

NAME : SHAIKH SHAHID BASHID

TOPIC : Creating EBS and mount it.

After you attach an Amazon EBS volume to your instance, it is exposed as a block device. You can format the volume with any file system and then mount it. After you make the EBS volume available for use, you can access it in the same ways that you access any other volume. Any data written to this file system is written to the EBS volume and is transparent to applications using the device.

Suppose that you have an EC2 instance with an EBS volume for the root device, /dev/xvda, and that you have just attached an empty EBS volume to the instance using /dev/sdf. Use the following procedure to make the newly attached volume available for use.

1. Connect to your instance using SSH. For more information, see [Connect to your Linux instance](#).

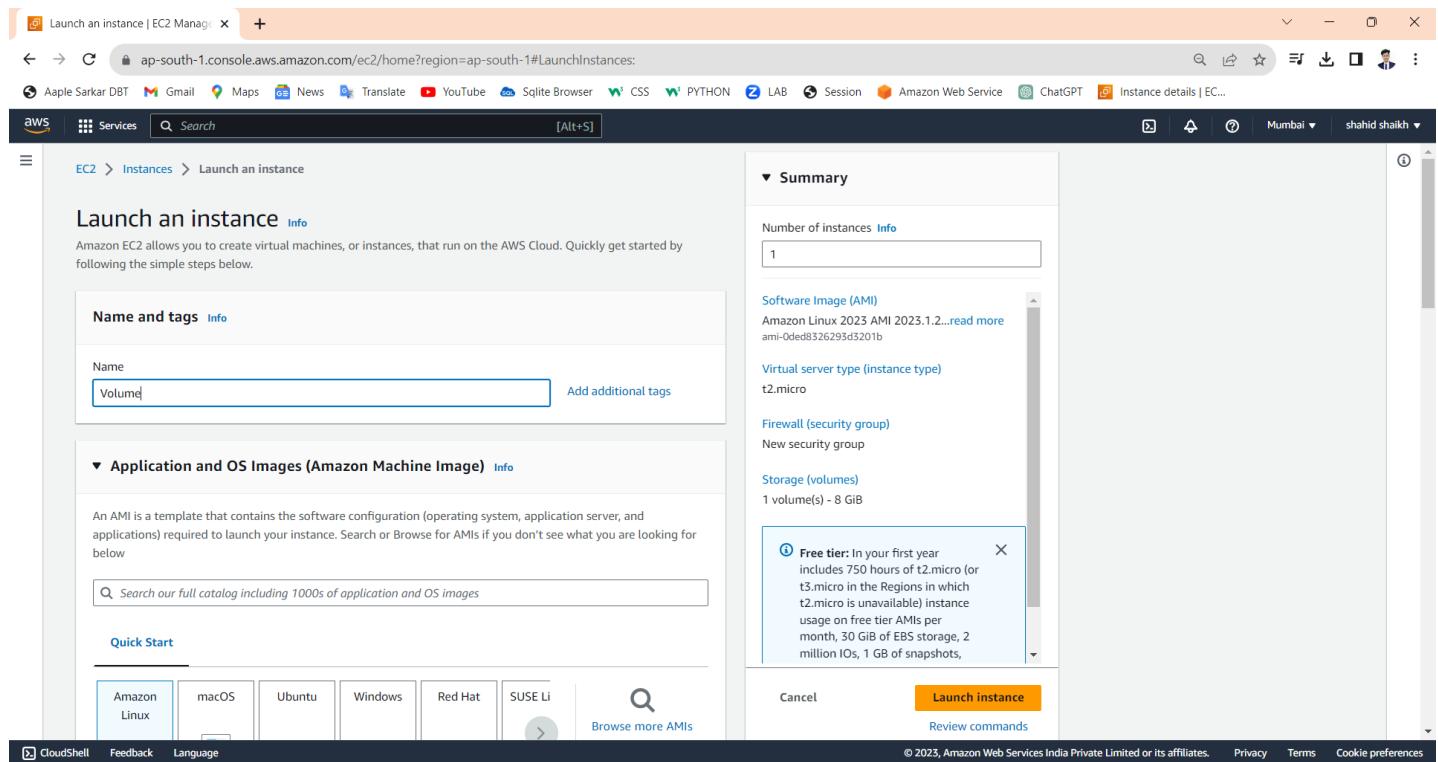
Step 1: To Launch instance click on launch instance.

The screenshot shows the AWS EC2 Management Console interface. On the left, there's a navigation sidebar with links like 'EC2 Dashboard', 'Instances', 'Images', 'Elastic Block Store', and 'Network & Security'. The main content area has a 'Resources' summary table:

Instances (running)	0	Auto Scaling Groups	0	Dedicated Hosts	0
Elastic IPs	0	Instances	1	Key pairs	4
Load balancers	0	Placement groups	0	Security groups	102
Snapshots	0	Volumes	0		

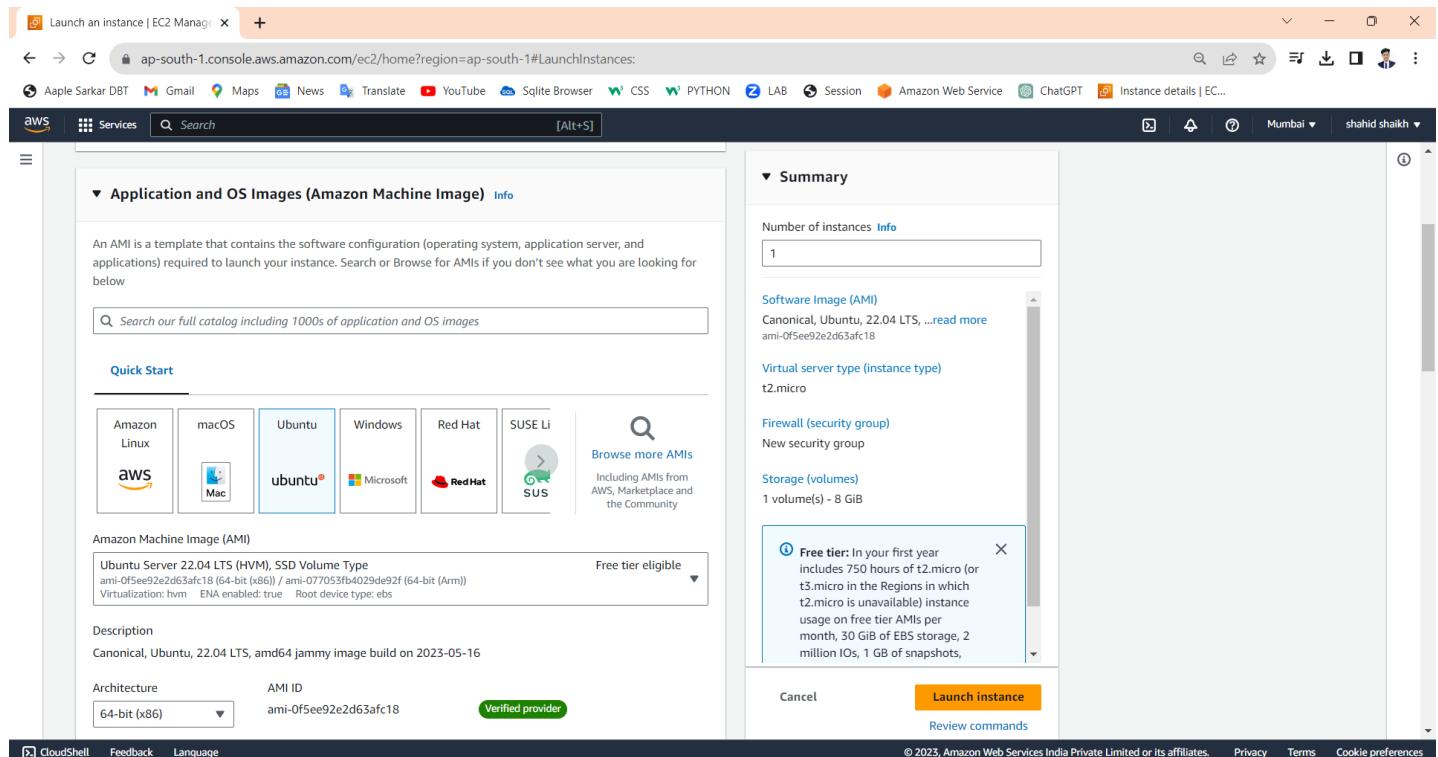
Below this is a 'Launch instance' section with a 'Launch instance' button. To the right is a 'Service health' section showing 'Region: Asia Pacific (Mumbai)' and 'Status: This service is operating normally'. On the far right, there are sections for 'Account attributes' (Default VPC, Settings) and 'Explore AWS' (10 Things You Can Do Today to Reduce AWS Costs, Amazon GuardDuty Malware Protection, Get Up to 40% Better Price Performance).

Step 2: fill server name AS Volume.



