INSTALLING JENKINS IN LINUX OR UBUNTU AND CRATING A FREESTYLE JOB IN NGINX PROJECT

Installing Java 17

sudo apt install -y openjdk-17-jdk

sudo update-alternatives --config java

- After this you'll be prompted to select a java version select the index with java-17

```
vijay@Vijay-Bharath:~$ sudo update-alternatives --config java
There is 1 choice for the alternative java (providing /usr/bin/java).

  Selection    Path                                           Priority   Status
------------------------------------------------------------
* 0            /usr/lib/jvm/java-17-openjdk-amd64/bin/java      1711      auto mode
  1            /usr/lib/jvm/java-17-openjdk-amd64/bin/java      1711      manual mode

Press <enter> to keep the current choice[*], or type selection number:
vijay@Vijay-Bharath:~$ sudo wget -O /usr/share/keyrings/jenkins-keyring.asc
wget: missing URL
Usage: wget [OPTION]... [URL]...

Try `wget --help' for more options.
vijay@Vijay-Bharath:~$ sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
> https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
--2025-03-22 04:55:39--  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...cconnected.
HTTP request sent, awaiting response... 200 OK
Length: 3175 (3.1K) [application/pgp-keys]
Saving to: '/usr/share/keyrings/jenkins-keyring.asc'

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

2025-03-22 04:55:39 (31.9 MB/s) - '/usr/share/keyrings/jenkins-keyring.asc' saved [3175/3175]

vijay@Vijay-Bharath:~$ 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
vijay@Vijay-Bharath:~$ sudo apt-get update
Ign:1 https://pkg.jenkins.io/debian-stable binary/ InRelease
Hit:2 https://download.docker.com/linux/ubuntu noble InRelease
Get:3 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:4 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Get:5 https://pkg.jenkins.io/debian-stable binary/ Packages [28.7 kB]
```

