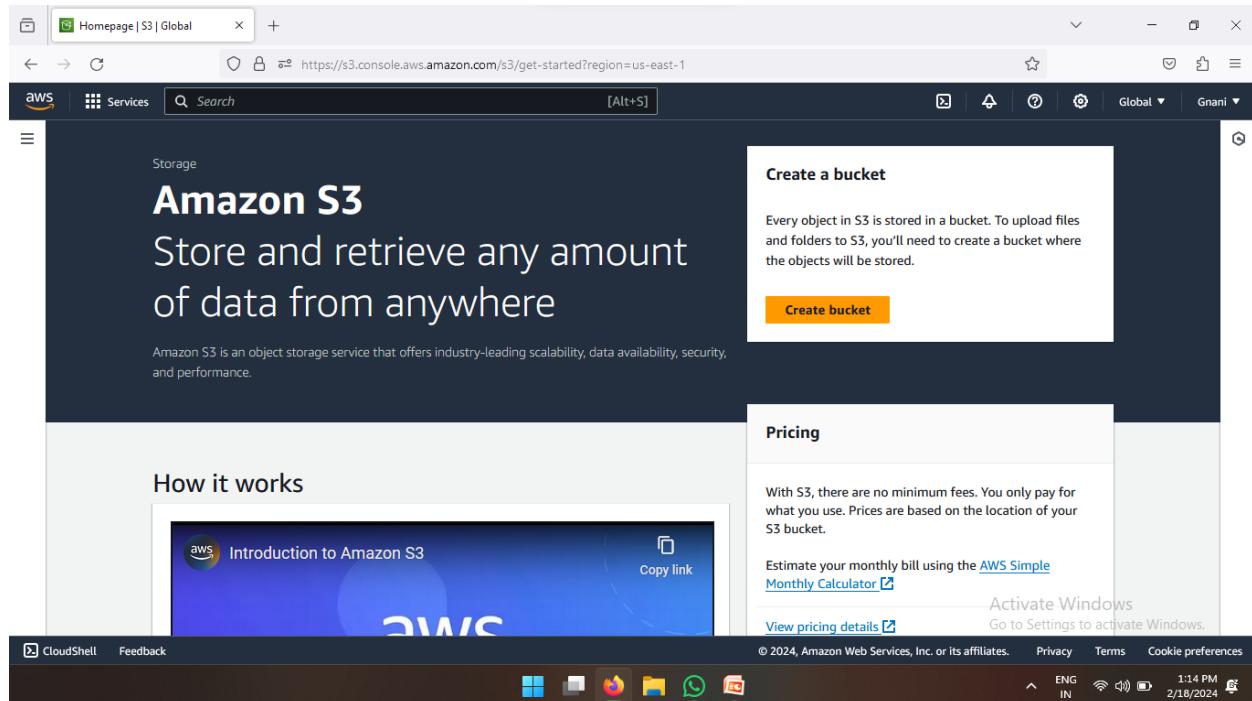
Trainer : Mr . MADHUKAR

NAME : A GNANESHWAR

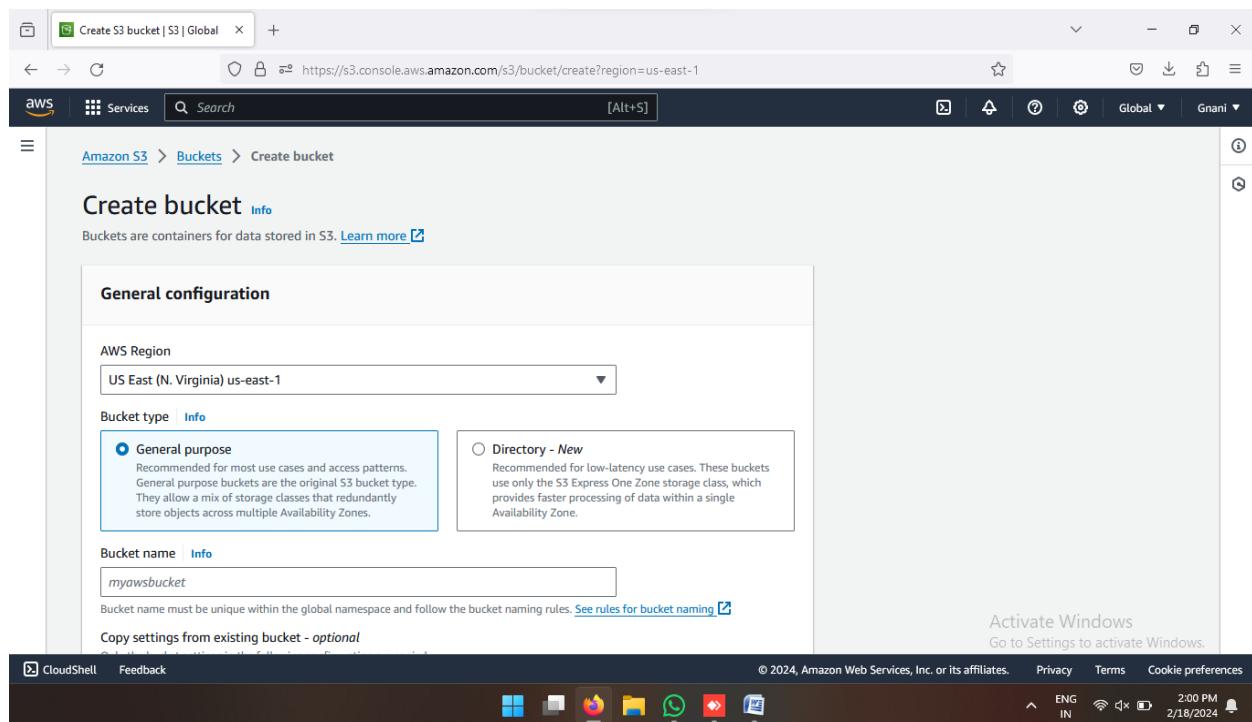
Mail id : gnaneshwar502@gmail.com

# 1 . Create a S3 bucket and enable cross region replication for any two buckets in different regions ?

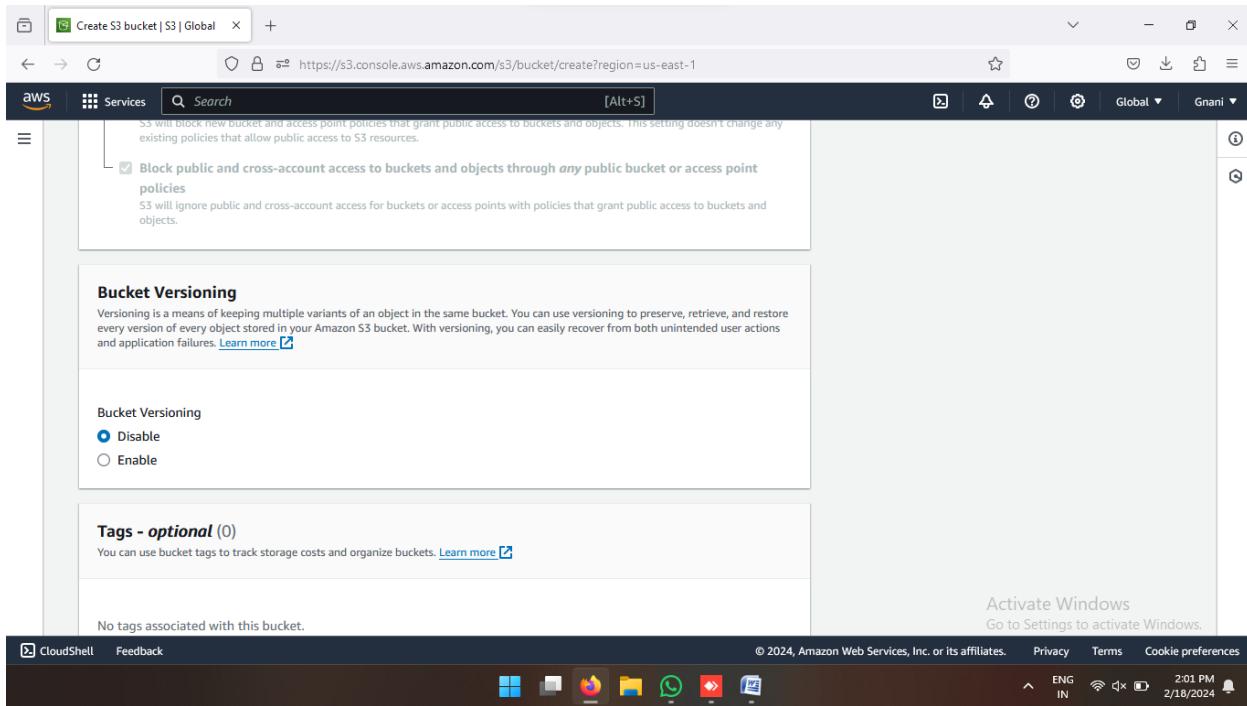
- Go to Amazon S3 , Click on Create Bucket



- Enter Bucket Name and Select Any one Region

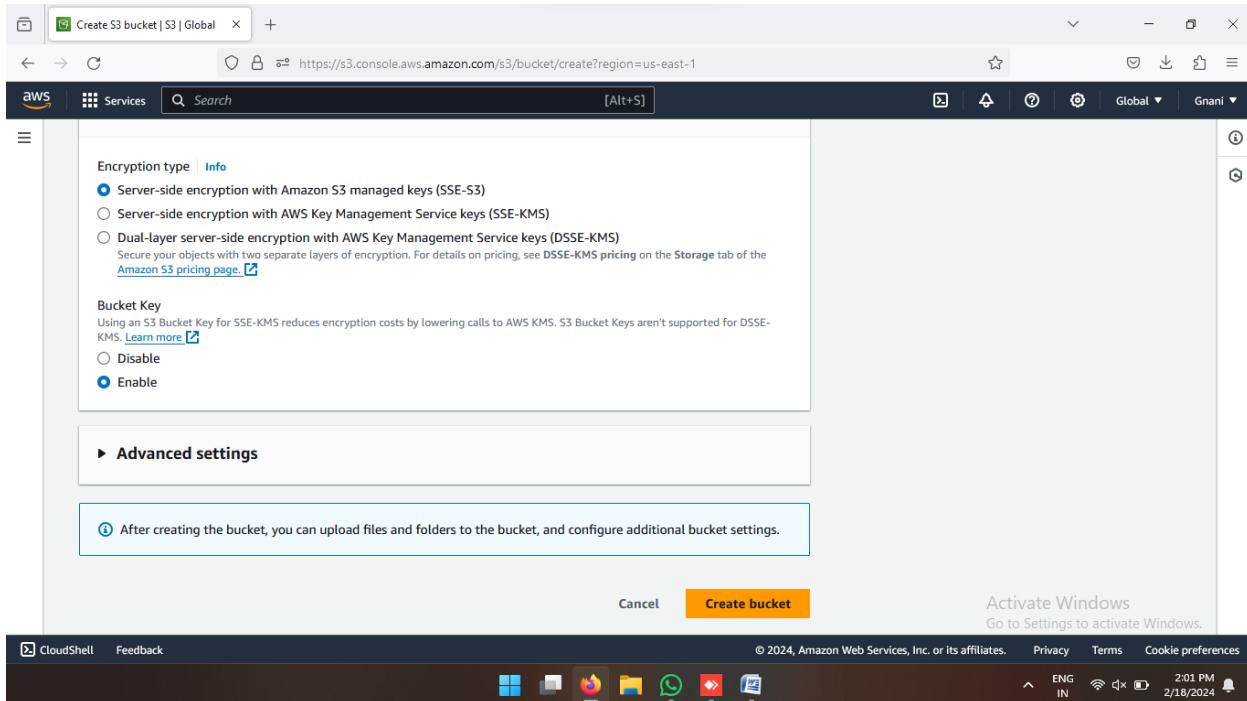


- Enable Bucket Version



The screenshot shows the 'Create S3 bucket' wizard on the AWS console. In the 'Block public and cross-account access' section, the checkbox 'Block public and cross-account access to buckets and objects through *any* public bucket or access point policies' is checked. Below this, there's a note about S3 ignoring public access for buckets with specific policies. The 'Bucket Versioning' section has 'Disable' selected. The 'Tags - optional (0)' section is empty. At the bottom right, there's an 'Activate Windows' message.