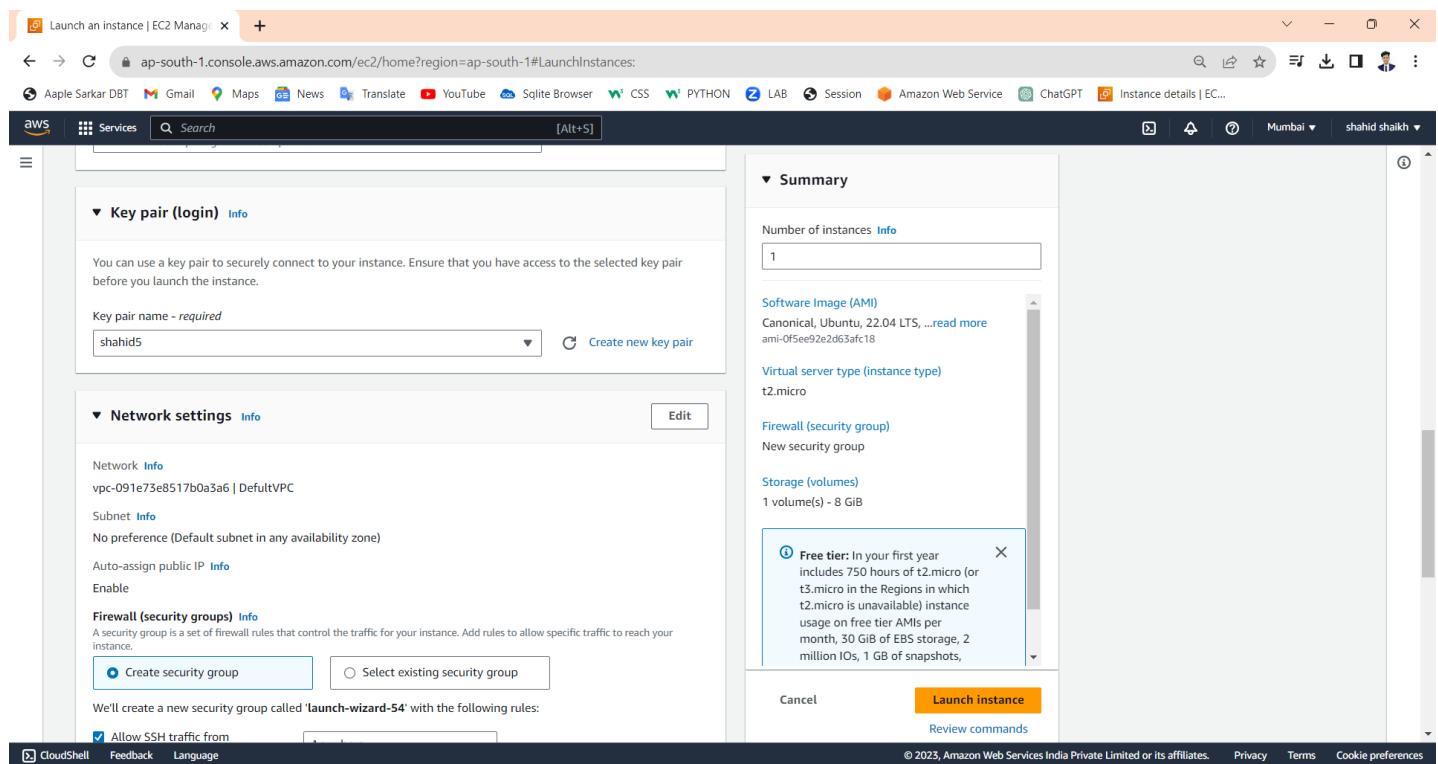
The screenshot shows the AWS EC2 'Launch an instance' wizard. In the 'Name and tags' section, the 'Name' field contains the value 'Volume'. To the right, there's a summary panel with details like the number of instances (1), software image (Amazon Linux 2023 AMI 2023.1.2...), virtual server type (t2.micro), and storage (1 volume(s) - 8 GiB). A tooltip for the 'Free tier' is visible, stating it includes 750 hours of t2.micro usage per month, 30 GiB of EBS storage, 2 million IOs, and 1 GB of snapshots. At the bottom right are 'Cancel', 'Launch instance', and 'Review commands' buttons.

Step 3: select ubuntu machine.

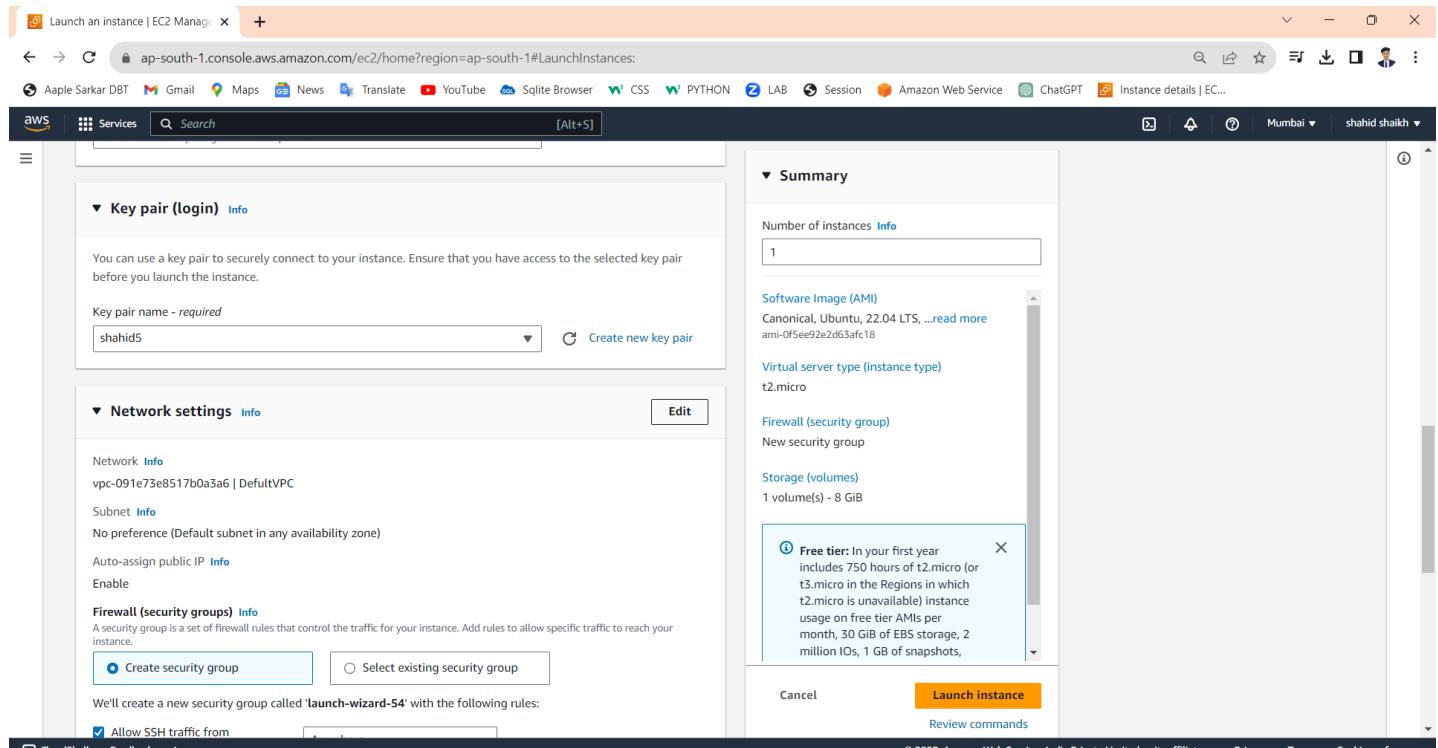


The screenshot shows the 'Application and OS Images (Amazon Machine Image)' section. The 'ubuntu' option is selected, highlighted with a blue border. Below the selection, a detailed description of the Ubuntu Server 22.04 LTS (HVM) AMI is provided, including its ID, virtualization type (hvm), and root device type (ebs). The summary panel on the right remains the same as in the previous step, showing one instance being launched with the specified AMI and configuration.

Step 4:Select Key Pair.



Step 5:Click On Edit button.



Step 5: Select VPC if you created if not Select default.

Launch an instance | EC2 Manager

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:

Aaple Sarkar DBT Gmail Maps News Translate YouTube SQLite Browser CSS PYTHON LAB Session Amazon Web Service ChatGPT Instance details | EC...

aws Services Search [Alt+S]

Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required shahid5 Create new key pair

Network settings Info

VPC - required Info

vpc-091e73e8517b0a3a6 (DefaultVPC) (default) 172.31.0.0/16

vpc-091e73e8517b0a3a6 (DefaultVPC) (default) 172.31.0.0/16

vpc-0ba5a67b305d388bd (MYVPC2-vpc) 192.168.0.0/16

vpc-0e87c62213045489d (MYVPC-vpc) 10.0.0.0/16

Create security group Select existing security group

Summary

Number of instances Info 1

Software Image (AMI) Canonical, Ubuntu, 22.04 LTS, ...read more ami-0f5ee92e2d63afc18

Virtual server type (instance type) t2.micro

Firewall (security group) New security group

Storage (volumes) 1 volume(s) - 8 GiB

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, 1000 requests per second on CloudWatch Metrics, and 1000 requests per second on CloudWatch Metrics Insights.

Cancel Launch instance Review commands

CloudShell Feedback Language © 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences

Step 6: Select Public Subnet.

Launch an instance | EC2 Manager

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:

Aaple Sarkar DBT Gmail Maps News Translate YouTube SQLite Browser CSS PYTHON LAB Session Amazon Web Service ChatGPT Instance details | EC...

aws Services Search [Alt+S]

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required shahid5 Create new key pair

Network settings Info

VPC - required Info

vpc-0e87c62213045489d (MYVPC-vpc) 10.0.0.0/16

Subnet Info

subnet-0d39c6685169268b5 MYVPC-subnet-public1-ap-south-1a VPC: vpc-0e87c62213045489d Owner: 554785859741 Availability Zone: ap-south-1a IP addresses available: 4091 CIDR: 10.0.0.0/20

subnet-0d39c6685169268b5 MYVPC-subnet-public1-ap-south-1a VPC: vpc-0e87c62213045489d Owner: 554785859741 Availability Zone: ap-south-1a IP addresses available: 4091 CIDR: 10.0.0.0/20

subnet-0fff0b4f47a5456 MYVPC-subnet-private1-ap-south-1a VPC: vpc-0e87c62213045489d Owner: 554785859741 Availability Zone: ap-south-1a IP addresses available: 4091 CIDR: 10.0.128.0/20

Security group name - required launch-wizard-54

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and _~!@#\$%^&_-=;<>{ }\$^*

Summary

Number of instances Info 1

Software Image (AMI) Canonical, Ubuntu, 22.04 LTS, ...read more ami-0f5ee92e2d63afc18

Virtual server type (instance type) t2.micro

Firewall (security group) New security group

Storage (volumes) 1 volume(s) - 8 GiB

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, 1000 requests per second on CloudWatch Metrics, and 1000 requests per second on CloudWatch Metrics Insights.

Cancel Launch instance Review commands

CloudShell Feedback Language © 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences

Step 7: Enable Public IP.

The screenshot shows the 'Network settings' section of the AWS EC2 Launch Instance wizard. It includes fields for VPC (selected: 'vpc-0e87c62213045489d (MYVPC-vpc)'), Subnet (selected: 'subnet-0d39c6685169268b5 MYVPC-subnet-public1-ap-south-1a'), and Auto-assign public IP (set to 'Enable'). A tooltip for 'Free tier' is visible, stating: '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.' The summary panel on the right shows 1 instance, AMI 'Canonical, Ubuntu, 22.04 LTS...', instance type 't2.micro', and 1 volume(s) - 8 GiB.

Step 8: Click Launch Button leave it reset of setting default.

The screenshot shows the continuation of the AWS EC2 Launch Instance wizard. It includes the 'Inbound Security Group Rules' section with a rule for 'ssh' on port 22 from 'Anywhere'. A note below the rule states: 'Rules with source of 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.' The 'Configure storage' section shows a root volume of 8 GiB using gp2 storage. A note at the bottom says: 'Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage'. The summary panel on the right remains the same as in Step 7.

