1. **Cài đặt Jenkins**

* **SSH vào máy Ubuntu**

*# apt update*

*# apt install openjdk-11-jdk -y*

*# apt install maven -y*

*# curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee /usr/share/keyrings/jenkins-keyring.asc > /dev/null*

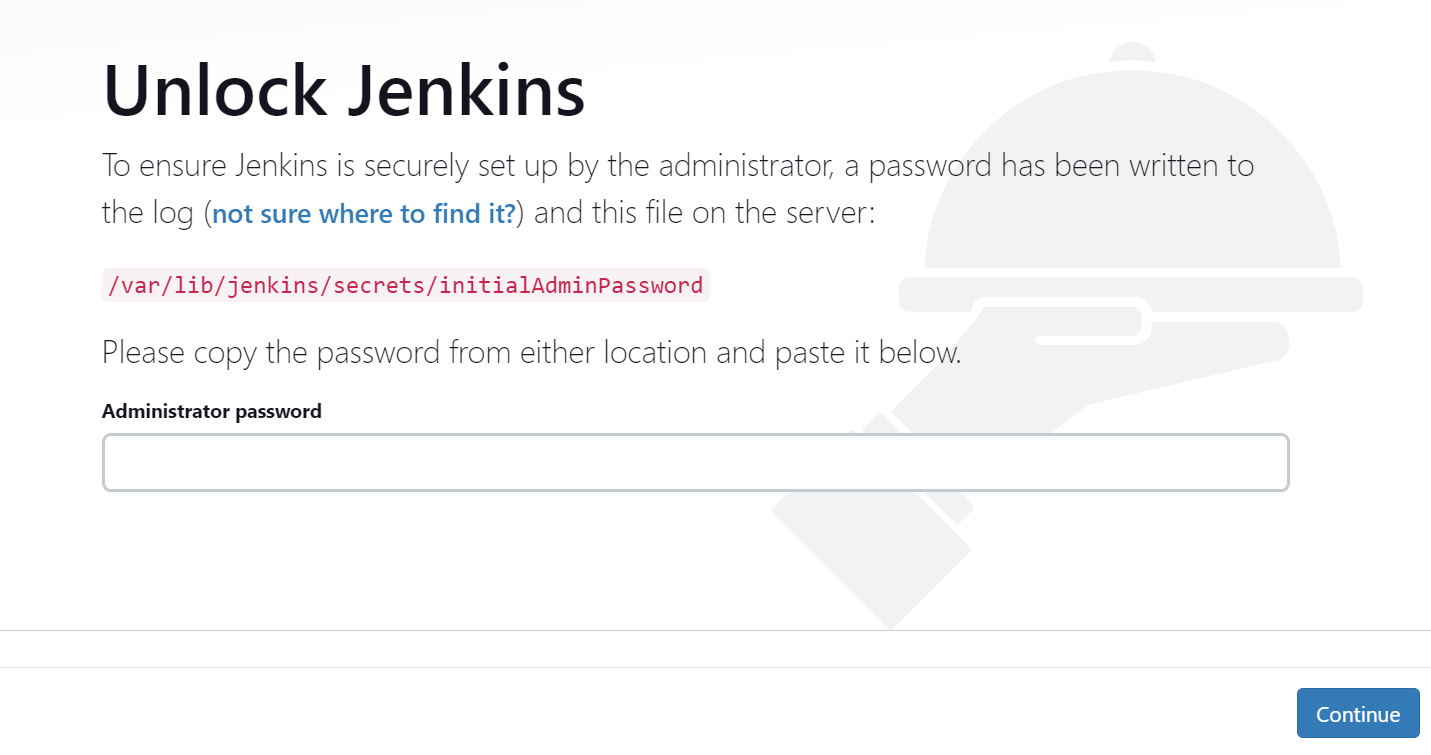
*# echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] https://pkg.jenkins.io/debian-stable binary/ | sudo tee /etc/apt/sources.list.d/jenkins.list > /dev/null*

*# apt-get update*

*# apt-get install jenkins -y*

* **Truy cập Jenkins qua trình duyệt (Browser)**

<http://Jenkins_IP:8080>



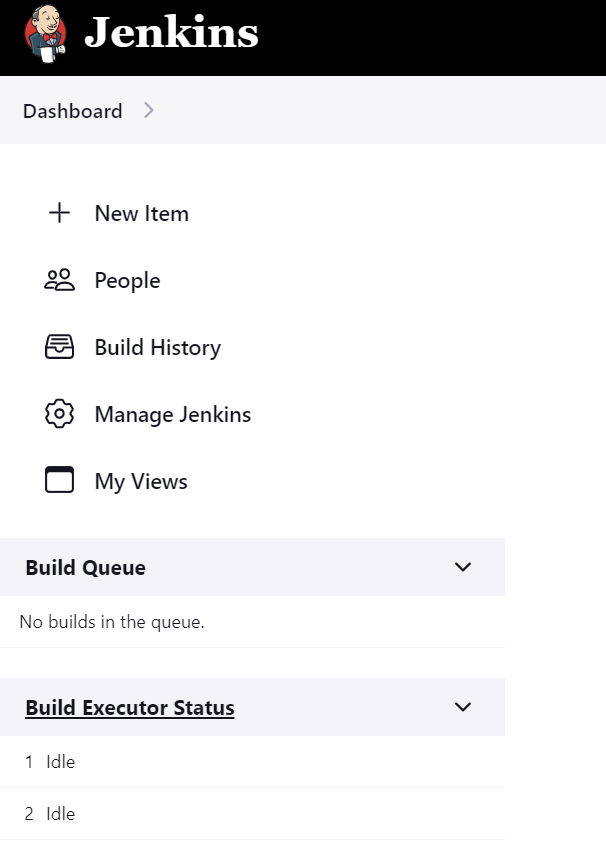
* **Mở file /var/lib/jenkins/secrets/initialAdminPassword**

