

Module 6: Jenkins Assignment - 1

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Course Offered: -Advanced Cloud Computing and Devops

Assignment By: -Intellipaat

Trainer: -Kumar

Date Of Submission: -23/03/2025

Tasks To Be Performed:

1. Trigger a pipeline using Git when push on develop branch
2. Pipeline should pull Git content to a folder

ANSWER:

Step 1: Go To AWS Management Console And Click Launch Instance.

Step 2: Choose Ubuntu OS.

The screenshot shows the AWS Management Console 'Launch an instance' wizard. The 'Name and tags' section has 'jenkins-master' entered. The 'Application and OS Images (Amazon Machine Image)' section shows 'Ubuntu' selected in the 'Quick Start' category. The 'Summary' section on the right shows 'Number of instances' set to 3, 'Software Image (AMI)' as Canonical, Ubuntu, 24.04, amd64, and 'Virtual server type (instance type)' as t2.micro. A 'Launch instance' button is visible at the bottom right.

Step 3: Choose Amazon Machine Image(AMI)

Ubuntu Server 24.04 LTS.

Step 4: Choose Instance Type.

The Instance Type Will be t2.micro.

The screenshot shows the AWS Management Console 'Launch an instance' wizard. The 'Amazon Machine Image (AMI)' section shows 'Ubuntu Server 24.04 LTS (HVM), SSD Volume Type' selected. The 'Instance type' section shows 't2.micro' selected. A 'Launch instance' button is visible at the bottom right.

Step 5:

Choose Keypair

Keypair Name (Docker)

Step 6: Choose Network

Network will be vpc-056bf1d89dcf9098e

Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

docker ↕ [Create new key pair](#)

Network settings [Info](#) Edit

Network | [Info](#)
vpc-056bf1d89dcf9098e

Subnet | [Info](#)
No preference (Default subnet in any availability zone)

Auto-assign public IP | [Info](#)
Enable
Additional charges apply when outside of free tier allowance

Firewall (security groups) | [Info](#)
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group Select existing security group

Common security groups | [Info](#)

Select security groups

launch-wizard-1 sg-047bfe49f4b83fc4a ✕
VPC: vpc-056bf1d89dcf9098e

[Compare security group rules](#)

Security groups that you add or remove here will be added to or removed from all your network interfaces.

Step 7: Choose Storage.

Configure storage [Info](#) Advanced

1x 8 GiB gp3 ↕ Root volume, 3000 IOPS, Not encrypted

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage ✕

[Add new volume](#)

The selected AMI contains more instance store volumes than the instance allows. Only the first 0 instance store volumes from the AMI will be accessible from the instance.

[Click refresh to view backup information](#)
The tags that you assign determine whether the instance will be backed up by any Data Lifecycle Manager policies. ↻

0 x File systems Edit

Advanced details [Info](#)

Virtual server type (instance type)
t2.micro

Firewall (security group)
launch-wizard-1

Storage (volumes)
1 volume(s) - 8 GiB

Free tier: In your first year of opening an AWS account, you get 750 hours per month of t2.micro instance usage (or t3.micro where t2.micro isn't available) when used with free tier AMIs, 750 hours per month of public IPv4 address usage, 30 GiB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet. ✕

[Cancel](#) [Launch instance](#) [Preview code](#)

Step 8: Click Launch Instance.

Step 9: Rename the Instance Name.

Instances (1/3) [Info](#) Last updated less than a minute ago [Connect](#) [Instance state](#) [Actions](#) [Launch instances](#)

Find Instance by attribute or tag (case-sensitive) All states

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elasti
<input checked="" type="checkbox"/> jenkins-master	i-08d4108b68da8713c	Running	t2.micro	Initializing	View alarms +	us-east-1b	ec2-52-91-141-93.com...	52.91.141.93	-
<input type="checkbox"/> jenkins-slave1	i-09b84317ad5a8c1a6	Running	t2.micro	Initializing	View alarms +	us-east-1b	ec2-34-229-198-96.co...	34.229.198.96	-
<input type="checkbox"/> jenkins-slave2	i-05aa800ad4ed4a3f0	Running	t2.micro	Initializing	View alarms +	us-east-1b	ec2-3-87-124-108.com...	3.87.124.108	-

Step 10: Connect the 3 Instances.

```
2 52.91.141.93 (ubuntu) 3 34.229.198.96 (ubuntu) 4 3.87.124.108 (ubuntu)
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1021-aws x86_64)
 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Sun Mar 16 12:47:54 UTC 2025

System load: 0.36          Processes: 108
Usage of /: 24.9% of 6.71GB Users logged in: 0
Memory usage: 21%        IPv4 address for enX0: 172.31.28.186
Swap usage: 0%

Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

/usr/bin/xauth: file /home/ubuntu/.Xauthority does not exist
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-28-186:~$
ubuntu@ip-172-31-28-186:~$
ubuntu@ip-172-31-28-186:~$
```

```
2 52.91.141.93 (ubuntu) 3 34.229.198.96 (ubuntu) 4 3.87.124.108 (ubuntu)
> For more info, ctrl+click on help or visit our website.

Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1021-aws x86_64)
 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Sun Mar 16 12:48:29 UTC 2025

System load: 0.63          Processes: 107
Usage of /: 24.9% of 6.71GB Users logged in: 0
Memory usage: 22%        IPv4 address for enX0: 172.31.24.150
Swap usage: 0%

Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

/usr/bin/xauth: file /home/ubuntu/.Xauthority does not exist
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-24-150:~$
```

```
2 52.91.141.93 (ubuntu) 3 34.229.198.96 (ubuntu) 4 3.87.124.108 (ubuntu)
> For more info, ctrl+click on help or visit our website.

Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1021-aws x86_64)
 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Sun Mar 16 12:48:59 UTC 2025

System load: 0.19          Processes: 108
Usage of /: 24.9% of 6.71GB Users logged in: 0
Memory usage: 21%        IPv4 address for enX0: 172.31.26.148
Swap usage: 0%

Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

/usr/bin/xauth: file /home/ubuntu/.Xauthority does not exist
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-26-148:~$
```

Go To Jenkin Master Node.

We need to install the Java.

So this is the command

Sudo apt install openjdk-17-jdk -y

```
ubuntu@ip-172-31-28-186:~$ sudo apt install openjdk-17-jdk -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  adwaita-icon-theme alsa-topology-conf alsa-ucm-conf at-spi2-common at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig
  fontconfig-config fonts-dejavu-core fonts-dejavu-extra fonts-dejavu-mono gsettings-desktop-schemas gtk-update-icon-cache hicolor-icon-theme humanity-icon-theme
  java-common libasound2-data libasound2t64 libatk-bridge2.0-0t64 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0t64 libatspi2.0-0t64 libavahi-client3
  libavahi-common-data libavahi-common3 libcairo-gobject2 libcairo2 libcups2t64 libdatatr1e1 libdconf1 libdeflate0 libdrm-amdgpu1 libdrm-common libdrm-intel1
  libdrm-nouveau2 libdrm-radeon1 libdrm2 libfontconfig1 libgail-common libgail18t64 libgbm1 libgdk-pixbuf-2.0-0 libgdk-pixbuf2.0-bin libgdk-pixbuf2.0-common libgif7
  libgl1 libgl1-amber-dri libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3 libgtk2.0-0t64 libgtk2.0-bin libgtk2.0-common libharfbuzz0b
  libice-dev libice6 libjbig0 libjpeg-turbo8 libjpeg8 liblcms2-2 liblerc4 libllvml9 libpango-1.0-0 libpangocairo-1.0-0 libpangoft2-1.0-0 libpciaccess0 libpcsclite1
  libpxman-1-0 libpthread-stubs0-dev librsync2-2 librsync2-common libsharpyuv0 libsm-dev libsm6 libthai-data libthai0 libtiff6 libvulkan1 libwayland-client0
  libwayland-server0 libwebp7 libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-randr0 libxcb-render0
  libxcb-shape0 libxcb-shm0 libxcb-sync1 libxcb-xf86d0 libxcb1-dev libxcomposite1 libxcursor1 libxdamage1 libxdmcp-dev libxfixes3 libxft2 libxi6 libxinerama1
  libxkbfile1 libxmu6 libxpm4 libxrandr2 libxrender1 libxshmfence1 libxt-dev libxt6t64 libxtst6 libxv1 libxxf86dga1 libxxf86vm1 mesa-libgallium mesa-vulkan-drivers
  openjdk-17-jdk-headless openjdk-17-jre openjdk-17-jre-headless session-migration ubuntu-mono x11-common x11-utils x11proto-dev xorg-sgml-doctools xtrans-dev
Suggested packages:
  default-jre alsa-utils libasound2-plugins cups-common gvfs libice-doc liblcms2-utils pcsd librsync2-bin libsm-doc libx11-doc libxcb-doc libxt-doc openjdk-17-demo
  openjdk-17-source visualvm libnss-mdns fonts-tpafont-gothic fonts-tpafont-incho fonts-wqy-microhei | fonts-wqy-zenhei fonts-indic mesa-utils
Recommended packages:
  luit
The following NEW packages will be installed:
  adwaita-icon-theme alsa-topology-conf alsa-ucm-conf at-spi2-common at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig
  fontconfig-config fonts-dejavu-core fonts-dejavu-extra fonts-dejavu-mono gsettings-desktop-schemas gtk-update-icon-cache hicolor-icon-theme humanity-icon-theme
  java-common libasound2-data libasound2t64 libatk-bridge2.0-0t64 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0t64 libatspi2.0-0t64 libavahi-client3
  libavahi-common-data libavahi-common3 libcairo-gobject2 libcairo2 libcups2t64 libdatatr1e1 libdconf1 libdeflate0 libdrm-amdgpu1 libdrm-intel1 libdrm-nouveau2
  libdrm-radeon1 libfontconfig1 libgail-common libgail18t64 libgbm1 libgdk-pixbuf-2.0-0 libgdk-pixbuf2.0-bin libgdk-pixbuf2.0-common libgif7 libgl1 libgl1-amber-dri
  libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3 libgtk2.0-0t64 libgtk2.0-bin libgtk2.0-common libharfbuzz0b libice-dev libice6 libjbig0
  libjpeg-turbo8 libjpeg8 liblcms2-2 liblerc4 libllvml9 libpango-1.0-0 libpangocairo-1.0-0 libpangoft2-1.0-0 libpciaccess0 libpcsclite1 libpxman-1-0
  libpthread-stubs0-dev librsync2-2 librsync2-common libsharpyuv0 libsm-dev libsm6 libthai-data libthai0 libtiff6 libvulkan1 libwayland-client0 libwayland-server0
  libwebp7 libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-randr0 libxcb-render0 libxcb-shape0 libxcb-shm0
  libxcb-sync1 libxcb-xf86d0 libxcb1-dev libxcomposite1 libxcursor1 libxdamage1 libxdmcp-dev libxfixes3 libxft2 libxi6 libxinerama1 libxkbfile1 libxmu6 libxpm4
  libxrandr2 libxrender1 libxshmfence1 libxt-dev libxt6t64 libxtst6 libxv1 libxxf86dga1 libxxf86vm1 mesa-libgallium mesa-vulkan-drivers openjdk-17-jdk
  openjdk-17-jdk-headless openjdk-17-jre openjdk-17-jre-headless session-migration ubuntu-mono x11-common x11-utils x11proto-dev xorg-sgml-doctools xtrans-dev
The following packages will be upgraded:
  libdrm-common libdrm2
```

```
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jar to provide /usr/bin/jar (jar) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jarsigner to provide /usr/bin/jarsigner (jarsigner) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/javac to provide /usr/bin/javac (javac) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/javadoc to provide /usr/bin/javadoc (javadoc) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/javap to provide /usr/bin/javap (javap) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jcmd to provide /usr/bin/jcmd (jcmd) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jdb to provide /usr/bin/jdb (jdb) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jdeprscan to provide /usr/bin/jdeprscan (jdeprscan) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jdeps to provide /usr/bin/jdeps (jdeps) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jfr to provide /usr/bin/jfr (jfr) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jimage to provide /usr/bin/jimage (jimage) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jinfo to provide /usr/bin/jinfo (jinfo) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jlink to provide /usr/bin/jlink (jlink) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jmap to provide /usr/bin/jmap (jmap) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jmod to provide /usr/bin/jmod (jmod) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jps to provide /usr/bin/jps (jps) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jrunscript to provide /usr/bin/jrunscript (jrunscript) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jshell to provide /usr/bin/jshell (jshell) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jstack to provide /usr/bin/jstack (jstack) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jstat to provide /usr/bin/jstat (jstat) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jstatd to provide /usr/bin/jstatd (jstatd) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/serialver to provide /usr/bin/serialver (serialver) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jhsdb to provide /usr/bin/jhsdb (jhsdb) in auto mode
Setting up openjdk-17-jre:amd64 (17.0.1447-1-24.04) ...
Setting up openjdk-17-jdk:amd64 (17.0.1447-1-24.04) ...
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jconsole to provide /usr/bin/jconsole (jconsole) in auto mode
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
Processing triggers for libgdk-pixbuf-2.0-0:amd64 (2.42.10+dfsg-3ubuntu3.1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-28-186:~$
```

After Install the Java we need to check the java version

Java --version

```
ubuntu@ip-172-31-28-186:~$ java --version
openjdk 17.0.14 2025-01-21
OpenJDK Runtime Environment (build 17.0.14+7-Ubuntu-124.04)
OpenJDK 64-Bit Server VM (build 17.0.14+7-Ubuntu-124.04, mixed mode, sharing)
ubuntu@ip-172-31-28-186:~$
```

Go To Jenkin Slave-1

Step 1:

Sudo apt-get update -y (Update the machine)

```
ubuntu@ip-172-31-24-150:~$ sudo apt-get update -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [670 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.9 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [919 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [208 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [151 kB]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [13.4 kB]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1037 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [261 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [364 kB]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [25.8 kB]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [759 kB]
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [153 kB]
Get:24 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:25 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 c-n-f Metadata [464 B]
Get:26 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [30.1 kB]
Get:27 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [5884 B]
Get:28 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]
Get:29 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [656 B]
Get:30 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [208 B]
Get:31 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [142 B]
Get:32 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [14.2 kB]
Get:33 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [12.1 kB]
Get:34 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [130 kB]
Get:35 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [20.0 kB]
Get:36 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [1256 B]
Get:37 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:38 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
Get:39 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Get:40 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata [116 B]
```

Step 2:

Install the java

Sudo apt install openjdk-17-jdk -y

```
ubuntu@ip-172-31-24-150:~$ sudo apt install openjdk-17-jdk -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  adwaita-icon-theme alsa-topology-conf alsacm-conf at-spi2-common at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig
  fontconfig-config fonts-dejavu-core fonts-dejavu-extra fonts-dejavu-mono gsettings-desktop-schemas gtk-update-icon-cache hicolor-icon-theme humanity-icon-theme
  java-common libasound2-data libasound2t64 libatk-bridge2.0-0t64 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0t64 libatspi2.0-0t64 libavahi-client3
  libavahi-common-data libavahi-common3 libcairo-gobject2 libcairo2 libcups2t64 libdatatr1 libdconf1 libdeflate0 libdrm-amdgpu0 libdrm-common libdrm-intel1
  libdrm-nouveau2 libdrm-radeon1 libdrm2 libfontconfig1 libgail-common libgail1t64 libgbm1 libgdk-pixbuf2.0-0 libgdk-pixbuf2.0-bin libgdk-pixbuf2.0-common libgif7
  libgl1 libgl1-amd-glx libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3 libgtk2.0-0t64 libgtk2.0-common libharfbuzz0b
  libice-dev libice6 libjbig0 libjpeg-turbo8 libjpeg9 liblcms2-2 liblerc4 libllvml9 libpango-1.0-0 libpangocairo-1.0-0 libpangoft2-1.0-0 libpcaaccess0 libpcsclite1
  libpixman-1-0 libpthread-stubs0-dev librsync2 librsync2-common libsharpyuv0 libsm-dev libsm6 libthai-data libthai0 libtiff6 libvulkan1 libwayland-client0
  libwayland-server0 libwebp7 libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-randr0 libxcb-render0
  libxcb-shape0 libxcb-shm0 libxcb-sync1 libxcb-xfixes0 libxcb-xlib-dev libxcb-composite1 libxcursor1 libxdamage1 libxdmcp-dev libxfixes3 libxft2 libx11-xcb1 libxinerama1
  libxkbfile1 libxmu6 libxpm4 libxrandr2 libxrender1 libxshmfence1 libxt-dev libxt6 libxtst6 libxv1 libxvfbvga1 libxxf86vm1 mesa-libgallium mesa-vulkan-drivers
  openjdk-17-jdk-headless openjdk-17-jre openjdk-17-jre-headless session-migration ubuntu-mono x11-common x11-utils x11proto-dev xorg-sgml-doctools xtrans-dev
Suggested packages:
  default-jre alsacm-utils libasound2-plugins cups-common gvfs libice-doc liblms2-utils pcsd librsync2-bin libsm-dev libx11-doc libxcb-doc libxft-doc openjdk-17-demo
  openjdk-17-source visualvm libssl3 fonts-ttf-font-awesome fonts-ttf-font-awesome fonts-ttf-microhe j fonts-ways-zenhei fonts-udic mesa-utils
Recommended packages:
  luit
The following NEW packages will be installed:
  adwaita-icon-theme alsacm-conf alsacm-conf at-spi2-common at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig
  fontconfig-config fonts-dejavu-core fonts-dejavu-extra fonts-dejavu-mono gsettings-desktop-schemas gtk-update-icon-cache hicolor-icon-theme humanity-icon-theme
  java-common libasound2-data libasound2t64 libatk-bridge2.0-0t64 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0t64 libatspi2.0-0t64 libavahi-client3
  libavahi-common-data libavahi-common3 libcairo-gobject2 libcairo2 libcups2t64 libdatatr1 libdconf1 libdeflate0 libdrm-amdgpu0 libdrm-intel1 libdrm-nouveau2
  libdrm-radeon1 libfontconfig1 libgail-common libgail1t64 libgbm1 libgdk-pixbuf2.0-0 libgdk-pixbuf2.0-bin libgdk-pixbuf2.0-common libgif7 libgl1 libgl1-amd-glx
  libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3 libgtk2.0-0t64 libgtk2.0-common libharfbuzz0b libice-dev libice6 libjbig0
  libjpeg-turbo8 libjpeg9 liblcms2-2 liblerc4 libllvml9 libpango-1.0-0 libpangocairo-1.0-0 libpangoft2-1.0-0 libpcaaccess0 libpcsclite1 libpixman-1-0
  libpthread-stubs0-dev librsync2 librsync2-common libsharpyuv0 libsm-dev libsm6 libthai-data libthai0 libtiff6 libvulkan1 libwayland-client0 libwayland-server0
  libwebp7 libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-randr0 libxcb-render0 libxcb-shape0
  libxcb-shm0 libxcb-sync1 libxcb-xfixes0 libxcb-xlib-dev libxcb-composite1 libxcursor1 libxdamage1 libxdmcp-dev libxfixes3 libxft2 libx11-xcb1 libxinerama1
  libxkbfile1 libxmu6 libxpm4 libxrandr2 libxrender1 libxshmfence1 libxt-dev libxt6 libxtst6 libxv1 libxvfbvga1 libxxf86vm1 mesa-libgallium mesa-vulkan-drivers
  openjdk-17-jdk-headless openjdk-17-jre openjdk-17-jre-headless session-migration ubuntu-mono x11-common x11-utils x11proto-dev xorg-sgml-doctools xtrans-dev
The following packages will be upgraded:
  libdrm-common libdrm2
2 upgraded, 133 newly installed, 0 to remove and 138 not upgraded.
Need to get 175 MB/197 MB of archives.
After this operation, 631 MB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 libdrm-common all 2.4.122-1-ubuntu0.24.04.1 [8406 B]
```

```

Adding debian:VTrus_Root_CA.pem
done.
Setting up openjdk-17-jdk-headless:amd64 (17.0.14+7-1~24.04) ...
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jar to provide /usr/bin/jar (jar) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jarsigner to provide /usr/bin/jarsigner (jarsigner) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/javac to provide /usr/bin/javac (javac) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/javadoc to provide /usr/bin/javadoc (javadoc) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/javap to provide /usr/bin/javap (javap) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jcmd to provide /usr/bin/jcmd (jcmd) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jdb to provide /usr/bin/jdb (jdb) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jdeprscan to provide /usr/bin/jdeprscan (jdeprscan) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jdeps to provide /usr/bin/jdeps (jdeps) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jfr to provide /usr/bin/jfr (jfr) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jimage to provide /usr/bin/jimage (jimage) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jinfo to provide /usr/bin/jinfo (jinfo) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jlink to provide /usr/bin/jlink (jlink) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jmap to provide /usr/bin/jmap (jmap) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jmod to provide /usr/bin/jmod (jmod) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jps to provide /usr/bin/jps (jps) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jrunscript to provide /usr/bin/jrunscript (jrunscript) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jshell to provide /usr/bin/jshell (jshell) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jstack to provide /usr/bin/jstack (jstack) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jstat to provide /usr/bin/jstat (jstat) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jstatd to provide /usr/bin/jstatd (jstatd) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/serialver to provide /usr/bin/serialver (serialver) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jhsdb to provide /usr/bin/jhsdb (jhsdb) in auto mode
Setting up openjdk-17-jre:amd64 (17.0.14+7-1~24.04) ...
Setting up openjdk-17-jdk:amd64 (17.0.14+7-1~24.04) ...
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jconsole to provide /usr/bin/jconsole (jconsole) in auto mode
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
Processing triggers for libgdk-pixbuf-2.0-0:amd64 (2.42.10+dfsg-3ubuntu3.1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

```

After Install the Java we need to check the java version

java --version

```

ubuntu@ip-172-31-24-150:~$ java --version
openjdk 17.0.14 2025-01-21
OpenJDK Runtime Environment (build 17.0.14+7-Ubuntu-124.04)
OpenJDK 64-Bit Server VM (build 17.0.14+7-Ubuntu-124.04, mixed mode, sharing)
ubuntu@ip-172-31-24-150:~$

```

jenkin Slave-2

Step 1:

Sudo apt-get update -y (Update the machine)

```

ubuntu@ip-172-31-26-148:~$ sudo apt-get update -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [670 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [919 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [208 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [151 kB]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [13.4 kB]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1037 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [261 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [364 kB]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [25.8 kB]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [759 kB]
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [153 kB]
Get:24 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:25 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 c-n-f Metadata [464 B]
Get:26 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [30.1 kB]
Get:27 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [5884 B]
Get:28 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]
Get:29 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [656 B]
Get:30 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [208 B]
Get:31 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [112 B]
Get:32 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [14.2 kB]
Get:33 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [12.1 kB]
Get:34 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [20.0 kB]
Get:35 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [1256 B]
Get:36 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:37 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
Get:38 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Get:39 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:40 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [130 kB]

```

```

Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [13.4 kB]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1037 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [261 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [364 kB]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [25.8 kB]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [759 kB]
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [153 kB]
Get:24 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:25 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 c-n-f Metadata [464 B]
Get:26 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [30.1 kB]
Get:27 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [5884 B]
Get:28 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]
Get:29 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [656 B]
Get:30 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [208 B]
Get:31 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [112 B]
Get:32 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [14.2 kB]
Get:33 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [12.1 kB]
Get:34 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [20.0 kB]
Get:35 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [1256 B]
Get:36 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:37 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
Get:38 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Get:39 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:40 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [130 kB]
Get:41 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [8988 B]
Get:42 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [6912 B]
Get:43 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [819 kB]
Get:44 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [177 kB]
Get:45 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [51.9 kB]
Get:46 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [16.9 kB]
Get:47 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [726 kB]
Get:48 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [146 kB]
Get:49 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:50 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 c-n-f Metadata [432 B]
Get:51 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [26.2 kB]
Get:52 http://security.ubuntu.com/ubuntu noble-security/multiverse Translation-en [4892 B]
Get:53 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [212 B]
Get:54 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [448 B]
Fetched 32.8 MB in 7s (4692 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-26-148:~$

```

Step 2:

Install the java

Sudo apt install openjdk-17-jdk -y

```

sudo apt install openjdk-17-jre-headless --no-install-recommends --no-install-suggests --no-install-extras
ubuntu@ip-172-31-26-148:~$ sudo apt install openjdk-17-jdk -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  adwaita-icon-theme alsa-topology-conf alsa-ucm-conf at-spi2-common at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig
  fontconfig-config fonts-dejavu-core fonts-dejavu-extra fonts-dejavu-mono gsettings-desktop-schemas gtk-update-icon-cache hicolor-icon-theme humanity-icon-theme
  java-common libasound2-data libasound2t64 libatk-bridge2.0-0t64 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0t64 libatspi2.0-0t64 libavahi-client3
  libavahi-common-data libavahi-common3 libcairo-gobject2 libcairo2 libcups2t64 libdatatrie1 libdeflate0 libdrm-amdgpu1 libdrm-common libdrm-intel1
  libdrm-nouveau2 libdrm-radeon1 libdrm2 libfontconfig1 libgail-common libgail18t64 libgbm1 libgdk-pixbuf-2.0-0 libgdk-pixbuf2.0-bin libgdk-pixbuf2.0-common libgif7
  libgl1 libgl1-amd-gpu libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3 libgtk2.0-0t64 libgtk2.0-bin libgtk2.0-common libharfbuzz0b
  libice-dev libice6 libjbig0 libjpeg-turbo8 libjpeg8 liblcms2-2 liblerc4 libllvmlib1 libpango-1.0-0 libpangocairo-1.0-0 libpangoft2-1.0-0 libpcaccess0 libpcsclite1
  libpdxman-1-0 libpthread-stubs0-dev librsvg2-2 librsvg2-common libsharpyuv0 libsm-dev libsm6 libthai-data libthai0 libtiff6 libvulkan1 libwayland-client0
  libwayland-server0 libwebp7 libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-randr0 libxcb-render0
  libxcb-shape0 libxcb-shm0 libxcb-sync1 libxcb-xfixes0 libxcb1-dev libxcomposite1 libxcursor1 libxdamage1 libxdmcp-dev libxf86misc libxf86-video libxfixes3 libxft2 libxi6 libxinerama1
  libxkbfile1 libxmu6 libxpm4 libxrandr2 libxrender1 libxshmfence1 libxt-dev libxt6t64 libxtst6 libxv1 libxxf86dga1 libxxf86vm1 mesa-libgallium mesa-vulkan-drivers
  openjdk-17-jdk-headless openjdk-17-jre openjdk-17-jre-headless session-migration ubuntu-mono x11-common x11-utils x11proto-dev xorg-sgml-doctools xtrans-dev
Suggested packages:
  default-jre alsa-utils libasound2-plugins cups-common gvfs libice-doc liblcms2-utils pcsd librsvg2-bin libsm-doc libx11-doc libxcb-doc libxt-doc openjdk-17-demo
  openjdk-17-source visualvm libnss-mdns fonts-ipafont-gothic fonts-ipafont-mincho fonts-wqy-microhei | fonts-wqy-zenhei fonts-unic mesa-utils
Recommended packages:
  luit
The following NEW packages will be installed:
  adwaita-icon-theme alsa-topology-conf alsa-ucm-conf at-spi2-common at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig
  fontconfig-config fonts-dejavu-core fonts-dejavu-extra fonts-dejavu-mono gsettings-desktop-schemas gtk-update-icon-cache hicolor-icon-theme humanity-icon-theme
  java-common libasound2-data libasound2t64 libatk-bridge2.0-0t64 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0t64 libatspi2.0-0t64 libavahi-client3
  libavahi-common-data libavahi-common3 libcairo-gobject2 libcairo2 libcups2t64 libdatatrie1 libdeflate0 libdrm-amdgpu1 libdrm-common libdrm-intel1 libdrm-nouveau2
  libdrm-radeon1 libfontconfig1 libgail-common libgail18t64 libgbm1 libgdk-pixbuf-2.0-0 libgdk-pixbuf2.0-bin libgdk-pixbuf2.0-common libgif7 libgl1 libgl1-amd-gpu
  libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3 libgtk2.0-0t64 libgtk2.0-bin libgtk2.0-common libharfbuzz0b libice-dev libice6
  libjbig0 libjpeg-turbo8 libjpeg8 liblcms2-2 liblerc4 libllvmlib1 libpango-1.0-0 libpangocairo-1.0-0 libpangoft2-1.0-0 libpcaccess0 libpcsclite1 libpdxman-1-0
  libpthread-stubs0-dev librsvg2-2 librsvg2-common libsharpyuv0 libsm-dev libsm6 libthai-data libthai0 libtiff6 libvulkan1 libwayland-client0 libwayland-server0
  libwebp7 libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-randr0 libxcb-render0 libxcb-shape0 libxcb-shm0

```

```
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jar to provide /usr/bin/jar (jar) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jarsigner to provide /usr/bin/jarsigner (jarsigner) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/javac to provide /usr/bin/javac (javac) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/javadoc to provide /usr/bin/javadoc (javadoc) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/javap to provide /usr/bin/javap (javap) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jcmd to provide /usr/bin/jcmd (jcmd) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jdb to provide /usr/bin/jdb (jdb) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jdeprscan to provide /usr/bin/jdeprscan (jdeprscan) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jdeps to provide /usr/bin/jdeps (jdeps) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jfr to provide /usr/bin/jfr (jfr) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jimage to provide /usr/bin/jimage (jimage) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jinfo to provide /usr/bin/jinfo (jinfo) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jlink to provide /usr/bin/jlink (jlink) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jmap to provide /usr/bin/jmap (jmap) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jmod to provide /usr/bin/jmod (jmod) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jps to provide /usr/bin/jps (jps) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jrunscript to provide /usr/bin/jrunscript (jrunscript) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jshell to provide /usr/bin/jshell (jshell) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jstack to provide /usr/bin/jstack (jstack) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jstat to provide /usr/bin/jstat (jstat) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jstatd to provide /usr/bin/jstatd (jstatd) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/serialver to provide /usr/bin/serialver (serialver) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jhsdb to provide /usr/bin/jhsdb (jhsdb) in auto mode
Setting up openjdk-17-jre:amd64 (17.0.14+7-1-24.04) ...
Setting up openjdk-17-jdk:amd64 (17.0.14+7-1-24.04) ...
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jconsole to provide /usr/bin/jconsole (jconsole) in auto mode
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
Processing triggers for libgdk-pixbuf-2.0-0:amd64 (2.42.10+dfsg-3ubuntu3.1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

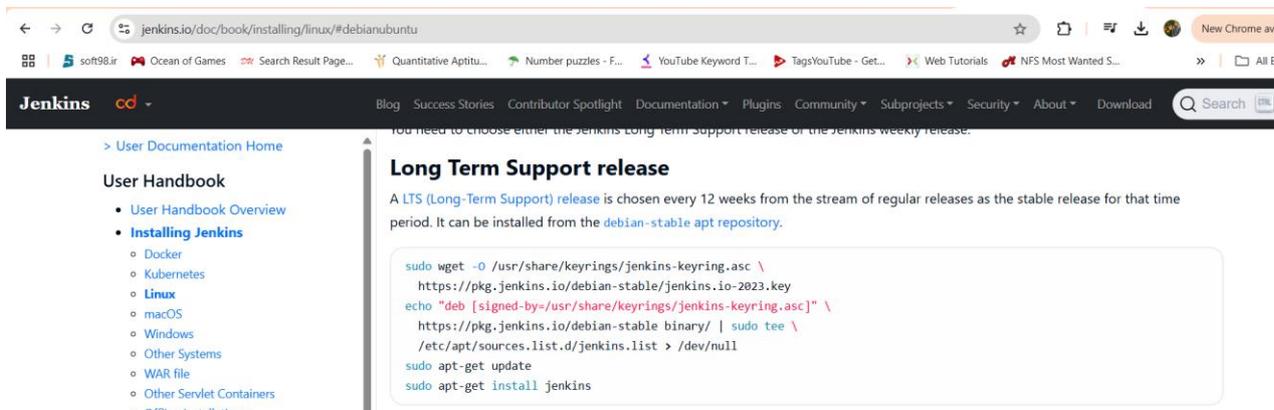
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-26-148:~$
```

After Install the Java we need to check the java version
java --version

```
ubuntu@ip-172-31-26-148:~$ java --version
openjdk 17.0.14 2025-01-21
OpenJDK Runtime Environment (build 17.0.14+7-Ubuntu-124.04)
OpenJDK 64-Bit Server VM (build 17.0.14+7-Ubuntu-124.04, mixed mode, sharing)
ubuntu@ip-172-31-26-148:~$
```

Now We need to install the Jenkins in Jenkins-master node.
Go to official website for install the Jenkins.