Installing Jenkins

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

Starting Jenkins

code

sudo systemctl status jenkins

sudo systemctl enable jenkins

sudo systemctl start jenkins

sudo systemctl status Jenkins

Jenkins Initial Setup

- Open a browser and go to `localhost:8080` and paste in the password

Code: To find the password

sudo cat /var/lib/jenkins/secrets/initialAdminPassword

- Now you see the below and click on install suggested plugin
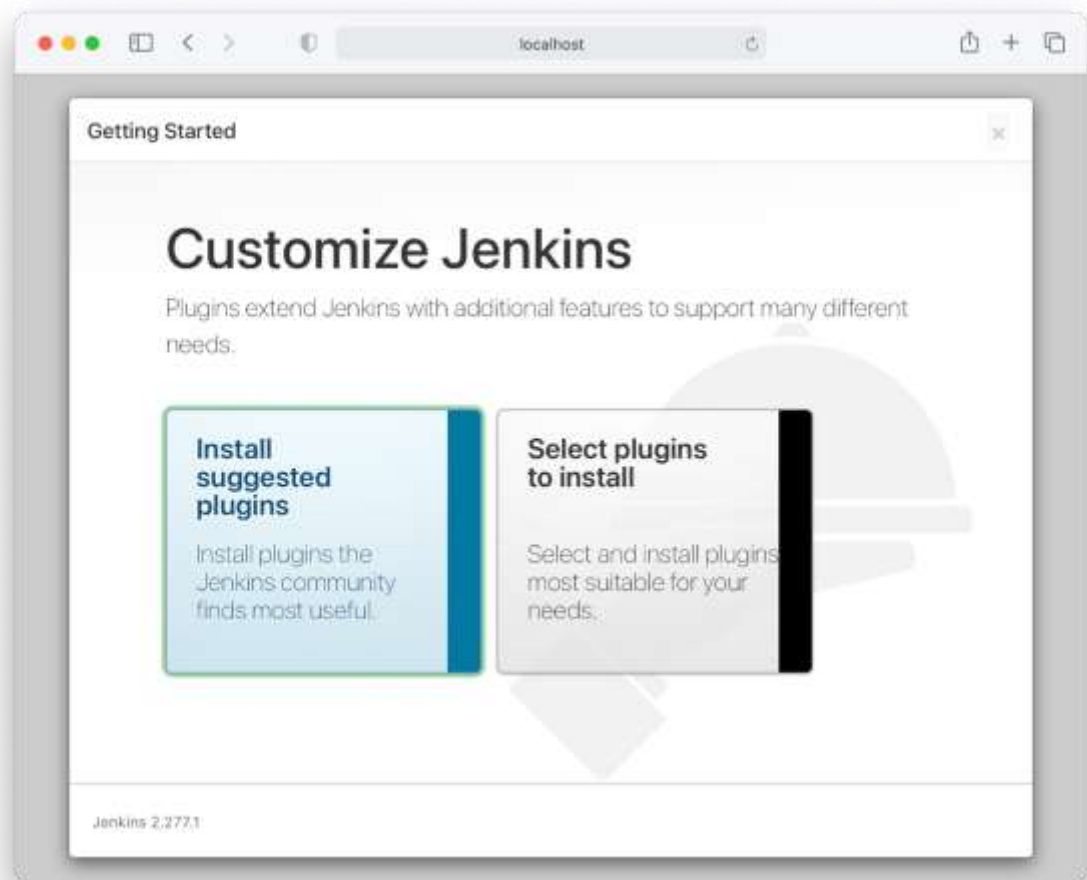
- The The plugins will eb installed one by one and you'll be redirected to the next page click Start Jenkins
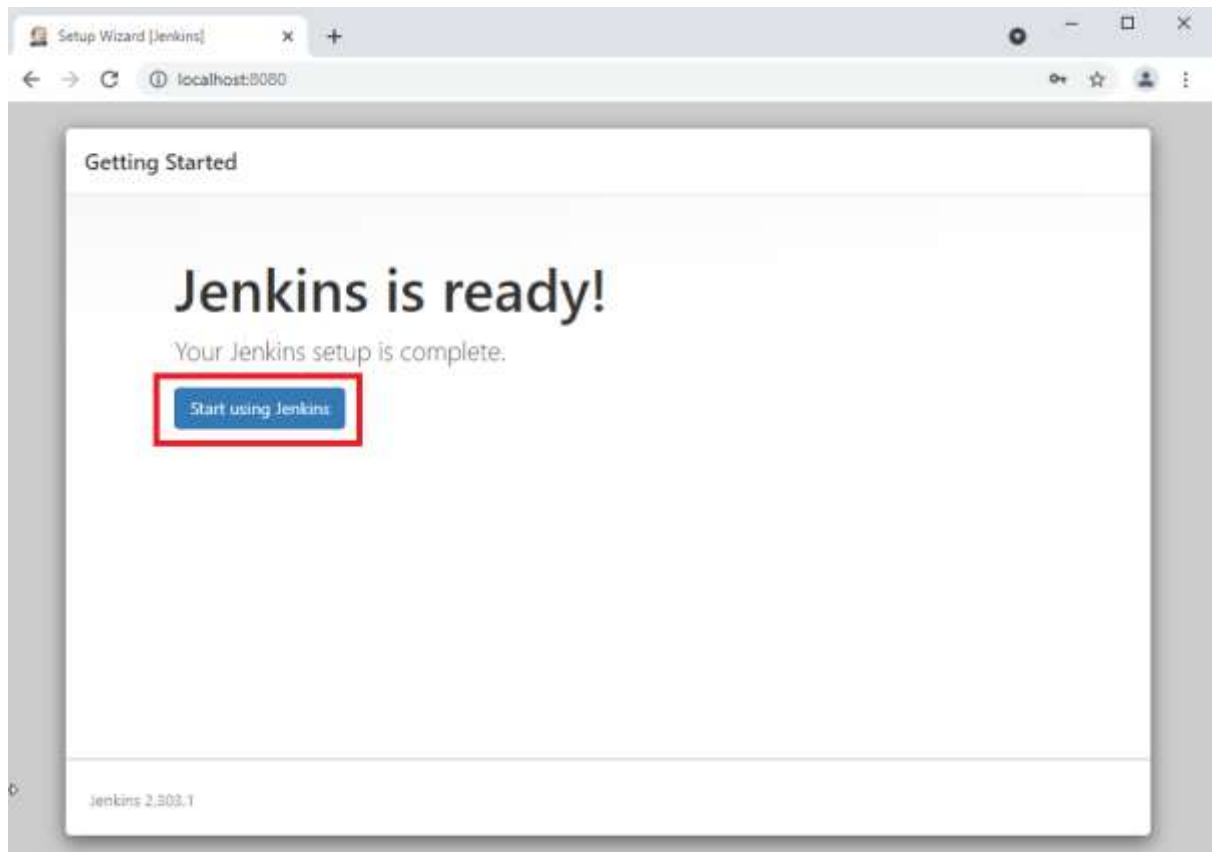
- Remember this user id and password. This will overwrite the Initial Password generated, and will be required to login everytime you restart Jenkins.

Setting up a Nginx freestyle project in Jenkins

- In Jenkins home page click on create a job

Enter an item name

Freestyle Project Example

» Required field

Freestyle project
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.

Pipeline
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

Folder
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, it's a filter, a folder creates a separate namespace, so you can have multiple things of the same as long as they are in different folders.