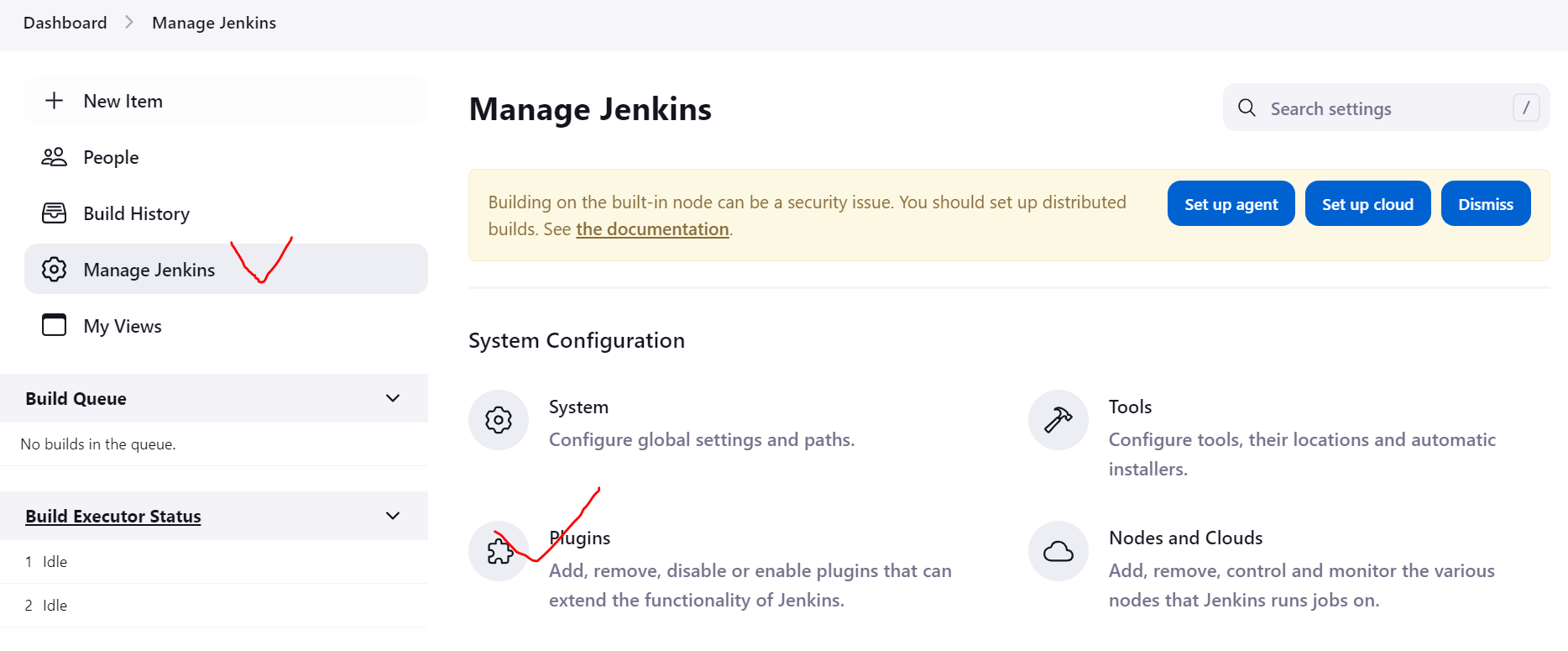
*# cat /var/lib/jenkins/secrets/initialAdminPassword*

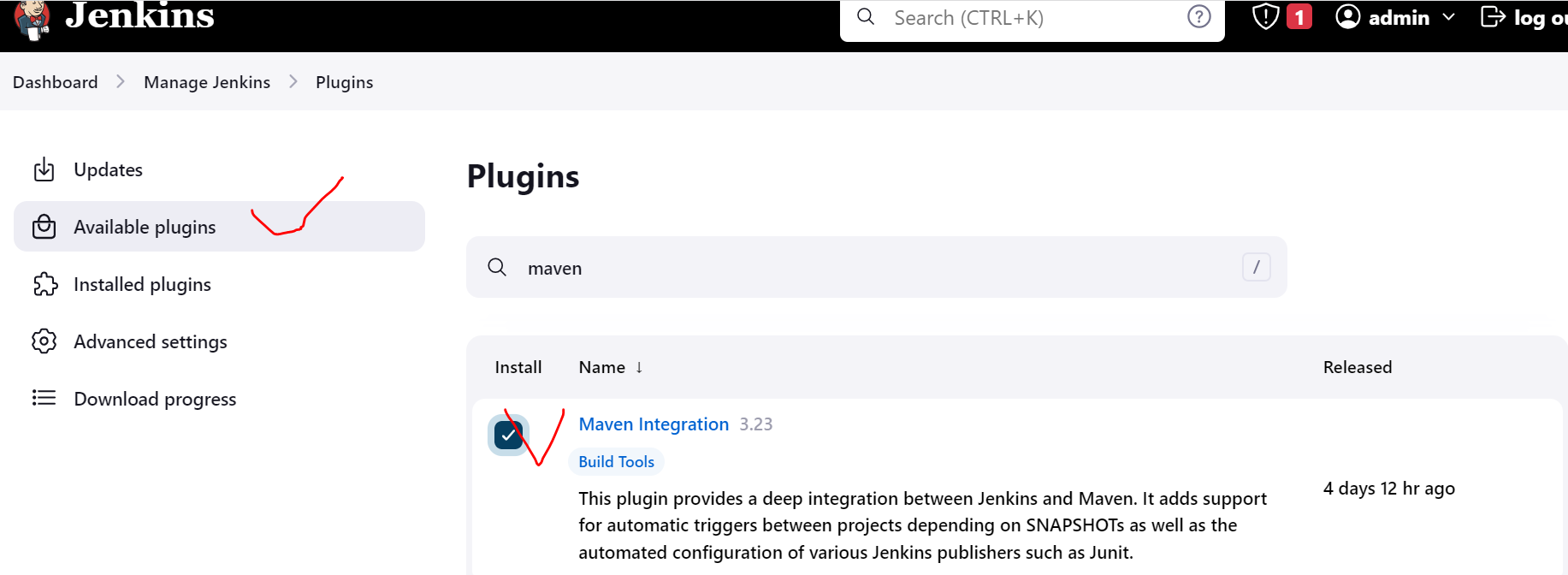
* **Paste chuỗi mật khẩu vào phần Administrator password trên trình duyệt**