<https://www.jenkins.io/doc/book/installing/linux/#debianubuntu>



Go To Long Term Support Release.

```
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 -y
sudo apt-get install Jenkins -y
```

Create script for install the Jenkins.

Sudo nano install.sh

```
GNU nano 7.2 install.sh *
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
```

Then After Create the Script

Run this command

Sudo bash install.sh

```
ubuntu@ip-172-31-28-186:~$ sudo bash install.sh
--2025-03-16 12:54:01-- https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
Resolving pkg.jenkins.io (pkg.jenkins.io)... 146.75.34.133, 2a04:4e42:79:645
Connecting to pkg.jenkins.io (pkg.jenkins.io)|146.75.34.133|: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-keyring.asc 100%[=====] 3.10K --.-KB/s in 0s

2025-03-16 12:54:01 (60.2 MB/s) - '/usr/share/keyrings/jenkins-keyring.asc' saved [3175/3175]

Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Ign:5 https://pkg.jenkins.io/debian-stable binary/ InRelease
Get:6 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:7 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:9 https://pkg.jenkins.io/debian-stable binary/ Packages [28.7 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [670 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [919 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [208 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [151 kB]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [13.4 kB]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1037 kB]
```

```
Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
 net-tools
The following NEW packages will be installed:
 jenkins net-tools
0 upgraded, 2 newly installed, 0 to remove and 140 not upgraded.
Need to get 95.0 MB of archives.
After this operation, 97.6 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 net-tools amd64 2.10-0.1ubuntu4 [204 kB]
Get:2 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.492.2 [94.8 MB]
Fetched 95.0 MB in 6s (16.5 MB/s)
Selecting previously unselected package net-tools.
(Reading database ... 70610 files and directories currently installed.)
Preparing to unpack ../net-tools_2.10-0.1ubuntu4_amd64.deb ...
Unpacking net-tools (2.10-0.1ubuntu4) ...
Selecting previously unselected package jenkins.
Preparing to unpack ../jenkins_2.492.2_all.deb ...
Unpacking jenkins (2.492.2) ...
Setting up net-tools (2.10-0.1ubuntu4) ...
Setting up jenkins (2.492.2) ...
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /usr/lib/systemd/system/jenkins.service.
Could not execute systemctl: at /usr/bin/deb-systemd-invoke line 148.
Processing triggers for man-db (2.12.0-4build2) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.
```

```
ubuntu@ip-172-31-28-186:~$ sudo bash install.sh
--2025-03-16 12:54:01-- https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
Resolving pkg.jenkins.io (pkg.jenkins.io)... 146.75.34.133, 2a04:4e42:79::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)|146.75.34.133|: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-keyring.asc 100%[=====] 3.10K --.-KB/s in 0s

2025-03-16 12:54:01 (60.2 MB/s) - '/usr/share/keyrings/jenkins-keyring.asc' saved [3175/3175]

Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Ign:5 https://pkg.jenkins.io/debian-stable binary/ InRelease
Get:6 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:7 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:9 https://pkg.jenkins.io/debian-stable binary/ Packages [28.7 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [670 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [391 kB]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [919 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [208 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [151 kB]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [13.4 kB]
```

```

Fetches 32.8 MB in 6s (5121 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
 net-tools
The following NEW packages will be installed:
 jenkins net-tools
0 upgraded, 2 newly installed, 0 to remove and 140 not upgraded.
Need to get 95.0 MB of archives.
After this operation, 97.6 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 net-tools amd64 2.10-0.1ubuntu4 [204 kB]
Get:2 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.492.2 [94.8 MB]
Fetches 95.0 MB in 6s (16.5 MB/s)
Selecting previously unselected package net-tools.
(Reading database ... 70610 files and directories currently installed.)
Preparing to unpack .../net-tools_2.10-0.1ubuntu4_amd64.deb ...
Unpacking net-tools (2.10-0.1ubuntu4) ...
Selecting previously unselected package jenkins.
Preparing to unpack .../jenkins_2.492.2_all.deb ...
Unpacking jenkins (2.492.2) ...
Setting up net-tools (2.10-0.1ubuntu4) ...
Setting up jenkins (2.492.2) ...
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /usr/lib/systemd/system/jenkins.service.
Could not execute systemctl: at /usr/bin/deb-systemd-invoke line 148.
Processing triggers for man-db (2.12.0-4build2) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-28-186:~$

```

Now We need to start the Jenkins services.

Run this command

Sudo systemctl enable jenkins

```

ubuntu@ip-172-31-28-186:~$ sudo systemctl enable jenkins
Synchronizing state of jenkins.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable jenkins
ubuntu@ip-172-31-28-186:~$ sudo systemctl start jenkins
ubuntu@ip-172-31-28-186:~$ sudo systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
   Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: enabled)
   Active: active (running) since Sun 2025-03-16 13:06:16 UTC; 4s ago
     Main PID: 10104 (java)
       Tasks: 40 (limit: 1130)
      Memory: 340.3M (peak: 341.1M)
         CPU: 17.221s
    CGroup: /system.slice/jenkins.service
            └─10104 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080

Mar 16 13:06:09 ip-172-31-28-186 jenkins[10104]: 2404b8fb259b4dec8387a1d68a26b708
Mar 16 13:06:09 ip-172-31-28-186 jenkins[10104]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
Mar 16 13:06:09 ip-172-31-28-186 jenkins[10104]: *****
Mar 16 13:06:09 ip-172-31-28-186 jenkins[10104]: *****
Mar 16 13:06:09 ip-172-31-28-186 jenkins[10104]: *****
Mar 16 13:06:16 ip-172-31-28-186 jenkins[10104]: 2025-03-16 13:06:16.301400000 [id=30] INFO jenkins.InitReactorRunner$1#onAttained: Completed initialization
Mar 16 13:06:16 ip-172-31-28-186 jenkins[10104]: 2025-03-16 13:06:16.410400000 [id=23] INFO hudson.lifecycle.Lifecycle#onReady: Jenkins is fully up and runn
Mar 16 13:06:16 ip-172-31-28-186 systemd[1]: Started jenkins.service - Jenkins Continuous Integration Server.
Mar 16 13:06:16 ip-172-31-28-186 jenkins[10104]: 2025-03-16 13:06:16.688400000 [id=46] INFO h.m.DownloadService$Downloadable#load: Obtained the updated dat
Mar 16 13:06:16 ip-172-31-28-186 jenkins[10104]: 2025-03-16 13:06:16.689400000 [id=46] INFO hudson.util.Retrier#start: Performed the action check updates s
lines 1-20/20 (END)

```

Now Go to Jenkins url with port no 8080

Not secure 52.91.141.93:8080

soft98.lir Ocean of Games Search Result Page... Quantitative Aptitu... Number puzzles - F... YouTube Keyword T... TagsYouTube - Get... Web Tutorials NFS Most Wanted S...

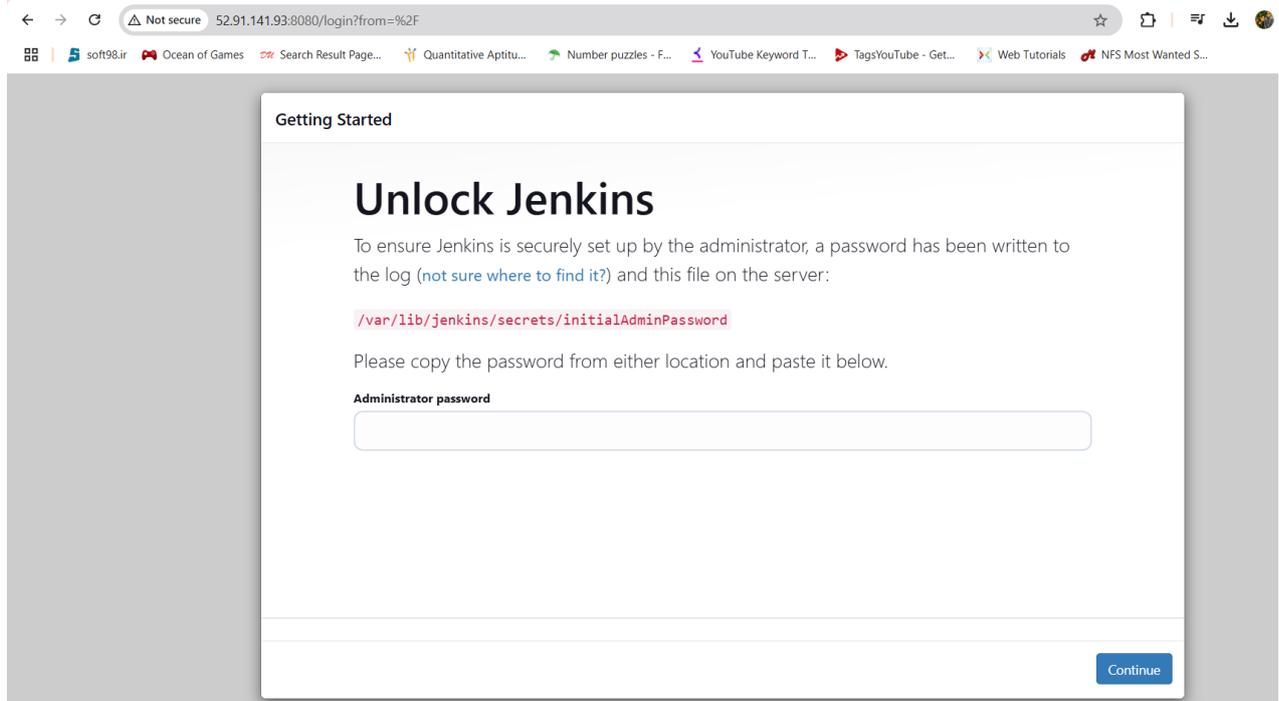
52.91.141.93 doesn't support a secure connection

- Attackers can see and change information you send or receive from the site.
- It's safest to visit this site later if you're using a public network. There is less risk from a trusted network, like your home or work Wi-Fi.

You might also contact the site owner and suggest they upgrade to HTTPS. [Learn more about this warning](#)

Continue to site Go back

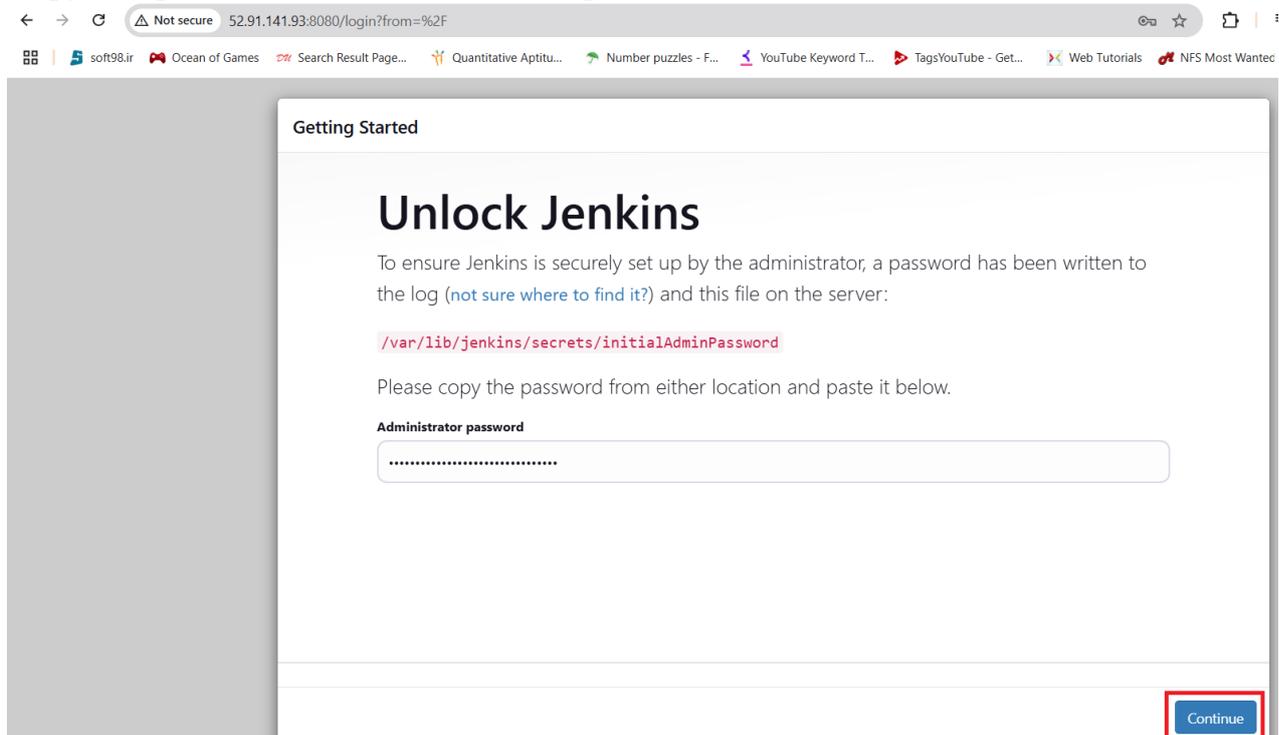
After Go to Jenkin master server `cat /var/lib/Jenkins/secrets/initialAdminPassword`



