

1) Create GI of an instance with 3 EBS vol attached in N.virginia & deploy instance using this image in Ohio

## Base instance in North Virginia

The screenshot shows the AWS Management Console interface for an EC2 instance. The instance is named 'arunlinuxinstancewebserver' and is located in the 'us-east-1c' availability zone. It is in a 'Running' state. The instance has three EBS volumes attached: /dev/xvda (8 GiB), /dev/sdf (1 GiB), and /dev/sdg (1 GiB). The instance is a t2.micro type. The console also shows the 'Launch instances' button and the 'Connect' button.

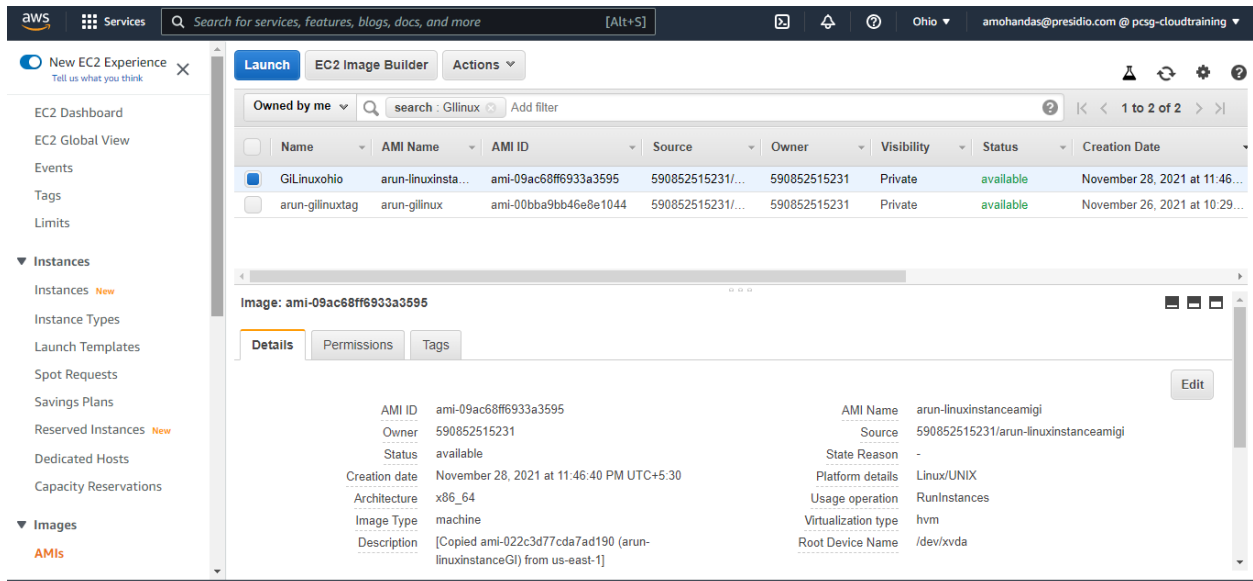
Volume ID	Device name	Volume size (GiB)	Attachment status	Attachment time	Encrypted
vol-021aeca8db903fbd	/dev/xvda	8	Attached	Thu Nov 25 2021 13:26:41 ...	No
vol-0035e6fb7224367f2	/dev/sdf	1	Attached	Sun Nov 28 2021 23:41:42 ...	No
vol-052dcac739c828464	/dev/sdg	1	Attached	Sun Nov 28 2021 23:42:09 ...	No
vol-03293b49d93fdbcd1	/dev/sdh	1	Attached	Sun Nov 28 2021 23:42:25 ...	No

## GI created in North Virginia region

The screenshot shows the 'Image summary' for the AMI 'ami-022c3d77cda7ad190' (arun-linuxinstanceGI). The summary includes details such as the AMI ID, Image type (machine), Platform details (Linux/UNIX), Root device type (ebs), AMI name (arun-linuxinstanceGI), Owner account ID (590852515231), Architecture (x86\_64), Usage operation (RunInstances), Root device name (/dev/xvda), Status (Available), Source (590852515231/arun-linuxinstanceGI), Virtualization type (hvm), Boot mode (-), State reason (-), Creation date (Sun Nov 28 2021 23:45:16 GMT+0530 (India Standard Time)), Kernel ID (-), Block devices (/dev/sdf=snap-079c5e41c5e7580fc:1:false:standard and /dev/sdg=snap-079c5e41c5e7580fc:1:false:standard), Product codes (-), and RAM disk ID (-).