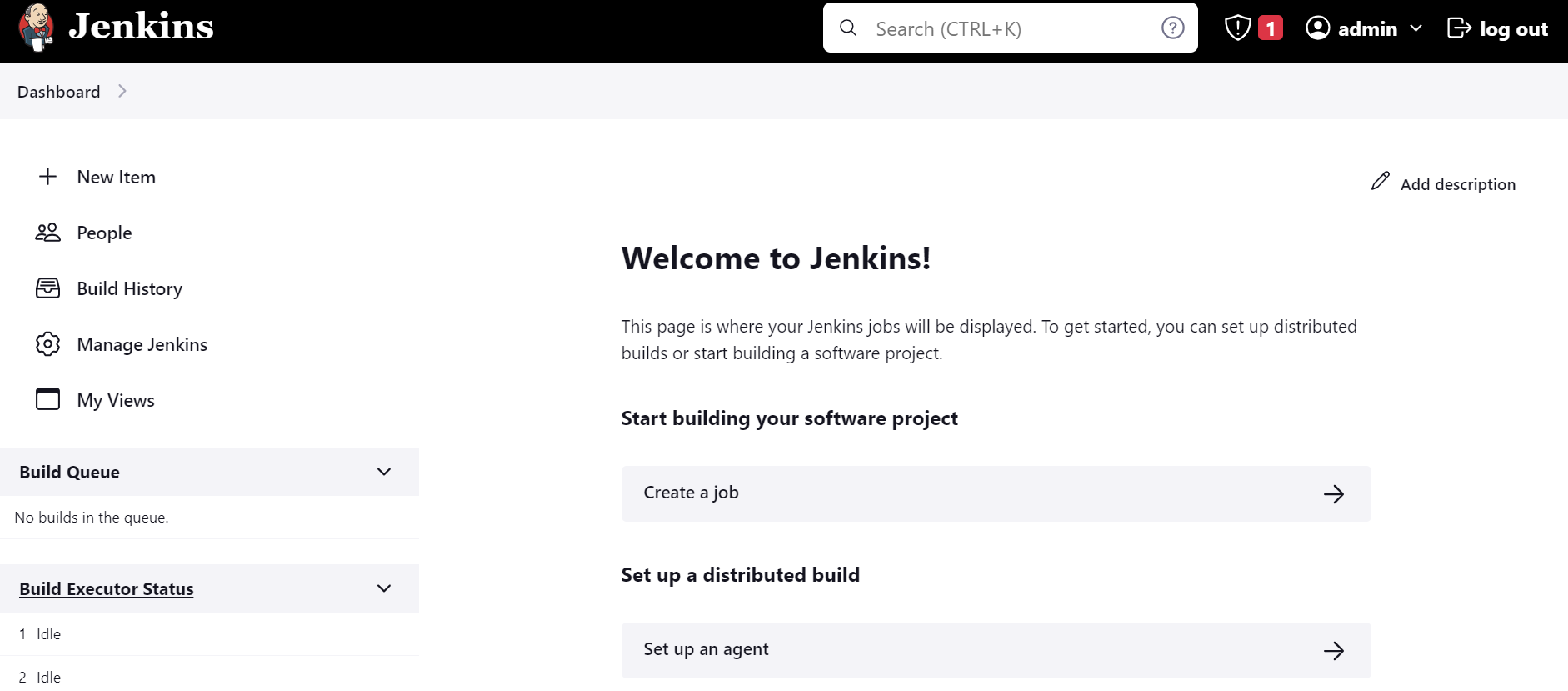








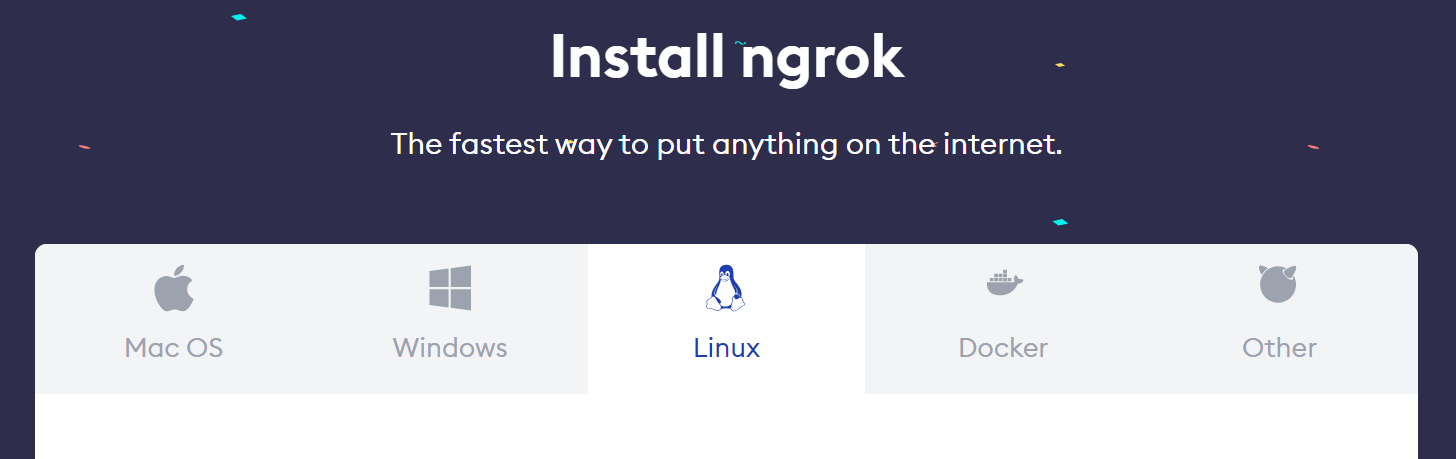




**Integrate Jenkins with GitHub**

1. **Install NGRok on Jenkins server**

Go to link: <https://ngrok.com/download>

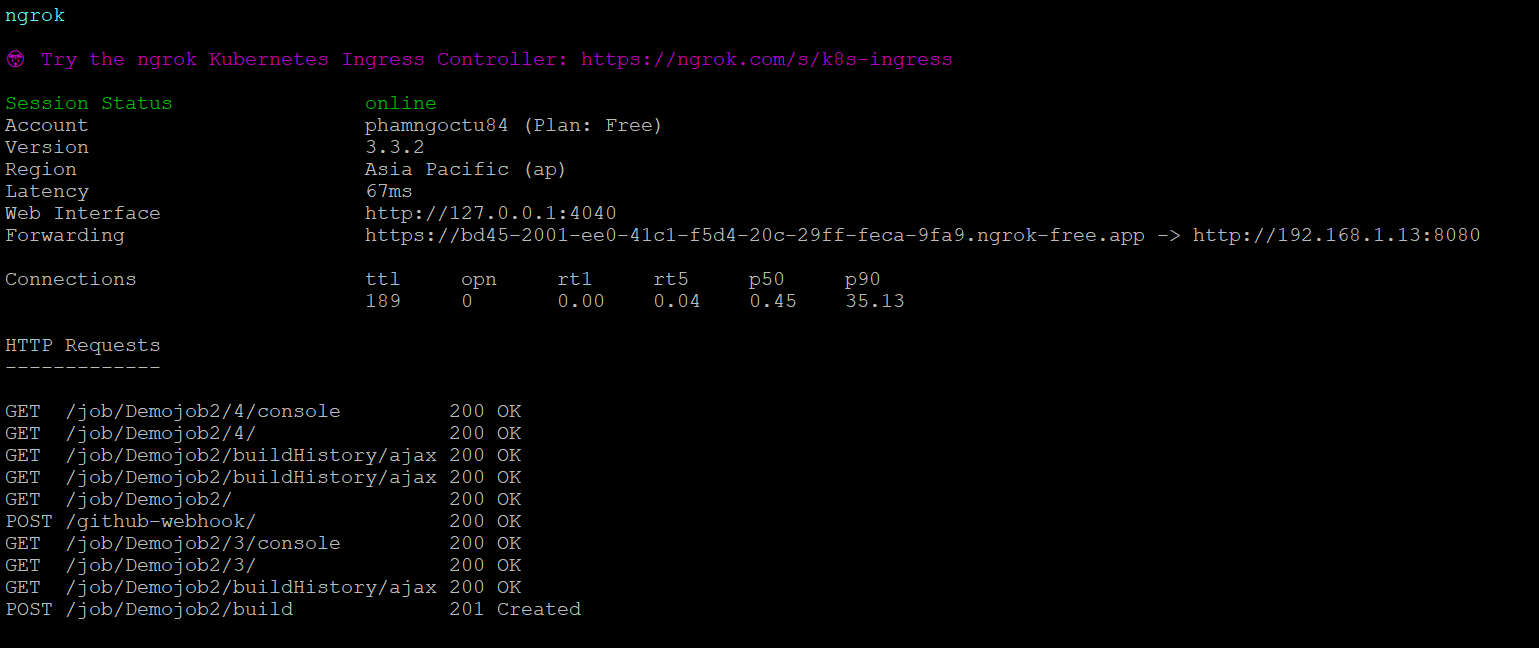


Copy command for Linux:

|  |
| --- |
| *# curl -s https://ngrok-agent.s3.amazonaws.com/ngrok.asc | sudo tee /etc/apt/trusted.gpg.d/ngrok.asc >/dev/null && echo "deb https://ngrok-agent.s3.amazonaws.com buster main" | sudo tee /etc/apt/sources.list.d/ngrok.list && sudo apt update && sudo apt install ngrok* |