Step 9: Now we are Launch our instance click on EC2.

The screenshot shows the AWS EC2 'Launch an instance' page. At the top, there is a green success banner stating 'Successfully initiated launch of instance (i-04b5a644db4ece1d8)'. Below the banner, there is a 'Launch log' link. A 'Next Steps' section follows, containing several links: 'Create billing and free tier usage alerts', 'Connect to your instance', 'Connect an RDS database', 'Create EBS snapshot policy', 'Manage detailed monitoring', 'Create Load Balancer', 'Create AWS budget', and 'Manage CloudWatch alarms'. The bottom of the page includes a navigation bar with links for 'Home', 'Privacy', 'Terms', and 'Cookie preferences'.

Step 10: Select instance which we created and click to connect.

The screenshot shows the AWS EC2 'Instances' page. On the left, there is a sidebar with various navigation options like 'EC2 Dashboard', 'EC2 Global View', 'Events', 'Instances' (which is selected), 'Images', 'Elastic Block Store', and 'Network & Security'. The main content area displays a table titled 'Instances (1/1) Info' with one row for the newly launched instance. The instance details are as follows:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4
Volume	i-04b5a644db4ece1d8	Running	t2.micro	Initializing	No alarms	ap-south-1a	ec2-13-233-130-11.ap...	13.233.130...

Below the table, there is a detailed view for the instance 'i-04b5a644db4ece1d8 (Volume)'. The 'Details' tab is selected, showing sections for 'Instance summary', 'Networking', 'Storage', 'Status checks', 'Monitoring', and 'Tags'. Under 'Instance summary', the public IPv4 address is listed as 13.233.130.11. The instance state is shown as 'Running'. The private IP address is listed as ip-10-0-0-129.ap-south-1.compute.internal.

Step 11: click on SSH client Copy path we is in example.

The screenshot shows the 'Connect to instance' dialog box from the AWS Management Console. The 'SSH client' tab is selected. It displays instructions for connecting via SSH, including steps to open an SSH client, locate a private key file, run a command to ensure the key is not publicly viewable, and connect to the instance using its Public DNS. Below these instructions is an 'Example:' section with a copy link: <ssh -i "shahid5.pem" ubuntu@ec2-13-233-130-11.ap-south-1.compute.amazonaws.com>. A note at the bottom states: 'Note: In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.' At the bottom right of the dialog is a 'Cancel' button.

Step 12: Paste the path on terminal.

The screenshot shows a Windows PowerShell window titled 'Windows PowerShell'. The command entered is: `PS C:\Users\shahi> cd downloads` followed by `PS C:\Users\shahi\downloads> ssh -i "shahid5.pem" ubuntu@ec2-13-233-130-11.ap-south-1.compute.amazonaws.com`. The terminal is dark-themed.

Step 13: know we are connected to ssh.

```
ubuntu@ip-10-0-0-129:~ + ~
ED25519 key fingerprint is SHA256:iGYm1JaP6AoA9QpMceLEEMXqCF50zjk6rE/Kbio9GNE.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-13-233-130-11.ap-south-1.compute.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 22.04.2 LTS (GNU/Linux 5.19.0-1025-aws x86_64)

 * Documentation: https://help.ubuntu.com
 * Management: https://landscape.canonical.com
 * Support: https://ubuntu.com/advantage

System information as of Fri Aug 4 19:21:42 UTC 2023

System load: 0.42431640625 Processes: 99
Usage of /: 20.6% of 7.57GB Users logged in: 0
Memory usage: 24% IPv4 address for eth0: 10.0.0.129
Swap usage: 0%

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-10-0-0-129:~$ |
```

Step 14: Go Back to EC2 Management Console and now to create EBS Volume click on Volumes which is in left hand side.

The screenshot shows the AWS EC2 Management Console interface. The left sidebar navigation bar includes links for EC2 Dashboard, EC2 Global View, Events, Instances (with sub-links for Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations), Images (AMIs, AMI Catalog), Elastic Block Store (Volumes, Snapshots, Lifecycle Manager), and Network & Security. The main content area displays the 'Resources' section, which lists various Amazon EC2 resources in the Asia Pacific (Mumbai) Region. It shows 0 Instances (running), 0 Auto Scaling Groups, 0 Dedicated Hosts, 0 Elastic IPs, 1 Instances, 4 Key pairs, 0 Load balancers, 0 Placement groups, 102 Security groups, 0 Snapshots, and 0 Volumes. Below this, there's a 'Launch instance' section with a 'Launch instance' button and a note about launching instances in the Asia Pacific (Mumbai) Region. To the right, there's a 'Service health' section showing the AWS Health Dashboard and a 'Zones' section indicating the service is operating normally. On the far right, there are sections for 'Account attributes' (Default VPC, Settings, Explore AWS), '10 Things You Can Do Today to Reduce AWS Costs', 'Amazon GuardDuty Malware Protection', and 'Get Up to 40% Better Price Performance'. The URL in the browser bar is https://ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Volumes.

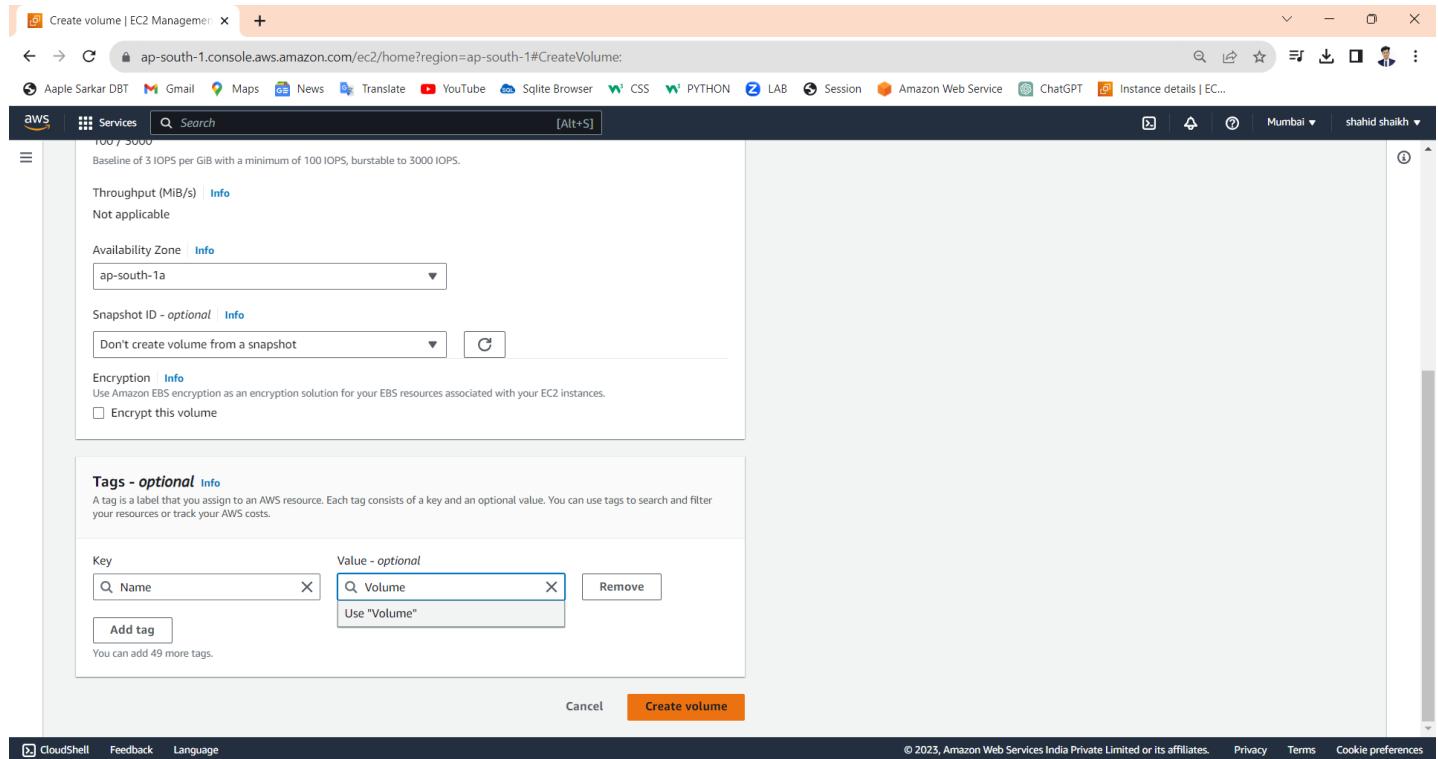
Step 15: Select Volume Type General Purpose SSD (gp2).

The screenshot shows the 'Create volume' page in the AWS Management Console. The 'Volume settings' section is open, and the 'Volume type' dropdown is set to 'General Purpose SSD (gp2)'. Other options listed include 'General Purpose SSD (gp3)', 'Provisioned IOPS SSD (io1)', 'Provisioned IOPS SSD (io2)', 'Cold HDD (sc1)', 'Throughput Optimized HDD (st1)', and 'Magnetic (standard)'. The 'Availability Zone' dropdown is set to 'ap-south-1a'. The 'Snapshot ID - optional' field contains the placeholder 'Don't create volume from a snapshot'. At the bottom right of the form, there is a 'Create volume' button.

