

TASK 1 – NGINX USING JENKINS

Step 1: Installing Java and Jenkins

Install java -17 and then install the jenkins

```
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)
[sudo] password for vishal:
Get:1 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease
Get:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [670 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:6 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [130 kB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [8964 B]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [6912 B]
Get:9 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [819 kB]
Get:10 http://archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [177 kB]
Get:12 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [52.0 kB]
Get:13 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [16.9 kB]
Get:14 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [726 kB]
Get:15 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [146 kB]
Get:16 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:17 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 c-n-f Metadata [432 B]
Get:18 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [26.2 kB]
Get:19 http://security.ubuntu.com/ubuntu noble-security/multiverse Translation-en [4892 B]
Get:20 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208 B]
Get:21 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [448 B]
Get:22 http://archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
```

```
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
--2025-03-19 04:56:51-- https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
Resolving pkg.jenkins.io (pkg.jenkins.io)... 151.101.158.133, 2a04:4e42:25::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)[151.101.158.133]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 3175 (3.1K) [application/pgp-keys]
Saving to: '/usr/share/keyrings/jenkins-keyring.asc'

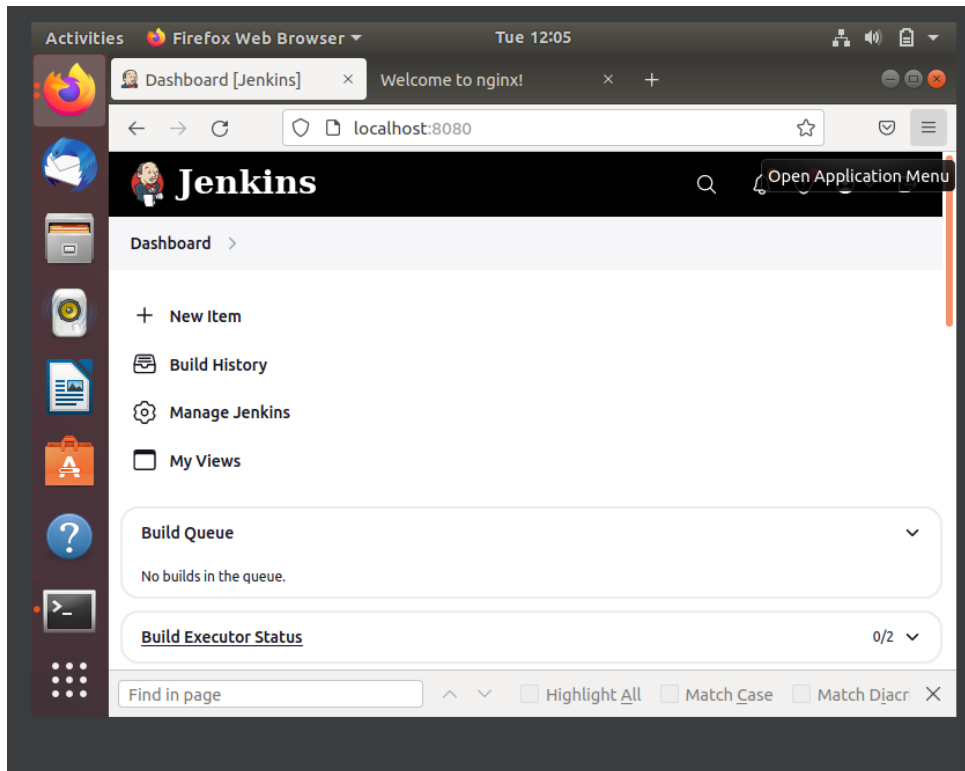
/usr/share/keyrings/jenkins-k 100%[=====] 3.10K --.-KB/s in 0s

2025-03-19 04:56:52 (51.3 MB/s) - '/usr/share/keyrings/jenkins-keyring.asc' saved [3175/3175]

Ign:1 https://pkg.jenkins.io/debian-stable binary/ InRelease
Get:2 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:3 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Get:4 https://pkg.jenkins.io/debian-stable binary/ Packages [28.7 kB]
Hit:5 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:6 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:7 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:8 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Fetched 31.6 kB in 1s (24.4 kB/s)
```

