launch_code

John Woolbright, Technical Curriculum Developer

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Cron

Purpose

Tool used to execute scheduled commands at a specific minute, hour, day, month, and day of the week

Parameters

Cron requires five time parameters to be considered a valid command

* * * * * command to be run

minute | hour | day of month | month of year | day of week

Crontab

Crontab is the file that will hold instructions for the cron daemon

You can have as many cronjobs within the crontab as you would like

Global Crontab vs User Crontab

You can find the global crontab at the following location:

/etc/crontab - This crontab file is system wide

When you open crontab using the crontab -e command it is user specific

Cronjobs

Every job within the Crontab is considered a cronjob

Use Cases

Cronjob that updates your package repositories at the end of every week

Cronjob that clears unwanted files from specific directories at end of a month

Cronjob that reminds you of important dates

Build a daily, monthly, quarterly report

Web Servers

Purpose

Programs that allow you to serve web pages or web applications to the end user

Development Environments

Two environments you will always have:

- Production environments
- Development environments

Other types of environments you will likely encounter:

- Testing
- Staging
- Linting
- QA

Differences to Consider

- Who are the users
- What are the users needs

Production Environments

- Environment in which users consume the application
- Configured to have many workers
- If they have multiple requirements at the same time, configured to work immediately with a load balancer,
- For the end user
- Highly Distributed
- Asynchronous in nature

Development Environment

- Most likely faster to set up
- Loose security
- Live reload - for the developers
- Environment in which developers create the tools
- Not meant for massive consumption by end users or to handle concurrent requests

Protocols

HTTP: Hypertext Transfer Protocol - Port 80

HTTPS: Hypertext Transfer Protocol Secure - Port 443

HTTP and HTTPS both have reserved ports for handling traffic

Web Servers Covered

Caddy: Serve files and reverse proxy, default HTTPS, manually configured to HTTP

Nginx: Serve files and reverse proxy, default HTTP, manually configured to HTTPS

Both of the above web servers can accomplish the same tasks

Use Cases

This course utilizes Caddy and NGINX to serve static files as web applications for the following:

React Project, Spring Boot Project, Angular Project, C# Project, Python Project

Caddy - User friendly, less configuration, newer technology (released in 2015)

NGINX - Many organizations still use Nginx (released in 2004)

This Linux Course curriculum is currently being served with a Caddyfile

Caddy

Slowly beginning to take over. Newer, nicer to work with, automations that Nginx does not have.

Requires a Caddyfile to be configured in order to serve web applications

default Caddyfile located at /etc/caddy/Caddyfile

Best practice is to store your Caddyfile in the default location

Nginx

Kingpin of web servers. Nginx is far and away the most popular used web server in production environments

Requires a .conf (config) file to be configured in order to server web applications

default .conf file located at /etc/nginx/conf.d/default.conf

Best practice to store any custom .conf files at /etc/nginx/conf.d/

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