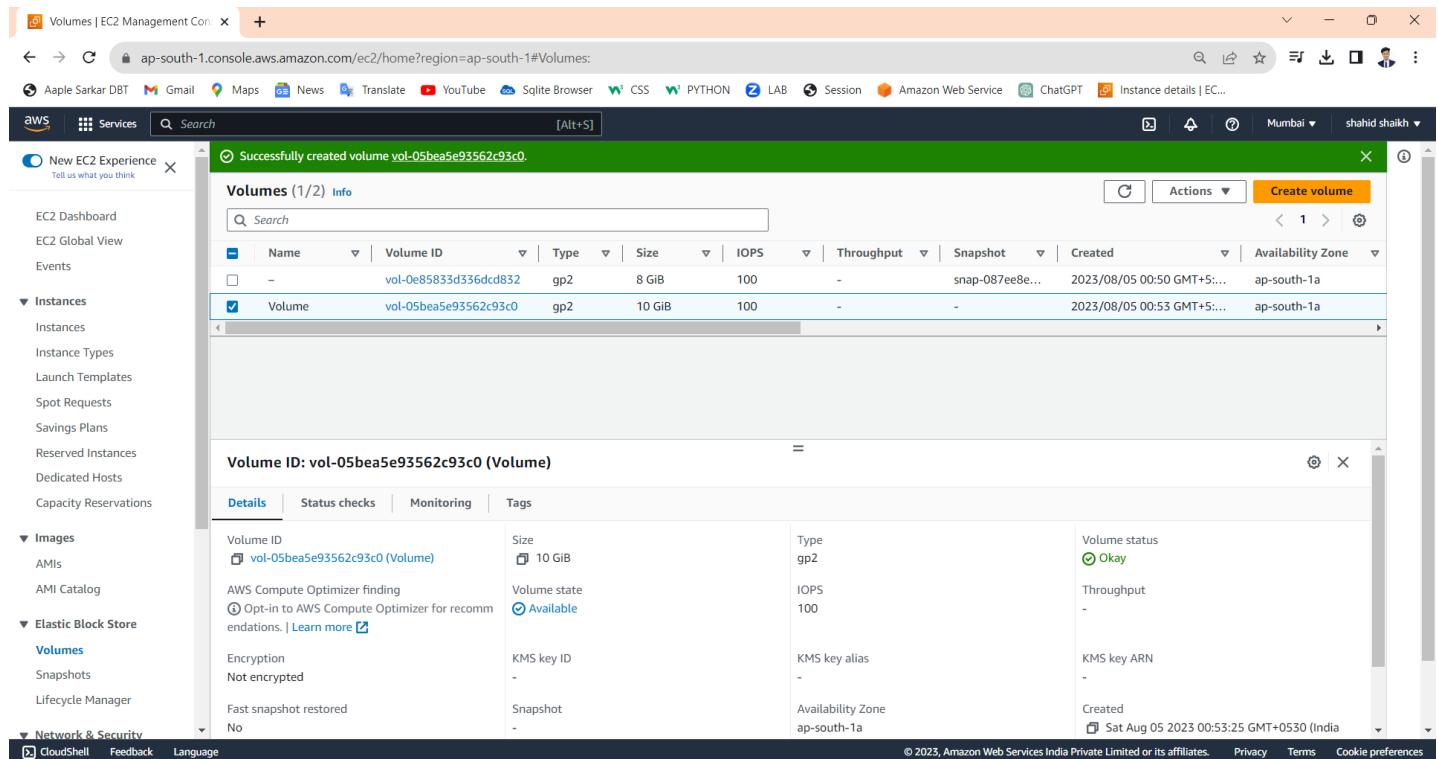
Step 16: To Practice Purpose select size As 10(GiB) to avoid charges.

The screenshot shows the 'Create volume' page in the AWS Management Console. The 'Volume settings' section is open, and the 'Volume type' dropdown is set to 'General Purpose SSD (gp2)'. The 'Size (GiB)' input field is filled with '10'. A note below the input field states: 'Min: 1 GiB, Max: 16384 GiB. The value must be an integer.' The 'Availability Zone' dropdown is set to 'ap-south-1a'. The 'Snapshot ID - optional' field contains the placeholder 'Don't create volume from a snapshot'. At the bottom right of the form, there is a 'Create volume' button.

Step 17: Select Proper availability zone which selected when we creating instance ADD Tags which is optional click on create volume.



Step 18: now we successfully created our volume.



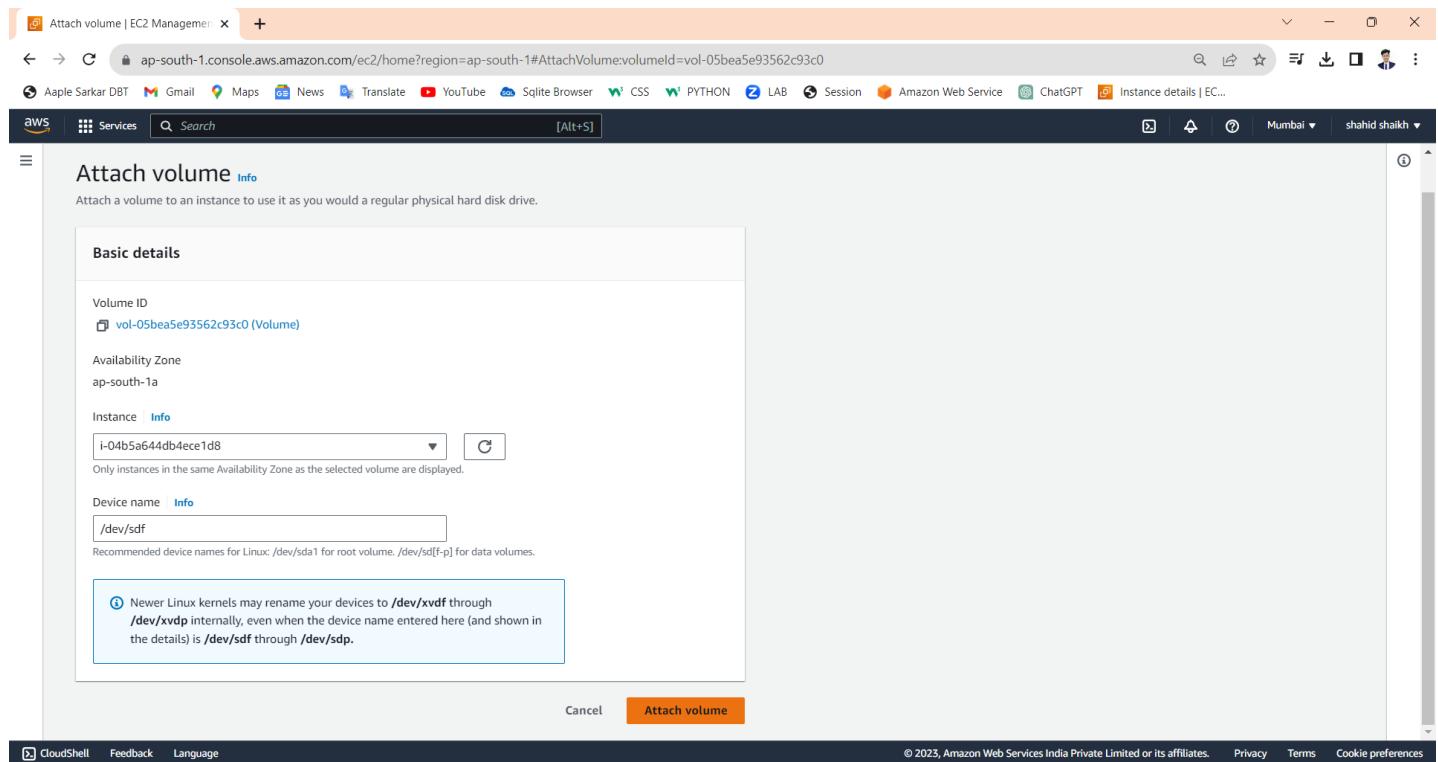
Step 19: Select volume and click on action then attach volume.

The screenshot shows the AWS EC2 Management Console with the 'Volumes' section selected. A green banner at the top indicates 'Successfully created volume vol-05bea5e93562c93c0.' Below this, a table lists two volumes. The second volume, 'Volume' (ID: vol-05bea5e93562c93c0), is selected. An 'Actions' menu is open on the right, with 'Attach volume' highlighted. The 'Volume ID: vol-05bea5e93562c93c0 (Volume)' details pane is expanded, showing information like Size (10 GiB), Type (gp2), and Status (Okay).

Step 20: Attach our volume to instance we created.

The screenshot shows the 'Attach volume' dialog box. It has a 'Basic details' section where the Volume ID is set to 'vol-05bea5e93562c93c0 (Volume)' and the Availability Zone is 'ap-south-1a'. The 'Instance' section contains a dropdown menu with one item: 'i-04b5a644db4ece1d8 (Volume) (running)'. At the bottom, there are 'Cancel' and 'Attach volume' buttons.

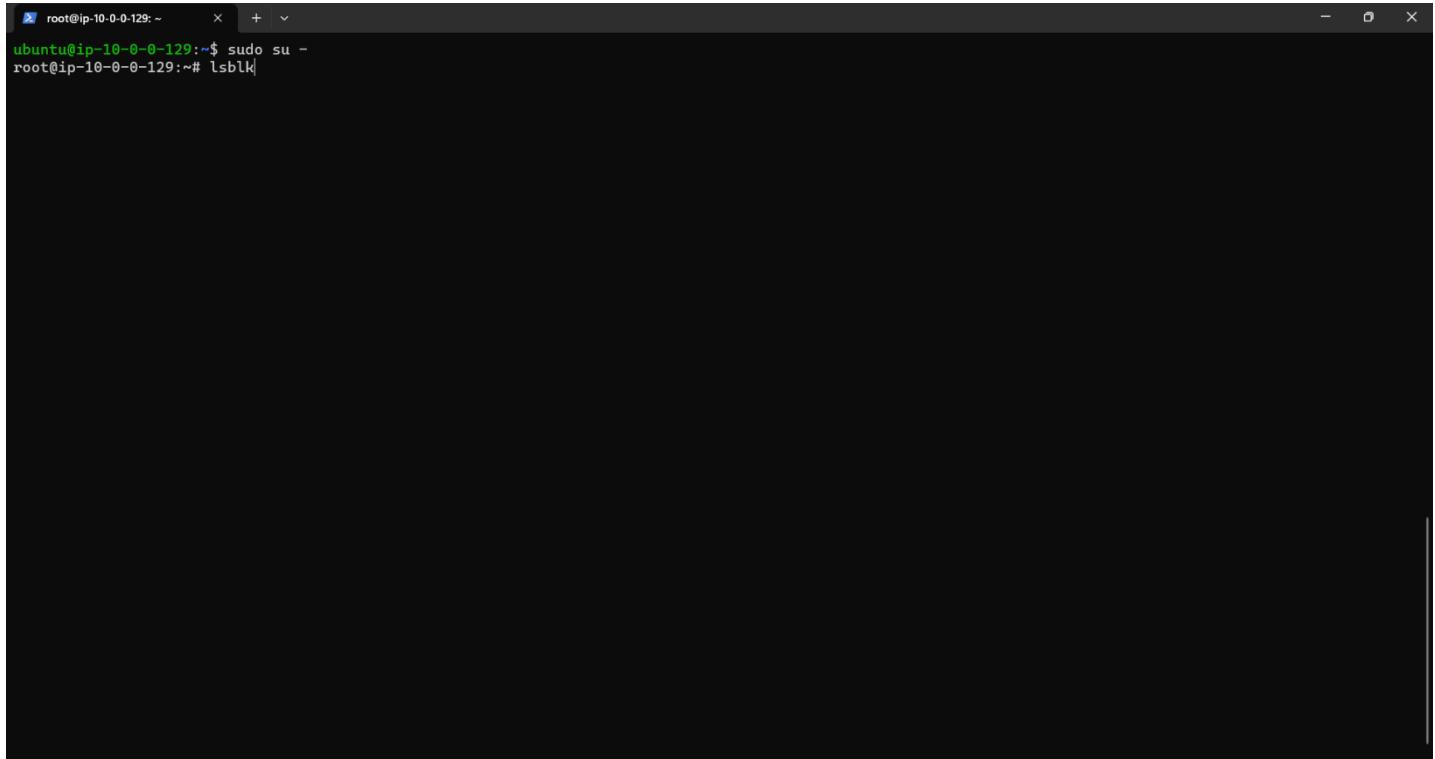
Step 21: fill device name as a /dev/sdf and click on Attach Volume.