- After that Click on Create Bucket



The screenshot shows the 'Create S3 bucket' wizard. Under 'Encryption type', 'Server-side encryption with Amazon S3 managed keys (SSE-S3)' is selected. There are also options for SSE-KMS and DSSE-KMS. The 'Bucket Key' section has 'Enable' selected. A note at the bottom says 'After creating the bucket, you can upload files and folders to the bucket, and configure additional bucket settings.' At the bottom right, there's an 'Activate Windows' message.

- One more bucket created in different region.

- Now see the 2 Buckets in different region

The screenshot shows the AWS S3 console with the URL <https://s3.console.aws.amazon.com/s3/buckets?region=us-east-2&bucketType=general>. The interface displays an 'Account snapshot' section with a 'Storage lens provides visibility into storage usage and activity trends' message and a 'View Storage Lens dashboard' button. Below this, there are tabs for 'General purpose buckets' (selected) and 'Directory buckets'. A table lists two buckets:

Name	AWS Region	Access	Creation date
assignment-120batch-one	US East (N. Virginia) us-east-1	Bucket and objects not public	February 18, 2024, 14:12:46 (UTC+05:30)
assignment-120batch-two	US East (Ohio) us-east-2	Bucket and objects not public	February 18, 2024, 14:17:24 (UTC+05:30)

Buttons for 'Create bucket' and other actions like 'Copy ARN', 'Empty', and 'Delete' are visible above the table. The bottom of the screen shows standard browser controls and a dark-themed system tray.

- Now go to first bucket and click on upload

The screenshot shows the AWS S3 console for the bucket 'assignment-120batch-one'. The URL is <https://s3.console.aws.amazon.com/s3/buckets/assignment-120batch-one?region=us-east-1&bucketType=general&tab=Objects>. The interface has tabs for 'Objects' (selected), 'Properties', 'Permissions', 'Metrics', 'Management', and 'Access Points'. The 'Objects' tab shows a table with one row: 'No objects'. A message below states 'You don't have any objects in this bucket.' A prominent 'Upload' button is located at the bottom of the table. The bottom of the screen shows standard browser controls and a dark-themed system tray.

- Then Add Files and Add Folders then upload

The screenshot shows the AWS S3 'Upload objects' interface. At the top, there's a header bar with the AWS logo, services menu, search bar, and user info. Below it, the URL is https://s3.console.aws.amazon.com/s3/upload/assignment-120batch-one?region=us-east-1&bucketType=general. The main area is titled 'Upload' with a 'Info' link. A note says 'Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. Learn more'. Below this is a dashed box for dragging files. A table lists 'Files and folders (13 Total, 43.5 MB)' with columns for Name, Folder, and Type. The table includes rows for '1706796635428\_VPC(virtual private...', 'DevOps Course Syllabus.pdf', 'ebs\_volume.txt', and 'FC2 Notes.docx'. Buttons for 'Remove', 'Add files', and 'Add folder' are at the top of the table. A search bar and pagination controls (1, 2) are also present. The bottom navigation bar includes CloudShell, Feedback, privacy terms, cookie preferences, and system status (ENG IN, 2:23 PM, 2/18/2024).

- Click on Upload

This screenshot shows the 'Destination' section of the AWS S3 upload interface. It displays the destination as 's3://assignment-120batch-one'. Under 'Destination details', it says 'Bucket settings that impact new objects stored in the specified destination.' Below this are sections for 'Permissions' (Grant public access and access to other AWS accounts) and 'Properties' (Specify storage class, encryption settings, tags, and more). At the bottom right, there are 'Cancel' and 'Upload' buttons. A note to 'Activate Windows' is visible. The bottom navigation bar is identical to the one in the previous screenshot.

- Uploading Files and Folders

**Uploading**

Total remaining: 9 files: 40.6 MB(93.26%)  
Estimated time remaining: 3 minutes  
Transfer rate: 215.3 KB/s

Name	Folder	Type	Size	Status	Error
170679663...	Documents/	application/...	1.9 MB	Succeeded	-
DevOps Cou...	Documents/	application/...	862.5 KB	Succeeded	-
ebs_volume....	Documents/	text/plain	314.0 B	Succeeded	-
EC2 Notes ....	Documents/	application/...	144.5 KB	Succeeded	-
EC2.txt	Documents/	text/plain	5.5 KB	Pending	-
linux 100+ c...	Documents/	application/...	64.4 KB	Pending	-
Linux1.docx	Documents/	application/...	12.4 MB	Pending	-

- Now go to Management in first bucket (or) Source Bucket

**assignment-120batch-one** [Info](#)

[Objects](#) [Properties](#) [Permissions](#) [Metrics](#) [Management](#) [Access Points](#)

**Objects (2)** [Info](#)

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	4161947436.pdf	pdf	February 18, 2024, 14:26:35 (UTC+05:30)	401.4 KB	Standard
<input type="checkbox"/>	Documents/	Folder	-	-	-

- In Management Console click on create Replication Rule

The screenshot shows the AWS S3 Management Console. At the top, there's a navigation bar with tabs like Services, Search, and Global. Below it, the main content area has two sections:

- Replication rules (0)**: A table with columns for Replication rule name, Status, Destination bucket, Destination Region, Priority, Scope, Storage class, Replica owner, Replication Time Control, KMS-encrypted objects (SSE-KMS or DSSE-KMS), and Replica modification sync. It displays a message: "No replication rules" and "You don't have any rules in the replication configuration." There's a "Create replication rule" button.
- Inventory configurations (0)**: A table with columns for Name, Status, Scope, Destination, Frequency, Last export, and Format. It displays a message: "You can create inventory configurations on a bucket to generate a flat file list of your objects and metadata. These scheduled reports can include all objects in the bucket or be limited to a shared prefix." There's a "Create inventory configuration" button.

At the bottom, there's a footer with links for CloudShell, Feedback, and various AWS services like Lambda, CloudWatch, and SNS. It also shows the date (2/18/2024) and time (2:31 PM).

- Enter Replication rule name

The screenshot shows the "Create replication rule" wizard, step 1: Replication rule configuration. The URL in the browser is <https://s3.console.aws.amazon.com/s3/management/assignment-120batch-one/replication/create?region=us-east-1&bucket=assignment-120batch-one>.

The form fields are:

- Replication rule name**: An input field with placeholder text "Enter rule ID". A note below says: "Up to 255 characters. In order to be able to use CloudWatch metrics to monitor the progress of your replication rule, the replication rule name must only contain English characters."
- Status**: A section where you choose whether the rule will be enabled or disabled when created. The "Enabled" option is selected.
- Priority**: A section where you enter a priority value. The value "0" is shown.

At the bottom, there's a "Source bucket" section and a footer with links for CloudShell, Feedback, and various AWS services like Lambda, CloudWatch, and SNS. It also shows the date (2/18/2024) and time (2:32 PM).

- Click on Apply to all objects in the bucket

- Now Choose Destination where ever you want to see the data
- Choose a bucket in this account

- Select another region Bucket (or) Where ever you want to see the data that bucket select and click on choose path

S3 Buckets

Name	AWS Region
assignment-120batch-one	US East (N. Virginia) us-east-1
<b>assignment-120batch-two</b>	US East (Ohio) us-east-2

Choose from existing IAM roles    Enter IAM role ARN

Choose path

- Now choose from existing IAM roles
- Select Drop down Create a new role

Choose from existing IAM roles    Enter IAM role ARN

Choose IAM role

Encryption

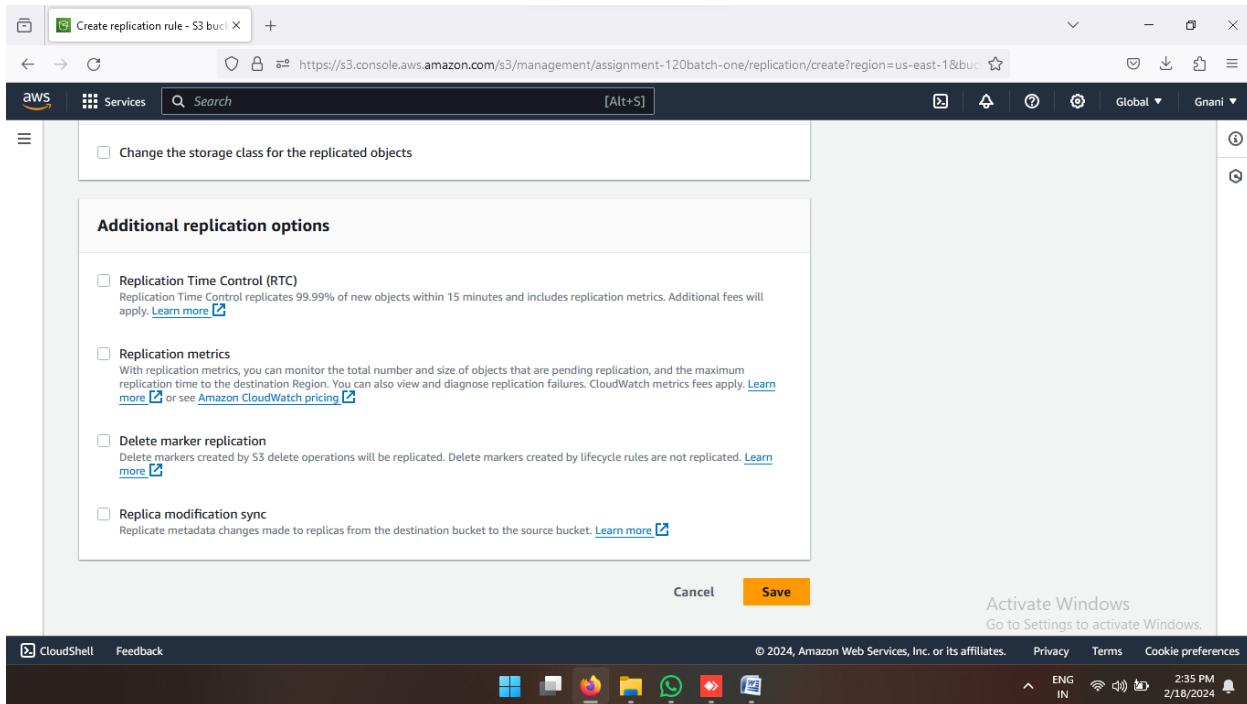
Replicate objects encrypted with AWS Key Management Service (AWS KMS)

