

# launch \_code

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# systemd



# Purpose

Responsible for initializing and managing daemons and services



# Interacting with systemd

Users interact with systemd by using the systemctl package and defining unit files

systemctl is a CLI wrapper around systemd. systemctl is the interface for working with systemd for any services or daemons that already exist, it creates that daemon and you use systemctl to start or shut them down

systemctl provides the end user access to information and control overall services, daemons, and unit files



# Initialization example

Managing your own custom daemons and services using `systemctl` or System Control

Caddy and Nginx will both be fighting over the use of port 80 and port 443. Shutting these services down will allow the other to work properly.



# Unit Files

Unit files are used to complete a default or custom service

Each systems unit files are stored in the `/lib/systemd/system` directory

If you ever wish to modify the way any given unit functions you would edit the unit file inside of `/etc/systemd/system`



# Unit Files Continued

A common use for modifying a unit file would be to start or stop a service at a desired machine state (power on, power off, user login, user logout)

One major upside to this is that if your server were to ever fail, your Unit file will restart the service on reboot



# Example Unit File

## [Unit]

Description=nginx - high performance web server

Documentation=https://nginx.org/en/docs

After=network-online.target remote-fs.target nss-lookup.target

Wants=network-online.target

## [Service]

Type=forking

PIDFile=/var/run/nginx.pid

ExecStart=/usr/sbin/nginx -c /etc/nginx/nginx.conf

ExecReload=/bin/sh -c "/bin/kill -s HUP \$(/bin/cat /var/run/nginx.pid)"

ExecStop=/bin/sh -c "/bin/kill -s TERM \$(/bin/cat /var/run/nginx.pid)"

## [Install]

WantedBy=multi-user.target







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