Nginx Server on Systemd

**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.

# Step 1: Install Nginx

**Objective:** Install Nginx, a popular web server.

## Open the Terminal:

 If you're using Ubuntu or a similar system, press terminal.

**Ctrl + Alt + T**

## Update Package List:

 Type the following command and press Enter:

to open the

sudo apt update

This ensures you have the latest information about available software.

## Expected Output:

Reading package lists... Done

1. **Install Nginx:**

 Type the following command and press Enter:

sudo apt install nginx

This installs Nginx on your system.

## Expected Output:

Setting up nginx (version number)... Done

Once complete, you'll see a success message indicating that Nginx has been installed.

# Step 2: Check Nginx Status

**Objective:** Verify that Nginx is running.

## Check Nginx Status:

 Type the following command and press Enter:

sudo systemctl status nginx

This command shows you the current status of the Nginx service.

## Expected Output:

nginx.service - A high-performance web server and a revers Loaded: loaded (/lib/systemd/system/nginx.service; enabled Active: active (running) since Sat 2024-01-06 09:51:07 IST

Look for lines that say "Active: active (running)". This means Nginx is up and running.

# Step 3: Restart Nginx with Changes

**Objective:** Make a simple change to Nginx and restart it.

## Open HTML File for Editing:

 Type the following command and press Enter to open the default Nginx HTML file:

sudo nano /var/www/html/index.html

This opens the file in a text editor.

## Edit the HTML:

 Make a simple change to the HTML file. For example, add or modify some text.

## Save and Exit:

 Save your changes and exit the text editor. In Nano, you can do this by



**Y**

**Enter**

pressing

**Ctrl + X**

## Restart Nginx:

, then

to confirm, and finally .

Type the following command and press Enter:

sudo systemctl restart nginx

This restarts Nginx with your changes.

## Expected Output:

Restarting nginx (version number)... Done

You should see a message confirming that Nginx has been restarted.

# Step 4: Enable Nginx to Start on Boot

**Objective:** Ensure that Nginx automatically starts when your system boots up.

## Enable Nginx:

 Type the following command and press Enter:

sudo systemctl enable nginx

## Explanation:

 This command creates a symbolic link between the Nginx service file and the multi-user target, enabling Nginx to start automatically during the system boot process.

 The symbolic link is stored in the directory.

**/etc/systemd/system/multi-user.target.wants/**

## Expected Output:

Created symlink /etc/systemd/system/multi-user.target.want

This output confirms that the symbolic link has been successfully created.

# Step 5: Reboot the System

**Objective:** Test if Nginx starts automatically after a system reboot.

## Reboot the System:

 Type the following command and press Enter:

sudo reboot

## Explanation:

 This command initiates a system reboot.

 Rebooting allows us to confirm that Nginx starts automatically as part of the system's boot process.

## Expected Output:

System is rebooting...

The system will undergo a restart, and you'll see this message indicating the reboot process.

# Step 6: Check Nginx Status after Reboot

**Objective:** Confirm that Nginx is running after the system reboot.

## Check Nginx Status:

 Type the following command and press Enter:

sudo systemctl status nginx

## Explanation:

 This command checks the status of the Nginx service after the system has completed the reboot.

Verifying Nginx status ensures that it starts automatically and is running as expected.



## Expected Output:

nginx.service - A high-performance web server and a revers Loaded: loaded (/lib/systemd/system/nginx.service; enabled Active: active (running) since Sat 2024-01-06 10:05:26 IST

Look for "Active: active (running)" to confirm that Nginx is running after the system reboot.

These steps guide you through enabling Nginx to start automatically on system boot, rebooting the system to test this configuration, and checking Nginx's status after the reboot to ensure continuous operation.