

# Linux Exercise 11-Systemd

1. How do you stop SSH service with systemd and make sure it won't start during system bootup? Do this task and verify it by booting the system. (Important: do not do this if you are using VLE environment, but rather only write how you would do this!)

## Sudo systemctl disable ssh

2. Create a scheduled task with systemd which writes date command output into the file date.txt on user's home directory every two minutes on current day each week. For example if now is tuesday, date information will be written on every tuesday on every week.

```
GNU nano 4.8 /etc/systemd/system/date.service
```

```
[Unit]
Description= Date info will be printed into /home/test/date.txt

[Service]
Type=oneshot
ExecStart=/usr/bin/sh -c '/usr/bin/date >> /home/test/date.txt'
```

```
GNU nano 4.8 /etc/systemd/system/date.timer
```

```
[Unit]
Description=date.service is run every 2 mins on tuesdays every week

[Timer]
OnCalendar= Tue *-*-* *:2
Unit=date.service
```

```
test@laravel:~$ sudo systemctl daemon-reload
Excess arguments.
test@laravel:~$ sudo systemctl daemon-reload
test@laravel:~$ sudo systemctl start date.timer
Failed to start date.timer: Unit date.timer not found.
test@laravel:~$ sudo systemctl start date.service
test@laravel:~$ sudo systemctl status date.timer
● date.timer - date.service is run every 2 mins on tuesdays every week
   Loaded: loaded (/etc/systemd/system/date.timer; static; vendor preset: enabled)
   Active: active (waiting) since Tue 2021-07-13 09:26:00 UTC; 29min ago
   Trigger: Tue 2021-07-13 11:33:56 UTC; 1h 38min left
   Triggers: • date.service

Jul 13 09:26:00 laravel systemd[1]: Started date.service is run every 2 mins on tuesdays every week.
test@laravel:~$
test@laravel:~$ _
```

```
test@laravel:~$ sudo systemctl status date.service
• date.service - Date info will be printed into /home/test/date.txt
   Loaded: loaded (/etc/systemd/system/date.service; static; vendor preset: enabled)
   Active: inactive (dead) since Tue 2021-07-13 10:15:24 UTC; 10s ago
 TriggeredBy: ● date.timer
   Process: 2236 ExecStart=/usr/bin/sh -c /usr/bin/date >> /home/test/date.txt (code=exited, status=0/SUCCESS)
   Main PID: 2236 (code=exited, status=0/SUCCESS)

Jul 13 10:15:24 laravel systemd[1]: Starting Date info will be printed into /home/test/date.txt...
Jul 13 10:15:24 laravel systemd[1]: date.service: Succeeded.
Jul 13 10:15:24 laravel systemd[1]: Finished Date info will be printed into /home/test/date.txt.
lines 1-10/10 (END)
```

3. Check help for systemctl command. How can you only list enabled unit files that are services?

**sudo systemctl list-unit-files | grep .service | grep enabled**

```
systemd-resolved.service      enabled      enabled
systemd-rfkill.service       static      enabled
systemd-suspend-then-hibernate.service static      enabled
systemd-suspend.service      static      enabled
systemd-sysctl.service        static      enabled
systemd-sysusers.service      static      enabled
systemd-time-wait-sync.service disabled    enabled
systemd-timedated.service     static      enabled
systemd-timesyncd.service     enabled     enabled
systemd-tmpfiles-clean.service static      enabled
systemd-tmpfiles-setup-dev.service static      enabled
systemd-tmpfiles-setup.service static      enabled
systemd-udev-settle.service   static      enabled
systemd-udev-trigger.service  static      enabled
systemd-udevvd.service        static      enabled
systemd-update-utmp-runlevel.service static      enabled
systemd-update-utmp.service   static      enabled
systemd-user-sessions.service static      enabled
systemd-volatile-root.service static      enabled
thermald.service             enabled     enabled
ua-messaging.service         static      enabled
ua-reboot-cmds.service       enabled     enabled
udev.service                 static      enabled
ufw.service                  enabled     enabled
unattended-upgrades.service   enabled     enabled
upower.service               disabled    enabled
usbmuxd.service              static      enabled
user-runtime-dir@.service     static      enabled
user@.service                static      enabled
uidd.service                 indirect    enabled
vgauth.service               enabled     enabled
vmtoolsd.service             enabled     enabled
x11-common.service           masked      enabled
xfs_scrub@.service           static      enabled
xfs_scrub_all.service        static      enabled
xfs_scrub_fail@.service      static      enabled
test@laravel:~$
```

4. Install Apache2 web server to your Ubuntu with apt package management. With what name was this service installed as systemd service? Web server is started during system

bootup by default and listens to port 80. Change systemd setting for this service so that it will not be started automatically during system bootup. Reboot the system and verify that web server has not been started (port 80 is not listened).

```
jean@ubuntu:~$ sudo systemctl list-unit-files | grep apache
apache-htcacheclean.service          disabled enabled
apache-htcacheclean@.service         disabled enabled
apache2.service                     enabled enabled
apache2@.service                     disabled enabled
jean@ubuntu:~$ sudo systemctl disable apache2
Synchronizing state of apache2.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install disable apache2
Removed /etc/systemd/system/multi-user.target.wants/apache2.service.
jean@ubuntu:~$ _
```

```
jean@ubuntu:~$ sudo netstat -tulpn | grep 80
jean@ubuntu:~$ _
```

```
jean@ubuntu:~$ sudo systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable apache2
jean@ubuntu:~$ _
```

```
jean@ubuntu:~$ sudo netstat -tulpn | grep 80
[sudo] password for jean:
tcp6      0      0 :::80          :::*           LISTEN     699/apache2
jean@ubuntu:~$
```