Run this command on Jenkins server

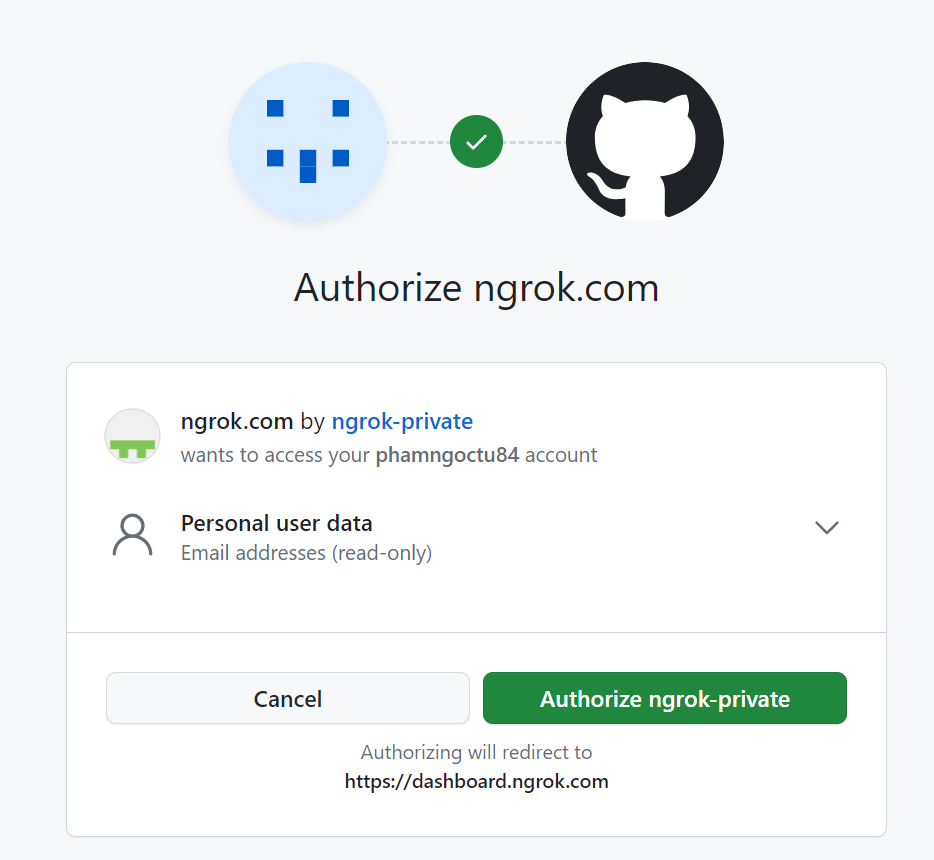
ngrok http Jenkins\_IP:8080

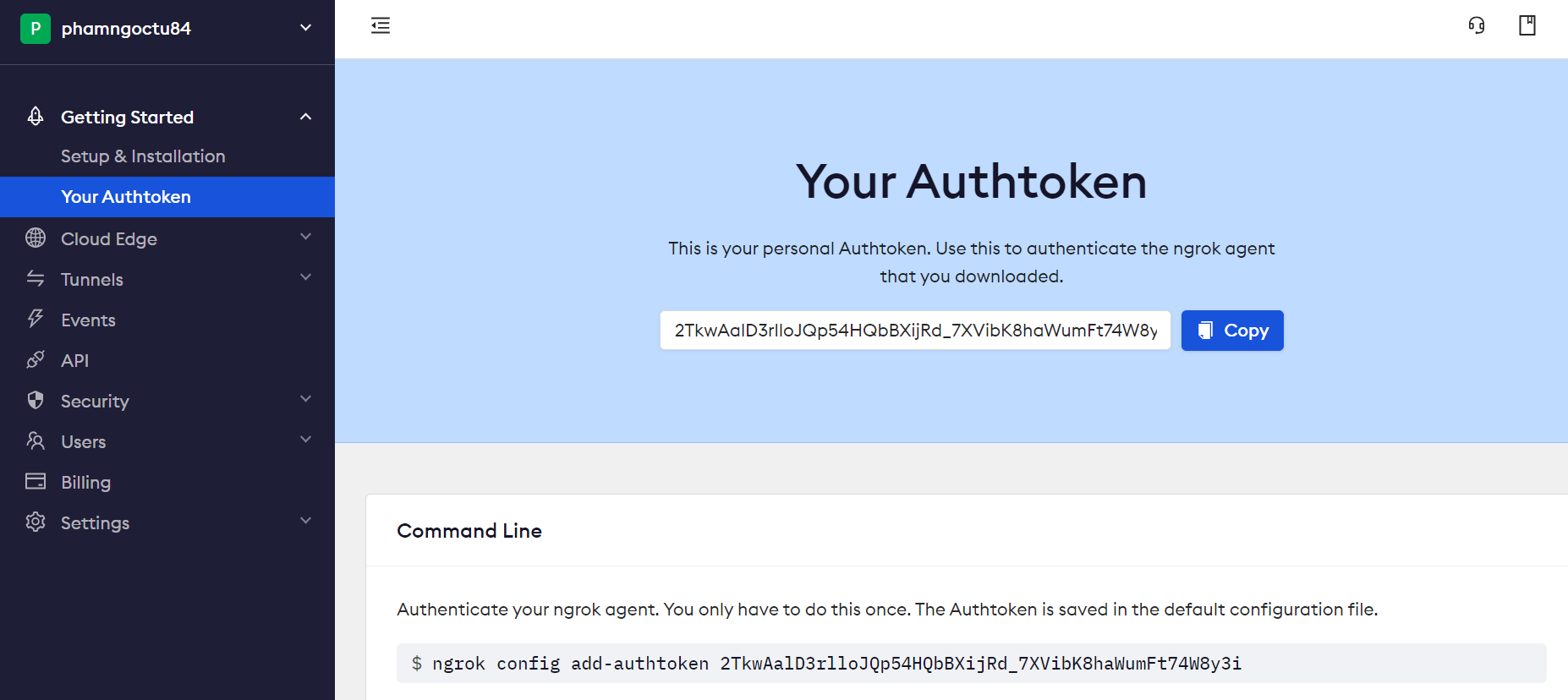


Copy the link on the Forwarding line and then paste to Browser:

<https://bd45-2001-ee0-41c1-f5d4-20c-29ff-feca-9fa9.ngrok-free.app>