Destination storage class

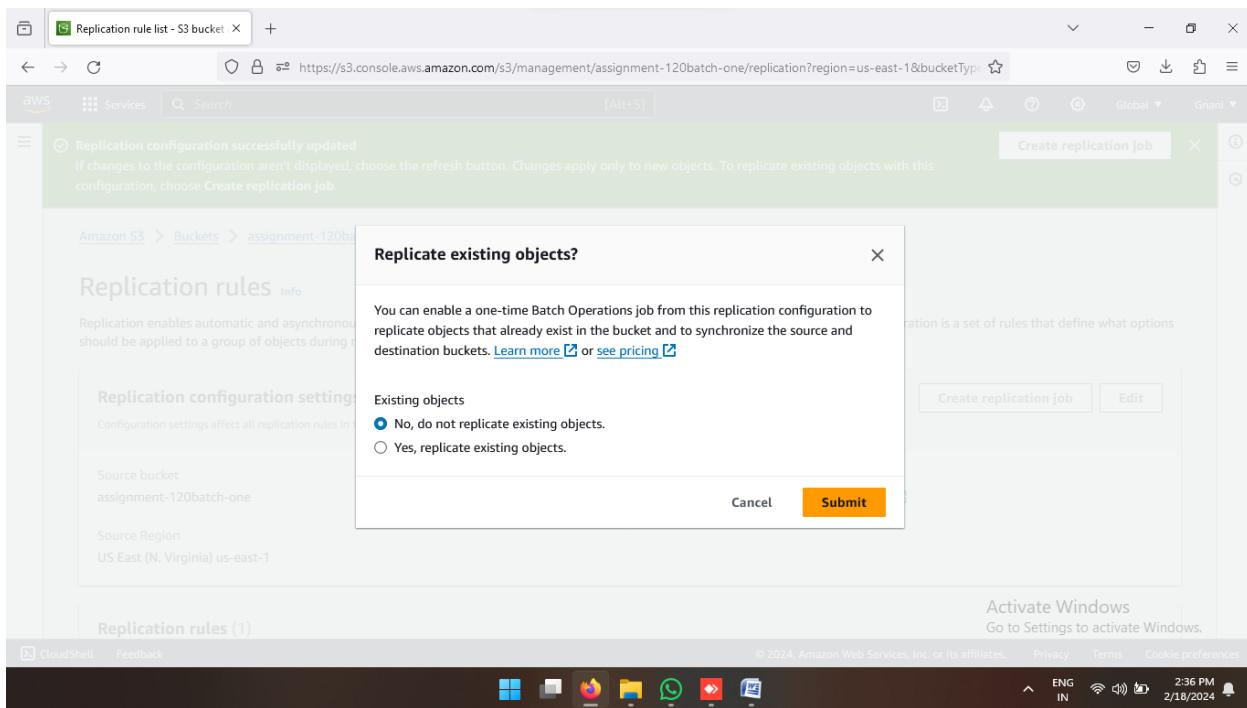
Change the storage class for the replicated objects

Activate Windows  
Go to Settings to activate Windows.

- Then Save the Replication Rule



- Now if you want see the existing data then click on Yes
- If you don't want to see the existing data then click on No then submit



- If You Click yes then choose the destination path again and click on save button

**Completion report**

Generate a CSV completion report that lists your target objects, task success or error codes, outputs, and descriptions. Completion reports are encrypted using SSE-S3. [Learn more](#)

Generate completion report

Completion report scope

Failed tasks only

All tasks

Completion report destination

Specify a general purpose bucket location to store the completion report. '/job-[job-id]/report.json' will automatically be appended to the specified destination. [Learn more](#)

s3://bucket-name/prefix [View](#) [Browse S3](#)

Format: s3://<bucket>/<optional-prefix-with-path>. S3 will append the path with a '/'. If you add a '/' to the prefix, it will appear as an extra folder in the S3 console.

Permissions

Choose an IAM role with the [required access permissions and trust relationships](#). An IAM role policy template based on your job configuration, and the IAM trust policy required for batch operations to assume the IAM role are available below. [Learn more about IAM roles](#)

[View IAM role policy template and IAM trust policy](#)

Activate Windows  
Go to Settings to activate Windows.

**Choose a completion report destination**

S3 Buckets

Buckets (2)	
Name	AWS Region
<input type="radio"/> assignment-120batch-one	US East (N. Virginia) us-east-1
<input checked="" type="radio"/> assignment-120batch-two	US East (Ohio) us-east-2

[View IAM role policy template and IAM trust policy](#)

Activate Windows  
Go to Settings to activate Windows.

The screenshot shows the AWS S3 management console with the URL <https://s3.console.aws.amazon.com/s3/management/assignment-120batch-one/replication/create-job?region=us-east-1>. The page is titled 'Replicate objects through S3 Batch Operations'. It includes fields for 'Completion report destination' (set to 's3://assignment-120batch-two'), 'Permissions' (choose from existing IAM roles), and an 'IAM role' dropdown ('Create new role'). Buttons for 'Cancel' and 'Save' are at the bottom.

- After Save Button Click then one batch Operation Created that status is showing Preparing.
- Status is changed active then we can see the data into the destination bucket.

The screenshot shows the AWS S3 management console with the URL <https://s3.console.aws.amazon.com/s3/jobs?region=us-east-1>. A green banner at the top says 'Successfully created job ID 8ae4f34a-052d-4ba7-868c-edde3db8247a'. Below it, the 'Batch Operations' section displays a table of jobs. One job is listed:

Job ID	Status	Description	Operation	Date created	Total objects	% Complete	Total failed (rate)	Priority
8ae4f34a-052d-4ba7-868c-edde3db8247a	Preparing	2024-02-18 - Replicate	Replicate	February 18, 2024, 14:39:19 (UTC+05:30)	0	0%	0 (0%)	10

A message at the bottom right says 'Activate Windows Go to Settings to activate Windows.'

The screenshot shows the AWS S3 Batch Operations console. At the top, a green banner indicates "Successfully created job ID 8ae4f34a-052d-4ba7-868c-edde3db8247a". Below the banner, the "Batch Operations" page is displayed with the heading "Jobs (1)". A table lists the job details:

Job ID	Status	Description	Operation	Date created	Total objects	% Complete	Total failed (rate)	Priority
8ae4f34a-052d-4ba7-868c-edde3db8247a	Active	2024-02-18 - Replicate	Replicate	February 18, 2024, 14:39:19 (UTC+05:30)	13	0%	0 (0%)	10

At the bottom of the page, there is a message: "Activate Windows Go to Settings to activate Windows."

- Whenever Batch Operation Active go to Destination Bucket and see the data.

The screenshot shows the AWS S3 Buckets console. The "General purpose buckets" tab is selected, displaying two buckets:

Name	AWS Region	Access	Creation date
assignment-120batch-one	US East (N. Virginia) us-east-1	Bucket and objects not public	February 18, 2024, 14:12:46 (UTC+05:30)
assignment-120batch-two	US East (Ohio) us-east-2	Bucket and objects not public	February 18, 2024, 14:17:24 (UTC+05:30)

At the bottom of the page, there is a message: "Activate Windows Go to Settings to activate Windows."

- Now See the data in Destination Bucket.

**Objects (3) Info**

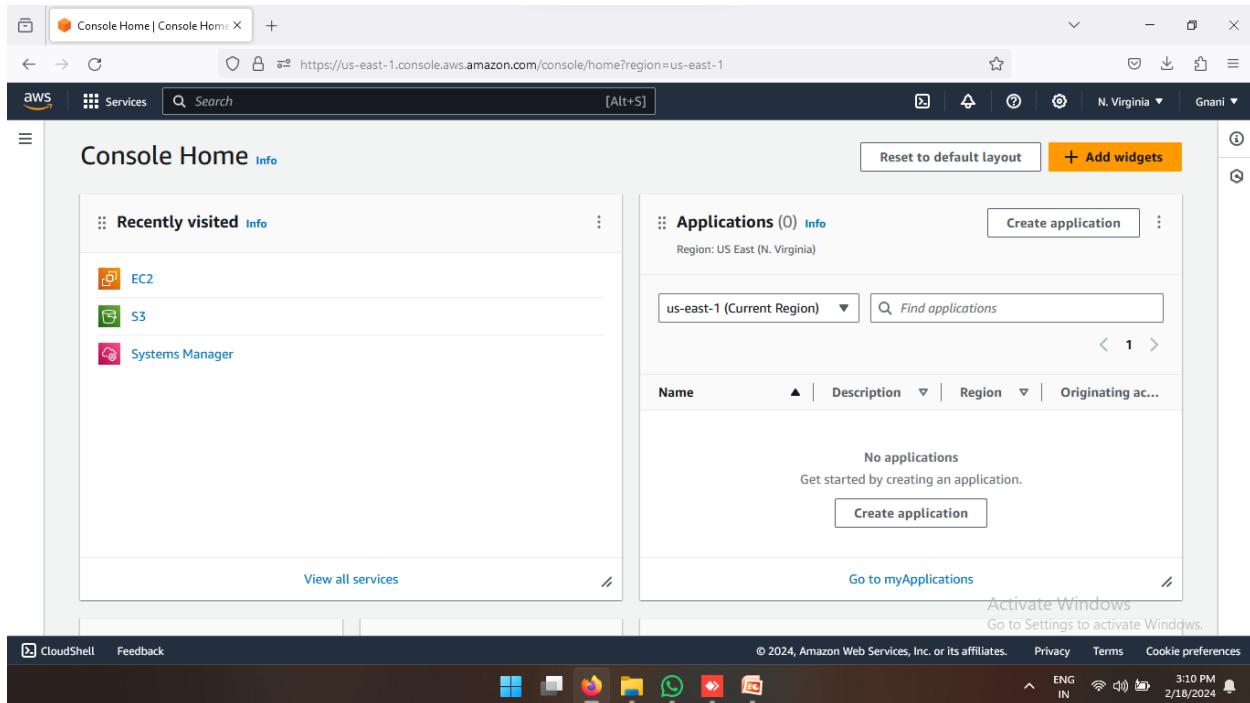
<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	4161947436.pdf	pdf	February 18, 2024, 14:26:35 (UTC+05:30)	401.4 KB	Standard
<input type="checkbox"/>	Documents/	Folder	-	-	-
<input type="checkbox"/>	job-8ae4f34a-052d-4ba7-868c-edde3db8247a/	Folder	-	-	-

Activate Windows  
Go to Settings to activate Windows.

