

GUVI JENKINS

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Task Explanation: Create a simple FreeStyle Job To Install Nginx on your server
(tools:jenkins, ubuntu vm)

Step 1: Create and navigate to the guvi directory `mkdir guvi cd guvi`

Step 2: List the contents to confirm the directory is empty

`ls`

Step 3: Update the system packages `sudo apt update`

Step 4: Install Java (OpenJDK 17) `sudo apt install -y fontconfig openjdk-17-jre`

Step 5: Verify Java installation `java -version`

Step 6: (Note: 'Java -version' should be 'java -version') This step is redundant, but
corrected for syntax `java -version`

Step 7: Add Jenkins repository key and source

`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`

Step 8: Update package list and install Jenkins `sudo apt-get update sudo apt-get install -y
Jenkins`

Step 9: Retrieve the initial admin password for Jenkins setup `sudo cat`

`/var/lib/jenkins/secrets/initialAdminPassword`

Step 10 : Make a directory f1 via Jenkins.

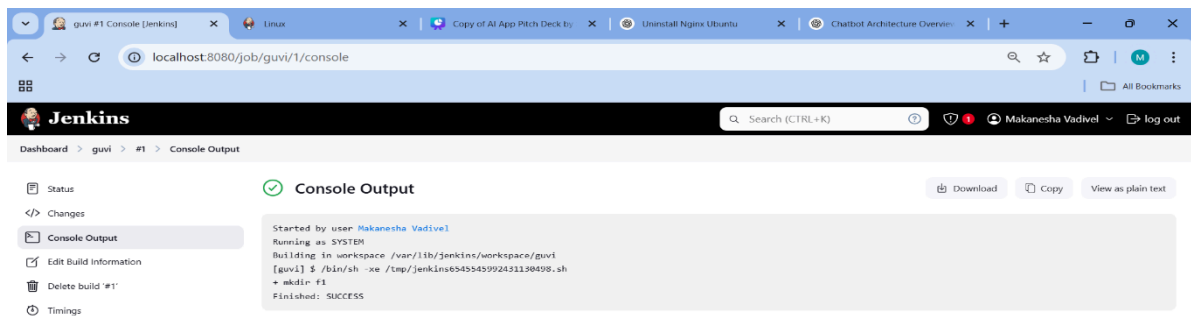
```
root@LAPTOP-6I133M48 x + v
makanesha@LAPTOP-6I133M48:~/guvi$ sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc]" \
https://pkg.jenkins.io/debian-stable binary/ | sudo tee \
/etc/apt/sources.list.d/jenkins.list > /dev/null
sudo apt-get update
sudo apt-get install jenkins
--2025-02-03 08:26:06-- https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
Resolving pkg.jenkins.io (pkg.jenkins.io)... 151.101.154.133, 2a04:4e42:24::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)[151.101.154.133]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 3175 (3.1K) [application/pgp-keys]
Saving to: '/usr/share/keyrings/jenkins-keyring.asc'

/usr/share/keyrings/jenkins 100%[=====] 3.10K --.-KB/s in 0s

2025-02-03 08:26:07 (11.1 MB/s) - '/usr/share/keyrings/jenkins-keyring.asc' saved [3175/3175]

Ign:1 https://pkg.jenkins.io/debian-stable binary/ InRelease
Hit:2 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:3 http://archive.ubuntu.com/ubuntu noble InRelease
Get:4 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:5 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Hit:6 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Get:7 https://pkg.jenkins.io/debian-stable binary/ Packages [28.4 kB]
Hit:8 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Fetched 31.3 kB in 1s (21.2 kB/s)
Reading package lists... Done
Reading package lists... Done
```

```
root@LAPTOP-6I133M48 x + v
makanesha@LAPTOP-6I133M48:~/guvi$ sudo apt update
sudo apt install fontconfig openjdk-17-jre
java -version
openjdk version "17.0.13" 2024-10-15
OpenJDK Runtime Environment (build 17.0.13+11-Debian-2)
OpenJDK 64-Bit Server VM (build 17.0.13+11-Debian-2, mixed mode, sharing)
Hit:1 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:2 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
82 packages can be upgraded. Run 'apt list --upgradable' to see them.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
fontconfig is already the newest version (2.15.0-1.1ubuntu2).
openjdk-17-jre is already the newest version (17.0.13+11-2ubuntu1~24.04).
0 upgraded, 0 newly installed, 0 to remove and 82 not upgraded.
openjdk version "17.0.13" 2024-10-15
OpenJDK Runtime Environment (build 17.0.13+11-Ubuntu-2ubuntu124.04)
OpenJDK 64-Bit Server VM (build 17.0.13+11-Ubuntu-2ubuntu124.04, mixed mode, sharing)
Command 'openjdk' not found, but can be installed with:
sudo snap install openjdk
-bash: syntax error near unexpected token `('
-bash: syntax error near unexpected token `('
makanesha@LAPTOP-6I133M48:~/guvi$ sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
```



Step 11: Task 2 - Uninstall NGINX and install using Jenkins

Uninstall NGINX sudo systemctl disable nginx

sudo systemctl stop nginx

sudo apt remove nginx -y

sudo apt purge nginx nginx-common -y

sudo apt autoremove -y sudo apt autoclean

To check if correctly uninstalled

```

root@LAPTOP-6I133M48:~# sudo apt-get remove --purge nginx nginx-common
Building dependency tree... Done
Reading state information... Done
Package 'nginx' is not installed, so not removed
Package 'nginx-full' is not installed, so not removed
The following packages will be REMOVED:
  nginx-common*
0 upgraded, 0 newly installed, 1 to remove and 82 not upgraded.
After this operation, 0 B of additional disk space will be used.
Do you want to continue? [Y/n] y
(Reading database ... 42170 files and directories currently installed.)
Purging configuration files for nginx-common (1.24.0-2ubuntu7.1) ...
root@LAPTOP-6I133M48:/var/lib/jenkins/workspace/guvi# sudo apt-get autoremove
sudo apt-get autoclean
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
0 upgraded, 0 newly installed, 0 to remove and 82 not upgraded.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
root@LAPTOP-6I133M48:/var/lib/jenkins/workspace/guvi# sudo rm -rf /etc/nginx
sudo rm -rf /var/log/nginx
sudo rm -rf /var/www/html
root@LAPTOP-6I133M48:/var/lib/jenkins/workspace/guvi# nginx -v
Command 'nginx' not found, but can be installed with:
apt install nginx
root@LAPTOP-6I133M48:/var/lib/jenkins/workspace/guvi# sudo rm -rf /var/www/html
root@LAPTOP-6I133M48:/var/lib/jenkins/workspace/guvi# ls /var/www/
root@LAPTOP-6I133M48:/var/lib/jenkins/workspace/guvi#

```

Install NGINX using Jenkins

Create Task2 in Jenkins

Go to 'Execute Shell' and add the following commands:

```
sudo apt update -y && sudo apt upgrade -y sudo apt install -y nginx sudo
systemctl start nginx sudo systemctl enable nginx sudo cp
/home/makanesha/index.html /var/www/html/index.nginxdebian.html sudo
systemctl restart nginx
```

Modify sudoers file using visudo:

Add the following line near 'root ALL=(ALL:ALL) ALL'

jenkins ALL=(ALL) NOPASSWD:ALL

Finally, click 'Build Now' in Jenkins to execute the task