Create free account and authozire on ngrok.com





Copy and paste the command authen and run it on Jenkins server

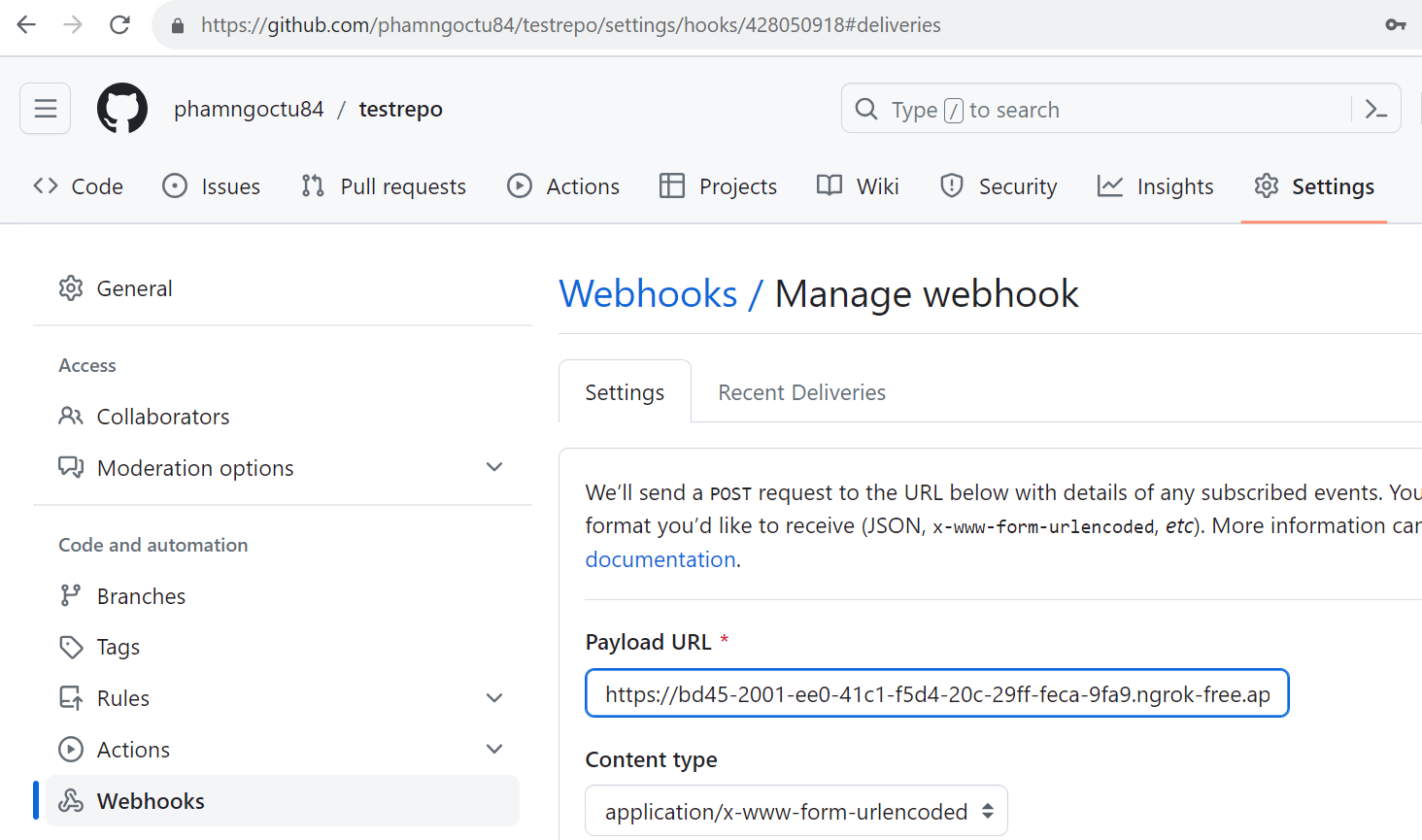
*# ngrok config add-authtoken 2TkwAalD3rlloJQp54HQbBXijRd\_7XVibK8haWumFt74W8y3i*