AMI ID	Image type	Platform details	Root device type
ami-022c3d77cda7ad190 (arun-linuxinstanceGI)	machine	Linux/UNIX	ebs
AMI name	Owner account ID	Architecture	Usage operation
arun-linuxinstanceGI	590852515231	x86_64	RunInstances
Root device name	Status	Source	Virtualization type
/dev/xvda	Available	590852515231/arun-linuxinstanceGI	hvm
Boot mode	State reason	Creation date	Kernel ID
-	-	Sun Nov 28 2021 23:45:16 GMT+0530 (India Standard Time)	-
Block devices	Description	Product codes	RAM disk ID
/dev/sdf=snap-079c5e41c5e7580fc:1:false:standard /dev/sdg=snap-079c5e41c5e7580fc:1:false:standard	-	-	-

## Image in Ohio



**Owned by me** search: Gllinux Add filter

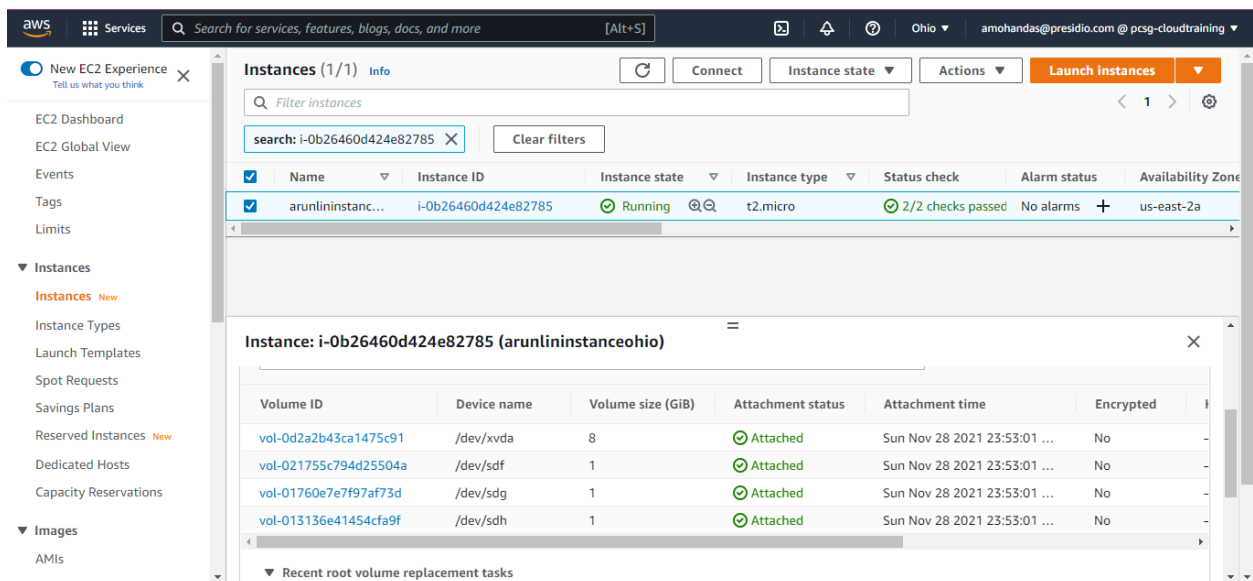
Name	AMI Name	AMI ID	Source	Owner	Visibility	Status	Creation Date
GILinuxohio	arun-linuxinsta...	ami-09ac68ff6933a3595	590852515231/...	590852515231	Private	available	November 28, 2021 at 11:46...
arun-gllinuxtag	arun-gllinux	ami-00bba9bb46e8e1044	590852515231/...	590852515231	Private	available	November 26, 2021 at 10:29...