Step 22: Switch current directroies to Root dirc sudo su – which don't intrupted by any Restrictions now need use every time sudo for permissions.

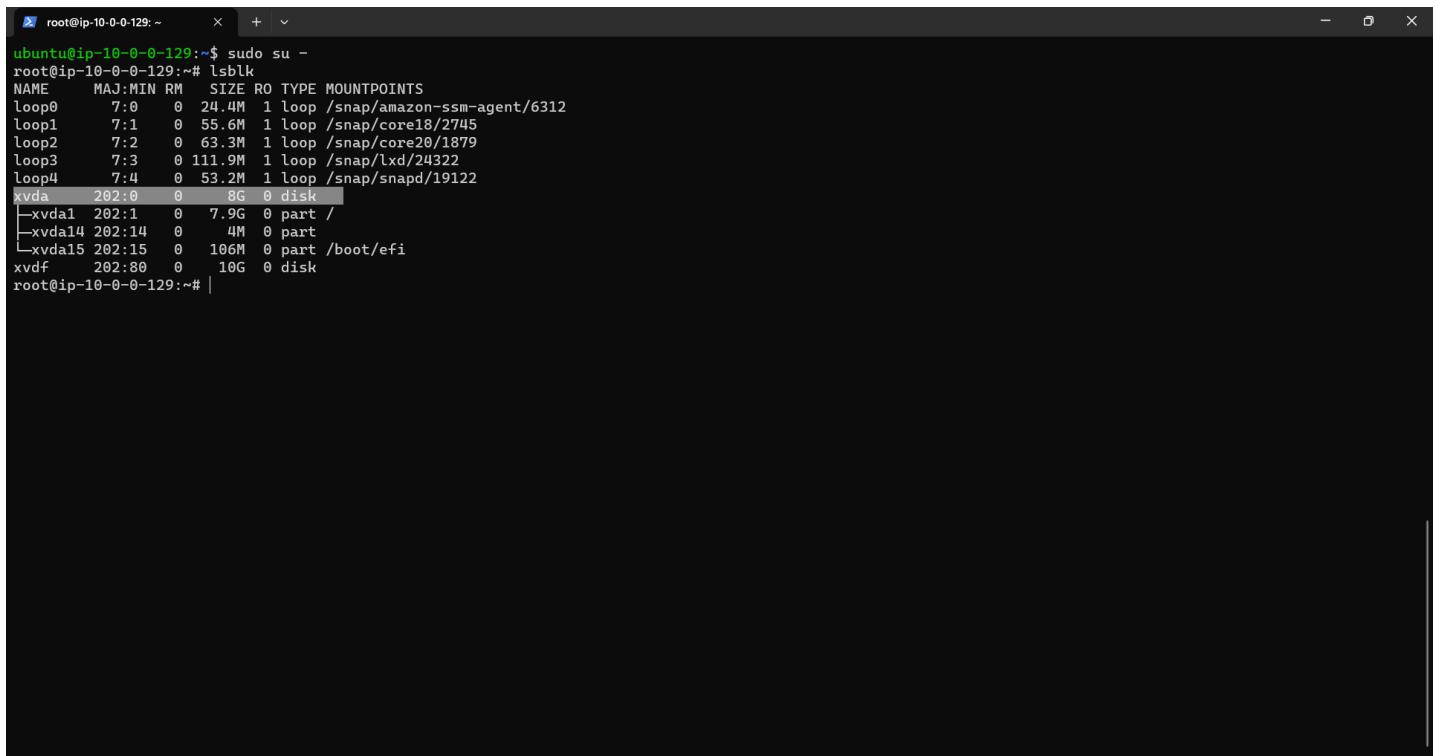
```
ubuntu@ip-10-0-0-129:~$ sudo su -
```

Step 23 : Use the lsblk command to view your available disk devices and their mount points (if applicable) to help you determine the correct device name to use.



```
root@ip-10-0-0-129:~$ sudo su -
root@ip-10-0-0-129:~# lsblk
```

Step 24: In that we see that xvda 8GB is while we creating instance and xvdal is created partition / Root Directories in that operating file store.



```
root@ip-10-0-0-129:~$ sudo su -
root@ip-10-0-0-129:~# lsblk
NAME   MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0    7:0     0 24.4M  1 loop /snap/amazon-ssm-agent/6312
loop1    7:1     0 55.6M  1 loop /snap/core18/2745
loop2    7:2     0 63.3M  1 loop /snap/core20/1879
loop3    7:3     0 111.9M 1 loop /snap/lxd/24322
loop4    7:4     0 53.2M  1 loop /snap/snapd/19122
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   10G  0 disk
```

Step 25: To Check file system mount file Directoies use lsblk -fs command

```
root@ip-10-0-0-129:~# lsblk -fs
NAME   FSTYPE FSVER LABEL      UUID
loop0
loop1
loop2
loop3
loop4
xvda1  ext4   1.0   cloudimg-rootfs 4513eb34-58e6-408e-8ed7-3d487fe6b35b
       └─xvda
       └─xvda14
       └─xvda
xvda15 vfat   FAT32 UEFI      6192-5E23
└─xvda
xvdf
root@ip-10-0-0-129:~# mkdir /tmp/images
```

Step 26: in That we see that XVDA is available that is free store to something.

```
root@ip-10-0-0-129:~# lsblk -fs
NAME   FSTYPE FSVER LABEL      UUID
loop0
loop1
loop2
loop3
loop4
xvda1  ext4   1.0   cloudimg-rootfs 4513eb34-58e6-408e-8ed7-3d487fe6b35b
       └─xvda
       └─xvda14
       └─xvda
xvda15 vfat   FAT32 UEFI      6192-5E23
└─xvda
xvdf
root@ip-10-0-0-129:~# |
```

Step 27: Create mount find directories By using mkdir /tmp/images command.

```
root@ip-10-0-0-129:~# lsblk -fs
NAME   FSTYPE FSVER LABEL           UUID
loop0
loop1
loop2
loop3
loop4
xvda1  ext4   1.0   cloudimg-rootfs 4513eb34-58e6-408e-8ed7-3d487fe6b35b
       6G    21% /
└─xvda
  xvda14
    └─xvda
xvda15 vfat   FAT32 UEFI          6192-5E23
  └─xvda
xvdf
root@ip-10-0-0-129:~# mkdir /tmp/images
```

Step 28: To check more information about disk use fdisk -l command.

```
root@ip-10-0-0-129:~# fdisk -l
```

Step 29: to Begain parttion see disk name in my case /dev/xvdf.

```
root@ip-10-0-0-129:~ x + v - D X

Disk /dev/loop2: 63.34 MiB, 66412544 bytes, 129712 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

Disk /dev/loop3: 111.95 MiB, 117387264 bytes, 229272 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

Disk /dev/loop4: 53.24 MiB, 55824384 bytes, 109032 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

Disk /dev/xvda: 8 GiB, 8589934592 bytes, 16777216 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
Disklabel type: gpt
Disk identifier: 1D8CDFAF-5C13-49B4-AD13-5DBDDECD97FE

Device Start End Sectors Size Type
/dev/xvda1 227328 16777182 16549855 7.9G Linux filesystem
/dev/xvda14 2048 10239 8192 4M BIOS boot
/dev/xvda15 10240 227327 217088 106M EFI System

Partition table entries are not in disk order.

Disk /dev/xvdf: 10 GiB, 10737418240 bytes, 20971520 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-10-0-0-129:~#
```

Step 30:To begain partition use fdisk /dev/xvdf(disk name in step 29)command.

```
root@ip-10-0-0-129:~ x + v - D X

root@ip-10-0-0-129:~# fdisk /dev/xvdf
```

Step 31: type m for help hit enter.

```
root@ip-10-0-0-129:~# fdisk /dev/xvdf
Welcome to fdisk (util-linux 2.37.2).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table.
Created a new DOS disklabel with disk identifier 0x022d5ad4.

Command (m for help): m
```

Step 32: enter n for add a new partition.

```
root@ip-10-0-0-129:~# fdisk /dev/xvdf
Command (m for help): m
Help:
DOS (MBR)
a  toggle a bootable flag
b  edit nested BSD disklabel
c  toggle the dos compatibility flag

Generic
d  delete a partition
F  list free unpartitioned space
l  list known partition types
n  add a new partition
p  print the partition table
t  change a partition type
v  verify the partition table
i  print information about a partition

Misc
m  print this menu
u  change display/entry units
x  extra functionality (experts only)

Script
I  load disk layout from sfdisk script file
O  dump disk layout to sfdisk script file

Save & Exit
w  write table to disk and exit
q  quit without saving changes

Create a new label
g  create a new empty GPT partition table
G  create a new empty SGI (IRIX) partition table
o  create a new empty DOS partition table
s  create a new empty Sun partition table

Command (m for help): n
```

Step 33: enter p for primary partition type.

```
root@ip-10-0-0-129:~ x + v - o x
DOS (MBR)
a toggle a bootable flag
b edit nested BSD disklabel
c toggle the dos compatibility flag

Generic
d delete a partition
f list free unpartitioned space
l list known partition types
n add a new partition
p print the partition table
t change a partition type
v verify the partition table
i print information about a partition

Misc
m print this menu
u change display/entry units
x extra functionality (experts only)

Script
I load disk layout from sfdisk script file
O dump disk layout to sfdisk script file

Save & Exit
w write table to disk and exit
q quit without saving changes

Create a new label
g create a new empty GPT partition table
G create a new empty SGI (IRIX) partition table
o create a new empty DOS partition table
s create a new empty Sun partition table

Command (m for help): n
Partition type
  p primary (0 primary, 0 extended, 4 free)
  e extended (container for logical partitions)
Select (default p): p
```