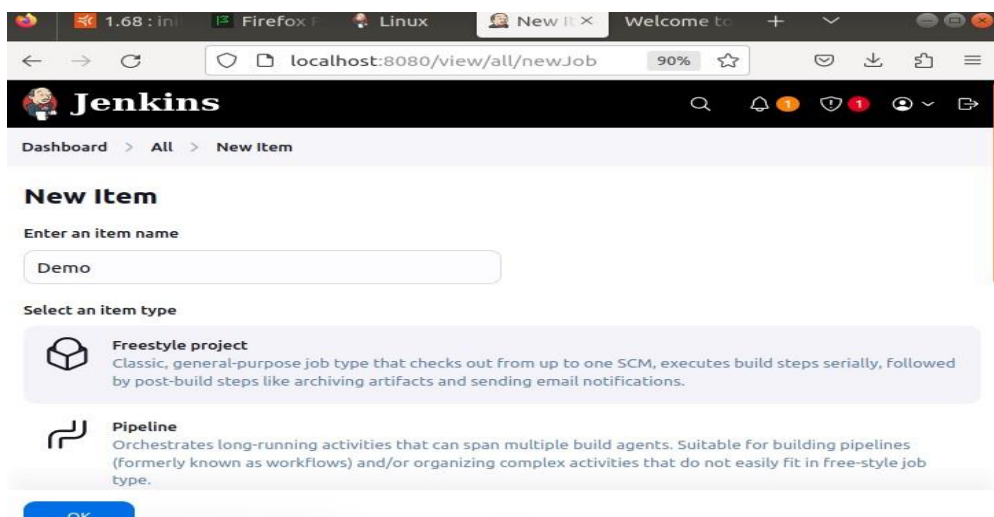
Step 2: Opening Jenkins

Go to localhost:8080 and open jenkins and install the suggested plugins



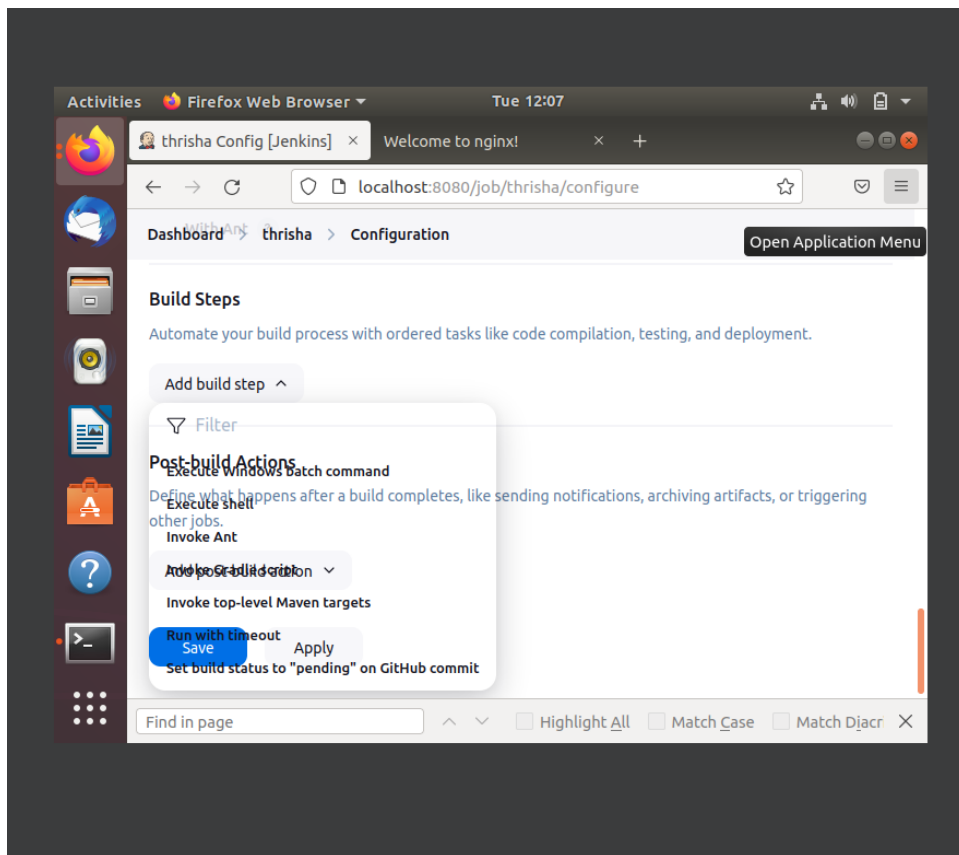
Step 3: Creating an item

Enter the name of the item and select freestyle project



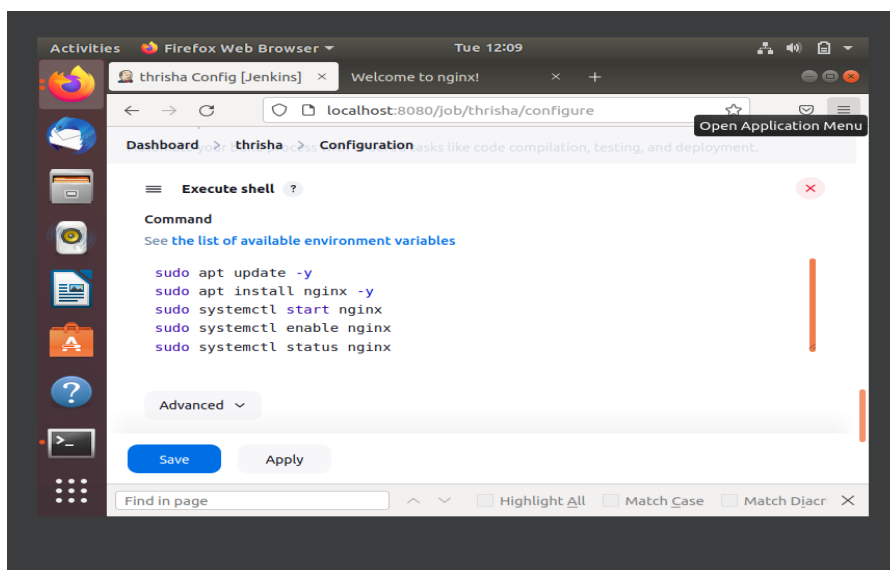
Step 4: Creating build steps

Click on add build steps and select execute shell



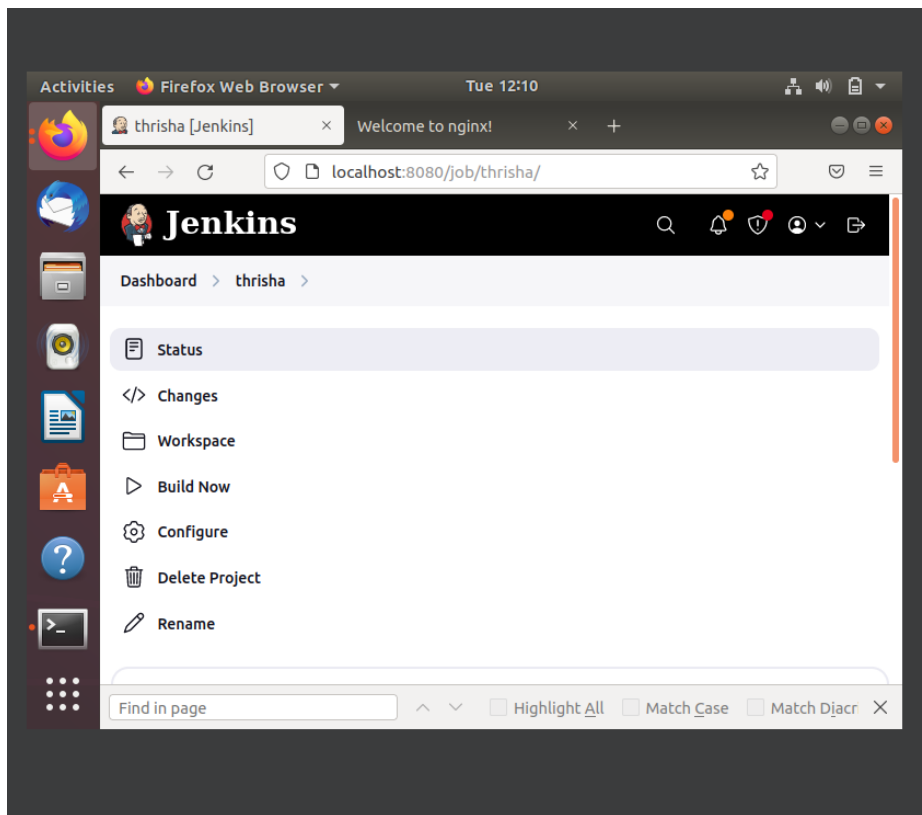
Step 5: Nginx installation

Enter the code for installing nginx



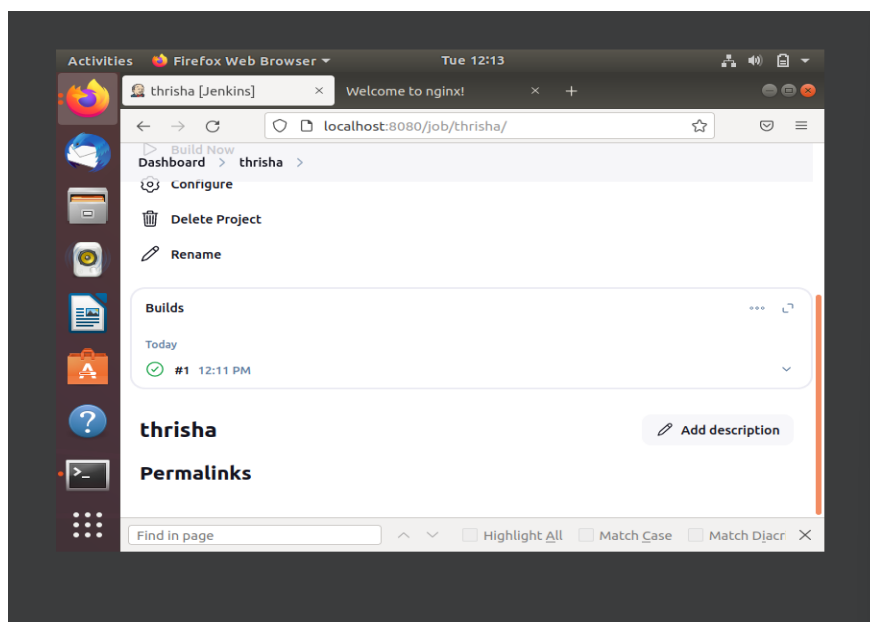