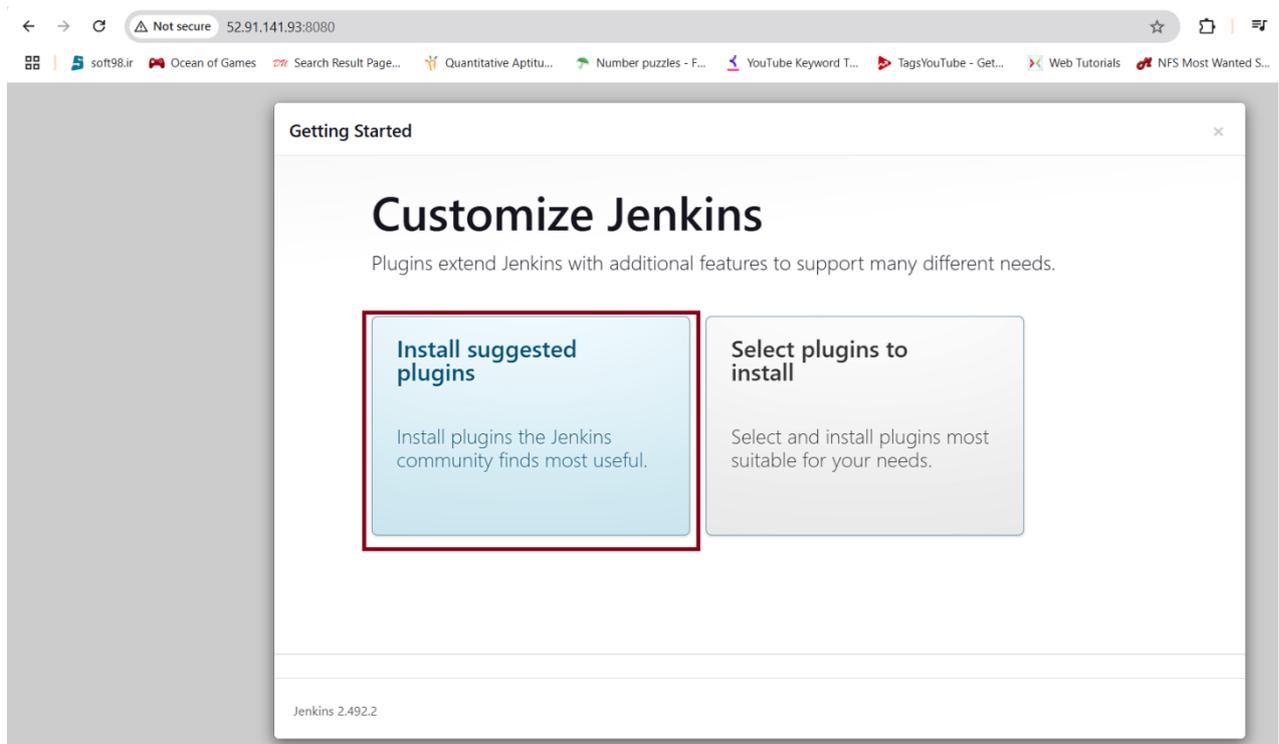
You Will see the Admin password.

```
ubuntu@ip-172-31-28-186:~$ sudo cat /var/lib/jenkins/secrets/initialAdminPassword
2404b8fb259b4dec8387a1d68a26b708
ubuntu@ip-172-31-28-186:~$
```

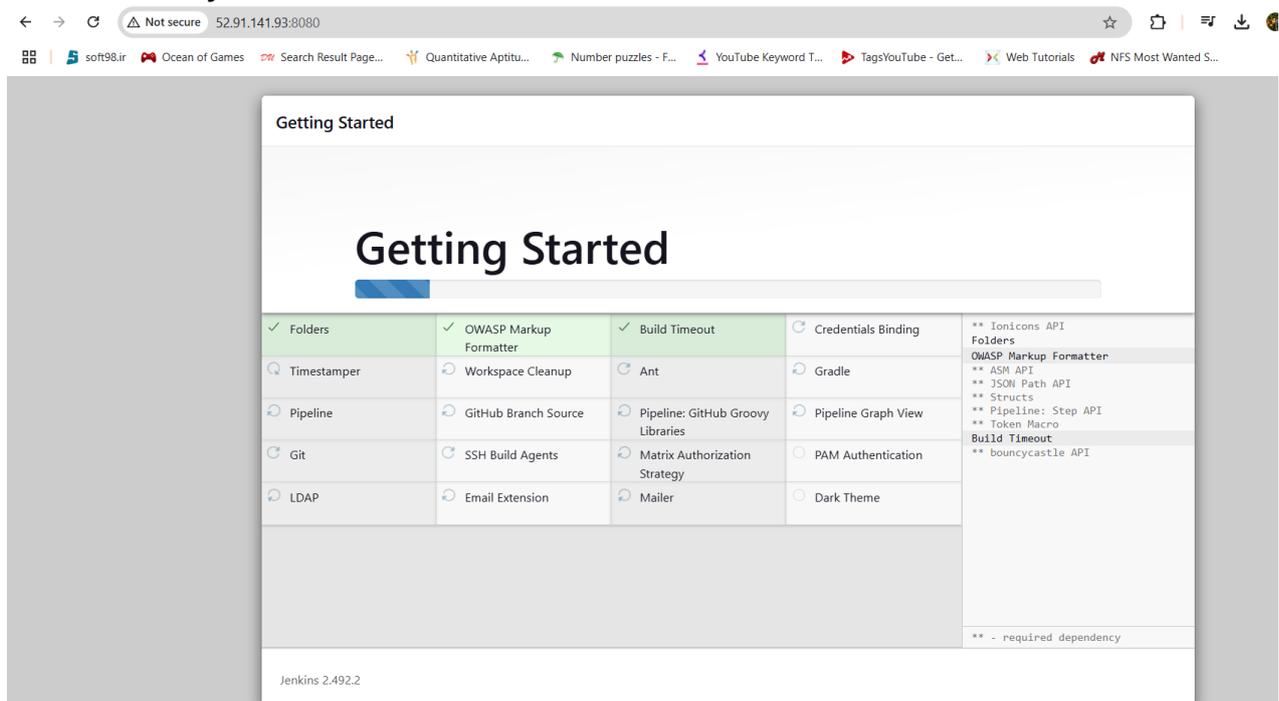
Copy the password from server and paste it to Jenkins url.



Now After you will see the getting Started page.
Click Install suggested plugins.



After Click The Install Suggested Plugins.the plugins will be install automatically.

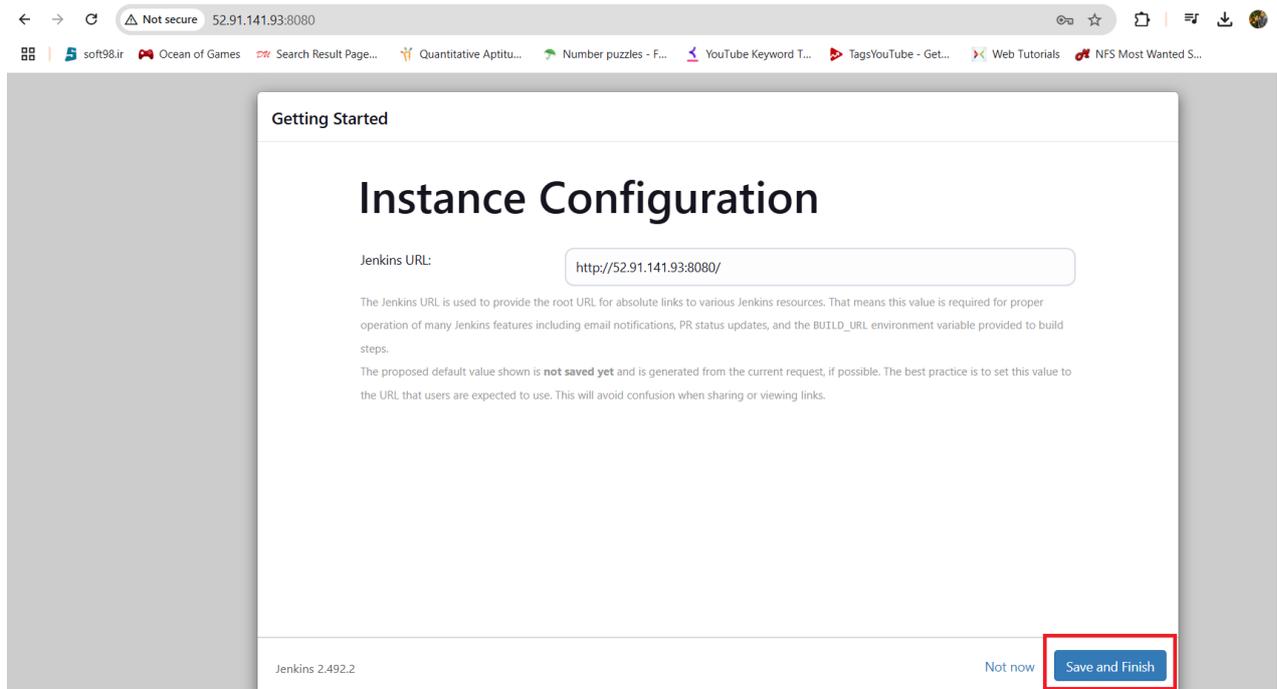


After Installed the plugins you need to create the admin user name and password.

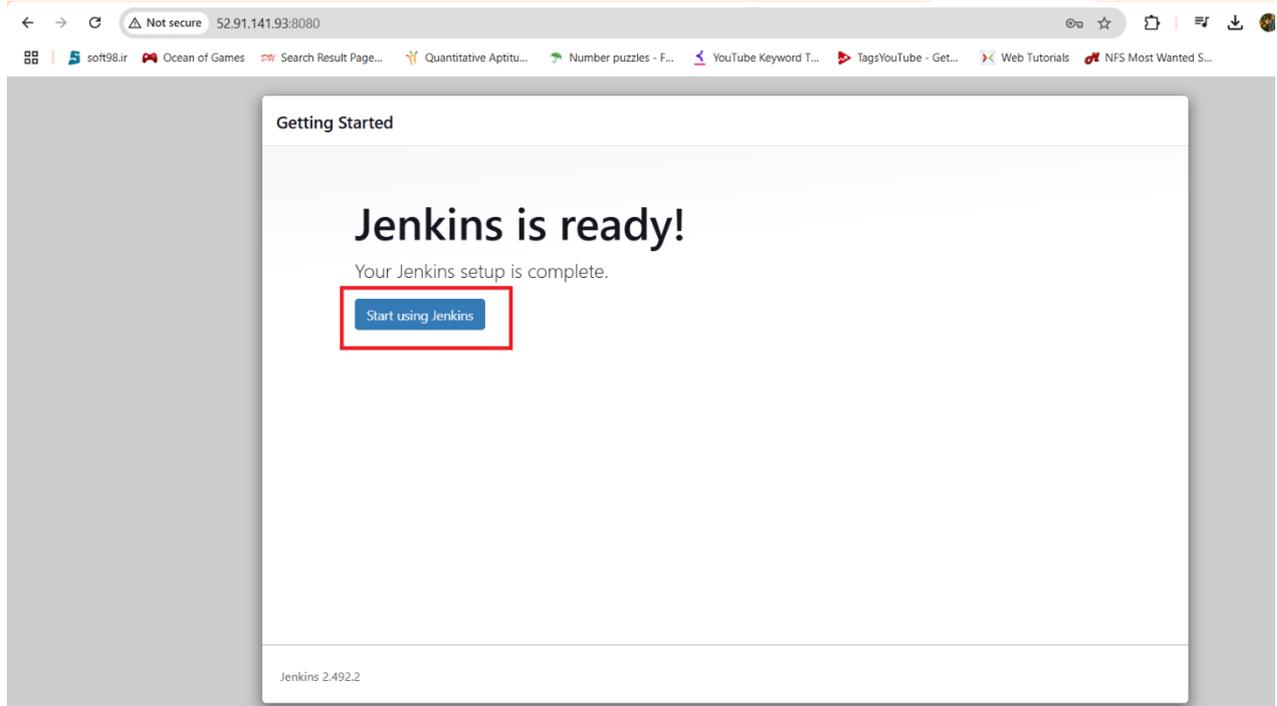
The screenshot shows the Jenkins 'Getting Started' page. The main heading is 'Create First Admin User'. Below the heading are four input fields: 'Username', 'Password', 'Confirm password', and 'Full name'. The 'Username' field contains a single vertical bar character '|'. At the bottom right, there are two buttons: 'Skip and continue as admin' and 'Save and Continue'. The version number 'Jenkins 2.492.2' is visible at the bottom left of the form area.

The screenshot shows the same Jenkins 'Getting Started' page, but now the form fields are filled. The 'Username' field contains 'admin'. The 'Password' and 'Confirm password' fields are masked with dots. The 'Full name' field contains 'Hitesh'. The 'Save and Continue' button at the bottom right is highlighted with a red rectangular box. The version number 'Jenkins 2.492.2' is visible at the bottom left of the form area.

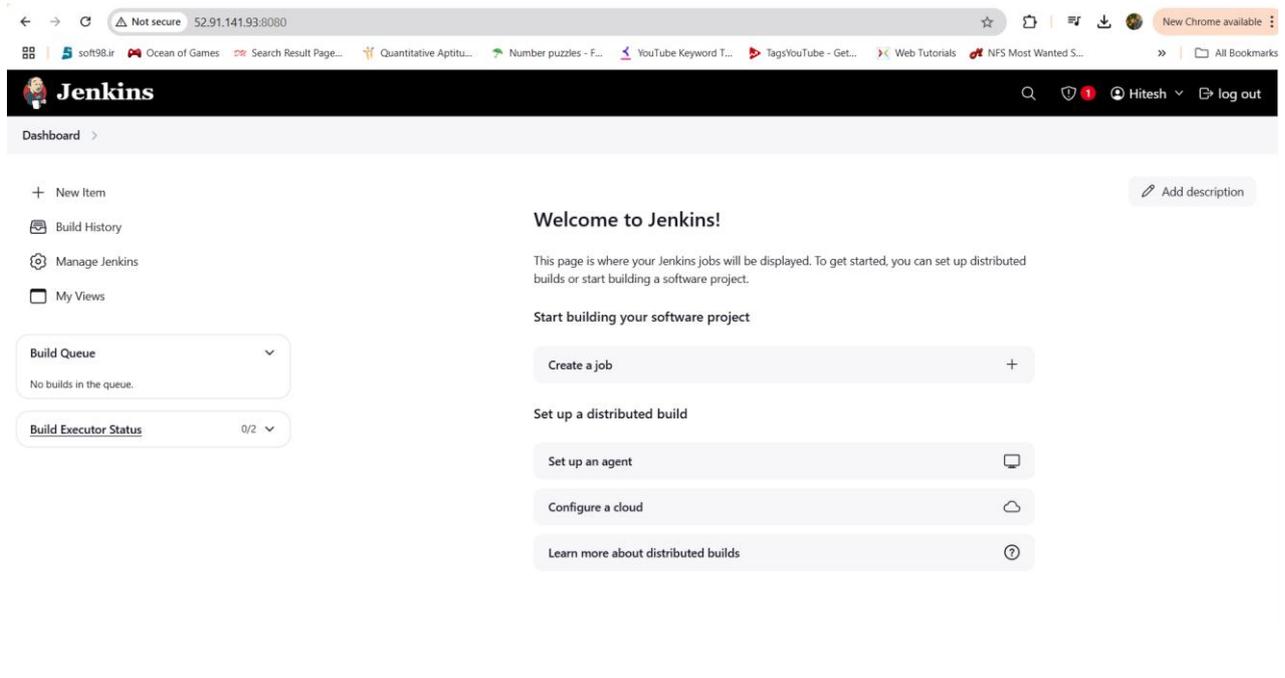
Now We need to configure Instance Configuration.