Step 34: hit enter to first sector and then enter W to write the changes.

```
root@ip-10-0-0-129:~ x + v - o x
m print this menu
u change display/entry units
x extra functionality (experts only)

Script
I load disk layout from sfdisk script file
O dump disk layout to sfdisk script file

Save & Exit
w write table to disk and exit
q quit without saving changes

Create a new label
g create a new empty GPT partition table
G create a new empty SGI (IRIX) partition table
o create a new empty DOS partition table
s create a new empty Sun partition table

Command (m for help): n
Partition type
  p primary (0 primary, 0 extended, 4 free)
  e extended (container for logical partitions)
Select (default p): p
Partition number (1-4, default 1):
First sector (2048-20971519, default 2048):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-20971519, default 20971519):
Created a new partition 1 of type 'Linux' and of size 10 GiB.

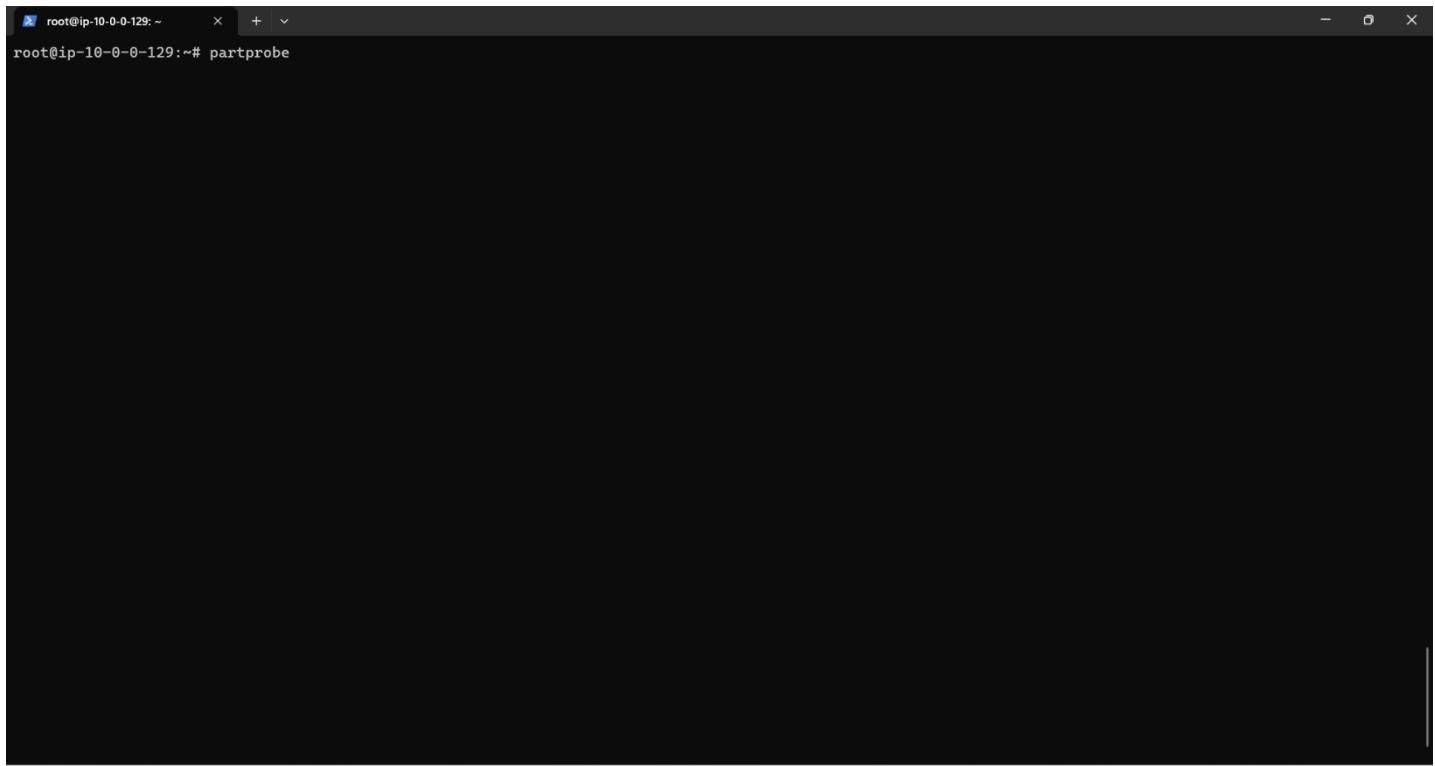
Command (m for help):

Command (m for help): w

The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

root@ip-10-0-0-129:~#
```

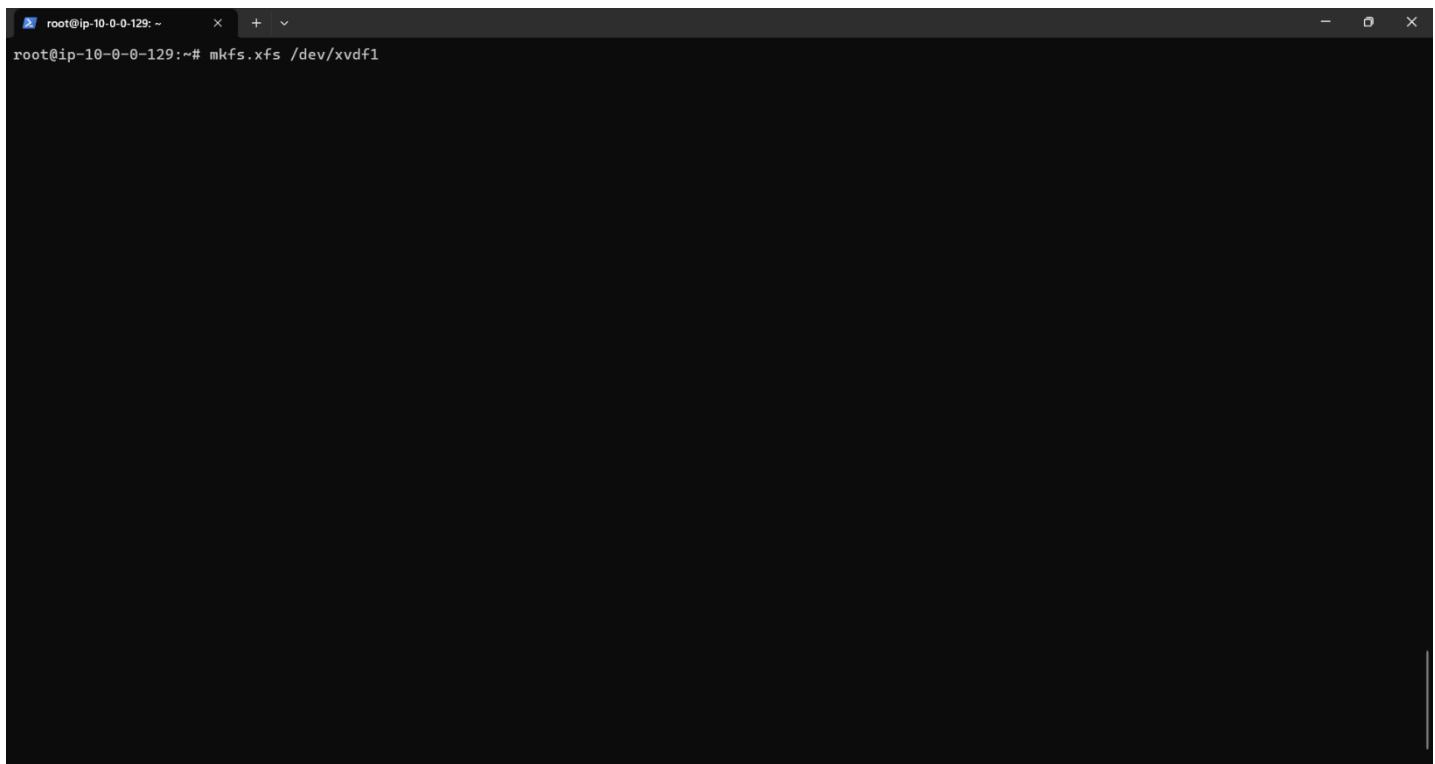
Step 35: partprobe command to inform kernal about partition changes.



```
root@ip-10-0-0-129:~# partprobe
```

A screenshot of a terminal window titled "root@ip-10-0-0-129:~". The window has standard Linux-style window controls at the top. The terminal itself is mostly blank, with the command "partprobe" entered and its output displayed below it.

Step 36:list format with xfs file system use mkfs.xfs /dev/xvdf1 command.



```
root@ip-10-0-0-129:~# mkfs.xfs /dev/xvdf1
```

A screenshot of a terminal window titled "root@ip-10-0-0-129:~". The window has standard Linux-style window controls at the top. The terminal itself is mostly blank, with the command "mkfs.xfs /dev/xvdf1" entered and its output displayed below it.

Step 37: to verify type lsblk -fs.

```
root@ip-10-0-0-129:~# mkfs.xfs /dev/xvdf1
meta-data=/dev/xvdf1      isize=512  agcount=4, agsize=655296 blks
                          =       sectsz=512  attr=2, projid32bit=1
                          =       crc=1    finobt=1, sparse=1, rmapbt=0
data        =       reflink=1 bigtime=0  inobtcount=0
              =       bsize=4096  blocks=2621184, imaxpct=25
              =       sunit=0   swidth=0 blks
naming      =version 2  bsize=4096  ascii-ci=0, ftype=1
log         =internal log bsize=4096  blocks=2560, version=2
              =       sectsz=512 sunit=0 blks, lazy-count=1
realtime    =none        extsz=4096  blocks=0, rtextents=0
root@ip-10-0-0-129:~# lsblk -fs
Command 'lsblk' not found, did you mean:
  command 'lsblk' from deb util-linux (2.37.2-4ubuntu3)
Try: apt install <deb name>
root@ip-10-0-0-129:~# lsblk -fs
NAME   FSTYPE FSVER LABEL           UUID                                     FSAVAIL FSUSE% MOUNTPOINTS
loop0
loop1
loop2
loop3
loop4
xvdal  ext4   1.0   cloudimg-rootfs 4513eb34-58e6-408e-8ed7-3d487fe6b35b   6G     21% /
└─xvda
xvda14
└─xvda
xvda15 vfat   FAT32 UEFI          6192-5E23                     98.3M    6% /boot/efi
└─xvda
xvdf1  xfs    f45f9854-7663-4d43-9b0f-592c4286d850
└─xvdf
root@ip-10-0-0-129:~#
```

Step 38: to mount xvdf1 use mount /dev/xvdf1 /tmp/images command.

```
root@ip-10-0-0-129:~# mount /dev/xvdf1 /tmp/images
```

