Created the LVM for flexible storage solution:
LVM (Logical Volume Manager):
It's a device mapper framework used for Logical Volume Management.
Good for virtual environments.
Procedure for creating the LVM:

1) Add a Drive or Block storage.
2) Fdisk -l /deviceName. #(Create a partition from that Drive)

```
$ sudo fdisk /dev/sdb
Welcome to fdisk (util-linux 2.34).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

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 (2048-20971519, 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): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.
```

3) Pvcreate /partitionName #Create physical volume.# verify the Physical Volume use 'pvs'

```
$ sudo pvcreate /dev/sdb1
  Physical volume "/dev/sdb1" successfully created.

$ sudo pvs
  PV         VG     Fmt  Attr PSize   PFree
  /dev/sdb1         lvm2 ---  10.00g  10.00g
```

4) Vgcreate Create a volume group with the help of physical volumes. (VG can be extended as well).

```
$ sudo vgcreate my_vg /dev/sdb1
  Volume group "my_vg" successfully created.

$ sudo vgs
  VG     #PV #LV #SN Attr   VSize   VFree
  my_vg    1   0   0 wz--n- 10.00g  10.00g
```

5) Create logical volumes with a volume group. (logical volumes can be extended and shrinked. Add as many logical volumes as required)

```
$ sudo lvcreate -L 2G -n test my_vg
  Logical volume "test" created.

$ sudo lvcreate -L 2G -n production my_vg
  Logical volume "production" created.
```

6) Create a file system and mount it with Logical volume.

```
$ sudo mkfs.ext4 /dev/my_vg/test
mke2fs 1.45.6 (20-Mar-2020)
Creating filesystem with 524288 4k blocks and 131072 inodes
Filesystem UUID: d1f7c6a2-2b5d-4e5f-8c39-dfcb5e1e2c1b
Superblock backups stored on blocks:
  32768, 98304, 163840, 229376, 294912, 819200, 884736

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done
```

```
$ sudo mkfs.ext4 /dev/my_vg/production
mke2fs 1.45.6 (20-Mar-2020)
Creating filesystem with 524288 4k blocks and 131072 inodes
Filesystem UUID: b9a84a39-4c4b-4a2d-a1d9-70d1b2b8d4a7
Superblock backups stored on blocks:
  32768, 98304, 163840, 229376, 294912, 819200, 884736

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done
```

```
$ sudo mkdir -p /mnt/test
$ sudo mkdir -p /mnt/production
```

```
$ sudo mount /dev/my_vg/test /mnt/test
$ sudo mount /dev/my_vg/production /mnt/production
```