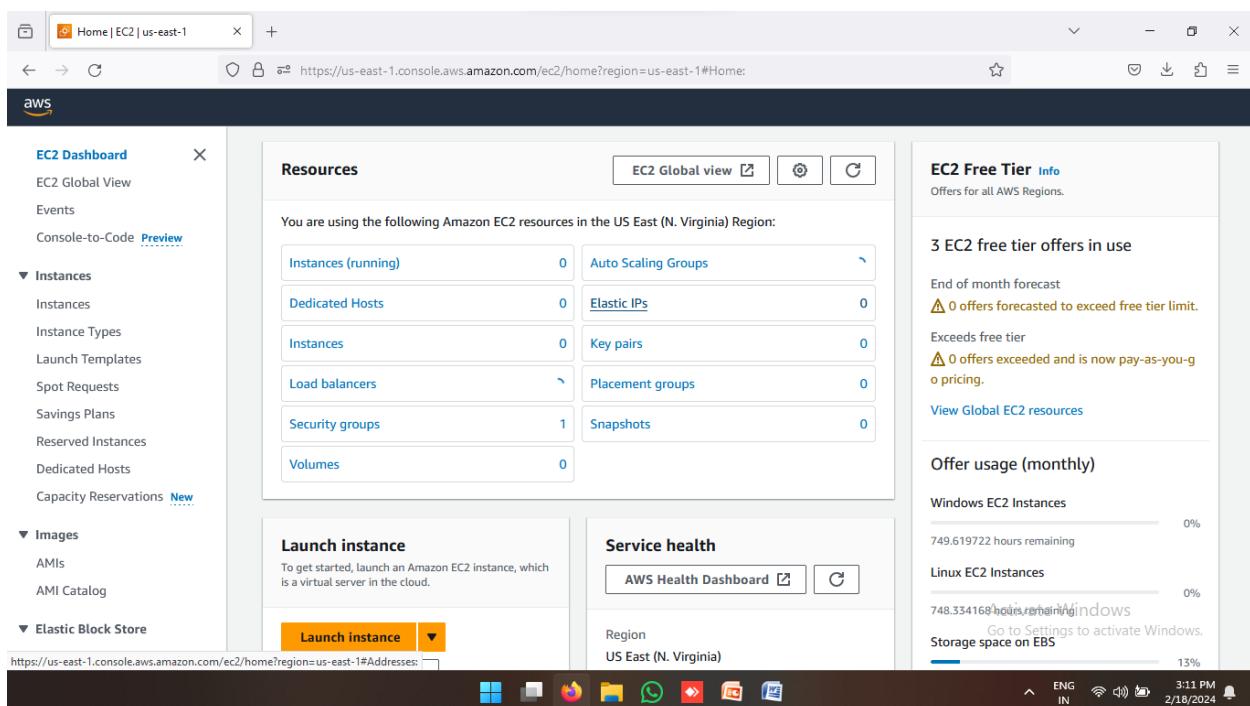
\*\*\*\*\* \* END \*\*\*\*\*

### 3) Create ebs and attach volume to an instance and unmount the volume and attach to another instance?

- Go to AWS Console Home and search EC2 and Click on EC2

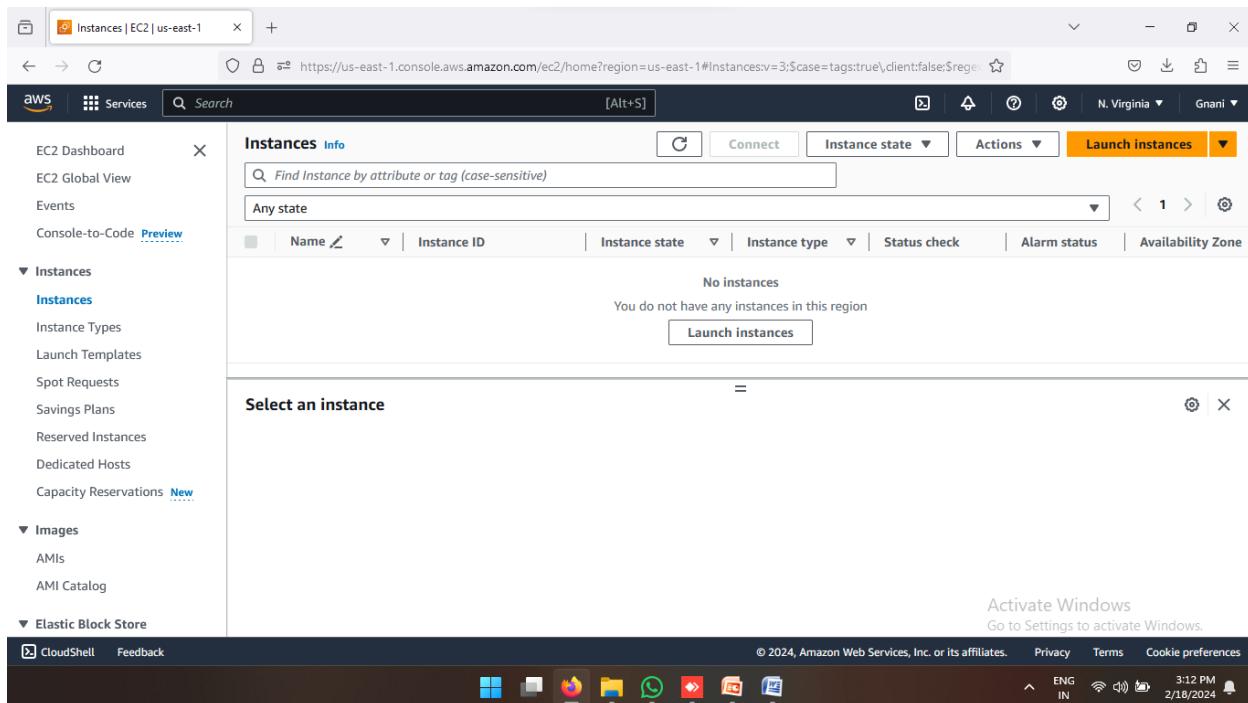


- Now we are in EC2 Dashboard
- Click on Instances

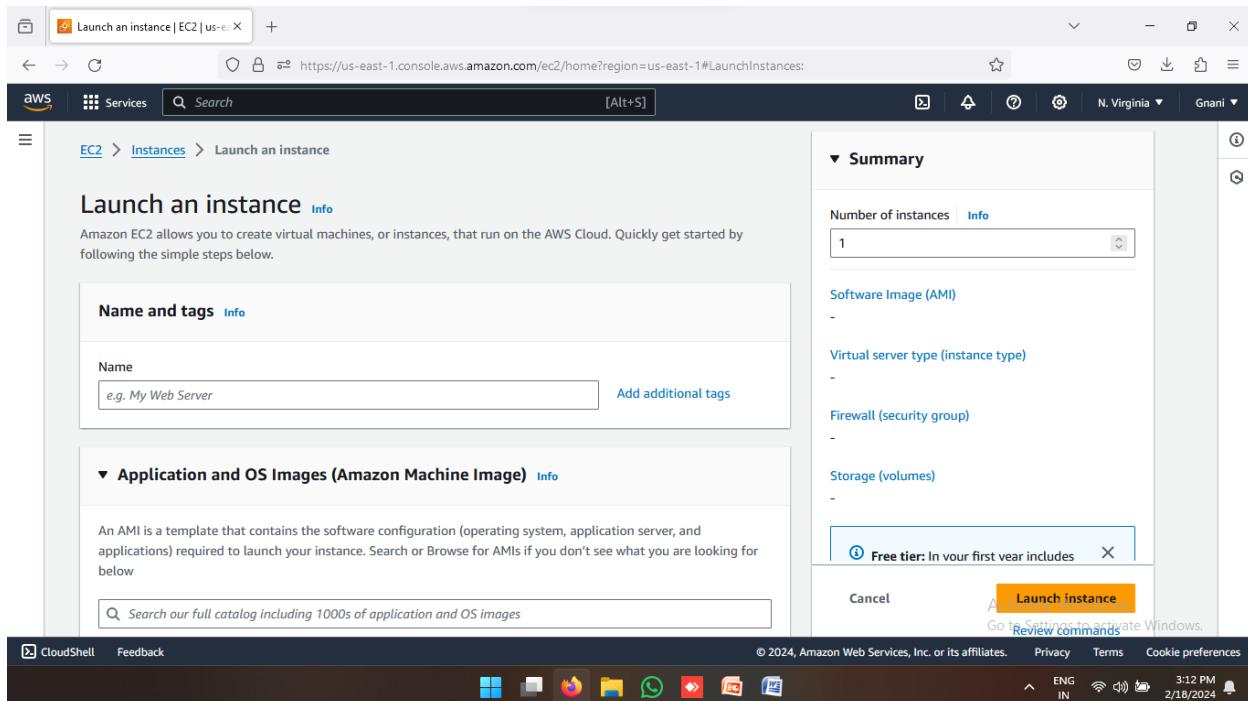


- Now Create One Server in any region

- Click on Launch Instances



- Enter Name and select operating system

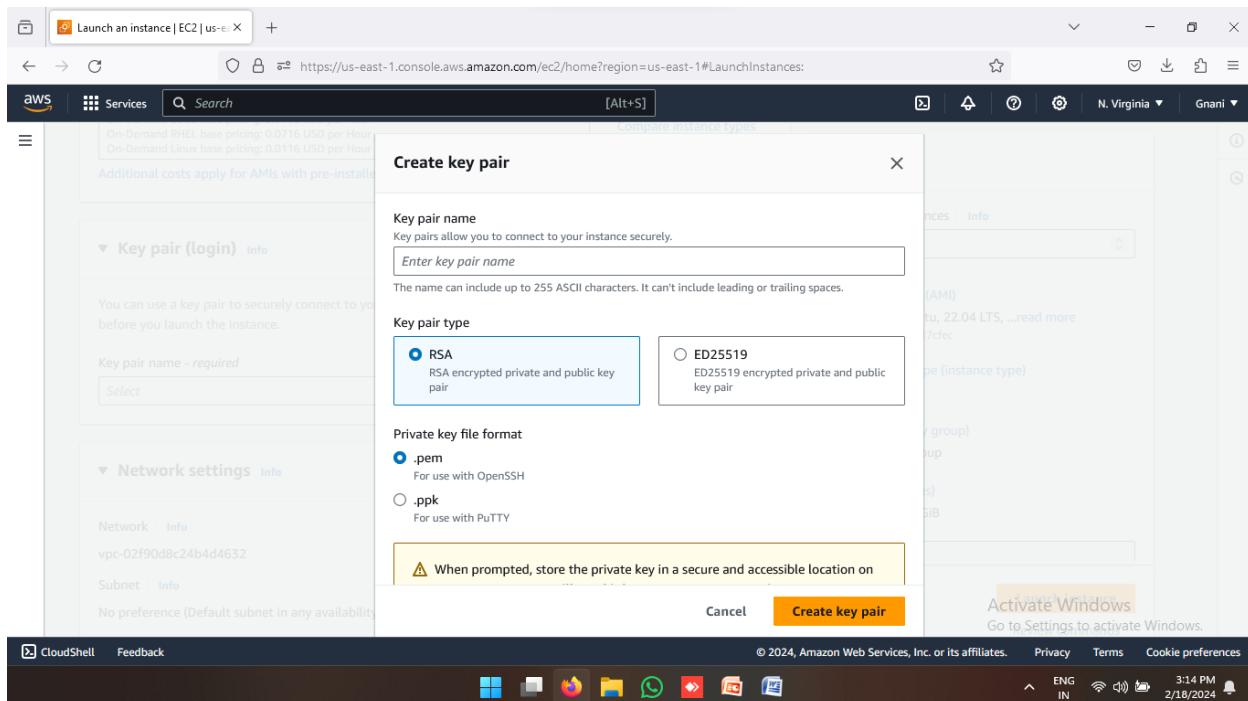


The screenshot shows the AWS Cloud Console interface for launching an EC2 instance. The top navigation bar includes the AWS logo, Services, Search, and a region selector for N. Virginia. The main content area is titled "Launch an instance | EC2 | us-east-1". A search bar at the top says "Search our full catalog including 1000s of application and OS images". Below it, a "Quick Start" section lists various AMI icons: Amazon Linux, macOS, Ubuntu, Windows, Red Hat, and SUSE Linux. A "Browse more AMIs" link is also present. The "Amazon Machine Image (AMI)" section shows "Amazon Linux 2023 AMI" with the ID "ami-0e731c8a588258d0d". It indicates "Free tier eligible" and "Virtualization: hvm". The "Description" section notes "Amazon Linux 2023 AMI 2023.3.20240205.2 x86\_64 HVM kernel-6.1". The "Architecture" dropdown is set to "64-bit (x86)". The "Boot mode" is "uefi-preferred" and the "AMI ID" is "ami-0e731c8a588258d0d", with a "Verified provider" badge. On the right, a "Summary" panel shows "Number of instances: 1", "Software Image (AMI) Amazon Linux 2023 AMI 2023.3.2...read more", "Virtual server type (instance type) t2.micro", "Firewall (security group) New security group", "Storage (volumes) 1 volume(s) - 8 GiB", and a large orange "Launch instance" button. The bottom of the screen shows the AWS footer with links for CloudShell, Feedback, and various AWS services.

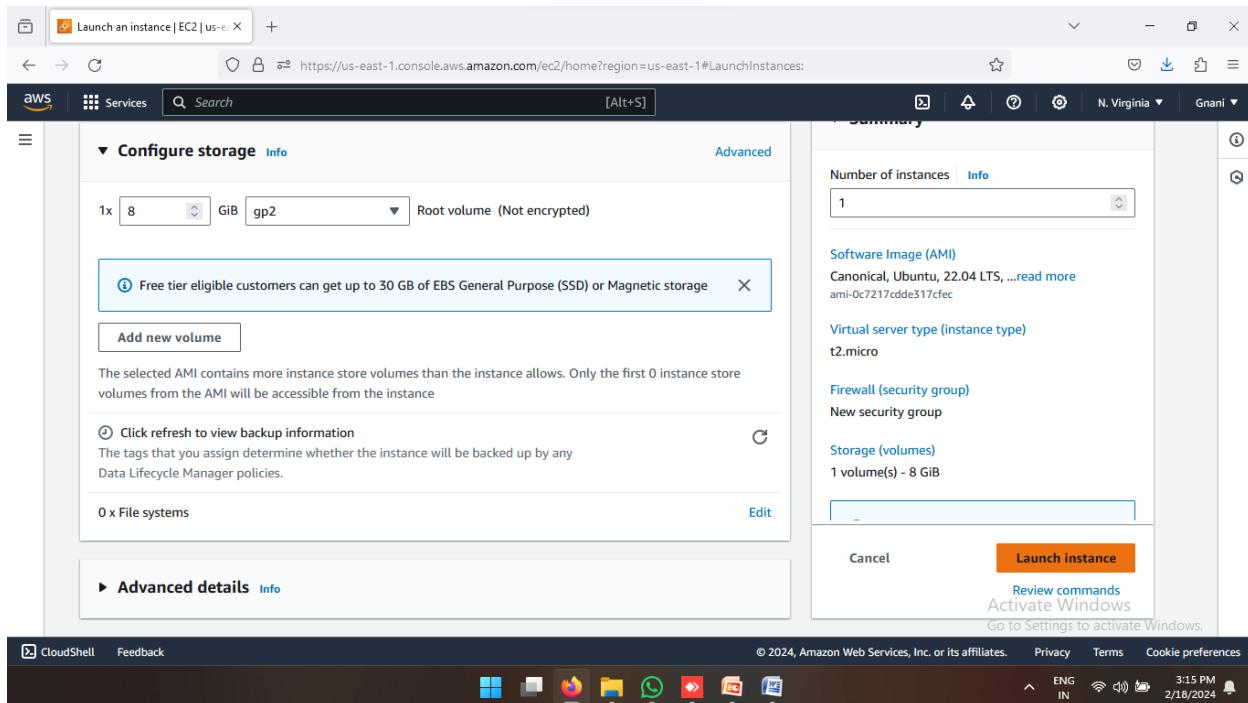
- Now Click a Create new key pair

This screenshot continues from the previous one, showing the "Key pair (login)" step of the instance launch process. The "Key pair name - required" field has "Select" highlighted. A "Create new key pair" button is visible next to it. The "Network settings" section shows a selected VPC ("vpc-02f90d8c24b4d4632") and subnet ("No preference (Default subnet in any availability zone)"). The right side of the screen displays the same "Summary" panel as before, including the "Launch instance" button. The AWS footer at the bottom remains consistent.

- Enter a key name and click on create key pair



- Now Click on launch instance



The screenshot shows the AWS EC2 'Launch an instance' page. At the top, there's a green success banner stating 'Successfully initiated launch of instance (i-0793456c258c948b9)'. Below it, a 'Next Steps' section contains several links: 'Create billing and free tier usage alerts', 'Connect to your instance', 'Connect an RDS database', and 'Create EBS snapshot policy'. Each link has a brief description and a 'Learn more' or 'Create' button. The bottom of the page includes standard AWS navigation and footer elements.

