Attaching EBS volume to Linux (Ubuntu)

Create the volume in AWS and right click the volume and attach to the respective instance (check previous document)

Step-1: Login to the instance and check the volume attached to the instance or not

```
root@ip-172-31-85-12:~# fdisk -l
```

```
Device     Boot Start      End  Sectors Size Id Type
/dev/xvda1 *     2048 16777182 16775135   8G 83 Linux


Disk /dev/xvdf: 100 GiB, 107374182400 bytes, 209715200 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-172-31-85-12:~#
```

Attached Disk listed

Check the disk volume with **df –h** your disk don't have partition

```
root@ip-172-31-85-12:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            488M     0  488M   0% /dev
tmpfs           100M  3.3M   96M   4% /run
/dev/xvda1      7.7G  962M  6.8G  13% /
tmpfs           496M     0  496M   0% /dev/shm
tmpfs           5.0M     0  5.0M   0% /run/lock
tmpfs           496M     0  496M   0% /sys/fs/cgroup
/dev/loop0       90M   90M     0 100% /snap/core/8268
/dev/loop1       18M   18M     0 100% /snap/amazon-ssm-agent/1480
tmpfs           100M     0  100M   0% /run/user/1000
```

Login to fdisk to create Partition

```
root@ip-172-31-85-12:~# fdisk  /dev/xvdf

Welcome to fdisk (util-linux 2.27.1).
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 0x1020c83e.

Command (m for help):
```

loin to fdisk with command : fdisk /dev/<partition name>

Create partition in fdisk as primary partition

```
Command (m for help): p
Disk /dev/xvdf: 100 GiB, 107374182400 bytes, 209715200 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: dos
Disk identifier: 0x1020c83e

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): 1
First sector (2048-209715199, default 2048):
Last sector, +sectors or +size{K,M,G,T,P} (2048-209715199, default 209715199):

Created a new partition 1 of type 'Linux' and of size 100 GiB.

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

check current partition in drive

create new partition

default partition type created as Linux

Save the partition

Check the partition once

```
root@ip-172-31-85-12:~# fdisk  /dev/xvdf

Welcome to fdisk (util-linux 2.27.1).
Changes will remain in memory only, until you decide to write ther
Be careful before using the write command.


Command (m for help): p
Disk /dev/xvdf: 100 GiB, 107374182400 bytes, 209715200 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: dos
Disk identifier: 0x1020c83e

Device     Boot Start       End   Sectors  Size Id Type
/dev/xvdf1       2048 209715199 209713152  100G 83 Linux

Command (m for help):
```

Once again check the partion created or not

Create a file system mkfs /dev/<partition name> <number>

```
root@ip-172-31-85-12:~# mkfs /dev/xvdf1
mke2fs 1.42.13 (17-May-2015)
Creating filesystem with 26214144 4k blocks and 6553600 inodes
Filesystem UUID: cd879dcb-c24b-45fd-9d87-84735e3fc90f
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,
        4096000, 7962624, 11239424, 20480000, 23887872

Allocating group tables: done
Writing inode tables: done
Writing superblocks and filesystem accounting information: done
```

Create File System

Create a directory and create a mount point for the partition in fstab

```
root@ip-172-31-85-12:~# vi /etc/fstab
```

```
LABEL=cloudimg-rootfs   /        ext4   defaults,discard        0 0
/dev/xvdf1              /part1   ext4   defaults                0 0
```

<Partition> <directory to mount> file system

```
root@ip-172-31-85-12:/# mount -a
```

Check the disk partition now you will see the mount point

```
root@ip-172-31-85-12:/# df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            488M     0  488M   0% /dev
tmpfs           100M  3.3M   96M   4% /run
/dev/xvda1      7.7G  961M  6.8G  13% /
tmpfs           496M     0  496M   0% /dev/shm
tmpfs           5.0M     0  5.0M   0% /run/lock
tmpfs           496M     0  496M   0% /sys/fs/cgroup
/dev/loop0       90M   90M     0 100% /snap/core/8268
/dev/loop1       18M   18M     0 100% /snap/amazon-ssm-agent/1480
tmpfs           100M     0  100M   0% /run/user/1000
/dev/xvdf1       99G   60M   94G   1% /part1
root@ip-172-31-85-12:/#
```

To remove/ unmount disk

Just remove the mount point in **fstab** and give **umount /<directoryname>**