1. **Configure the Webhook on GitHub repository**

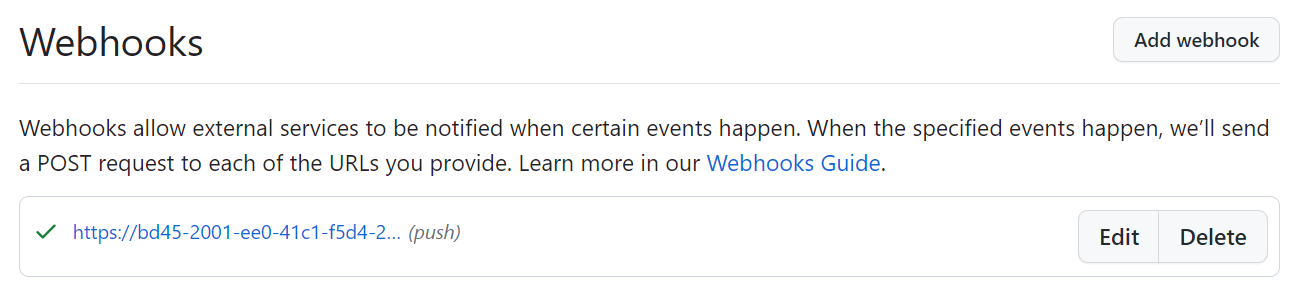
Pate the Jenkins’s webhook URL:

<https://bd45-2001-ee0-41c1-f5d4-20c-29ff-feca-9fa9.ngrok-free.app/github-webhook/>