- One server (or) Instance Created and Click on instance id then connect

The screenshot shows the AWS EC2 'Instances' page. On the left, a sidebar lists various EC2 services like Dashboard, Global View, Events, and Instances. The 'Instances' section is expanded, showing options for Instances Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, and Capacity Reservations. The main pane displays a table of instances with one row visible:

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input type="checkbox"/>	Assign-ec1	i-0793456c258c948b9	Running	t2.micro	Initializing	<a href="#">View alarms</a>	us-east-1a

An overlay window titled 'Select an instance' is open at the bottom, containing a single entry: 'Assign-ec1'. The bottom of the page features the usual AWS footer.

Instance details | EC2 | us-east-1 X +

https://us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#instanceDetails:instanceId=i-0793456c258c948b9

AWS Services Search [Alt+S]

N. Virginia Gnani

EC2 Dashboard EC2 Global View Events Console-to-Code Preview

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

Images AMIs AMI Catalog

Elastic Block Store CloudShell Feedback

Instance summary for i-0793456c258c948b9 (Assign-ec1) Info Connect Instance state Actions

Updated less than a minute ago

Instance ID	Public IPv4 address	Private IPv4 addresses
i-0793456c258c948b9 (Assign-ec1)	3.93.82.50 [open address]	172.31.82.214
IPv6 address	Instance state	Public IPv4 DNS
-	Running	ec2-3-93-82-50.compute-1.amazonaws.com [open address]
Hostname type	Private IP DNS name (IPv4 only)	Elastic IP addresses
IP name: ip-172-31-82-214.ec2.internal	ip-172-31-82-214.ec2.internal	-
Answer private resource DNS name	Instance type	AWS Compute Optimizer finding
IPv4 (A)	t2.micro	Opt-in to AWS Compute Optimizer for recommendations.
Auto-assigned IP address	VPC ID	Learn more
3.93.82.50 [Public IP]	vpc-02f90d8c24b4d4632	
IAM Role	Subnet ID	Auto Scaling Group name
-	subnet-00c76679479f7b1c9	-

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Connect to instance | EC2 | us-east-1 X +

https://us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#ConnectToInstanceInstanceId=i-0793456c258c948b9

AWS Services Search [Alt+S]

N. Virginia Gnani

EC2 Instance Connect Session Manager SSH client EC2 serial console

Instance ID: i-0793456c258c948b9 (Assign-ec1)

Connection Type:

Connect using EC2 Instance Connect  
Connect using the EC2 Instance Connect browser-based client, with a public IPv4 address.

Connect using EC2 Instance Connect Endpoint  
Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

Public IP address: 3.93.82.50

Username: ubuntu

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

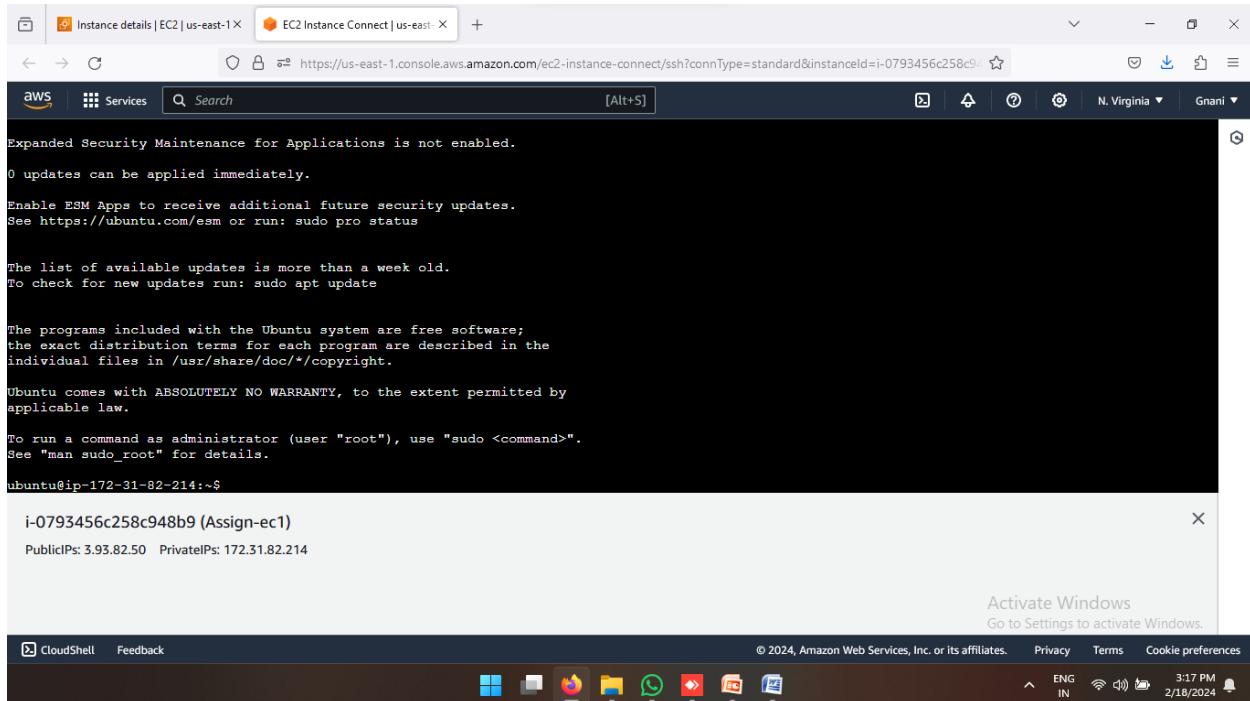
Cancel Connect

Activate Windows Go to Settings to activate Windows.

