

Yeshwanth Chauhan

Created a volume for the Linux instance

Create a machine and login to it and create a volume and login to it and enter the commands

`ls -l /dev | grep sd`(This command will list the files and folders in the directory “dev” with a filter for the name as “sd”)

`sudo su`

`fdisk /dev/sdf`

Press “n” for “new partition

Select “p” And keep pressing “Enter” (3 times)

Now save the configuration “w”

Now lets check if the partition is created.

Format the disk Command → “`mkfs.ext4 /dev/sdf1`”

Mount the disk “mount” Create a new folder and mount the new partition Command →

`mkdir ed01`

→“`mount /dev/sdf1 ed01`”

`umount ed01` - for detaching

The screenshot shows the AWS Management Console for the 'us-east-1' region. The 'Instances' page is active, displaying a table of EC2 instances. The 'Default' instance (i-0d21dc7fbc383c2a) is selected, and its details are shown in the main panel. The instance is in a 'Running' state, using the 't2.micro' instance type. The public IPv4 address is 3.90.165.192, and the private IPv4 address is 172.32.0.175. The instance is located in the 'us-east-1a' availability zone. The details panel includes sections for 'Instance summary', 'Security', 'Networking', 'Storage', 'Status checks', 'Monitoring', and 'Tags'.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
instance02	i-0962e3f05f7c91b56	Stopped	t2.micro	-	-	us-east-1a	-
Default	i-0d21dc7fbc383c2a	Running	t2.micro	2/2 checks passed	-	us-east-1a	ec2-3-90-165-192.compute-1.amazonaws.com

Instance: i-0d21dc7fbc383c2a (Default)

Details

Instance summary

Instance ID: i-0d21dc7fbc383c2a (Default)

Public IPv4 address: 3.90.165.192 | [open address](#)

Private IPv4 addresses: 172.32.0.175

Instance state: **Running**

Public IPv4 DNS: ec2-3-90-165-192.compute-1.amazonaws.com | [open address](#)

Private IP DNS name (IPv4 only): ip-172-32-0-175.ec2.internal

Hostnames type: IP name: ip-172-32-0-175.ec2.internal

Answer private resource DNS name

Elastic IP addresses

The screenshot shows the AWS Management Console for the 'us-east-1' region. The 'Volumes' page is active, displaying a table of EC2 volumes. The 'vol-06d2f6304f40ec63d' volume is selected, and its details are shown in the main panel. The volume is in a 'gp2' type, with a size of 2 GiB. The volume is located in the 'us-east-1a' availability zone. The details panel includes sections for 'Details', 'Status checks', 'Monitoring', and 'Tags'.

vol-06d2f6304f40ec63d (newVol)

Details

Volume ID: vol-06d2f6304f40ec63d (newVol)

Size: 2 GiB

Type: gp2

Volume status: **Okay**

AWS Compute Optimizer finding: Opt-in to AWS Compute Optimizer for recommendations. | [Learn more](#)

Volume state: **In-use**

IOPS: 100

Throughput: -

Encryption: Not encrypted

KMS key ID: -

KMS key alias: -

KMS key ARN: -

Snapshot: -

Availability Zone: us-east-1a

Created: Tue Mar 14 2023 09:40:35 GMT+0530 (India Standard Time)

Multi-Attach enabled: No

Attached Instances: i-0d21dc7fbc383c2a (Default): /dev/vdf (attaching)

Outposts ARN: -

Status checks

Volume status: **Okay**

I/O status: **Enabled**

I/O status updated on: -

Availability Zone: us-east-1a

I/O performance: **Not applicable**

I/O performance updated on: -

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The screenshot shows a terminal window within the AWS Management Console. The terminal is connected to an Amazon Linux 2 AMI. The user is root. The terminal output shows the following commands and their results:

```
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-32-0-175 ~]$ ls -l /dev | grep sd
lrwxrwxrwx 1 root root      4 Mar 14 04:06 sda -> xvda
lrwxrwxrwx 1 root root      5 Mar 14 04:06 sda1 -> xvda1
lrwxrwxrwx 1 root root      5 Mar 14 04:11 sdf -> xvdf
[ec2-user@ip-172-32-0-175 ~]$ sudo su
[root@ip-172-32-0-175 ec2-user]# fdisk /dev/sdf

Welcome to fdisk (util-linux 2.38.2).
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 0xe438a981.

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 (2048-4194303, default 2048):
Last sector, +sectors or +size(M,G,T,P) (2048-4194303, default 4194303):
Created a new partition 1 of type 'Linux' and of size 2 GiB.

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

[ec2-user@ip-172-32-0-175 ec2-user]# ls /dev
autofs      bmap      input     net        random    snapshots tty11      tty19      tty26      tty33      tty40      tty48      tty55      tty62      tty63      vcs4       vcsa5      vcsa6      xvdf
block       disk      kmsg      null       rtc        stderr     tty12      tty2       tty27      tty34      tty41      tty49      tty56      tty63      uhid       vcs5       vcsa6      vfi0      xvdf1
```

