

Installing and Configuring Nginx using Jenkins

In this assignment, I used Jenkins to automate the installation and configuration of Nginx on an Ubuntu system. I created a Freestyle Project in Jenkins and added a shell script in the build step to:

1. Update package lists using `sudo apt update`.
2. Install Nginx using `sudo apt install -y nginx`.
3. Enable and start the Nginx service using `sudo systemctl enable nginx` and `sudo systemctl start nginx`.
4. Allow HTTP traffic (port 80) through the firewall using `sudo ufw allow 80/tcp` and `sudo ufw reload`.
5. Verify Nginx status using `sudo systemctl status nginx --no-pager`.

After successfully building the project in Jenkins, I accessed Nginx's default web page using `http://127.0.0.1:80`. Finally, I verified the installation using terminal commands and documented the process with screenshots.

Mar 19 09:09

sample1 #3 Console [Jen] Jenkins Nginx Setup Welcome to nginx! New Tab

localhost:8080/job/sample1/3/console

Dashboard > sample1 > #3 > Console Output

```
debconf: unable to initialize frontend: Readline
debconf: (This frontend requires a controlling tty.)
debconf: falling back to frontend: Teletype
Created symlink /etc/systemd/system/multi-user.target.wants/nginx.service → /usr/lib/systemd/system/nginx.service.

Processing triggers for ufw (0.36.2-6) ...
Processing triggers for man-db (2.12.0-4build2) ...
Synchronizing state of nginx.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable nginx
Rules updated
Rules updated (v6)
Firewall not enabled (skipping reload)
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: enabled)
   Active: active (running) since Wed 2025-03-19 09:07:26 IST; 6s ago
     Docs: man:nginx(8)
   Main PID: 8808 (nginx)
    Tasks: 9 (Limit: 7567)
   Memory: 6.4M (peak: 7.5M)
      CPU: 47ms
   CGroup: /system.slice/nginx.service
           └─8808 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"
             └─8809 "nginx: worker process"
               └─8810 "nginx: worker process"
                 └─8811 "nginx: worker process"
                   └─8812 "nginx: worker process"
                     └─8813 "nginx: worker process"
                       └─8814 "nginx: worker process"
                         └─8815 "nginx: worker process"
                           └─8816 "nginx: worker process"

Mar 19 09:07:26 jebini-Virtual-Platform systemd[1]: Starting nginx.service - A high performance web server and a reverse proxy server...
Mar 19 09:07:26 jebini-Virtual-Platform systemd[1]: Started nginx.service - A high performance web server and a reverse proxy server.
Finished: SUCCESS
```

REST API Jenkins 2.492.2

Mar 19 09:09

sample1 [Jenkins] Jenkins Nginx Setup Welcome to nginx! New Tab

localhost:8080/job/sample1/

jenkins

Dashboard > sample1 >

Status sample1 Add description

Changes

Workspace

Build Now

Configure

Delete Project

Rename

Permalinks

- Last build (#3), 2 min 14 sec ago
- Last stable build (#3), 2 min 14 sec ago
- Last successful build (#3), 2 min 14 sec ago
- Last failed build (#2), 15 min ago
- Last unsuccessful build (#2), 15 min ago
- Last completed build (#3), 2 min 14 sec ago

Builds

Filter /

Today

- #3 9:06 AM
- #2 8:53 AM
- #1 8:52 AM

Welcome to nginx!
127.0.0.1

REST API Jenkins 2.492.2