Step 6: Build Now

Click on build now and wait for it to get executed



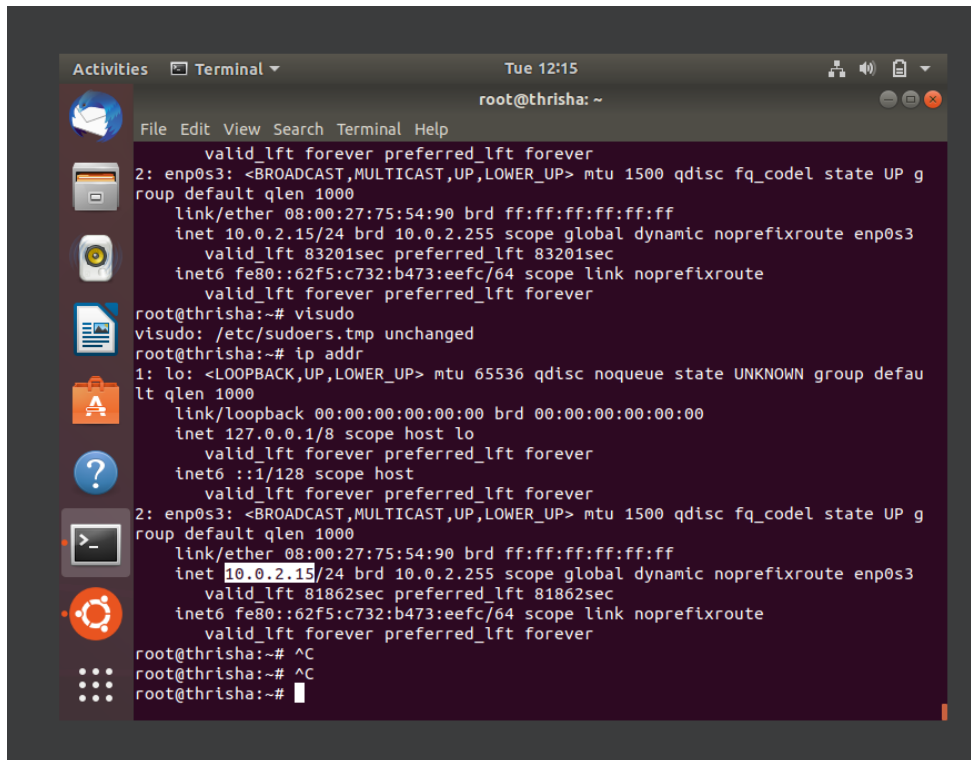
Step 7: Build completion

The build is now created



Step 8: Localhost

Get the localhost from the code paste it in the browser



```
root@thrisha:~  
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 08:00:27:75:54:90 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 83201sec preferred_lft 83201sec  
    inet6 fe80::62f5:c732:b473:eeefc/64 scope link noprefixroute  
        valid_lft forever preferred_lft forever  
root@thrisha:~# visudo  
visudo: /etc/sudoers.tmp unchanged  
root@thrisha:~# 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 08:00:27:75:54:90 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 81862sec preferred_lft 81862sec  
    inet6 fe80::62f5:c732:b473:eeefc/64 scope link noprefixroute  
        valid_lft forever preferred_lft forever  
root@thrisha:~# ^C  
root@thrisha:~# ^C  
root@thrisha:~#
```

Step 9: Output

The output is displayed at the localhost page