CloudShell Feedback

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- Now Connected server



The screenshot shows the AWS CloudShell interface for an EC2 instance. At the top, it displays 'Instance details | EC2 | us-east-1' and 'EC2 Instance Connect | us-east-1'. The main content area shows a terminal window with the following text:

```

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

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/*copyright.

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

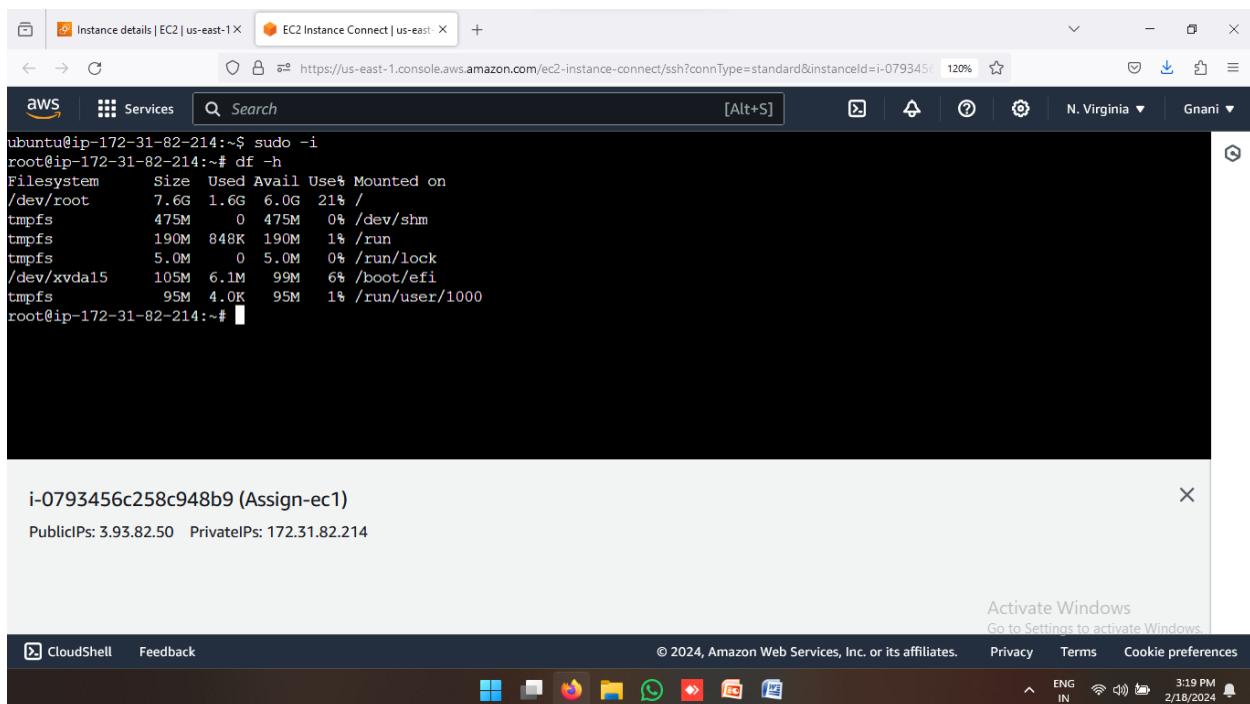
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-82-214:~$
```

Below the terminal, it says 'i-0793456c258c948b9 (Assign-ec1)' and 'PublicIPs: 3.93.82.50 PrivateIPs: 172.31.82.214'.

The bottom of the screen includes standard Windows taskbar icons and a status bar indicating '3:17 PM 2/18/2024'.

- df -h this command check user size



The screenshot shows the AWS CloudShell interface for an EC2 instance. At the top, it displays 'Instance details | EC2 | us-east-1' and 'EC2 Instance Connect | us-east-1'. The main content area shows a terminal window with the following text:

```

ubuntu@ip-172-31-82-214:~$ sudo -i
root@ip-172-31-82-214:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root      7.6G  1.6G  6.0G  21% /
tmpfs          475M     0  475M   0% /dev/shm
tmpfs          190M  848K  190M   1% /run
tmpfs          5.0M     0  5.0M   0% /run/lock
/dev/xvda15    105M  6.1M  99M   6% /boot/efi
tmpfs          95M  4.0K  95M   1% /run/user/1000
root@ip-172-31-82-214:~#
```

Below the terminal, it says 'i-0793456c258c948b9 (Assign-ec1)' and 'PublicIPs: 3.93.82.50 PrivateIPs: 172.31.82.214'.

The bottom of the screen includes standard Windows taskbar icons and a status bar indicating '3:19 PM 2/18/2024'.

- Now go to ebs then volumes

The screenshot shows the AWS EC2 Instance Details page. The instance ID is i-0793456c258c948f. Key details include:

- IPv6 address:** -
- Instance state:** Running
- Private IP DNS name (IPv4 only):** ip-172-31-82-214.ec2.internal
- Public IPv4 DNS:** ec2-3-93-82-50.compute-1.amazonaws.com
- Hostname type:** IP name: ip-172-31-82-214.ec2.internal
- Answer private resource DNS name:** IPv4 (A)
- Auto-assigned IP address:** 3.93.82.50 [Public IP]
- VPC ID:** vpc-02f90d8c24b4d4632
- IAM Role:** -
- Subnet ID:** subnet-00c76679479f7b1c9
- IMDSv2:** Required
- Elastic IP addresses:** -
- AWS Compute Optimizer finding:** Opt-in to AWS Compute Optimizer for recommendations.
- Auto Scaling Group name:** -

Below the main details, there are tabs for **Details**, **Status and alarms**, **Monitoring**, **Security**, **Networking**, **Storage**, and **Tags**. The **Details** tab is selected. At the bottom, there are links for **Activate Windows** and **CloudShell**.

- Click on Create Volume

The screenshot shows the AWS Volumes page. There is one volume listed:

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created
-	vol-07da87df57367098e	gp2	8 GiB	100	-	snap-091ad9e...	2024/02

At the top right, there is a **Create volume** button. Below the table, a summary states: **Summary for all volumes in this Region**. The page includes standard AWS navigation and status bars at the bottom.

- Enter the size whatever you want then select same availability zone of EC2 then create volume

Volume type [Info](#)

General Purpose SSD gp3 is now the default selection. gp3 provides up to 20% lower cost per GB than gp2.  
[Learn More](#)

Size (GiB) [Info](#)

Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS [Info](#)

Min: 3000 IOPS, Max: 16000 IOPS. The value must be an integer.

Throughput (MiB/s) [Info](#)

Min: 125 MiB, Max: 1000 MiB. Baseline: 125 MiB/s.

Availability Zone [Info](#)

Activate Windows  
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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.  
  
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

Activate Windows  
Go to Settings to activate Windows.

- After Create a volume see the status of created volume it is available state is showing.
- Select that volume and attach volume to our first instance.
- After Attach volume that should be disable. And detach is enable.

The screenshot shows the AWS EC2 Volumes page. At the top, a green banner says "Successfully created volume vol-0132d1ab4bb25c030." Below it, the "Volumes (2) Info" section displays two rows of volume information:

	Throughput	Snapshot	Created	Availability Zone	Volume state	Alarm status
-	snap-091ad9e...	2024/02/18 15:15 GMT+5...	us-east-1a	<span>In-use</span>	No alarms	
125	-	2024/02/18 15:22 GMT+5...	us-east-1a	<span>Available</span>	No alarms	

At the bottom, a summary for all volumes in the region is shown:

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The screenshot shows the same AWS EC2 Volumes page as above, but with the Actions menu open for the volume with Volume ID vol-0132d1ab4bb25c030. The menu options include:

- 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

Below the menu, detailed information about the volume is displayed:

Volume ID	Size	Type
vol-0132d1ab4bb25c030	5 GiB	gp3

Volume details:

- AWS Compute Optimizer finding: Opt-in to AWS Compute Optimizer for recommendations. [Learn more]
- Volume state: Available
- IOPS: 3000
- Throughput: 125
- Encryption: Not encrypted
- KMS key ID: Not specified
- KMS key alias: Not specified

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The screenshot shows the AWS CloudShell interface with two tabs open: "Attach volume | EC2 | us-east-1" and "EC2 Instance Connect | us-east-1". The "Attach volume" tab displays the configuration for attaching volume `vol-0132d1ab4bb25c030` to instance `i-0793456c258c948b9`. The "Device name" field is set to `/dev/sdf`. A note indicates that newer Linux kernels may rename devices to `/dev/xvdf` through `/dev/xvdp` internally. The "Attach volume" button is highlighted in orange.

**Attach volume**

Volume ID: vol-0132d1ab4bb25c030  
Availability Zone: us-east-1a  
Instance: i-0793456c258c948b9  
Device name: /dev/sdf

Only instances in the same Availability Zone as the selected volume are displayed.  
Recommended device names for Linux: /dev/sda1 for root volume, /dev/sdf-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

**Volumes | EC2 | us-east-1**

The screenshot shows the AWS CloudShell interface with the "Volumes" tab selected. It displays a success message: "Successfully attached volume vol-0132d1ab4bb25c030 to instance i-0793456c258c948b9." The "Actions" menu for the selected volume includes options like "Create volume", "Modify volume", "Create snapshot", "Delete volume", "Attach volume", "Detach volume", "Force detach volume", "Manage auto-enabled I/O", "Manage tags", and "Fault injection". The volume status is listed as "Okay".