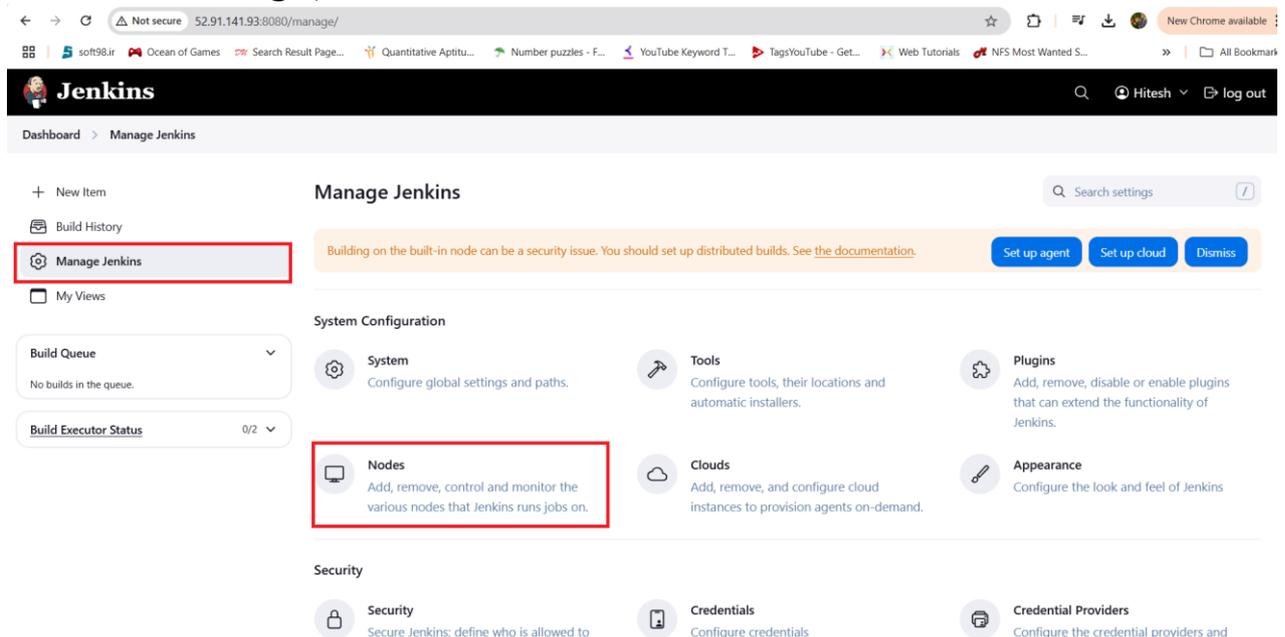
Here Click Save and finish then click Start using Jenkins



You will redirect the Jenkins Dashboard url.

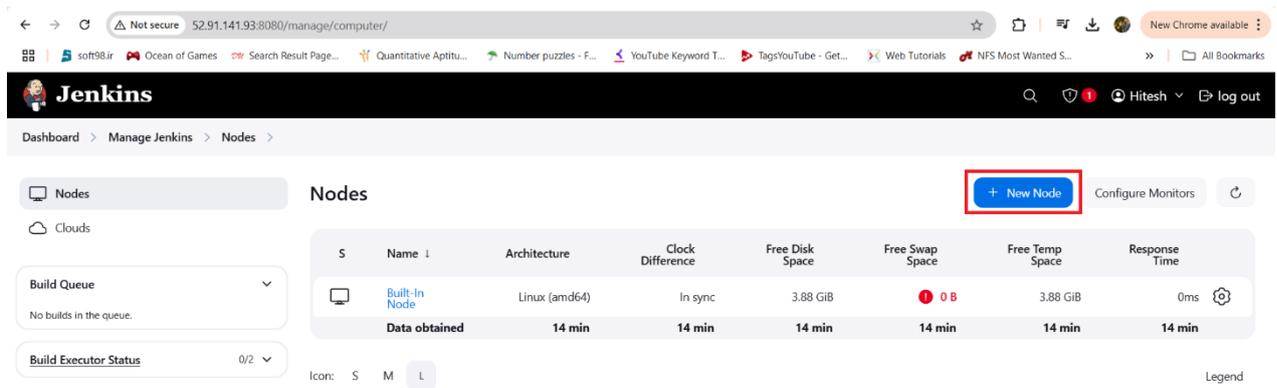


Now Go to Manage Jenkins>Click Nodes.



Here we need to configure slaves of Jenkins.

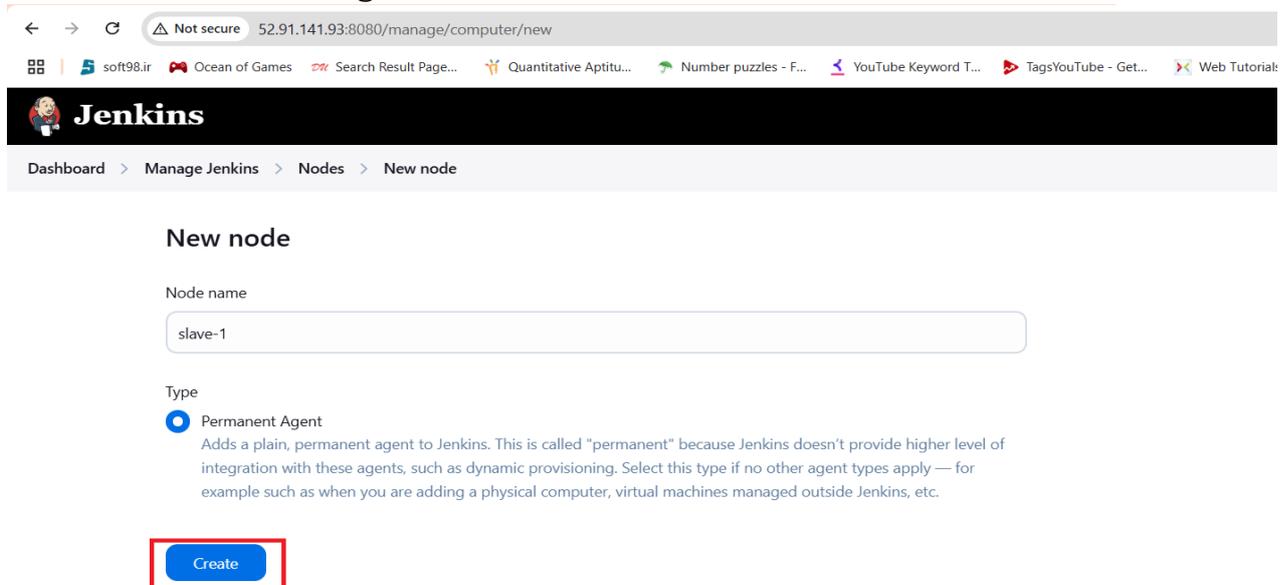
Click New Node



The screenshot shows the Jenkins 'Nodes' page. At the top right, there is a '+ New Node' button highlighted with a red box. Below the navigation bar, there are several widgets: 'Nodes' (with a '+ New Node' button), 'Build Queue' (showing 'No builds in the queue'), and 'Build Executor Status' (showing '0/2'). The main content area features a table with columns: S, Name, Architecture, Clock Difference, Free Disk Space, Free Swap Space, Free Temp Space, and Response Time. A single row is visible for 'Built-In Node' with architecture 'Linux (amd64)' and 'In sync' clock difference. Below the table, there are 'Icon: S M L' and a 'Legend' link.

Node Name : slave-1

And tick Permanent Agent and click create.



The screenshot shows the 'New node' form in Jenkins. The 'Node name' field contains 'slave-1'. Under the 'Type' section, the 'Permanent Agent' radio button is selected. Below the form, a 'Create' button is highlighted with a red box.

Here

You need to assign the name slave-1

Number of executors will be 1

Remote Root directory will be
/home/ubuntu/jenkins

The screenshot shows the Jenkins 'Create Item' form for a new node. The form is titled 'Create Item' and is located at the URL '52.91.141.93:8080/manage/computer/createItem'. The form fields are as follows:

- Name:** slave-1
- Description:** (empty text area)
- Number of executors:** 1
- Remote root directory:** /home/ubuntu/jenkins

A 'Save' button is located at the bottom of the form.

Label :**slave1**

Launch Method will be **Launch agents via SSH.**
Host **172.31.24.150**

The screenshot shows the 'Labels' configuration section of the Jenkins form. The fields are as follows:

- Labels:** slave1
- Usage:** Use this node as much as possible
- Launch method:** Launch agents via SSH
- Host:** 172.31.24.150

Jenkins credentials

Add credentials

Kind

SSH Username with private key.

The screenshot shows the 'Add Credentials' form in Jenkins. The form is titled 'Jenkins Credentials Provider: Jenkins' and 'Add Credentials'. The fields are as follows:

- Domain:** Global credentials (unrestricted)
- Kind:** SSH Username with private key
- Scope:** Global (Jenkins, nodes, items, all child items, etc)
- ID:** (empty text field)
- Description:** (empty text field)

Here username will be ubuntu.

Jenkins Credentials Provider: Jenkins

Description ?

Username

Treat username as secret ?

Private Key

Enter directly

Passphrase

Cancel Add

Private Key use .pem key for this then click add.

Jenkins Credentials Provider: Jenkins

ubuntu

Treat username as secret ?

Private Key

Enter directly

Key

Enter New Secret Below

```
-----BEGIN OPENSSH PRIVATE KEY-----
b3B1bnNzaC1rZXktbjEAAAAAAAAAGSvbmUAAAAAEm9uZQAAAAAAAAAAAAAAAAAAAFwAAAAz
c2gtcnNhAAAAAwEAAQAAAQEA8C032eqWdgZSVemaM1.cnN5nW6LFbu11KboNj1xoS
```

Passphrase

Cancel Add

After Add the credential Now We need to Use Host key verification strategy is **Non verifying verification strategy.**

Dashboard > Manage Jenkins > Nodes >

Launch method

Launch agents via SSH

Host

Credentials

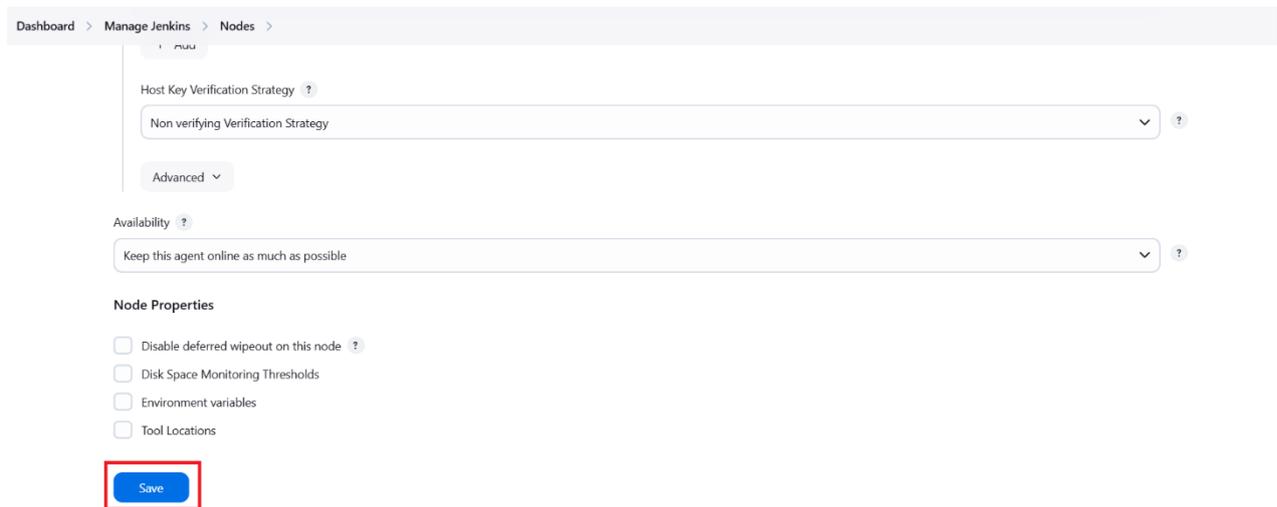
+ Add

Host Key Verification Strategy

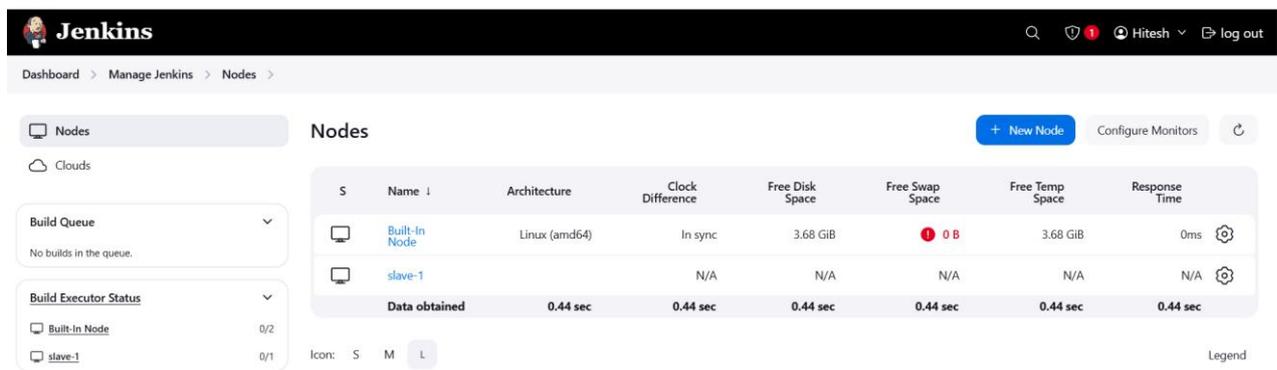
Advanced

Availability

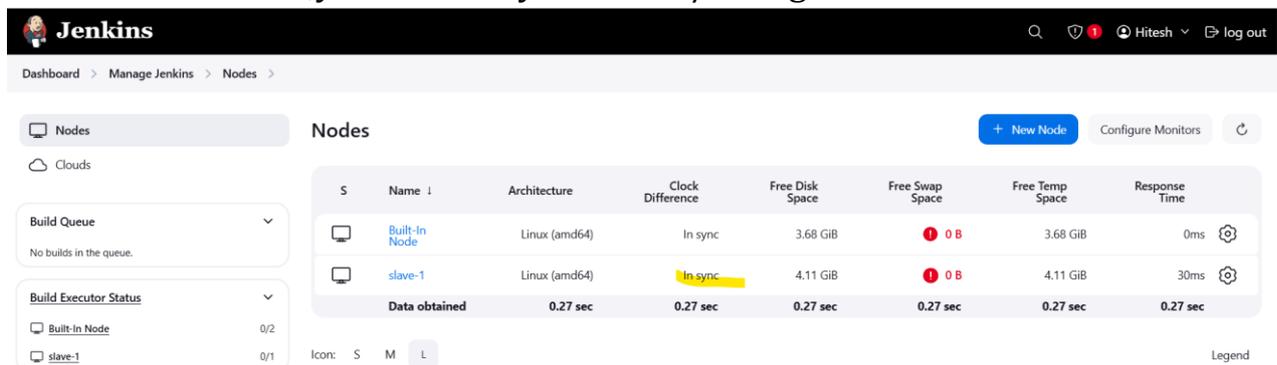
Save



Then Click Save.

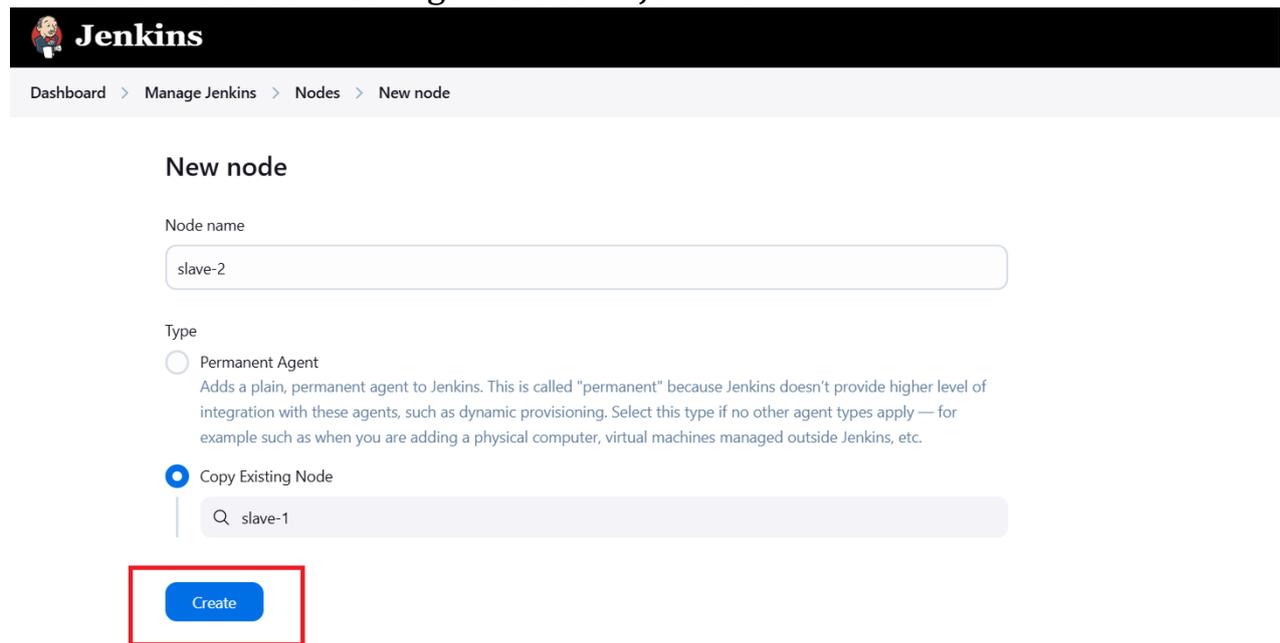


After click the save,you will be by default N/A stage.



