

# TASK 1

## Start Systemd Service

**Task:** Download any web server(Nginx, Apache) and run it via Systemd. Check the status of the service, restart it with some changes and make sure that service run when host get restarted. Document the steps.

### To download Apache use command:

```
sudo apt install apache2
```

```
venis@venis-VirtualBox:~/DevOps$ sudo apt install apache2
[sudo] password for venis:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap
0 upgraded, 8 newly installed, 0 to remove and 61 not upgraded.
Need to get 1,919 kB of archives.
After this operation, 7,718 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://in.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libapr1 amd64 1.7.0-8ubuntu0.22.04.1 [108 kB]
Get:2 http://in.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libaprutil1 amd64 1.6.1-5ubuntu4.22.04.2 [92.8 kB]
Get:3 http://in.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libaprutil1-dbd-sqlite3 amd64 1.6.1-5ubuntu4.22.04.2 [11.3 kB]
Get:4 http://in.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libaprutil1-ldap amd64 1.6.1-5ubuntu4.22.04.2 [9,170 B]
Get:5 http://in.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2-bin amd64 2.4.52-1ubuntu4.7 [1,346 kB]
Get:6 http://in.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2-data all 2.4.52-1ubuntu4.7 [165 kB]
Get:7 http://in.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2-utils amd64 2.4.52-1ubuntu4.7 [88.8 kB]
Get:8 http://in.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2 amd64 2.4.52-1ubuntu4.7 [97.8 kB]
Fetched 1,919 kB in 5s (377 kB/s)
Selecting previously unselected package libapr1:amd64.
(Reading database ... 198719 files and directories currently installed.)
Preparing to unpack .../0-libapr1_1.7.0-8ubuntu0.22.04.1_amd64.deb ...
Unpacking libapr1:amd64 (1.7.0-8ubuntu0.22.04.1) ...
Selecting previously unselected package libaprutil1:amd64.
Preparing to unpack .../1-libaprutil1_1.6.1-5ubuntu4.22.04.2_amd64.deb ...
Unpacking libaprutil1:amd64 (1.6.1-5ubuntu4.22.04.2) ...
Selecting previously unselected package libaprutil1-dbd-sqlite3:amd64.
Preparing to unpack .../2-libaprutil1-dbd-sqlite3_1.6.1-5ubuntu4.22.04.2_amd64.deb ...
Unpacking libaprutil1-dbd-sqlite3:amd64 (1.6.1-5ubuntu4.22.04.2) ...
```

### To start Apache use command:

```
sudo systemctl start apache2
```

### To check status:

```
sudo systemctl status apache2
```

### To stop apache2 use command:

```
sudo systemctl stop apache2
```

### To edit apache2 config file use command:

```
sudo systemctl restart apache2
```

```
sudo systemctl edit apache2
```

```
### Editing /etc/systemd/system/apache2.service.d/override.conf
### Anything between here and the comment below will become the new contents of the file

### Lines below this comment will be discarded

### /lib/systemd/system/apache2.service
# [Unit]
# Description=The Apache HTTP Server
# After=network.target remote-fs.target nss-lookup.target
# Documentation=https://httpd.apache.org/docs/2.4/
#
# [Service]
# Type=forking
# Environment=APACHE_STARTED_BY_SYSTEMD=true
# ExecStart=/usr/sbin/apachectl start
# ExecStop=/usr/sbin/apachectl graceful-stop
# ExecReload=/usr/sbin/apachectl graceful
# KillMode=mixed
# PrivateTmp=true
# Restart=on-abort
#
# [Install]
# WantedBy=multi-user.target
```

To restart use command:

```
venis@venis-VirtualBox:~/DevOps$ sudo systemctl restart apache2
[sudo] password for venis:
venis@venis-VirtualBox:~/DevOps$ 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 Thu 2024-01-11 17:09:15 IST; 15s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 6519 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
   Main PID: 6526 (apache2)
      Tasks: 55 (limit: 9431)
     Memory: 4.7M
        CPU: 25ms
   CGroup: /system.slice/apache2.service
           └─6526 /usr/sbin/apache2 -k start
             └─6527 /usr/sbin/apache2 -k start
               └─6528 /usr/sbin/apache2 -k start

Jan 11 17:09:15 venis-VirtualBox systemd[1]: Starting The Apache HTTP Server...
Jan 11 17:09:15 venis-VirtualBox apachectl[6525]: AH00558: apache2: Could not reliably determine the server's fully qualified
Jan 11 17:09:15 venis-VirtualBox systemd[1]: Started The Apache HTTP Server.
lines 1-17/17 (END)
```

