GETTING STARTED
WITH
DISK QUOTAS

➢ DISK QUOTAS:

- In computing environments, disk space is **not infinite.** The quota subsystem provides a mechanism to **control usage of disk space.**
- Disk space can be restricted by implementing disk quotas which alert a system administrator before a user consumes too much disk space or a partition becomes full.
- Disk quotas can be configured for individual users as well as user groups.
- The quota subsystem warns users when they exceed their allotted limit.
- You can set quotas to control**:**
  - The number of consumed **Disk Blocks**.
  - The number of **Inodes**, which are data structures that contain information about files.

CONFIGURING DISK QUOTAS:

→ **Enable quotas for the users and Groups:**

```
# mount -o remount,uquota,gquota /dev/nvme0n1p5 /aws-data/
```

→ **Enable quotas per file system by modifying the /etc/fstab file:**

```
/dev/nvme0n1p5  /cloud-data    xfs   rw,uquota,gquota  0 0

#systemctl-daemon reload

#umount /cloud-data

#mount /cloud-data
```

→ **Verify the quota options:**

```
#mount -l | grep -i quota
```

Reporting XFS usage:

- Quotas have been enabled for the XFS file system. See Enabling disk quotas for XFS.

→ **Start the xfs_quota shell:**

```
#xfs_quota
```

→ **Show usage and limits for the given user:**

#xfs_quota> quota username

→ **Show free and used counts for blocks and inodes:**

#xfs_quota> df

→ **Run the help command to display the basic commands available with xfs_quota:**

#xfs_quota> help

→ **Specify q to exit xfs_quota:**

#xfs_quota> q

Modifying XFS quota limits:

→ **Start the xfs_quota shell with the -x option to enable expert mode:**

#xfs_quota -x

→ **Report quota information for a specific file system:**

#xfs_quota> report /cloud-data

→ **Modify quota limits for sizes:**

#xfs_quota> limit isoft=500m ihard=700m user /cloud-data

>q

→ **To set a soft and hard inode count limit of 5 and 8 respectively for user ram, whose home directory is /cloud-data:**

xfs_quota -x -c 'limit isoft=5 ihard=8 ram' /aws-data

(or)

#edquota -u ram

→ **To verify the qota report**

repquota -u ram

→ **To switch the user ram:**

#su – ram

#cd /cloud-data

#touch 1 2 3 4 5 6 7 8

#touch 9

NOTE: Disk Quota is Exceeded

→ **To change the quota again:**

#edquota -u ram

Change the hard value

→ **To change quota for the groups:**

#edquota -g sports

Setting the Grace Period for Soft Limits:

- If soft limits are set for a given quota (whether inode or block and for either users or groups) the grace period, or amount of time a soft limit can be exceeded.

  → **Grace period before enforcing soft limits for users:**

  #edquota -t