Below the terminal output, the instance ID is shown: i-0d21dc7fbc383c2a (Default). The public IP is 3.90.165.192 and the private IP is 172.32.0.175.

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The screenshot displays the AWS Management Console interface for an EC2 instance. The top navigation bar shows the instance ID: `i-0d21dc7fbca383c2a`. The instance is named "I-0d21dc7fbca383c2a (Default)" and is in the "Running" state. The public IP address is `3.90.165.192` and the private IP address is `172.32.0.175`.

The terminal output shows the following commands and results:

```
[root@ip-172-32-0-175 ec2-user]# df -h
Filesystem      Size  Used Avail Use% Mounted on
tmpfs           48M    0  48M   0% /dev
tmpfs           48M    0  48M   0% /dev/shm
tmpfs           48M    0  48M   0% /run
tmpfs           48M    0  48M   0% /sys/fs/cgroup
/dev/xdvd      8.0G  1.6G  6.4G  20% /
tmpfs           97M    0  97M   0% /run/user/1000
```

The instance is an Amazon Linux 2 instance with the following specifications:

- OS type: Linux
- Block size: 4096 (log2)
- Fragment size: 4096 (log2)
- Stride: 0 blocks, Stride width: 0 blocks
- 131072 inodes, 524032 blocks
- 2400 blocks (0.004) reserved for the super user
- First data block: 0
- Maximum filesystem blocks: 536870912
- 16 block groups
- 32768 blocks per group, 32768 fragments per group
- 8192 inodes per group
- Superblock backups stored on blocks: 32768, 96304, 163840, 229376, 294912
- Allocating group tables: done
- Writing inode tables: done
- Creating journal (8192 blocks): done
- Writing superblocks and filesystem accounting information: done

The terminal output also shows the following commands and results:

```
[root@ip-172-32-0-175 ec2-user]# mkdir ed01
[root@ip-172-32-0-175 ec2-user]# mount /dev/sdfl ed01
[root@ip-172-32-0-175 ec2-user]# cd ed01
[root@ip-172-32-0-175 ed01]# ls
lost+found
[root@ip-172-32-0-175 ed01]# vi file
[root@ip-172-32-0-175 ed01]# ls -l
total 20
-rw-r--r-- 1 root root 9 Mar 14 04:17 file
drwxr-xr-x 2 root root 16384 Mar 14 04:16 lost+found
[root@ip-172-32-0-175 ed01]# cd ..
bash: cd: ed01: No such file or directory
[root@ip-172-32-0-175 ed01]# cd ..
[root@ip-172-32-0-175 ec2-user]# ls -l
total 8
drwxr-xr-x 3 root root 4096 Mar 14 04:17 ed01
-rw-r--r-- 1 root root 29 Mar 13 12:14 file
[root@ip-172-32-0-175 ec2-user]# cd ed01
[root@ip-172-32-0-175 ed01]# ls
file lost+found
[root@ip-172-32-0-175 ed01]# umount ed01
bash: umount: command not found
[root@ip-172-32-0-175 ed01]# cd ..
[root@ip-172-32-0-175 ec2-user]# umount ed01
bash: umount: command not found
[root@ip-172-32-0-175 ec2-user]# sudo umount ed01
sudo: umount: command not found
[root@ip-172-32-0-175 ec2-user]# sudo umount ed01
sudo: umount: command not found
[root@ip-172-32-0-175 ec2-user]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        474M    0  474M   0% /dev
tmpfs           483M    0  483M   0% /dev/shm
tmpfs           483M  404K  482M   1% /run
tmpfs           483M    0  483M   0% /sys/fs/cgroup
/dev/xdvd       8.0G  1.6G  6.4G  20% /
tmpfs           97M    0  97M   0% /run/user/1000
```