**Image: ami-09ac68ff6933a3595**

**Details** Permissions Tags

Property	Value
AMI ID	ami-09ac68ff6933a3595
Owner	590852515231
Status	available
Creation date	November 28, 2021 at 11:46:40 PM UTC+5:30
Architecture	x86_64
Image Type	machine
Description	[Copied ami-022c3d77cda7ad190 (arun-linuxinstanceGI) from us-east-1]
AMI Name	arun-linuxinstanceami
Source	590852515231/arun-linuxinstanceami
State Reason	-
Platform details	Linux/UNIX
Usage operation	RunInstances
Virtualization type	hvm
Root Device Name	/dev/xvda

## Launched Linux instance in Ohio



**Instances (1/1)** Info Connect Instance state Actions Launch Instances

Filter instances search: i-0b26460d424e82785 Clear filters

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
arunlininstanc...	i-0b26460d424e82785	Running	t2.micro	2/2 checks passed	No alarms	us-east-2a

**Instance: i-0b26460d424e82785 (arunlininstanceohio)**

Volume ID	Device name	Volume size (GiB)	Attachment status	Attachment time	Encrypted
vol-0d2a2b43ca1475c91	/dev/xvda	8	Attached	Sun Nov 28 2021 23:53:01 ...	No
vol-021755c794d25504a	/dev/sdf	1	Attached	Sun Nov 28 2021 23:53:01 ...	No
vol-01760e7e7f97af73d	/dev/sdg	1	Attached	Sun Nov 28 2021 23:53:01 ...	No
vol-013136e41454cfa9f	/dev/sdh	1	Attached	Sun Nov 28 2021 23:53:01 ...	No

Recent root volume replacement tasks

## Checked working of webinstance in Ohio



← → ↻ ⚠ Not secure | 3.137.175.177

Hello World!

## 2) Deploy LB & AS to monitor scale-out behavior

Name	DNS name	State	VPC ID	Availability Zones	Type
arun-lb	arun-lb-1445176653.us-east...		vpc-00331b6ff6297b674	us-east-2c, us-east-2b, ...	classic

Instance ID	Name	Availability Zone	Status	Actions
i-026dbb5997384fd1f	arun-asg1	us-east-2a	InService ⓘ	<a href="#">Remove from Load Balancer</a>
i-0acbdef284fea053d	arun-bswin	us-east-2b	InService ⓘ	<a href="#">Remove from Load Balancer</a>
i-06a204e6c62535c7e	arun-asg1	us-east-2b	InService ⓘ	<a href="#">Remove from Load Balancer</a>
i-0188f20d1c3bd6e62	arun-bslinux	us-east-2c	InService ⓘ	<a href="#">Remove from Load Balancer</a>

← → ↻ ⚠ Not secure | arun-lb-1445176653.us-east-2.elb.amazonaws.com

## My First Heading

My first paragraph.

← → ↻ ⚠ Not secure | arun-lb-1445176653.us-east-2.elb.amazonaws.com

Hey im in linux webserver

## Launch Configuration

EC2 > Launch configurations

Launch configurations (1/2) Info ↻ Actions ▾ Copy to launch template ▾ Create launch configuration

🔍 Search launch configurations

	Name	AMI ID	Instance type	Spot price	Creation time
<input checked="" type="checkbox"/>	arun-lc	ami-00bba9bb46...	t2.micro	-	Mon Nov 29 2021 ...
<input type="checkbox"/>	vipin_asg	ami-0b286634e1...	t2.micro	-	Fri Nov 26 2021 12...