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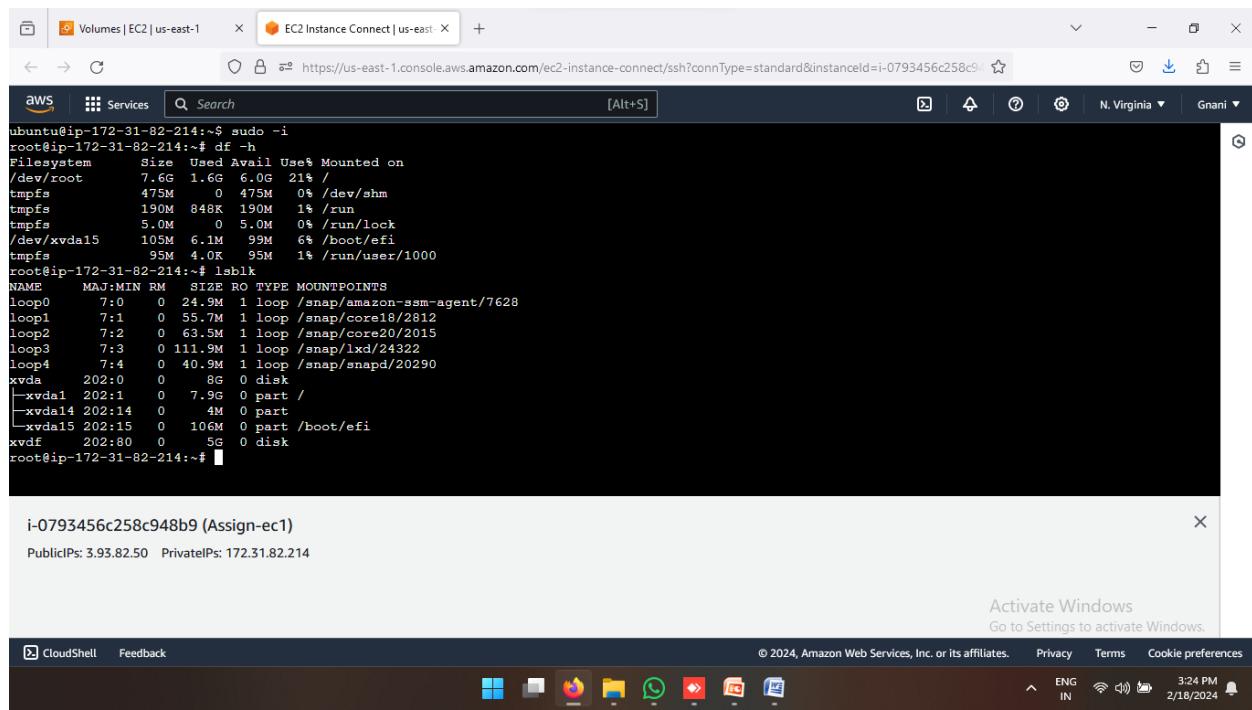
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- Now Go to EC2 Connected server

- Enter Command for volume is attached or not
- Command is “**lsblk**”



```
ubuntu@ip-172-31-82-214:~$ sudo -i
root@ip-172-31-82-214:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root       7.6G  1.6G  6.0G  21% /
tmpfs          475M     0  475M   0% /dev/shm
tmpfs          190M  848K  190M   1% /run
tmpfs          5.0M     0  5.0M   0% /run/lock
/dev/xvda15    105M  6.1M  99M   6% /boot/efi
tmpfs          95M  4.0K  95M   1% /run/user/1000
root@ip-172-31-82-214:~# lsblk
NAME   MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0      7:0    0 24.9M  1 loop /snap/amazon-ssm-agent/7628
loop1      7:1    0 55.7M  1 loop /snap/core18/2812
loop2      7:2    0 63.5M  1 loop /snap/core20/2015
loop3      7:3    0 111.9M 1 loop /snap/lxd/24322
loop4      7:4    0 40.9M  1 loop /snap/snapd/20290
xvda    202:0    0   8G  0 disk 
└─xvda1  202:1    0   7.9G 0 part /
xvda14 202:14    0   4M  0 part
└─xvda15 202:15    0 106M 0 part /boot/efi
xvdf    202:80   0   5G  0 disk
root@ip-172-31-82-214:~#
```

i-0793456c258c948b9 (Assign-ec1)  
PublicIPs: 3.93.82.50 PrivateIPs: 172.31.82.214

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- First to check file system is there or not then create new File system in volume
- Command is **mkfs -t xfs /dev/xvdf**
- To Check file system created or not command is **file -s /dev/xvdf**
- Create directories and mount the volume to directories  
Command is  
**mkdir -p vcube/batch**  
**mount /dev/xvdf vcube/batch**  
**cd vcube/batch**  
**mkdir 124 145**  
**vi file1**  
**ls – see the list files and directories**  
**cd**  
**umount /dev/xvdf vcube/batch**

A screenshot of an EC2 Instance Connect session. The terminal window shows root commands being run on an EC2 instance. The commands include:

```
root@ip-172-31-82-214:~# file -s /dev/xvdf
/dev/xvdf: data
root@ip-172-31-82-214:~# mkfs -t xfs /dev/xvdf
meta-data=/dev/xvdf      isize=512   agcount=4, agsize=327680 blks
=                      sectsz=512   attr=2, projid32bit=1
=                      crc=1     finobt=1, sparse=1, rmapbkt=0
=                      reflink=1   bigtime=0 inobtcount=25
data       =             bsize=4096  swidth=0 blks
naming    =version 2    bsize=4096  ascii-ci=0, ftype=1
log        =internal log bsize=4096  blocks=2560, version=2
realtime  =none         sectsz=512  sunit=0 blks, lazy-count=1
extsz=4096

root@ip-172-31-82-214:~# file -s /dev/xvdf
/dev/xvdf: SGI XFS filesystem data (blksz 4096, inosz 512, v2 dirs)
root@ip-172-31-82-214:~# mkdir -p vcube/batch
root@ip-172-31-82-214:~# mount /dev/xvdf vcube/batch
root@ip-172-31-82-214:~# ls
snap vcube
root@ip-172-31-82-214:~# cd vcube/batch
root@ip-172-31-82-214:~/vcube/batch# mkdir 124 145
root@ip-172-31-82-214:~/vcube/batch# vi file1
root@ip-172-31-82-214:~/vcube/batch#
```

The terminal window has a title bar "Volumes | EC2 | us-east-1" and "EC2 Instance Connect | us-east-1". Below the terminal, a message box displays the instance ID "i-0793456c258c948b9 (Assign-ec1)" and public/private IP addresses. The system tray at the bottom shows network connectivity and system status.

A screenshot of an EC2 Instance Connect session. The terminal window shows a text exchange between the user and the instance:

```
Good Morning all
How are yo
~
```

The terminal window has a title bar "Volumes | EC2 | us-east-1" and "EC2 Instance Connect | us-east-1". Below the terminal, a message box displays the instance ID "i-0793456c258c948b9 (Assign-ec1)" and public/private IP addresses. The system tray at the bottom shows network connectivity and system status.

```
/dev/xvdf: SGI XFS filesystem data (blksize 4096, inosz 512, v2 dirs)
root@ip-172-31-82-214:~# mkdir -p vcube/batch
root@ip-172-31-82-214:~# mount /dev/xvdf vcube/batch
root@ip-172-31-82-214:~# ls
snap vcube
root@ip-172-31-82-214:~# cd vcube/batch
root@ip-172-31-82-214:~/vcube/batch# mkdir 124 145
root@ip-172-31-82-214:~/vcube/batch# vi file1
root@ip-172-31-82-214:~/vcube/batch# ls
124 145 file1
root@ip-172-31-82-214:~/vcube/batch# cd
root@ip-172-31-82-214:~# lsblk
NAME   MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0    7:0     0  24.9M  1 loop /snap/amazon-ssm-agent/7628
loop1    7:1     0  55.7M  1 loop /snap/core18/2812
loop2    7:2     0  63.5M  1 loop /snap/core20/2015
loop3    7:3     0 111.9M  1 loop /snap/lxd/24322
loop4    7:4     0  40.9M  1 loop /snap/snapd/20290
xvda   202:0     0   8G  0 disk
└─xvda1 202:1     0   7.9G 0 part /
  ├─xvda14 202:14    0   4M 0 part
  └─xvda15 202:15    0 106M 0 part /boot/efi
xvdf   202:80    0   5G  0 disk /root/vcube/batch
root@ip-172-31-82-214:~#
```

i-0793456c258c948b9 (Assign-ec1)  
PublicIPs: 3.93.82.50 PrivateIPs: 172.31.82.214

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```
/dev/xvdf: SGI XFS filesystem data (blksize 4096, inosz 512, v2 dirs)
root@ip-172-31-82-214:~# mkdir -p vcube/batch
root@ip-172-31-82-214:~# mount /dev/xvdf vcube/batch
root@ip-172-31-82-214:~# ls
snap vcube
root@ip-172-31-82-214:~# cd vcube/batch
root@ip-172-31-82-214:~/vcube/batch# mkdir 124 145
root@ip-172-31-82-214:~/vcube/batch# vi file1
root@ip-172-31-82-214:~/vcube/batch# ls
124 145 file1
root@ip-172-31-82-214:~/vcube/batch# cd
root@ip-172-31-82-214:~# lsblk
NAME   MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0    7:0     0  24.9M  1 loop /snap/amazon-ssm-agent/7628
loop1    7:1     0  55.7M  1 loop /snap/core18/2812
loop2    7:2     0  63.5M  1 loop /snap/core20/2015
loop3    7:3     0 111.9M  1 loop /snap/lxd/24322
loop4    7:4     0  40.9M  1 loop /snap/snapd/20290
xvda   202:0     0   8G  0 disk
└─xvda1 202:1     0   7.9G 0 part /
  ├─xvda14 202:14    0   4M 0 part
  └─xvda15 202:15    0 106M 0 part /boot/efi
xvdf   202:80    0   5G  0 disk /root/vcube/batch
root@ip-172-31-82-214:~# umount /dev/xvdf vcube/batch
```

i-0793456c258c948b9 (Assign-ec1)  
PublicIPs: 3.93.82.50 PrivateIPs: 172.31.82.214

Activate Windows  
Go to Settings to activate Windows.

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```

loop1    7:1      0  55.7M  1  loop  /snap/core18/2812
loop2    7:2      0  63.5M  1  loop  /snap/core20/2015
loop3    7:3      0 111.9M  1  loop  /snap/lxd/24322
loop4    7:4      0  40.9M  1  loop  /snap/snapd/20290
xvda   202:0      0   8G  0  disk
└─xvda1  202:1      0   7.9G  0  part  /
  └─xvda14 202:14      0   4M  0  part
  └─xvda15 202:15      0 106M  0  part  /boot/efi
xvdf   202:80      0   5G  0  disk  /root/vcube/batch
root@ip-172-31-82-214:~# umount /dev/xvdf vcube/batch
umount: vcube/batch: not mounted.
root@ip-172-31-82-214:~# lsblk
NAME   MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0   7:0      0 24.9M  1  loop  /snap/amazon-ssm-agent/7628
loop1   7:1      0  55.7M  1  loop  /snap/core18/2812
loop2   7:2      0  63.5M  1  loop  /snap/core20/2015
loop3   7:3      0 111.9M  1  loop  /snap/lxd/24322
loop4   7:4      0  40.9M  1  loop  /snap/snapd/20290
xvda   202:0      0   8G  0  disk
└─xvda1  202:1      0   7.9G  0  part  /
  └─xvda14 202:14      0   4M  0  part
  └─xvda15 202:15      0 106M  0  part  /boot/efi
xvdf   202:80      0   5G  0  disk
root@ip-172-31-82-214:~# i-0793456c258c948b9 (Assign-ec1)
Public IPs: 3.93.82.50 Private IPs: 172.31.82.214