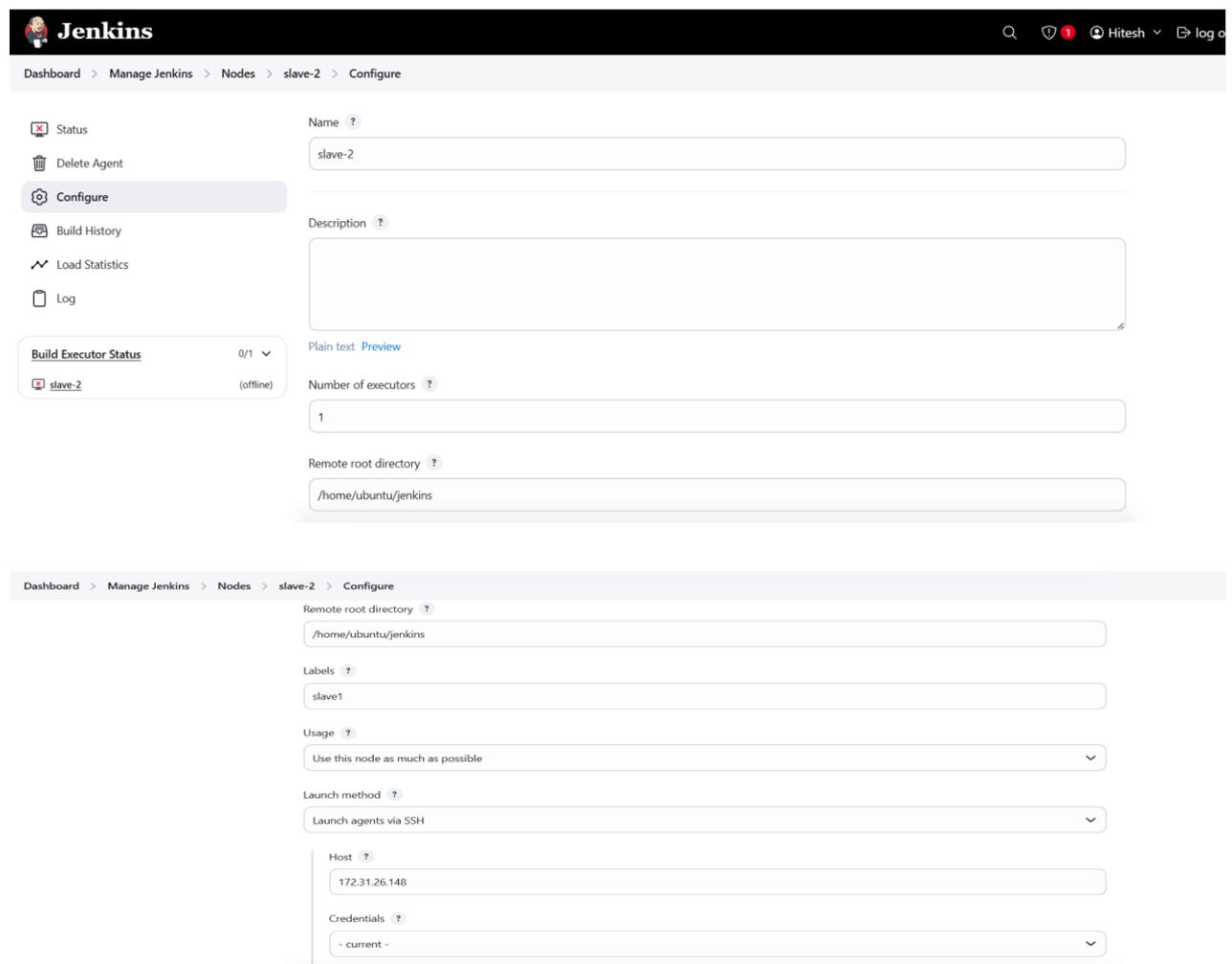
Wait for 1-2 minutes and refresh the page.you will see the In sync node in Nodes.

Same As like Slave-2 Configure Slave in Jenkins.



The screenshot shows the Jenkins 'New node' configuration page. The breadcrumb trail is 'Dashboard > Manage Jenkins > Nodes > New node'. The 'Node name' field contains 'slave-2'. Under the 'Type' section, 'Copy Existing Node' is selected with a radio button. Below it, a search bar contains 'slave-1'. A blue 'Create' button is highlighted with a red rectangular box.

Now we use Copy existing node And click Create.



The screenshot shows the Jenkins 'Configure' page for the 'slave-2' node. The breadcrumb trail is 'Dashboard > Manage Jenkins > Nodes > slave-2 > Configure'. On the left, there is a sidebar with options: Status, Delete Agent, Configure (selected), Build History, Load Statistics, and Log. Below the sidebar is a 'Build Executor Status' section showing 'slave-2' as '(offline)'. The main configuration area includes: 'Name' (slave-2), 'Description' (empty), 'Plain text' (Preview), 'Number of executors' (1), 'Remote root directory' (/home/ubuntu/jenkins), 'Labels' (slave1), 'Usage' (Use this node as much as possible), 'Launch method' (Launch agents via SSH), 'Host' (172.31.26.148), and 'Credentials' (- current -).

Host Key Verification Strategy ?

Non verifying Verification Strategy

Advanced ▾ Edited

Availability ?

Keep this agent online as much as possible

Node Properties

- Disable deferred wipeout on this node ?
- Disk Space Monitoring Thresholds
- Environment variables
- Tool Locations

Save Apply

This Slave 2 is also in sync.
 Note: Use same process of slave 1.

S	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	3.68 GiB	0 B	3.68 GiB	0ms
	slave-1	Linux (amd64)	In sync	4.11 GiB	0 B	4.11 GiB	14ms
	slave-2	Linux (amd64)	In sync	4.11 GiB	0 B	4.11 GiB	24ms
Data obtained		0.27 sec	0.27 sec	0.27 sec	0.27 sec	0.27 sec	0.26 sec

Icon: S M L Legend

Now Go to Jenkins Dashboard.

Dashboard

+ New Item

- Build History
- Project Relationship
- Check File Fingerprint
- Manage Jenkins
- My Views

Build Queue: No builds in the queue.

Build Executor Status:

- Built-in Node: 0/2
- slave-1: 0/1
- slave-2: 0/1

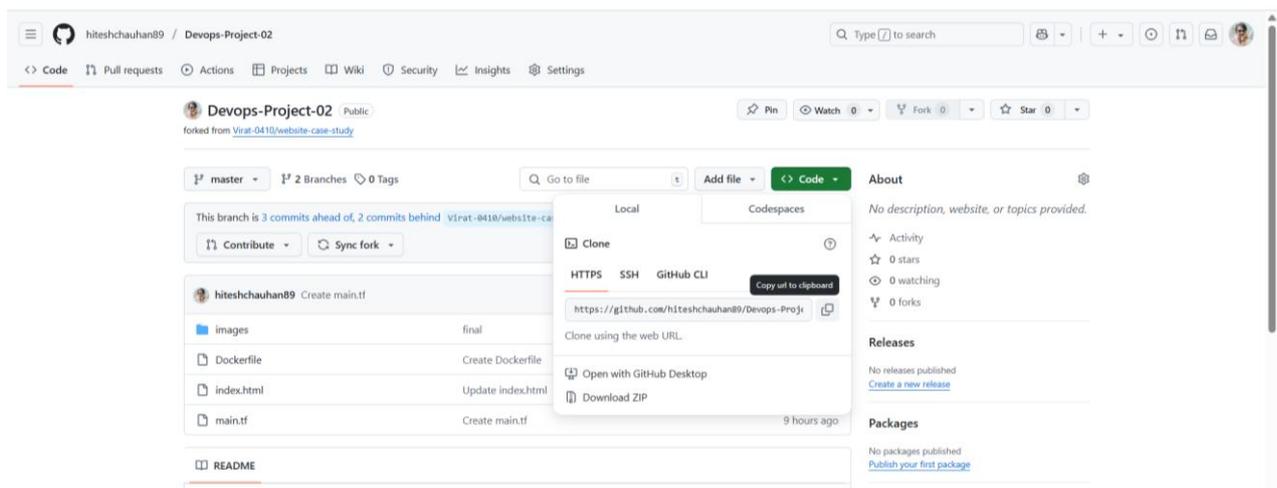
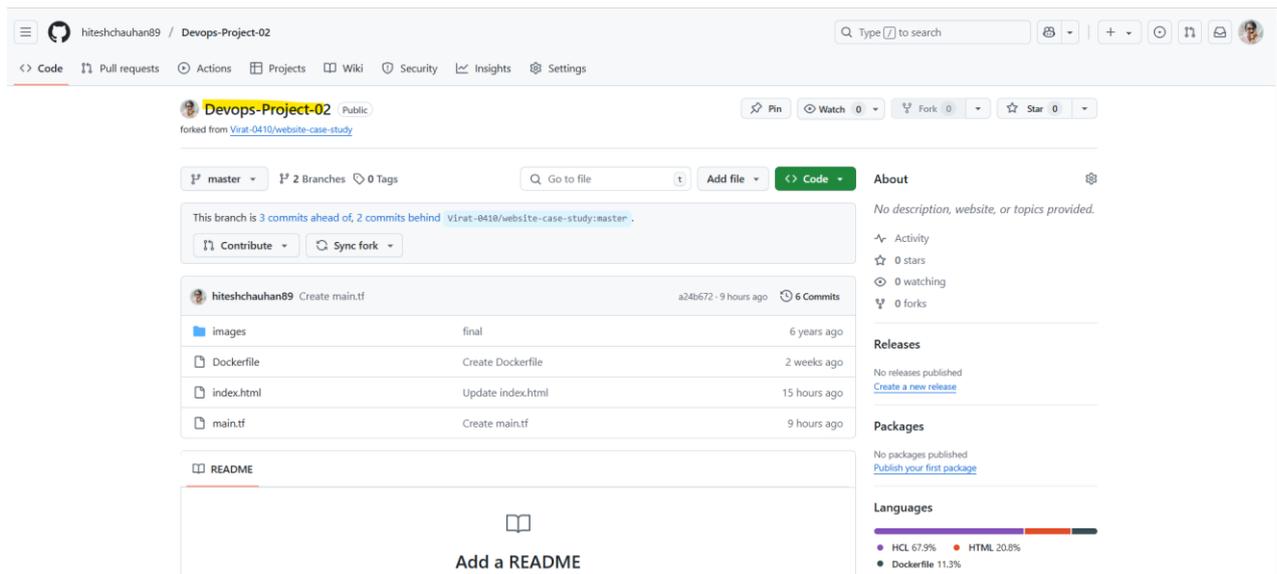
Welcome to Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

Start building your software project

Create a job

REST API Jenkins 2.492.2



Copy This Url

<https://github.com/hiteshchauhan89/Devops-Project-02.git>

Go To Jenkin URL.

New Item

Enter an item name

job-1

Select an item type



Freestyle project

Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.



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

OK

Configure

General

Source Code Management

Triggers

Environment

Build Steps

Post-build Actions

General

Enabled

Description

Plain text [Preview](#)

- Discard old builds ?
- GitHub project
- This project is parameterized ?
- Throttle builds ?
- Execute concurrent builds if necessary ?

Configure

General

Source Code Management

Triggers

Environment

Build Steps

Post-build Actions

Plain text [Preview](#)

- Discard old builds ?
- GitHub project
- This project is parameterized ?
- Throttle builds ?
- Execute concurrent builds if necessary ?
- Restrict where this project can be run ?

Label Expression ?

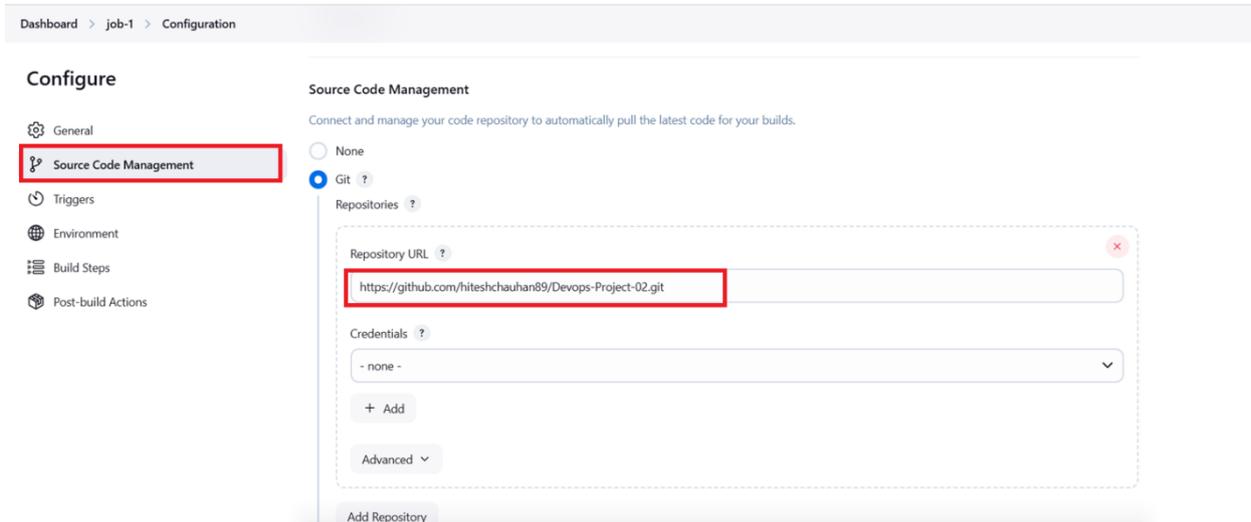
slave-1

Label slave-1 matches 1 node. Permissions or other restrictions provided by plugins may further reduce that list.