Launch configuration: arun-lc

Details

AMI ID  
ami-00bba9bb46e8e1044

Kernel ID

Instance type  
t2.micro

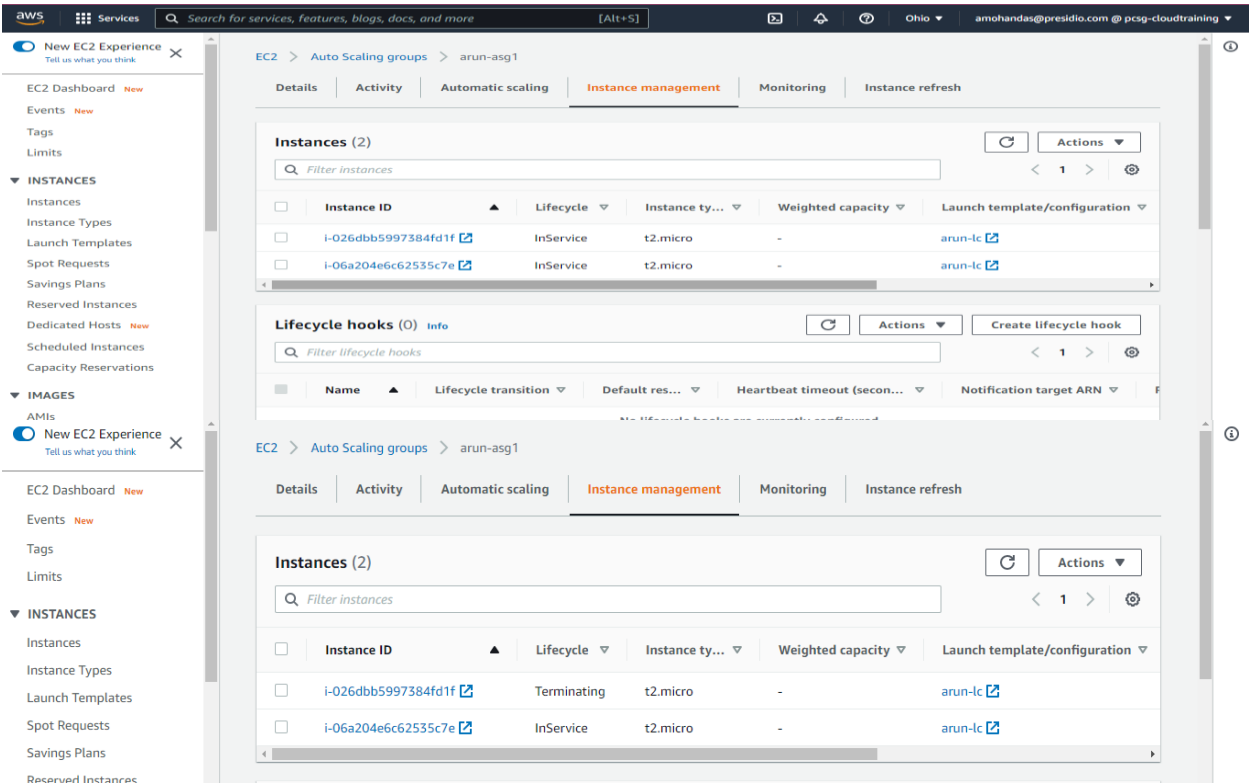
Key name  
arunkumar-ebio-ko...