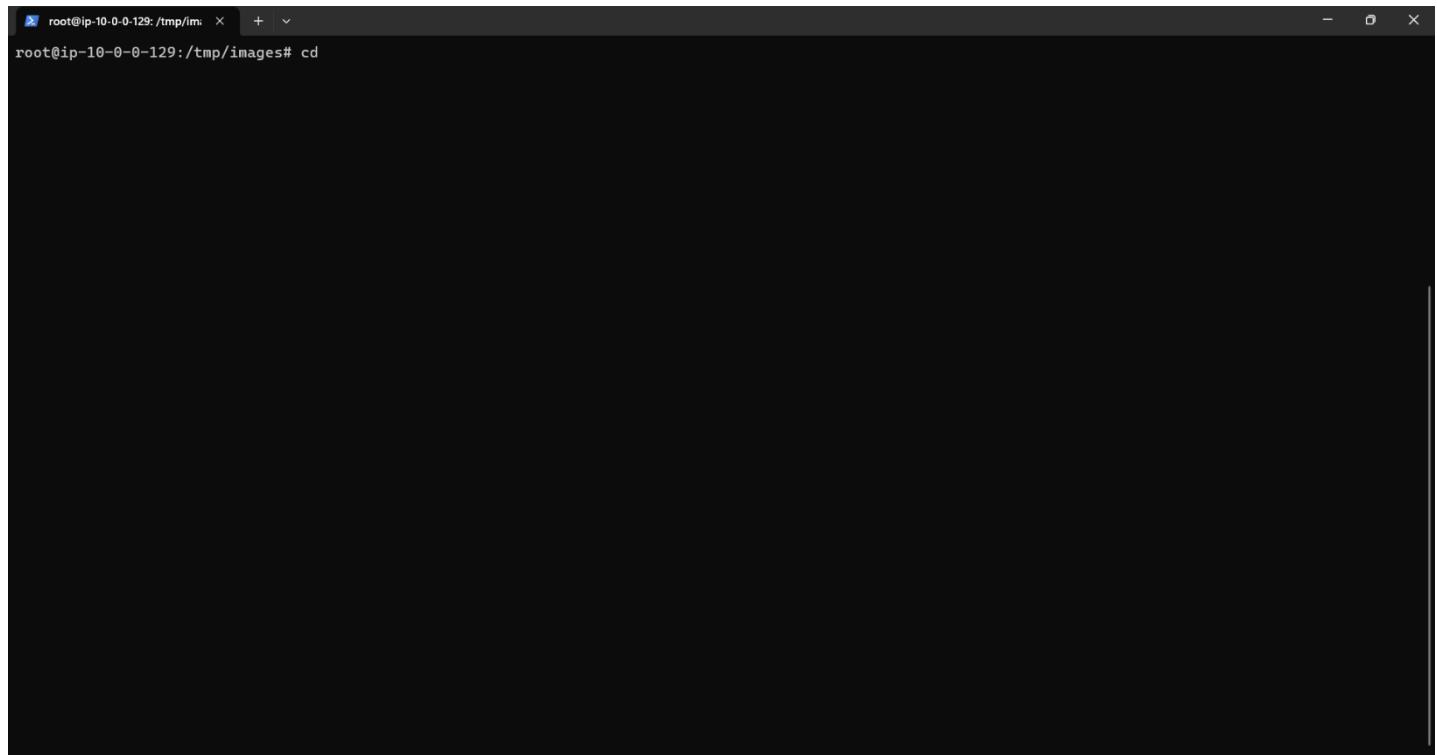
Step 39 : To verify use lsblk -fs And we can see that xvdf1 xfs is created to go change directories use cd /tmp/images.

```
root@ip-10-0-0-129:~# mount /dev/xvdf1 /tmp/images
root@ip-10-0-0-129:~# lsblk -fs
NAME   FSTYPE FSVER LABEL           UUID
loop0
loop1
loop2
loop3
loop4
xvda1  ext4   1.0   cloudimg-rootfs 4513eb34-58e6-408e-8ed7-3d487fe6b35b    6G   21% /
└─xvda
xvda14
└─xvda
xvda15 vfat   FAT32 UEFI          6192-5E23      98.3M   6% /boot/efi
└─xvda
xvdf1  xfs    1       f45f9854-7663-4d43-9b0f-592c4286d850    9.9G   1% /tmp/images
└─xvdf
root@ip-10-0-0-129:~# cd /tmp/images
root@ip-10-0-0-129:/tmp/images#
```

Step 40 : Create Some touch files for verify disk or partition can be use use ls.

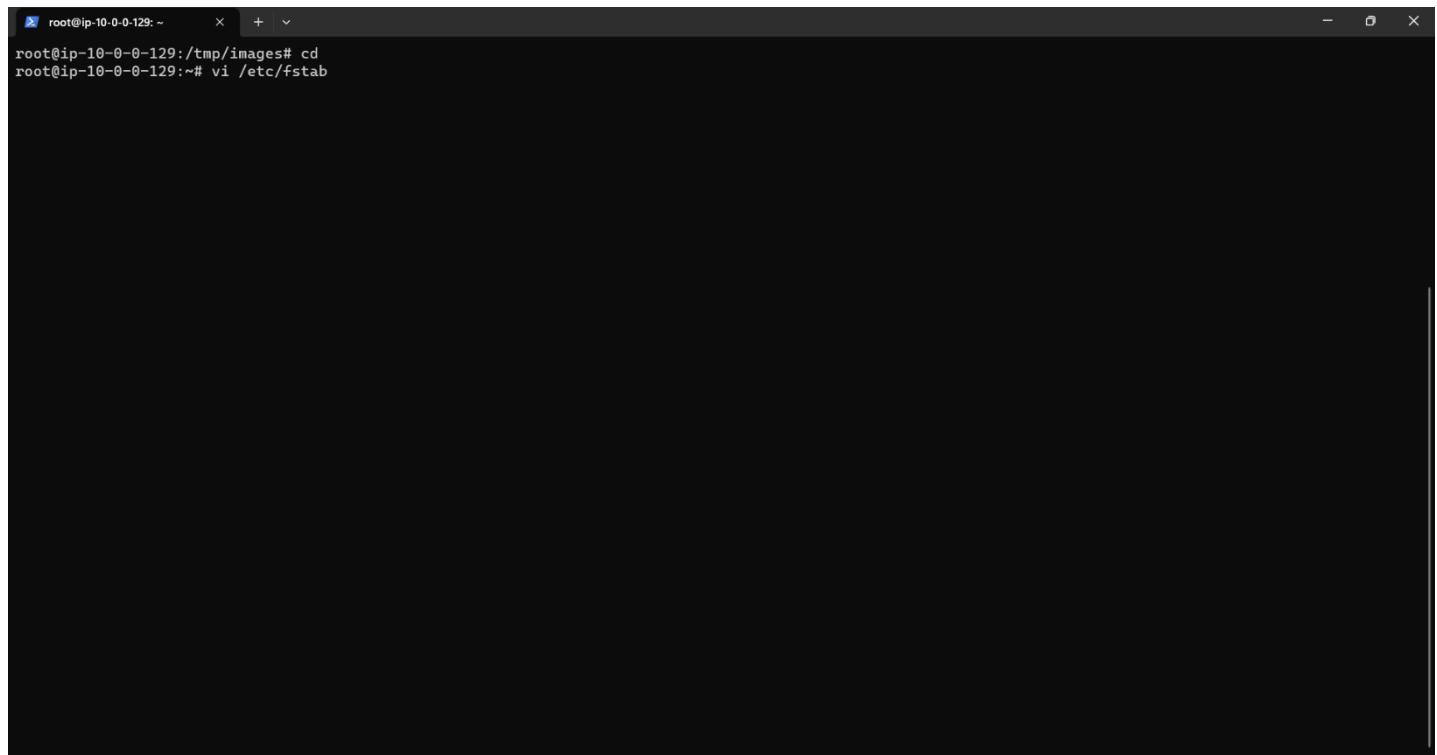
```
root@ip-10-0-0-129:/tmp/images# touch file1{1..10}.txt
root@ip-10-0-0-129:/tmp/images# ls
file11.txt  file110.txt  file12.txt  file13.txt  file14.txt  file15.txt  file16.txt  file17.txt  file18.txt  file19.txt
root@ip-10-0-0-129:/tmp/images#
```

Step 41: Next make the mount point persistent change directories ise cd.



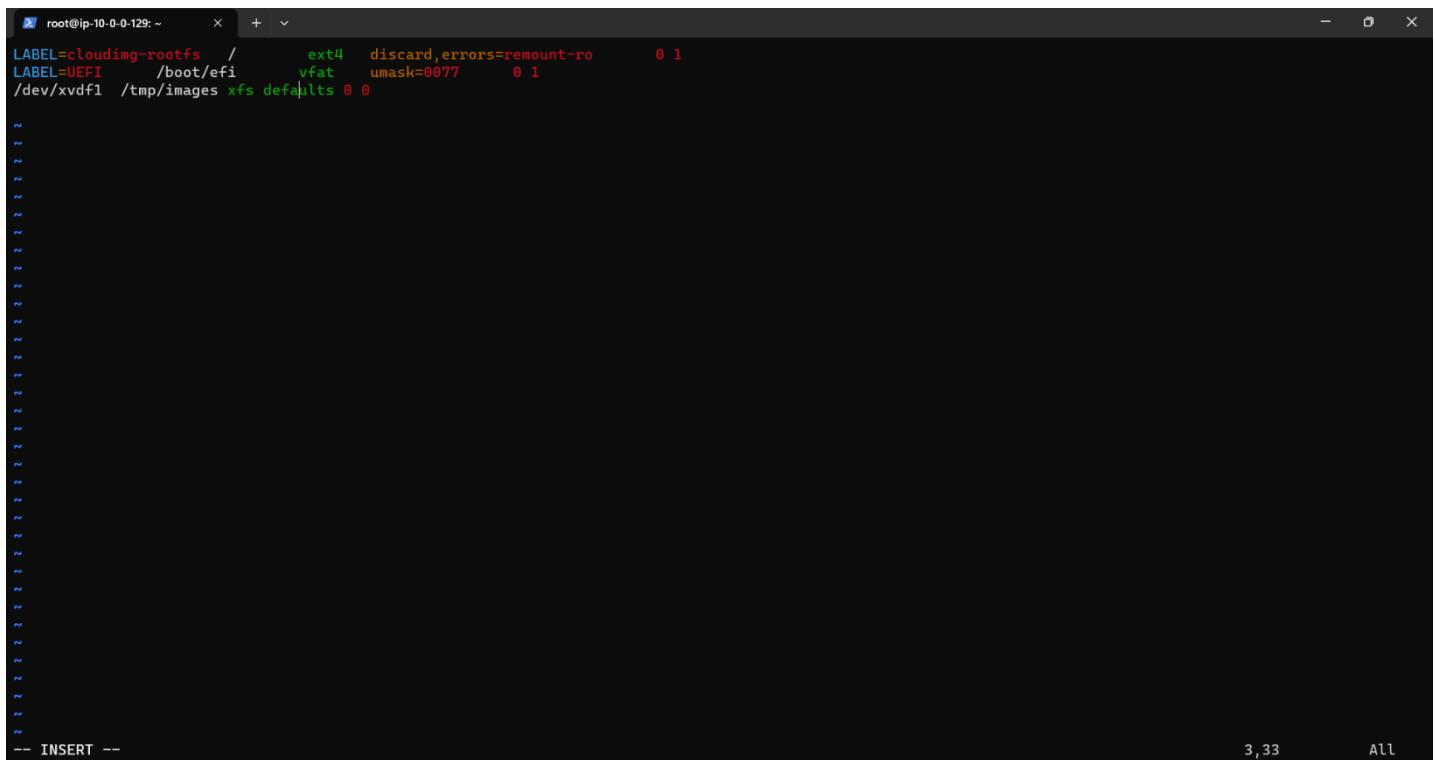
```
root@ip-10-0-0-129:/tmp/images# cd
```

Step 42: we need to update fstab use vi /etc/fstab for update etc file.