to **PayloadURL** area

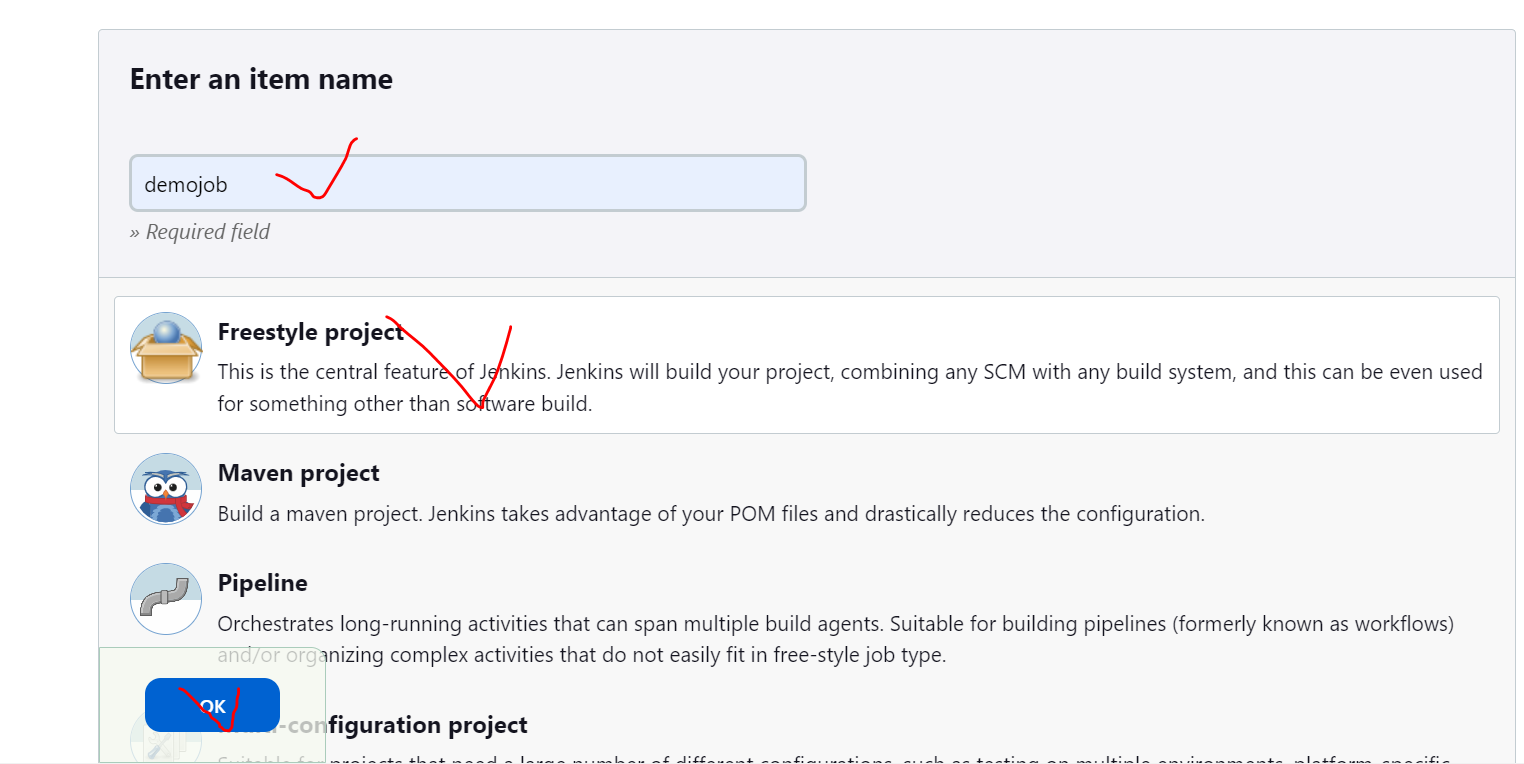


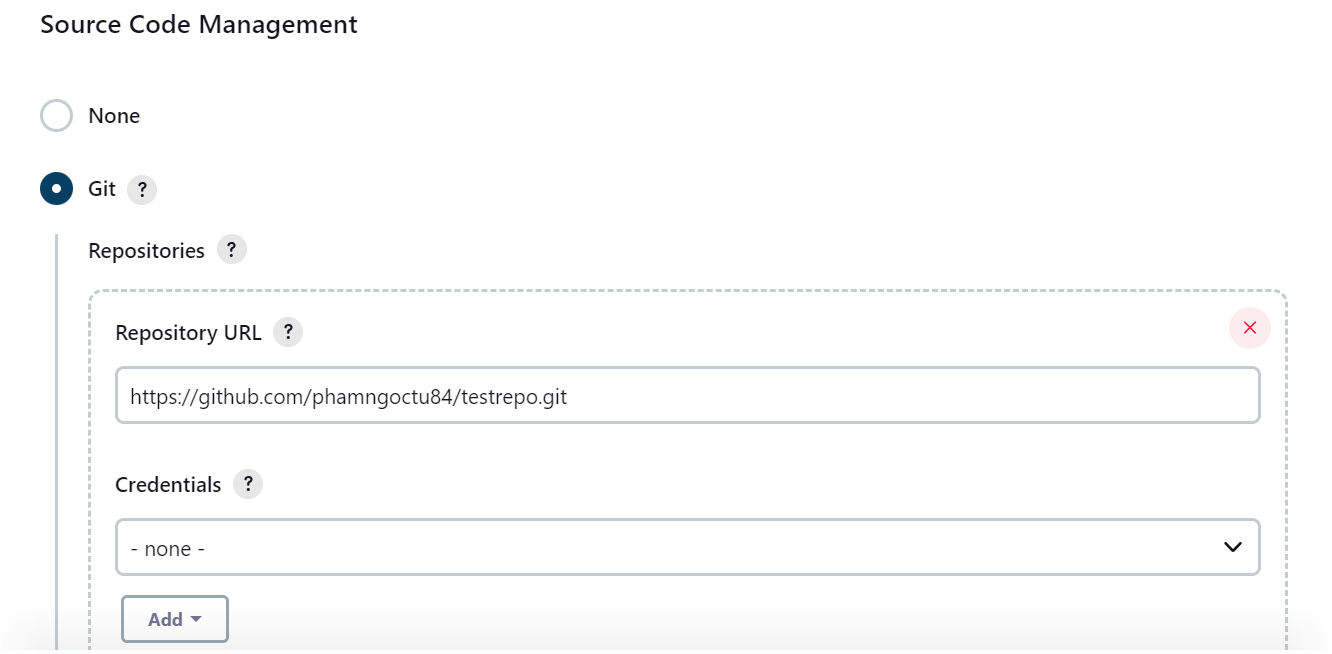
**The result**

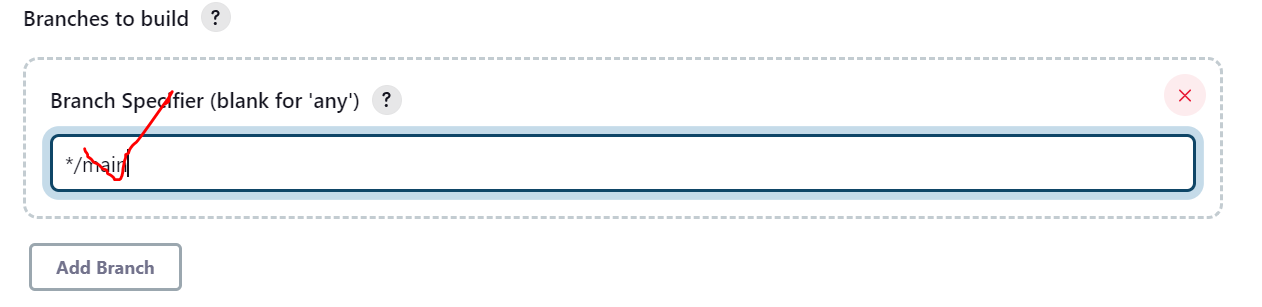


1. **Enable Webhook on Jenkins**

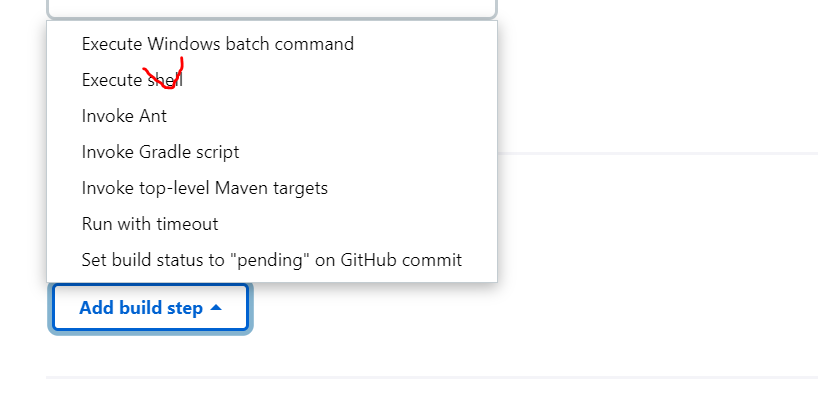
Create new Jenkins Job

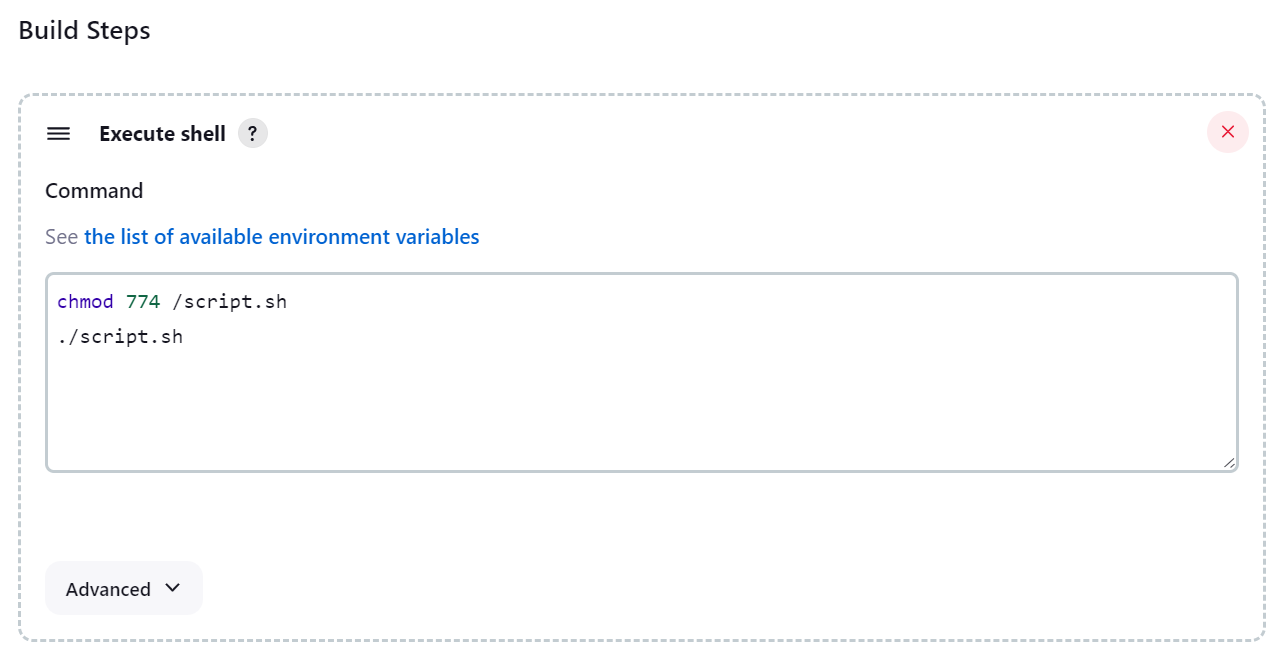












Select **Save** button

