



Linux Upskill Challenge

Learn the skills to administrate your own Linux server
from the command line

July 8, 2024

KWLUG Meeting

About the maintainer (aka me!)



- Livia Lima
- Linux user since 2003
- Working in IT since 2009
- Certified Linux Administrator (LPIC-1)

About the creator



- Steve Brorens
- Created the Linux Upskill Challenge in 2012 as a commercial course
- Opened the program material and posted it on Reddit in January, 2020
- Transferred the ownership of the course to Livia before his [passing](#) in April, 2021



Linux Upskill Challenge is...

- A simple and easy to follow Linux course
- Completely free and open source
- Focused on practical skills
- Heavily hands-on
- Beginner friendly

✘ Linux Upskill Challenge is NOT...

- A formal training
- A tutorial on how to setup a webserver
- A preparation course for any Linux certification exam

Schedule

- Always start on the 1st Monday of each month
- Monday – Friday for 4 weeks (20 lessons)
- Reddit/Lemmy posts available around 12am GMT (currently 7pm EDT)
- Self-pace is always an option

Who is this for?

- Linux users who aspire to get Linux-related jobs in the industry
- Windows server admins who want to expand their knowledge to be able to work with Linux servers

Who is this for? (bonus)

- Linux users that want to improve their command line skills
- Beginners that want to learn Linux for the first time

Requirements

- Basic computer literacy
- 1 to 2 hours commitment for each lesson
- A cloud-based server running Ubuntu

Requirements (cont.)

- Why a cloud server?
 - “Makes it real”
 - Learning cloud is inevitable
 - Teaches you how a webserver works in the wild

Requirements (cont.)

- Why Ubuntu?
 - Convenient
 - Popular
 - Server vs Desktop

Bite-sized lessons

- Start by learning simple commands and concepts
- Practice those commands as you go, with a task in mind
- Later lessons will call back to earlier concepts, and add more complex topics on it
- Expand that knowledge with curated links
- Keep on practicing!

Bite-sized videos

`enable UNIT...`, `enable PATH...`

Enable one or more units or unit instances. This will create a set of symlinks, as encoded in the "[Install]" sections of the indicated unit files. After the symlinks have been created, the system manager configuration is equivalent to `daemon-reload`, in order to ensure that the units are started immediately. Note that this does not have the effect of starting any of the units being enabled. If this is desired, use the `--now` switch, or invoke `start` with appropriate options. In case of unit instance enablement (i.e. enablement of `foo@bar.service`), symlinks named the same as instance name are created in the configuration directory, however they point to the instance files if they are instantiated from.

This command expects either valid unit names (in which case the search directories are automatically searched for unit files) or absolute paths to unit files (in which case these are used directly). If a specified unit file is located outside of the search directories, an additional symlink is created, linking it into the search directories, thus ensuring it is found when requested by commands in the system where the linked unit files are located. Must be used if a unit is started (e.g. anything underneath `/home` or `/var` is not allowed, unless those directories are located on the root file system).

This command will print the file system operations executed. This output may be useful for debugging.

Manually pass `systemctl` line 364 (press h for help or q to quit)

[Day 7] Installing Apache - Linux Upskill Challenge

```
systemd-cryptenroll      systemd-stdio-bridge
systemd-delta            systemd-sysext
systemd-detect-virt     systemd-sysusers
systemd-escape          systemd-tmpfiles
systemd-hwdb            systemd-tty-ask-password-agent
systemd-id128           systemd-umount
livia@potato:~$ sudo systemctl status apache2
sudo: systemctl: command not found
livia@potato:~$ sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Sat 2023-05-13 17:42:11 UTC; 1min 31s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 1753 (apache2)
     Tasks: 55 (limit: 1026)
    Memory: 5.0M
       CPU: 29ms
   CGroup: /system.slice/apache2.service
           └─1753 /usr/sbin/apache2 -k start
             └─1755 /usr/sbin/apache2 -k start
               └─1756 /usr/sbin/apache2 -k start

May 13 17:42:11 potato systemd[1]: Starting The Apache HTTP Server...
May 13 17:42:11 potato apache2[1752]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name, please add the 'ServerName' directive to the configuration to avoid this warning.
May 13 17:42:11 potato systemd[1]: Started The Apache HTTP Server.
lines 1-16/16 (END)
```

Linux Upskill Challenge LIVE! - Days 6-10 - May 2023

How to participate

- Read the [FAQ](#)
- Get your server (aka [Day 0](#))
- Follow the lessons and watch the videos
- Share your struggles and wins with the community
- Finish the challenge
- Tell your friends!

How to contribute

- Answer other students questions
- Submit a [correction request](#) (typos, dead links, etc)
- Submit a [feature request](#) (suggest improvements)
- Help moderate Lemmy, Reddit or Discord
- Support the infrastructure by [donating](#) or [sponsoring](#)

Where can you find it?

- LinuxUpskillChallenge.org
- GitHub [livialima/linuxupskillchallenge](https://github.com/livialima/linuxupskillchallenge)
- Reddit [r/linuxupskillchallenge](https://www.reddit.com/r/linuxupskillchallenge)
- Lemmy [c/linuxupskillchallenge](https://www.reddit.com/r/linuxupskillchallenge) @programming.dev
- Discord [linux-upskill-challenge](https://discord.com/invite/linux-upskill-challenge)
- YouTube [@livia2lima](https://www.youtube.com/@livia2lima)

QUESTIONS?