IAM instance profile  
-

Monitoring  
false

Copy launch configuration

Auto-Scaling

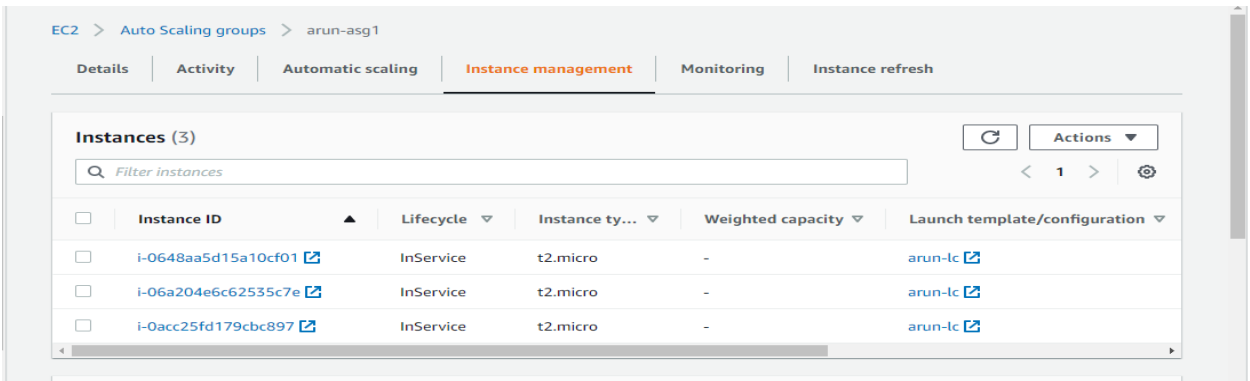


Scale-in behaviour

Successful	Terminating EC2 instance: i-026dbb5997384fd1f	At 2021-11-29T01:53:21Z a monitor alarm TargetTracking-arun-asg1-AlarmLow-3aef9f93-562c-4465-9b47-4f5cd1160220 in state ALARM triggered policy Target Tracking Policy changing the desired capacity from 2 to 1. At 2021-11-29T01:53:35Z an instance was taken out of service in response to a difference between desired and actual capacity, shrinking the capacity from 2 to 1. At 2021-11-29T01:53:35Z instance i-026dbb5997384fd1f was selected for termination.
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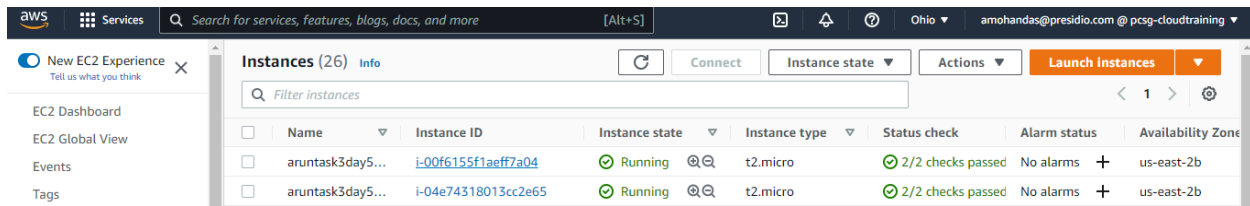
Scale-out behavior (using stress)

WaitingForInstanceWarmup	Launching a new EC2 instance: i-0acc25fd179cbc897	At 2021-11-29T02:08:44Z a monitor alarm TargetTracking-arun-asg1-AlarmHigh-9b0927a4-ed69-4a2e-be01-d30765e233a1 in state ALARM triggered policy Target Tracking Policy changing the desired capacity from 1 to 2. At 2021-11-29T02:08:50Z an instance was started in response to a difference between desired and actual capacity, increasing the capacity from 1 to 2.
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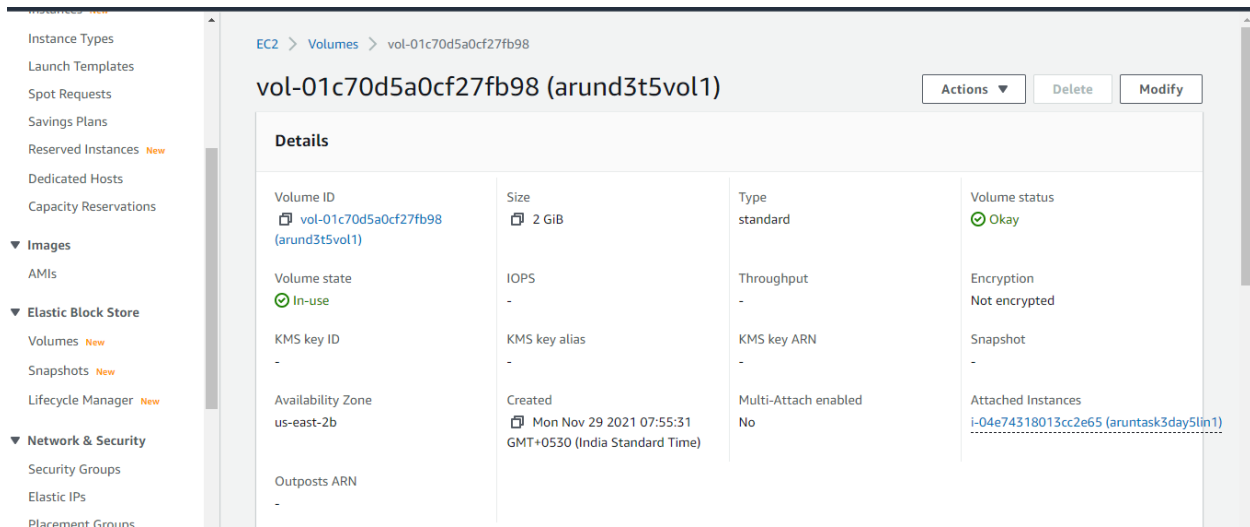
3) Restore data vol snapshot & attach **this** vol to another instance & verify it

Created two instances



	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input type="checkbox"/>	aruntask3day5...	<a href="#">i-00f6155f1aef7a04</a>	Running	t2.micro	2/2 checks passed	No alarms	us-east-2b
<input type="checkbox"/>	aruntask3day5...	<a href="#">i-04e74318013cc2e65</a>	Running	t2.micro	2/2 checks passed	No alarms	us-east-2b