Tick on Github Project

This url needs to be paste here

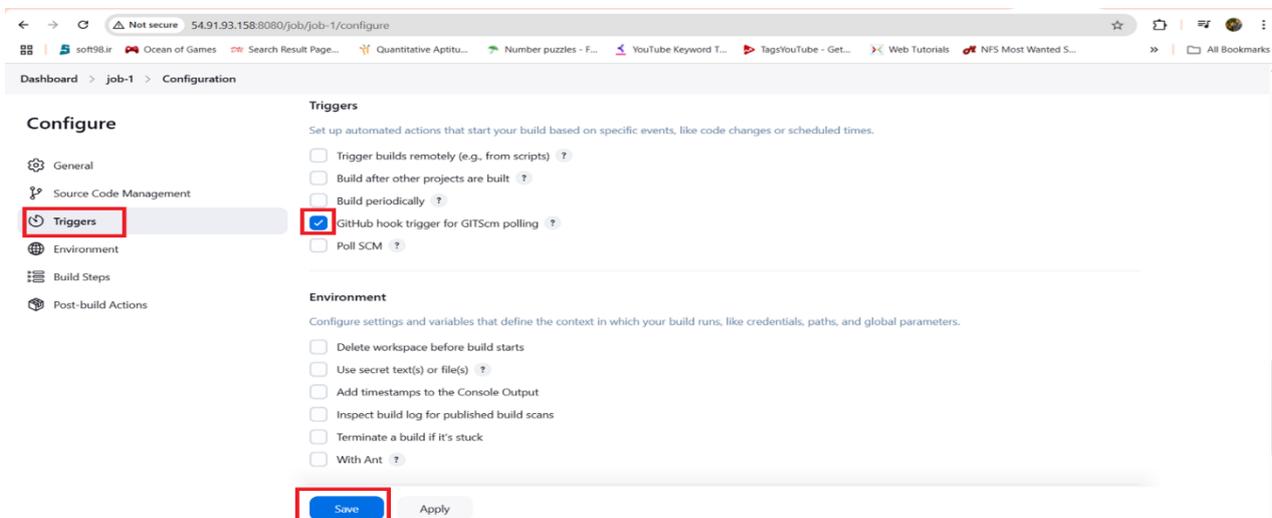
https://github.com/hiteshchauhan89/Devops-Project-02.git



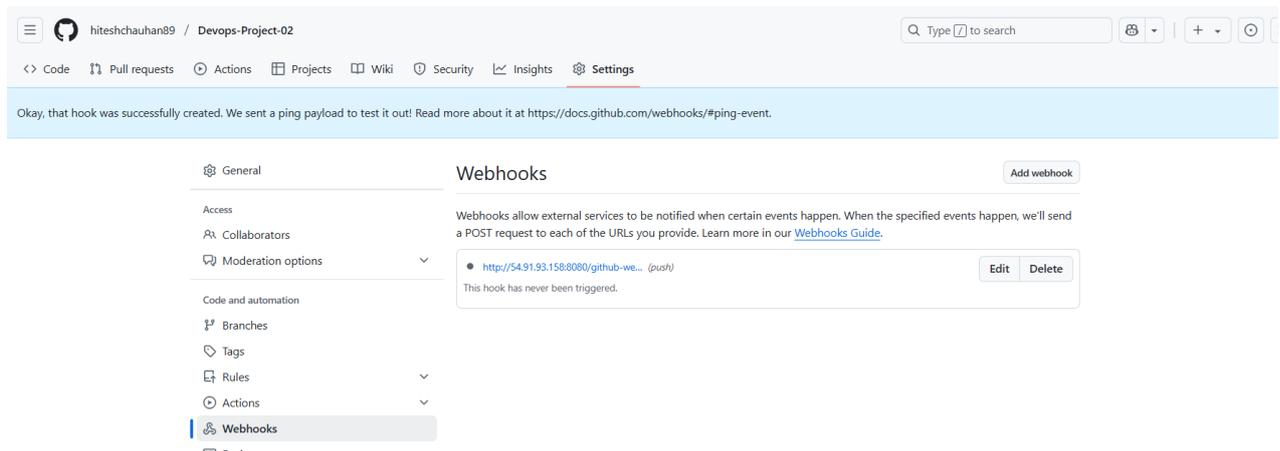
Triggers Branch Specifier */develop



Then Checkbox Github hook trigger for GITScm polling



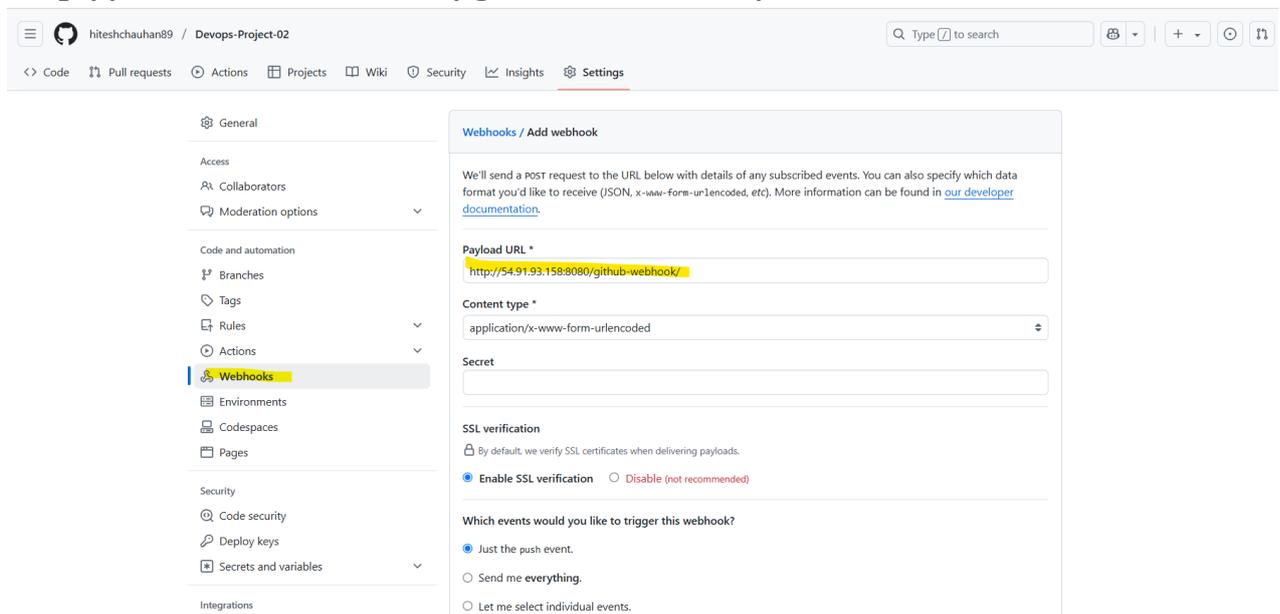
Now Go to Devops-Project-02 > Settings>Click Webhooks



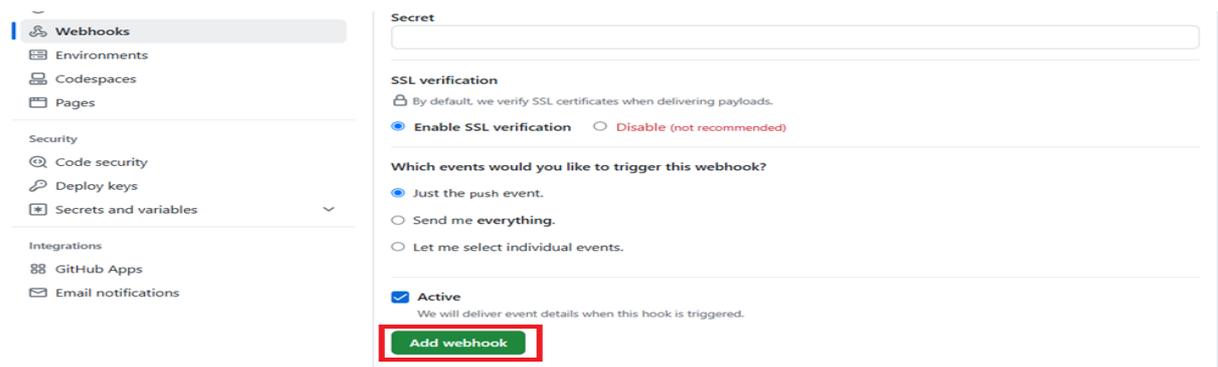
Add Webhook

Payload URL

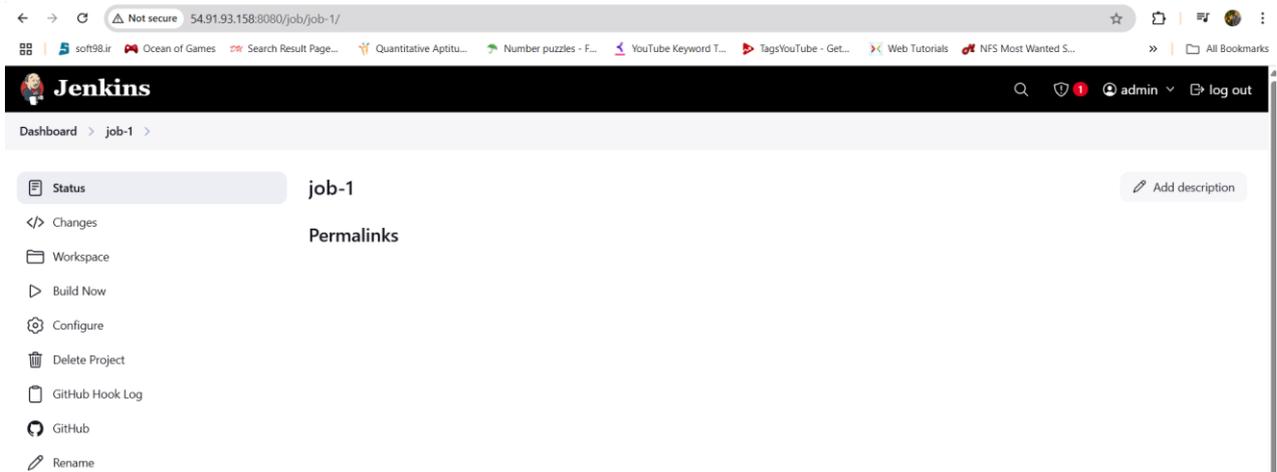
http://54.91.93.158:8080/github-webhook/



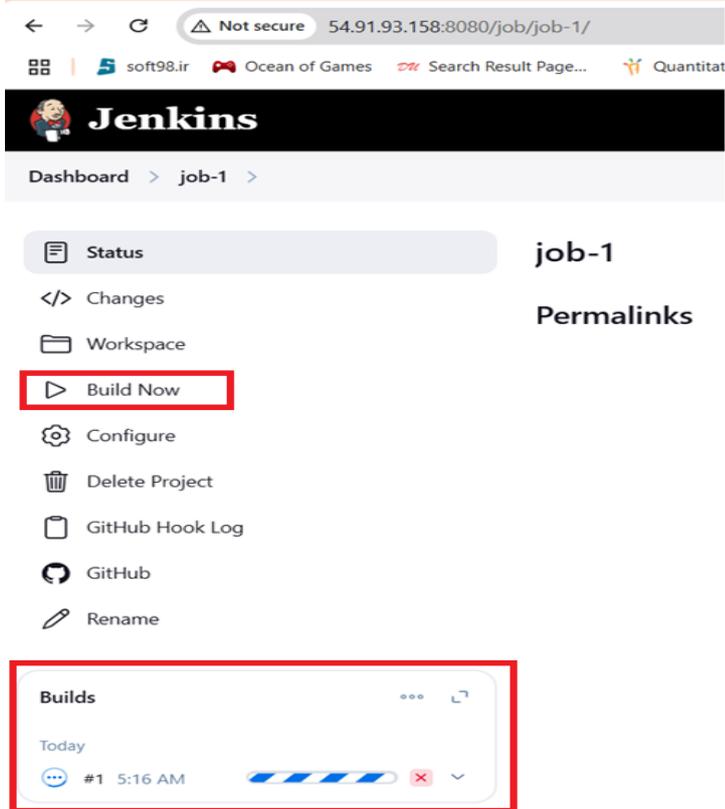
Click Add Webhook



Then Go to Jenkins URL.
Go to dashboard >Click job-1

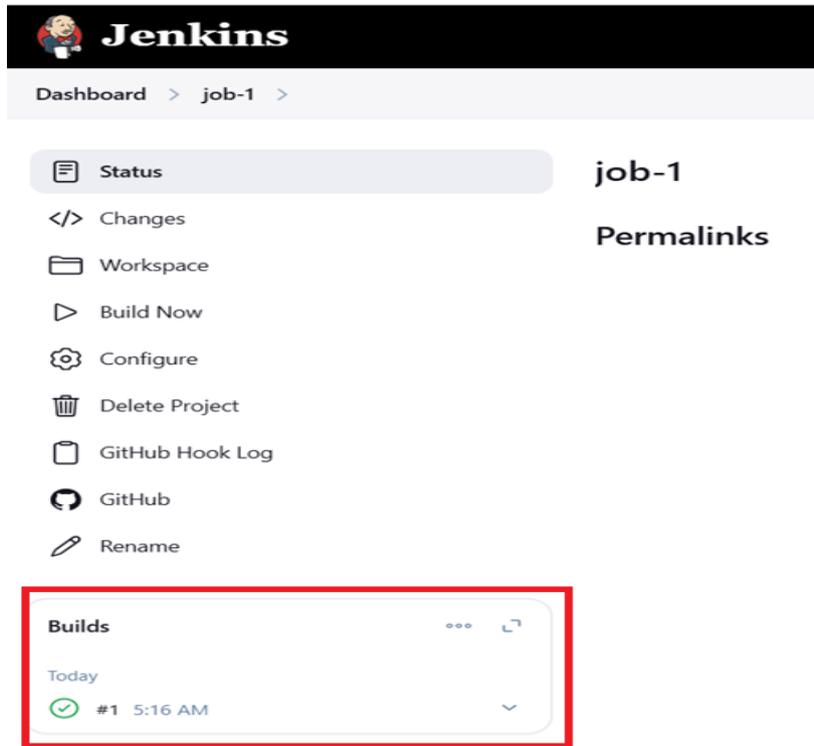


Click Build Now.

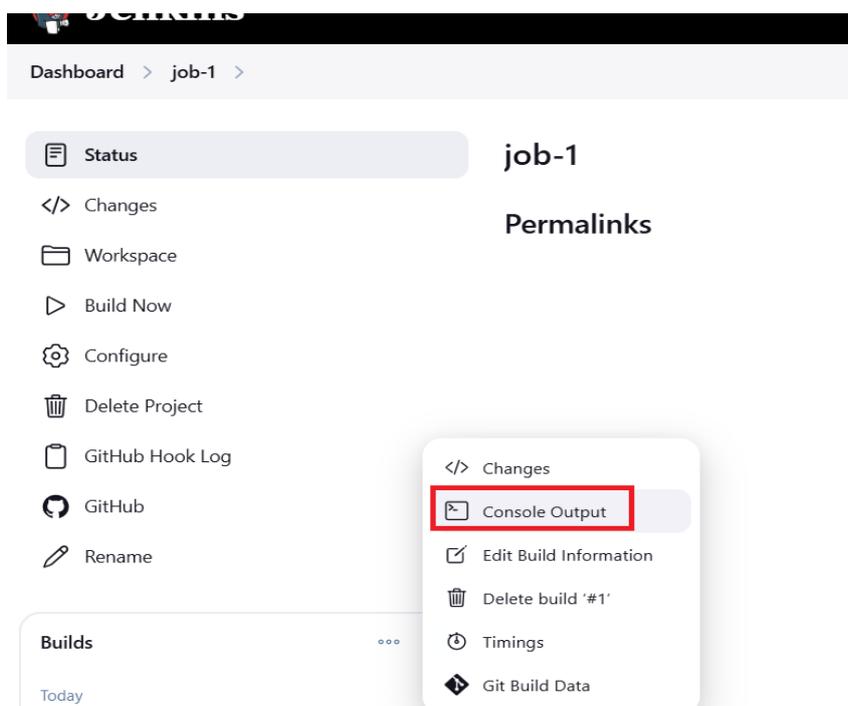


Here Job is building

The Job-1 has been successfully completed.



