TASK – 1 JENKINS (Installing and setting up Jenkins on a Linux machine)

NAME:SUMITHAA P V R

ROLL NO:22CSR212

STEPS:

1. Install Jenkins using the following commands.

    - sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
      https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
    - echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc]" \
      https://pkg.jenkins.io/debian-stable binary/ | sudo tee \
      /etc/apt/sources.list.d/jenkins.list > /dev/null
    - sudo apt-get update
    - sudo apt install fontconfig openjdk-17-jre
    - sudo apt-get install jenkins

2. Log in to Jenkins.

3. Create a Freestyle project by clicking on "New Item," entering an item name (e.g., "Sample"), selecting "Freestyle Project," and clicking "OK."

4. Configure the job to install NGINX by clicking "Add Build Step," then selecting "Execute Shell" to run shell commands.

5. Save the job and click "Build Now" to execute it.

6. You can view the output in the "Console Output" section.

7. Verify the NGINX installation by checking your browser.

#IP Address

```
root@Ubuntu:~# ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group defau
lt qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP g
roup default qlen 1000
    link/ether 08:00:27:d6:98:b2 brd ff:ff:ff:ff:ff:ff
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
       valid_lft 85780sec preferred_lft 85780sec
    inet6 fe80::162f:82f9:fd14:3918/64 scope link noprefixroute
       valid_lft forever preferred_lft forever
3: docker0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DO
WN group default
    link/ether 02:42:e7:1a:06:1a brd ff:ff:ff:ff:ff:ff
    inet 172.17.0.1/16 brd 172.17.255.255 scope global docker0
       valid_lft forever preferred_lft forever
root@Ubuntu:~#
```

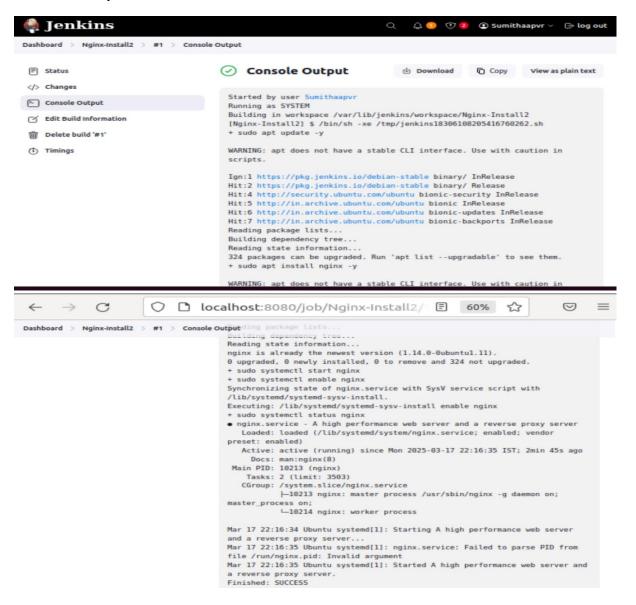# # Execute Shell (Commands)

Execute shell

Command

See **the list of available environment variables**

```
sudo apt update -y
sudo apt install nginx -y
sudo systemctl start nginx
sudo systemctl enable nginx
sudo systemctl status nginx
```

Advanced ∨

Apply

Console Output


```
Started by user Sumithaapvr
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/Nginx-Install2
[Nginx-Install2] $ /bin/sh -xe /tmp/jenkins18306108205416760262.sh
+ sudo apt update -y

WARNING: apt does not have a stable CLI interface. Use with caution in
scripts.

Ign:1 https://pkg.jenkins.io/debian-stable binary/ InRelease
Hit:2 https://pkg.jenkins.io/debian-stable binary/ Release
Hit:4 http://security.ubuntu.com/ubuntu bionic-security InRelease
Hit:5 http://in.archive.ubuntu.com/ubuntu bionic InRelease
Hit:6 http://in.archive.ubuntu.com/ubuntu bionic-updates InRelease
Hit:7 http://in.archive.ubuntu.com/ubuntu bionic-backports InRelease
Reading package lists...
Building dependency tree...
Reading state information...
324 packages can be upgraded. Run 'apt list --upgradable' to see them.
+ sudo apt install nginx -y

WARNING: apt does not have a stable CLI interface. Use with caution in
```

localhost:8080/job/Nginx-Install2/   60%

Dashboard > Nginx-Install2 > #1 > Console Output

```
Reading package lists...
Building dependency tree...
Reading state information...
nginx is already the newest version (1.14.0-0ubuntu1.11).
0 upgraded, 0 newly installed, 0 to remove and 324 not upgraded.
+ sudo systemctl start nginx
+ sudo systemctl enable nginx
Synchronizing state of nginx.service with SysV service script with
/lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable nginx
+ sudo systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor
preset: enabled)
   Active: active (running) since Mon 2025-03-17 22:16:35 IST; 2min 45s ago
     Docs: man:nginx(8)
 Main PID: 10213 (nginx)
    Tasks: 2 (limit: 3503)
   CGroup: /system.slice/nginx.service
           ├─10213 nginx: master process /usr/sbin/nginx -g daemon on;
master_process on;
           └─10214 nginx: worker process

Mar 17 22:16:34 Ubuntu systemd[1]: Starting A high performance web server
and a reverse proxy server...
Mar 17 22:16:35 Ubuntu systemd[1]: nginx.service: Failed to parse PID from
file /run/nginx.pid: Invalid argument
Mar 17 22:16:35 Ubuntu systemd[1]: Started A high performance web server and
a reverse proxy server.
Finished: SUCCESS
```

Welcome Page