Created volume and attached to instance1



vol-01c70d5a0cf27fb98 (arund3t5vol1)			
Details			
Volume ID	Size	Type	Volume status
<a href="#">vol-01c70d5a0cf27fb98 (arund3t5vol1)</a>	2 GiB	standard	Okay
Volume state	IOPS	Throughput	Encryption
In-use	-	-	Not encrypted
KMS key ID	KMS key alias	KMS key ARN	Snapshot
-	-	-	-
Availability Zone	Created	Multi-Attach enabled	Attached Instances
us-east-2b	Mon Nov 29 2021 07:55:31 GMT+0530 (India Standard Time)	No	<a href="#">i-04e74318013cc2e65 (aruntask3day5lin1)</a>
Outposts ARN			
-			

Mounted the volume and created a directory and a file in it

```
[root@ip-172-31-29-115 ec2-user]# sudo mount -t auto /dev/xvdf /mnt/datavolume/
[root@ip-172-31-29-115 ec2-user]# sudo mkdir arun
[root@ip-172-31-29-115 ec2-user]# cd arun
[root@ip-172-31-29-115 arun]# cd ..
[root@ip-172-31-29-115 ec2-user]# pwd
/home/ec2-user
[root@ip-172-31-29-115 ec2-user]# cd /mnt/datavolume/
[root@ip-172-31-29-115 datavolume]# sudo mkdir arun
[root@ip-172-31-29-115 datavolume]# cd arun
[root@ip-172-31-29-115 arun]# touch arunfilefromvolume.txt
[root@ip-172-31-29-115 arun]# ls
arunfilefromvolume.txt
[root@ip-172-31-29-115 arun]#
```

## Created Snapshot of volume

EC2 > Snapshots > snap-0750288bb4f842906

**snap-0750288bb4f842906 (arun-d5t3snapvol1)** Delete Actions

**Snapshot settings**

Snapshot ID snap-0750288bb4f842906 (arun-d5t3snapvol1)	Size 2 GiB	Progress Available (100%)	Snapshot status Completed
Owner 590852515231	Volume ID vol-01c70d5a0cf27fb98	Started Mon Nov 29 2021 08:05:50 GMT+0530 (India Standard Time)	Product codes -
Encryption Not encrypted	KMS key ID -	KMS key alias -	KMS key ARN -
Fast snapshot restore -	Description taking snapshot from volume of 2 gb from instance 1 of d5 t3		

## Volume creation using snapshot

EC2 > Volumes > vol-0f7ebc421a4212b5e

**vol-0f7ebc421a4212b5e (arun-snapfromd3t5vol)** Actions Delete Modify

**Details**

Volume ID vol-0f7ebc421a4212b5e (arun-snapfromd3t5vol)	Size 2 GiB	Type standard	Volume status Okay
Volume state Available	IOPS -	Throughput -	Encryption Not encrypted
KMS key ID -	KMS key alias -	KMS key ARN -	Snapshot snap-0750288bb4f842906
Availability Zone us-east-2b	Created Mon Nov 29 2021 08:09:30 GMT+0530 (India Standard Time)	Multi-Attach enabled No	Attached Instances -
Outposts ARN -			

Mounting the created volume (from snapshot) in instance 2 and verifying if the created directory and file is present

```
Device      Start      End      Sectors Size Type
/dev/xvda1  4096 16777182 16773087 8G Linux filesystem
/dev/xvda128 2048 4095 2048 1M BIOS boot

Partition table entries are not in disk order.

Disk /dev/xvdf: 2 GiB, 2147483648 bytes, 4194304 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
[root@ip-172-31-16-185 ec2-user]# mkdir -p /mnt/datavolume
[root@ip-172-31-16-185 ec2-user]# mount -t auto /dev/xvdf /mnt/datavolume/
[root@ip-172-31-16-185 ec2-user]# cd /mnt/datavolume
[root@ip-172-31-16-185 datavolume]# ls
arun lost+found
[root@ip-172-31-16-185 datavolume]# cd arun
[root@ip-172-31-16-185 arun]# ls
arunfilefromvolume.txt
[root@ip-172-31-16-185 arun]#
```

i-00f6155f1aef7a04 (aruntask3day5lin2)