Now To Check the Console Output.



```
Dashboard > job-1 > #1 > Console Output

Status Console Output Download Copy View as plain text
Changes
Console Output
Edit Build Information
Delete build '#1'
Timings
Git Build Data

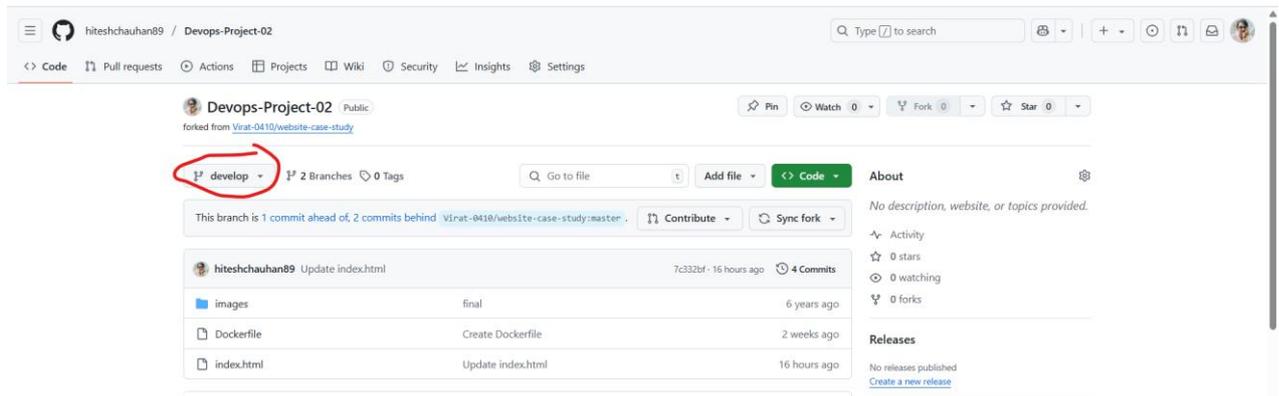
Started by user admin
Running as SYSTEM
Building remotely on slave-1 (slave1) in workspace /home/ubuntu/jenkins/workspace/job-1
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/hiteshchauan89/Devops-Project-02.git
> git init /home/ubuntu/jenkins/workspace/job-1 # timeout=10
Fetching upstream changes from https://github.com/hiteshchauan89/Devops-Project-02.git
> git --version # timeout=10
> git --version # 'git version 2.43.0'
> git fetch --tags --force --progress -- https://github.com/hiteshchauan89/Devops-Project-02.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url https://github.com/hiteshchauan89/Devops-Project-02.git # timeout=10
> git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
> git rev-parse refs/remotes/origin/develop^{commit} # timeout=10
Checking out Revision 7c332bf5bc103ebcd719113df3eb97b6b3002092 (refs/remotes/origin/develop)
> git config core.sparsecheckout # timeout=10
> git checkout -f 7c332bf5bc103ebcd719113df3eb97b6b3002092 # timeout=10
Commit message: "Update index.html"
First time build. Skipping changelog.
Finished: SUCCESS
```

Then Go to Jenkins Server `cd /home/ubuntu/Jenkins/workspace/job-1`

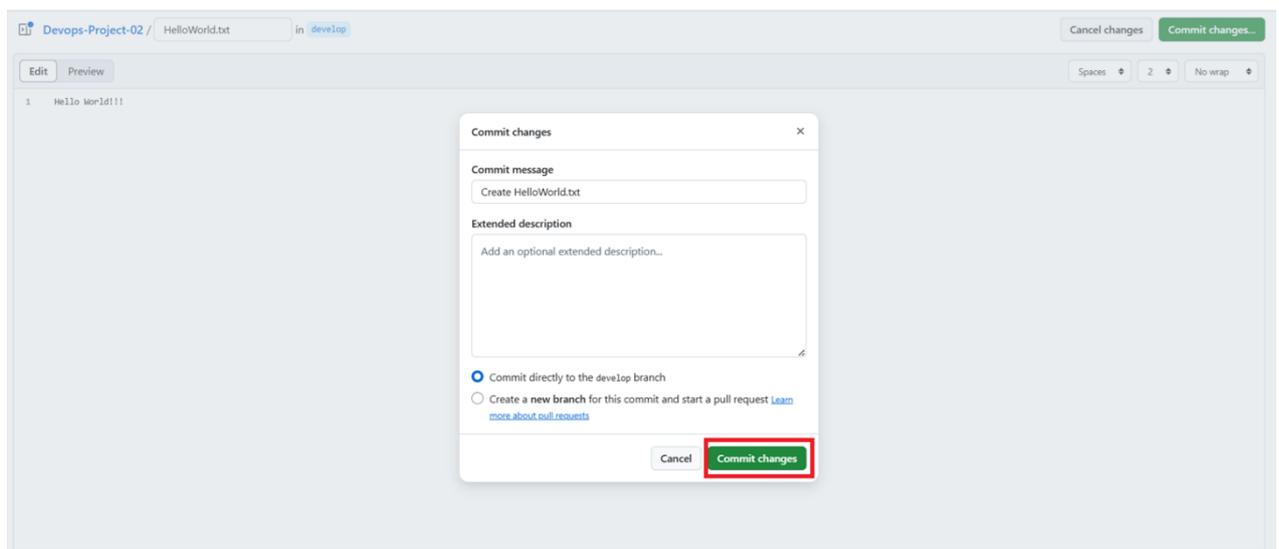
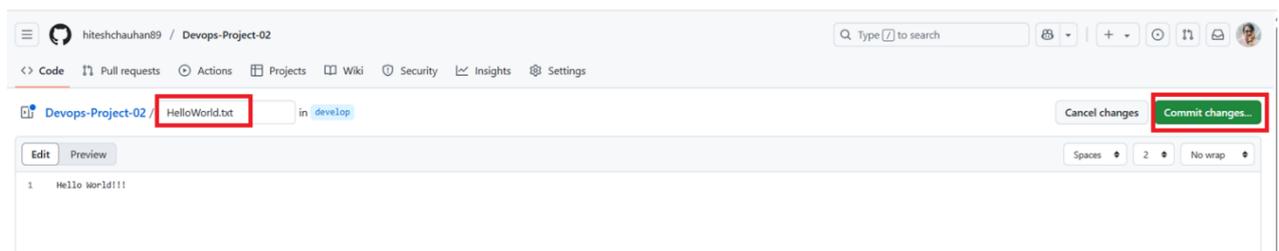
```
No VM guests are running outdated hypervisor (qemu) binaries on this host
ubuntu@ip-172-31-17-222:~$ ls
jenkins
ubuntu@ip-172-31-17-222:~$ cd jenkins/
ubuntu@ip-172-31-17-222:~/jenkins$ ll
total 1380
drwx----- 4 ubuntu ubuntu 4096 Mar 23 05:16 ./
drwxr-x--- 6 ubuntu ubuntu 4096 Mar 23 05:16 ../
drwxrwxr-x 4 ubuntu ubuntu 4096 Mar 23 04:46 remoting/
-rw-rw-r-- 1 ubuntu ubuntu 1395562 Mar 23 04:46 remoting.jar
drwxrwxr-x 3 ubuntu ubuntu 4096 Mar 23 05:16 workspace/
ubuntu@ip-172-31-17-222:~/jenkins$ cd workspace/
ubuntu@ip-172-31-17-222:~/jenkins/workspace$ ll
total 12
drwxrwxr-x 3 ubuntu ubuntu 4096 Mar 23 05:16 ./
drwx----- 4 ubuntu ubuntu 4096 Mar 23 05:16 ../
drwxrwxr-x 4 ubuntu ubuntu 4096 Mar 23 05:16 job-1/
ubuntu@ip-172-31-17-222:~/jenkins/workspace$ cd job-1/
ubuntu@ip-172-31-17-222:~/jenkins/workspace/job-1$ ll
total 24
drwxrwxr-x 4 ubuntu ubuntu 4096 Mar 23 05:16 ./
drwxrwxr-x 3 ubuntu ubuntu 4096 Mar 23 05:16 ../
drwxrwxr-x 8 ubuntu ubuntu 4096 Mar 23 05:16 .git/
-rw-rw-r-- 1 ubuntu ubuntu 118 Mar 23 05:16 Dockerfile
drwxrwxr-x 2 ubuntu ubuntu 4096 Mar 23 05:16 images/
-rw-rw-r-- 1 ubuntu ubuntu 209 Mar 23 05:16 index.html
ubuntu@ip-172-31-17-222:~/jenkins/workspace/job-1$
```

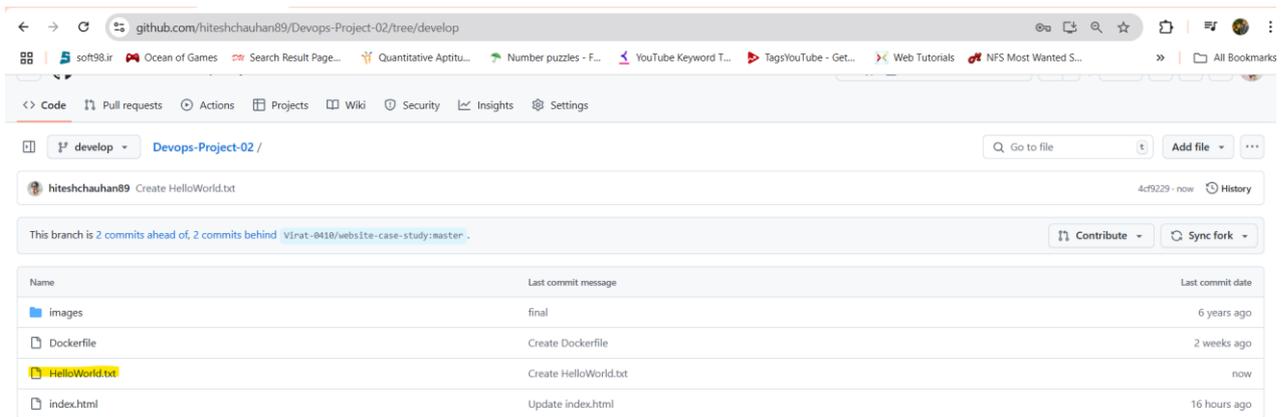
Here you will see the Latest pull jobs in this.

Now Go to Devops-Project-02 Repository.create some random file for example I have created Helloworld.txt file in same repository.

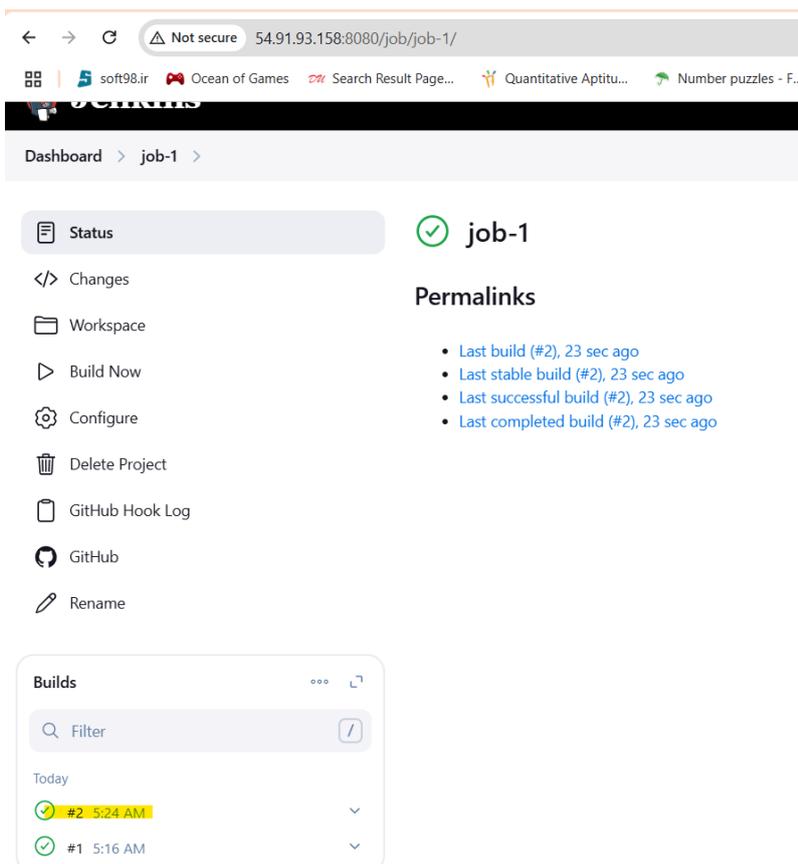


After Created added the some text in this file and committed this file





Now Go to job-1.you will see the latest build in job-1



Status ✔ job-1

</> Changes

Workspace

▶ Build Now

⚙️ Configure

🗑️ Delete Project

📄 GitHub Hook Log

🗣️ GitHub

✎ Rename

Builds

🔍 Filter

Today

✔ #2 5:24 AM

</> Changes

📄 Console Output

📄 Edit Build Information

🗑️ Delete build '#2'

📄 Polling Log

🕒 Timings

📄 Git Build Data

Now Go to Console Output.

Jenkins 🔍 🔒 admin 🚪 log out

Dashboard > job-1 > #2 > Console Output

Status ✔ Console Output 📄 Download 📄 Copy 📄 View as plain text

</> Changes

📄 Console Output

📄 Edit Build Information

🗑️ Delete build '#2'

📄 Polling Log

🕒 Timings

📄 Git Build Data

← Previous Build

```

Started by GitHub push by hiteshchauan89
Running as SYSTEM
Building remotely on slave-1 (slave1) in workspace /home/ubuntu/jenkins/workspace/job-1
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /home/ubuntu/jenkins/workspace/job-1/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/hiteshchauan89/Devops-Project-02.git # timeout=10
Fetching upstream changes from https://github.com/hiteshchauan89/Devops-Project-02.git
> git --version # timeout=10
> git --version # 'git version 2.43.0'
> git fetch --tags --force --progress -- https://github.com/hiteshchauan89/Devops-Project-02.git +refs/heads/*:refs/remotes/origin/* #
timeout=10
> git rev-parse refs/remotes/origin/develop^{commit} # timeout=10
Checking out Revision 4cf9229f3e8f9a116150962ee00867c32c759770 (refs/remotes/origin/develop)
> git config core.sparsecheckout # timeout=10
> git checkout -f 4cf9229f3e8f9a116150962ee00867c32c759770 # timeout=10
Commit message: "create HelloWorld.txt"
> git rev-list --no-walk 7c332bf5bc103ebcd719113df3eb97b6b3002092 # timeout=10
Finished: SUCCESS

```

Then go to server `cd /home/ubuntu/Jenkins/workspace/job-1`.you will latest file.

```

ubuntu@ip-172-31-17-222:~/jenkins/workspace$ ll
total 12
drwxrwxr-x 3 ubuntu ubuntu 4096 Mar 23 05:16 ./
drwx----- 4 ubuntu ubuntu 4096 Mar 23 05:16 ../
drwxrwxr-x 4 ubuntu ubuntu 4096 Mar 23 05:24 job-1/
ubuntu@ip-172-31-17-222:~/jenkins/workspace$ cd job-1/
ubuntu@ip-172-31-17-222:~/jenkins/workspace/job-1$ ll
total 28
drwxrwxr-x 4 ubuntu ubuntu 4096 Mar 23 05:24 ./
drwxrwxr-x 3 ubuntu ubuntu 4096 Mar 23 05:16 ../
drwxrwxr-x 8 ubuntu ubuntu 4096 Mar 23 05:24 .git/
-rw-rw-r-- 1 ubuntu ubuntu 118 Mar 23 05:16 Dockerfile
-rw-rw-r-- 1 ubuntu ubuntu 15 Mar 23 05:24 HelloWorld.txt
drwxrwxr-x 2 ubuntu ubuntu 4096 Mar 23 05:16 images/
-rw-rw-r-- 1 ubuntu ubuntu 209 Mar 23 05:16 index.html
ubuntu@ip-172-31-17-222:~/jenkins/workspace/job-1$ █

```