

# Managing file system quotas

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Managing file system quotas allows you to control the amount of disk space users or groups can consume on a file system. This helps prevent users from filling up the disk and ensures fair resource allocation. Here's how you can manage file system quotas in CentOS:

# 1. Enable Quota Support:

• Before you can manage quotas, you need to enable quota support on the file system. Edit the /etc/fstab file and add the usrquota and/or grpquota options to the relevant file system entry. For example:

/dev/sda1 /home ext4 defaults,usrquota,grpquota 0 0

• Save the changes and remount the file system for the changes to take effect:

sudo mount -o remount /home

### 2. Initialize Quota Database:

• Once quota support is enabled, you need to initialize the quota database for the file system. Run the following commands:

```
sudo quotacheck -cug /home
```

This command scans the /home directory and creates the necessary quota files.

sudo quotaon -v /home

This command enables quotas on the /home file system.

### 3. Set Quotas for Users and Groups:

• Use the edquota command to set quotas for individual users or groups. For example, to set a disk space limit of 1GB for a user:

```
sudo edquota -u username
```

This command opens a text editor (usually vi) where you can specify the soft and hard limits for disk space usage.

```
sudo edquota -g groupname
```

Similarly, you can set quotas for groups.

# 4. Check Quota Usage:

• Use the quota command to check quota usage for users and groups. For example:

quota -u username

This command displays quota usage for a specific user.

quota -g groupname

Similarly, you can check quota usage for groups.

# 5. Monitoring and Alerts:

- Regularly monitor quota usage using commands like quota or by reviewing quota reports.
- Set up alerts or notifications to notify administrators when users or groups approach their quota limits.

# **6. Adjusting Quota Limits:**

- Use the edquota command to adjust quota limits as needed. You can increase or decrease disk space limits for users or groups.
- Remember to run quotacheck and quotaon after making changes to update the quota database and enable quotas.

#### 7. Maintenance:

- Regularly review and adjust quotas based on changing user requirements and resource availability.
- Monitor file system usage and adjust quotas accordingly to prevent disk space issues.

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