

Step-by-Step: Creating an LVM Partition with **fdisk**

Step 1: Start **fdisk** on the new disk

```
sudo fdisk /dev/xvdf
```

What it does:

Opens the disk `/dev/xvdf` in the **fdisk** partitioning tool. This disk is your newly attached EBS volume.

Step 2: Create a New Partition

Type:

```
n
```

What it does:

`n` = "new partition". This begins the process of creating a partition table entry on the disk.

Step 3: Choose Partition Type

```
Select (default p):
```

Just press **Enter** to accept default:

```
p
```

What it does:

Creates a **Primary** partition (as opposed to an Extended container). Linux allows up to 4 primary partitions in MBR layout.

Step 4: Accept Defaults for Partition Number & Sectors

For both of the following prompts:

- **Partition number?** Press **Enter** (default is 1)
- **First sector?** Press **Enter**
- **Last sector?** Press **Enter**

What it does:

- Partition number **1** will be created.
 - The first available block is used to start.
 - Last sector default makes it span the **entire available disk** — so the partition uses all space.
-

Step 5: Change Partition Type to LVM

Type:

t

Then type:

8e

What it does:

- **t** changes the type of the partition.
- **8e** tells the system this partition will be used by **LVM** (Linux Logical Volume Manager).

Without this step, **pvccreate** might still work, but this sets the **partition metadata properly**, especially useful in recovery or multi-disk setups.

Step 6: Confirm Your Work

Type:

p

What it does:

Prints the current partition table. You should see something like:

Device	Boot	Start	End	Sectors	Size	Id	Type
/dev/xvdf1		2048	20971519	20969472	10G	8e	Linux LVM

Step 7: Write Changes

Type:

w

What it does:

Writes the partition table to disk and exits `fdisk`.

You now have a brand new LVM-ready partition: `/dev/xvdf1`

Next Steps After `fdisk`

Once the partition is created, you can begin LVM setup:

```
sudo pvcreate /dev/xvdf1          # Create physical volume
sudo vgcreate my_vg /dev/xvdf1    # Create volume group
sudo lvcreate -L 5G -n lv_data my_vg # Create a 5GB logical volume
```