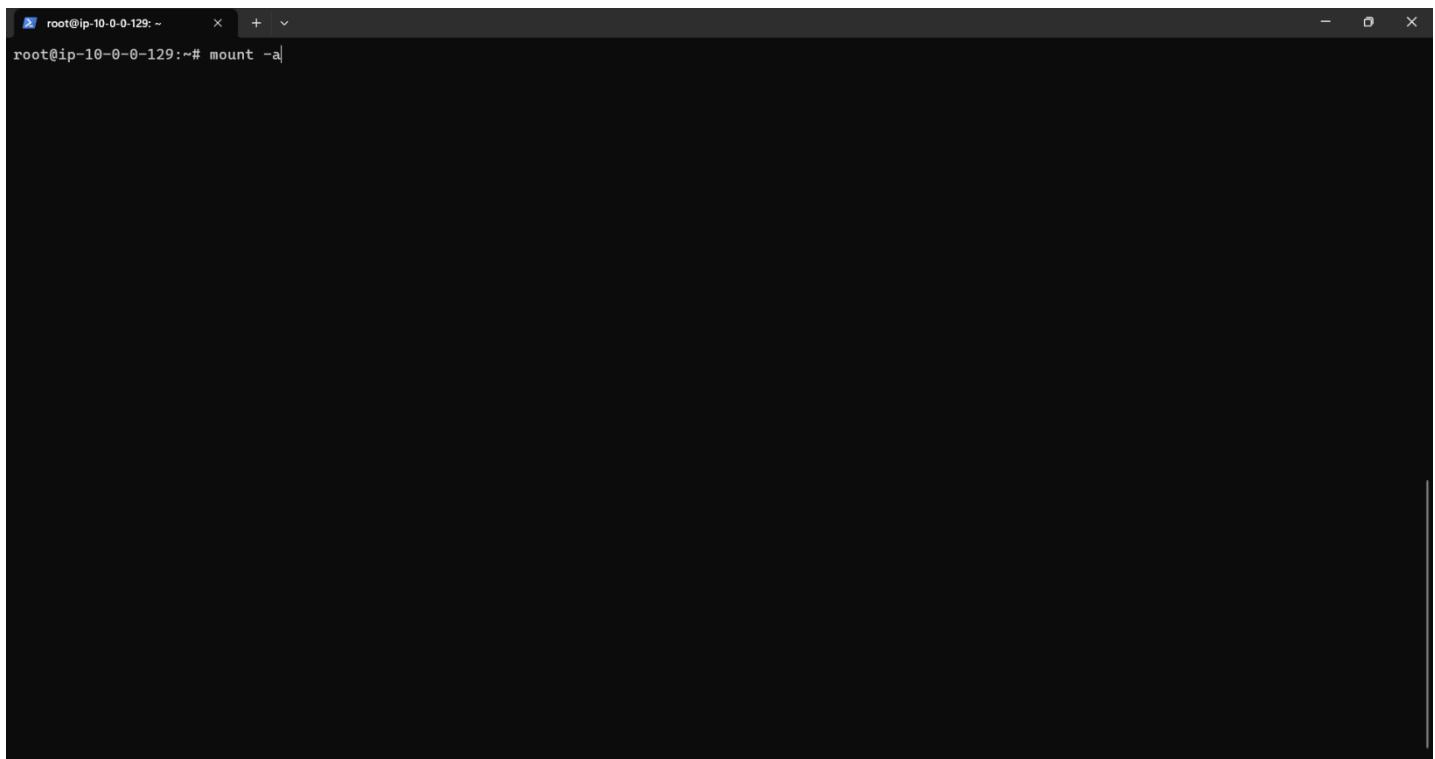
```
root@ip-10-0-0-129:~# cd  
root@ip-10-0-0-129:~# vi /etc/fstab
```

Step 43: go to last line and add device name /dev/xvdf1 /tmp/images xfs defaults 0 0 and then press Esc key and then :x that's is.



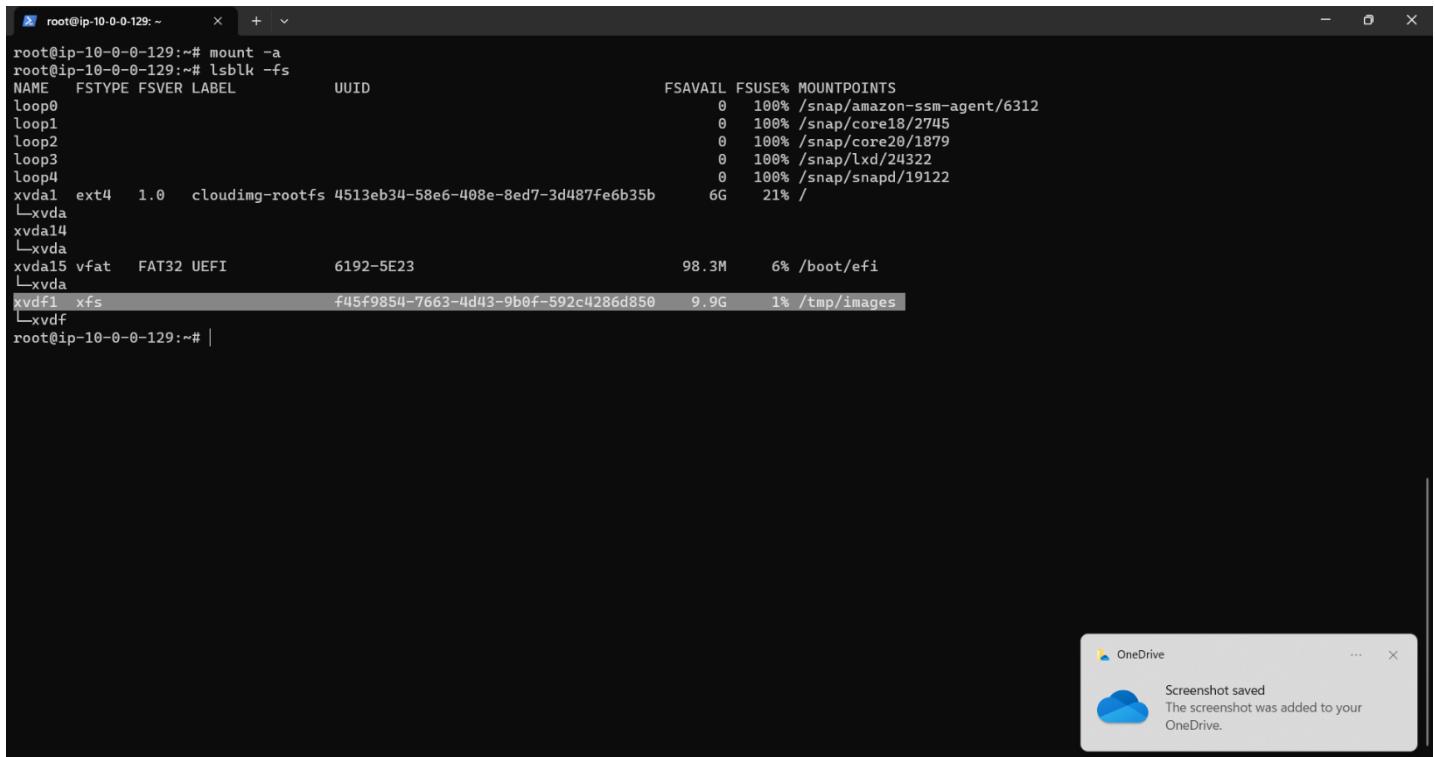
```
LABEL=cloudimg-rootfs / ext4 discard,errors=remount-ro 0 1
LABEL=UEFI /boot/efi vfat umask=0077 0 1
/dev/xvdf1 /tmp/images xfs defaults 0 0
```

Step 44: To verify mount lets unmount use mount -a.



```
root@ip-10-0-0-129:~# mount -a
```

Step 45 : in that we can see xvdf1 xfs in mounted to /tmp/images.



```
root@ip-10-0-0-129:~# mount -a
root@ip-10-0-0-129:~# lsblk -fs
NAME   FSTYPE FSVER LABEL      UUID
loop0
loop1
loop2
loop3
loop4
xvda1  ext4   1.0   cloudimg-rootfs 4513eb34-58e6-408e-8ed7-3d487fe6b35b    6G   21% /
└─xvda
xvda14
└─xvda
xvda15 vfat   FAT32 UEFI       6192-5E23
└─xvda
xvdf1  xfs    1        f45f9854-7663-4d43-9b0f-592c4286d850  9.9G   1% /tmp/images
└─xvdf
root@ip-10-0-0-129:~# |
```

A screenshot of a terminal window titled "root@ip-10-0-0-129:~". The window displays the output of two commands: "mount -a" and "lsblk -fs". The "lsblk -fs" command provides detailed information about disk blocks, including partition type, file system type, version, label, UUID, file system usage (FSUSE%), and mount points. A specific entry for "xvdf1" is highlighted in yellow, showing it has an XFS file system, version 1, and is mounted at "/tmp/images" with 1% usage. A OneDrive notification bubble is visible in the bottom right corner of the screen, stating "Screenshot saved" and "The screenshot was added to your OneDrive.".