Step 1: Update Your System

Update the package index to ensure all packages are up-to-date.

```
sudo apt update
```

Step 2: Install Java

Jenkins requires Java (JDK). Install OpenJDK 21 (recommended version for recent Jenkins):

```
sudo apt install fontconfig openjdk-21-jre
```

Verify Java installation:

```
java -version
```

Step 3: Add Jenkins Repository Key & Install Jenkins

Add the Jenkins repository key to your system:

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

Step 4: Start and Enable Jenkins Service

Start Jenkins service and enable it to start at boot:

```
sudo systemctl enable jenkins
sudo systemctl start jenkins
```

Check Jenkins status:

```
sudo systemctl status jenkins
```

You should see `active (running)`.

Step 5: Adjust Firewall (if needed)

Allow Jenkins port 8080 through the firewall:

```
sudo ufw allow 8080
sudo ufw status
```

Step 6: Access Jenkins

Open your browser and go to:

```
http://<your_server_ip>:8080
# Or for local machine
http://localhost:8080
```