```

Activate Windows  
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- Now go to Volumes and detach the volume to instance

Name	Volume ID	Type	Size	IOPS	Throughput
-	vol-07da87df57367098e	gp2	8 GiB	100	-
<input checked="" type="checkbox"/>	vol-0132d1ab4bb25c030	gp3	5 GiB	3000	125

**Volume ID: vol-0132d1ab4bb25c030**

Details			
Volume ID	vol-0132d1ab4bb25c030	Size	5 GiB
AWS Compute Optimizer finding	Opt-in to AWS Compute Optimizer for recommendations.   Learn more	Volume state	In-use
Encryption	Not encrypted	KMS key ID	KMS key alias

Volume status: Okay  
Throughput: 125  
Activate Windows  
KMS key ARN: Go to Settings to activate Windows.

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The screenshot shows the AWS Management Console with the EC2 Instances page open. A modal dialog box is centered over the main content, prompting the user to confirm the detachment of a volume. The dialog contains the following text:

After you detach a volume, you might still be charged for volume storage. If you no longer need the volume, delete it to stop incurring charges.

Are you sure that you want to detach volume vol-0132d1ab4bb25c030?

At the bottom right of the dialog are two buttons: **Cancel** and **Detach**, with **Detach** highlighted in orange.

The screenshot shows the AWS EC2 Volumes page. The left sidebar includes links for EC2 Dashboard, EC2 Global View, Events, Console-to-Code (Preview), Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations (New), Images (AMIs, AMI Catalog), and Elastic Block Store. The main content area has a green header bar with the message "Successfully detached volume." It displays a table of volumes with columns for ID, Name, Type, Size, Status, and Actions. Two volumes are listed: one with 100 IOOPS and another with 3000 IOOPS. Below the table is a summary section for all volumes in the region, showing snapshot statistics and lifecycle manager details.

ID	Name	Type	Size	Status	Actions
100	-	snap-091ad9e...	2024/02/18 15:15 GMT+5:...	us-east-1a	<span>In-use</span>
3000	125	-	2024/02/18 15:22 GMT+5:...	us-east-1a	<span>Available</span>

**Summary for all volumes in this Region**

**Snapshot summary** Last updated on Sun, Feb 18, 2024, 03:20:21 PM (GMT+05:30)

Recently backed up volumes / Total # volumes: 0 / 1

Data Lifecycle Manager default policy for EBS Snapshots status: No default policy set up | Create policy

- Now to EC2 Instance and create one more instance in same availability zone

The screenshot shows the AWS EC2 Dashboard for the US East (N. Virginia) Region. The left sidebar includes links for EC2 Global View, Events, Console-to-Code, Instances (selected), Images, and Elastic Block Store. The main area displays a summary of resources: 0 instances (running), 0 auto scaling groups, 0 dedicated hosts, 0 elastic IPs, 0 instances, 0 key pairs, 0 load balancers, 0 placement groups, 1 security group, 0 snapshots, and 0 volumes. Below this is a 'Launch instance' section with a 'Launch instance' button. To the right, there's a 'Service health' section and a 'EC2 Free Tier' info panel stating '3 EC2 free tier offers in use'. The bottom navigation bar includes CloudShell and Feedback.

The screenshot shows the AWS EC2 Instances page for the US East (N. Virginia) Region. The left sidebar is identical to the previous dashboard. The main area shows a table for 'Instances (1) Info' with one row for 'Assign-ec1' (Instance ID: i-0793456c258c948b9, State: Running, Type: t2.micro). Below the table is a 'Select an instance' dropdown menu. A 'Activate Windows' message is visible at the bottom right. The bottom navigation bar includes CloudShell and Feedback.

- After Creating Instance go to instance id and connect the instance

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with navigation links like EC2 Dashboard, EC2 Global View, Events, and Instances. Under Instances, it shows sub-links for Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images, AMIs, AMI Catalog, and Elastic Block Store. The main content area has a title 'Instances (2) Info' with a search bar. Below it is a table with columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability Z. Two rows are listed: 'Assign-ec2' (i-0e29b950dfbfad723, Running, t2.micro, Initializing, us-east-1a) and 'Assign-ec1' (i-0793456c258c948b9, Running, t2.micro, 2/2 checks passed, us-east-1a). A modal window titled 'Select an instance' is open at the bottom. The footer includes standard AWS links and a status bar showing ENG IN, 3:36 PM, and 2/18/2024.

- Now go to Volumes and attach the already created volume attach to second instance

The screenshot shows the AWS Instance details page for the instance 'Assign-ec1'. The left sidebar has the same navigation as the previous screenshot. The main content area displays detailed information for the instance, including its IP address (184.73.144.123), instance state (Running), and various network and security settings. At the bottom, there are tabs for Details, Status and alarms, Monitoring, Security, Networking, Storage, and Tags. A 'Details' tab is selected. A 'Volumes' section is visible at the bottom. The footer is identical to the previous screenshot.

Screenshot of the AWS EC2 Volumes console showing a successfully detached volume.

**Actions** menu open:

- 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

**Volume ID: vol-0132d1ab4bb25c030**

Details	Status checks	Monitoring	Tags
Volume ID vol-0132d1ab4bb25c030	Size 5 GiB	Type gp3	Volume status Okay
AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations.   Learn more	Volume state Available	IOPS 3000	Throughput 125
Encryption Not encrypted	KMS key ID	KMS key alias	

Activate Windows  
Go to Settings to activate Windows.  
KMS key ARN

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Screenshot of the AWS EC2 Attach Volume console.

**Basic details**

Volume ID: vol-0132d1ab4bb25c030

Availability Zone: us-east-1a

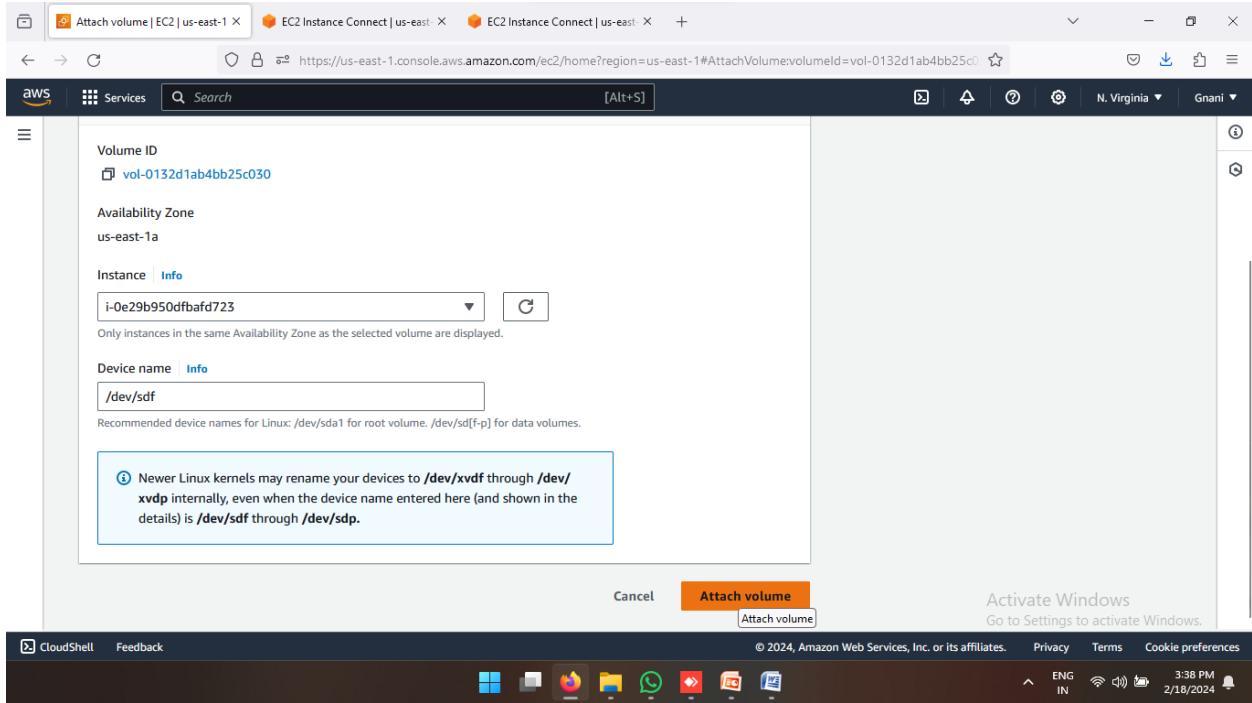
Instance:

- i-0e29b950dfbaf723 (Assign-ec2) (running)
- i-0793456c258c948b9 (Assign-ec1) (running)

Cancel **Attach volume**

Activate Windows  
Go to Settings to activate Windows.

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After Attach volume to check the file system is there or not

Then see the data in volume Command is

- **File -s /dev/xvdf**
- **Mkdir /data**
- **Mount /dev/xvdf /data**
- **Cd /data**
- **Ls**

```
i-0e29b950dfbaf723 (Assign-ec2)
PublicIPs: 184.73.144.123 PrivateIPs: 172.31.80.22

root@ip-172-31-80-22:~# lsblk
NAME   MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0    7:0    0 24.9M  1 loop /snap/amazon-ssm-agent/7628
loop1    7:1    0 55.7M  1 loop /snap/core18/2812
loop2    7:2    0 63.5M  1 loop /snap/core20/2015
loop3    7:3    0 111.9M 1 loop /snap/idx/24322
loop4    7:4    0 40.9M  1 loop /snap/snappyd/20290
xvda   202:0    0   8G  0 disk 
└─xvda1  202:1    0  7.9G 0 part /
  ├─xvda14 202:14   0   4M 0 part /boot/efi
  └─xvda15 202:15   0 106M 0 part /boot/efi
xvdf   202:80   0   5G  0 disk
root@ip-172-31-80-22:~# file -s /dev/xvdf
/dev/xvdf: SGI XFS filesystem data (blksize 4096, inosz 512, v2 dirs)
root@ip-172-31-80-22:~#
```

