Systemd

- The systemd suite of tools provides a fast and flexible init model for managing an entire machine from boot onwards.
- The **basic object** that systemd manages and acts upon is a **"unit"**
- **Unit types - example service**
- **Systemctl** - utility to manage services on systemd managed server

https://www.digitalocean.com/community/tutorials/systemd-essentials-working-with-services-units-and-the-journal

List unit files

```
Systemctl list-unit-files
Systemctl list-units --all
```

```
Systemctl enable docker
Systemctl disable docker
```

```
systemctl status docker.service
Systemctl start docker
Systemctl stop docker
Systemctl reload docker
```

```
systemctl daemon-reload
```

Show contents of unit file

```
systemctl cat nginx.service
```

Lower level details

```
systemctl show nginx.service
```

List dependencies

```
systemctl list-dependencies --all nginx.service
```

Edit service

```
sudo systemctl edit nginx.service --full
```

```
sudo systemctl reboot
Sudo systemctl poweroff
```

Journald

https://www.digitalocean.com/community/tutorials/how-to-use-journalctl-to-view-and-manipulate-systemd-logs

- **Journal** -- > centralized management solution for logging all kernel and userland processes. The system that collects and manages these logs is known as the journal.
    - log data is stored in a binary format
- **Journald** - The journal is implemented with the journald daemon, which handles all of the messages produced by the kernel, initrd, services
- **Journalctl** -- **utility** used to **access and manipulate the data/logs** held within the journal.
    - Logs can be viewed in different format like json, etc

Logs for unit since

```
journalctl -u nginx.service --since today
```

```
journalctl --since 09:00
```

Following logs

```
journalctl -f
```

Last 20 lines

```
journalctl -n 20
```

Since last boot

```
Journalctl -b
```