OK

- Paste the below in the build steps
- Code:

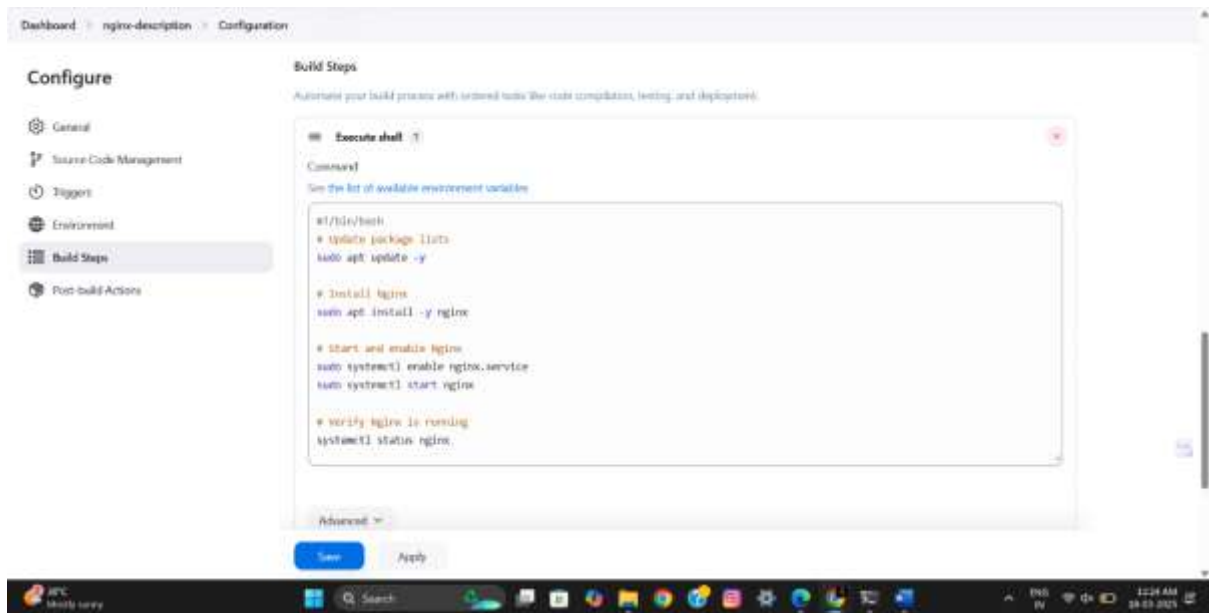sudo apt update -y

sudo apt install -y nginx

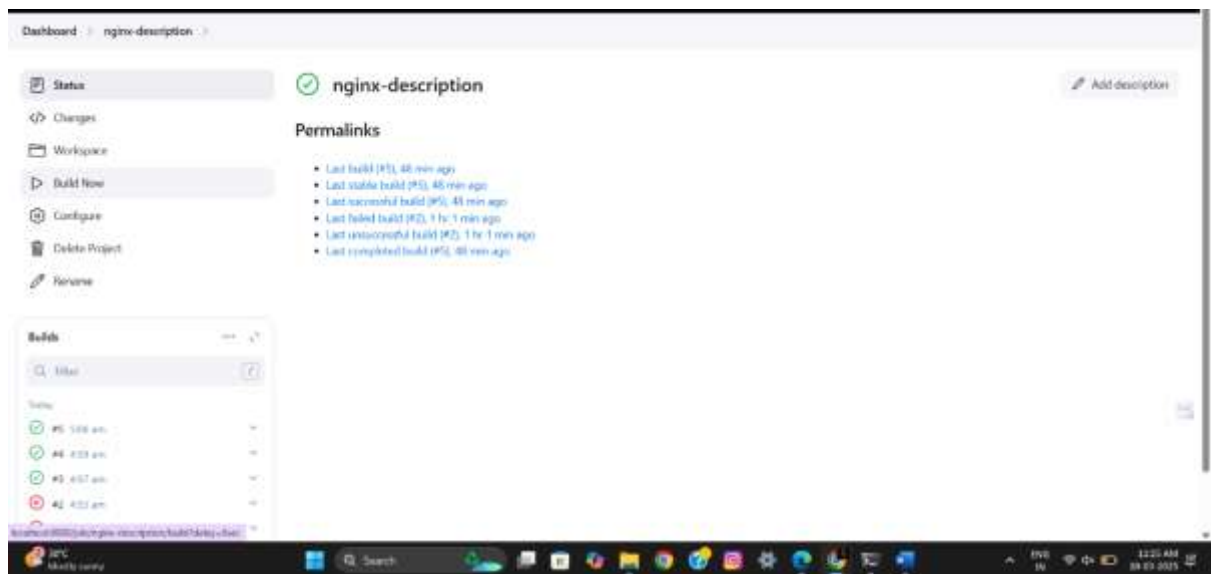sudo systemctl enable nginx.service

sudo systemctl start nginx

systemctl status nginx

- And finally save the project:

- Your first Nginx project using Jenkins is successfully deployed!