1. **Commit change to GitHub repository**

Mở **Git Bash**

*# cd testrepo/*

*# git status*

*# git switch main*

*# vi script.sh*

*# git add .*

*# git commit -m "updated"*

*# git push*

1. Kiểm tra Jenkins Job tự động thực hiện

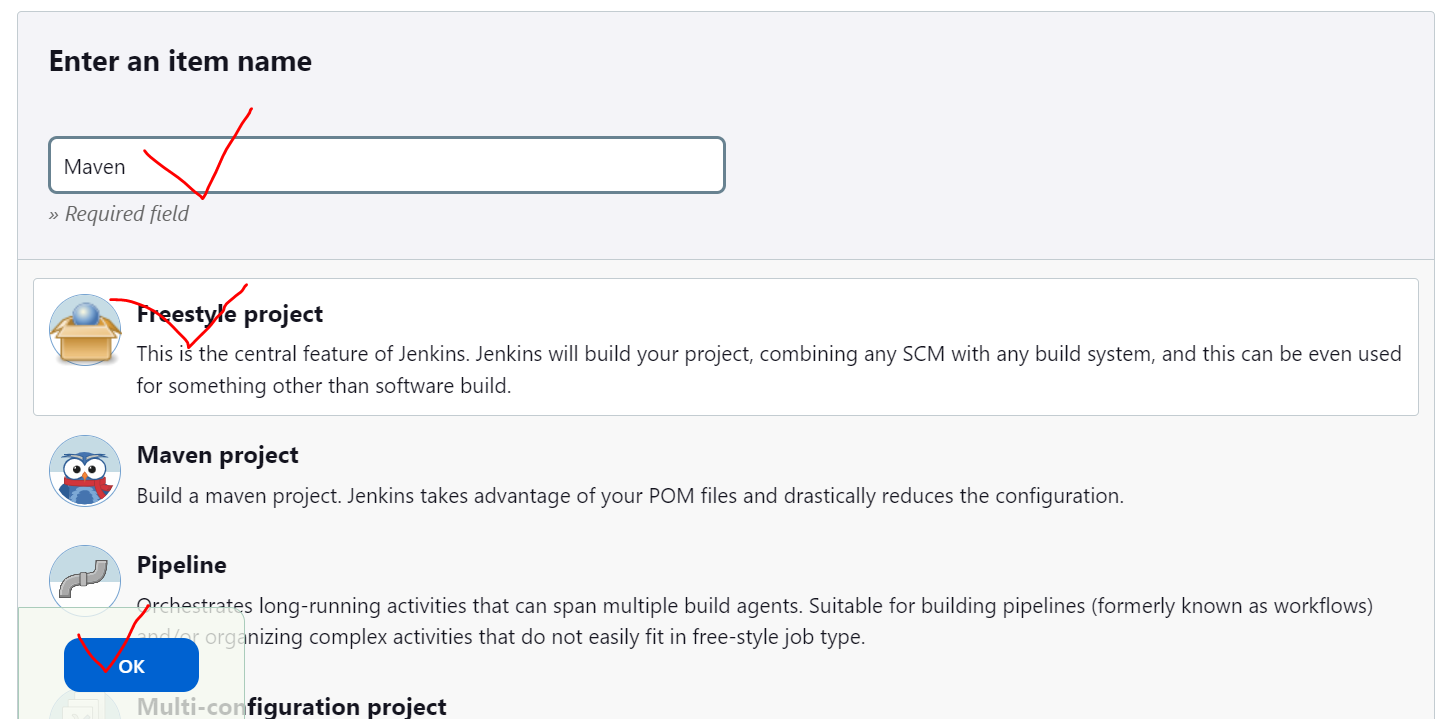
Trên trình duyệt

1. Jenkins Job with Maven

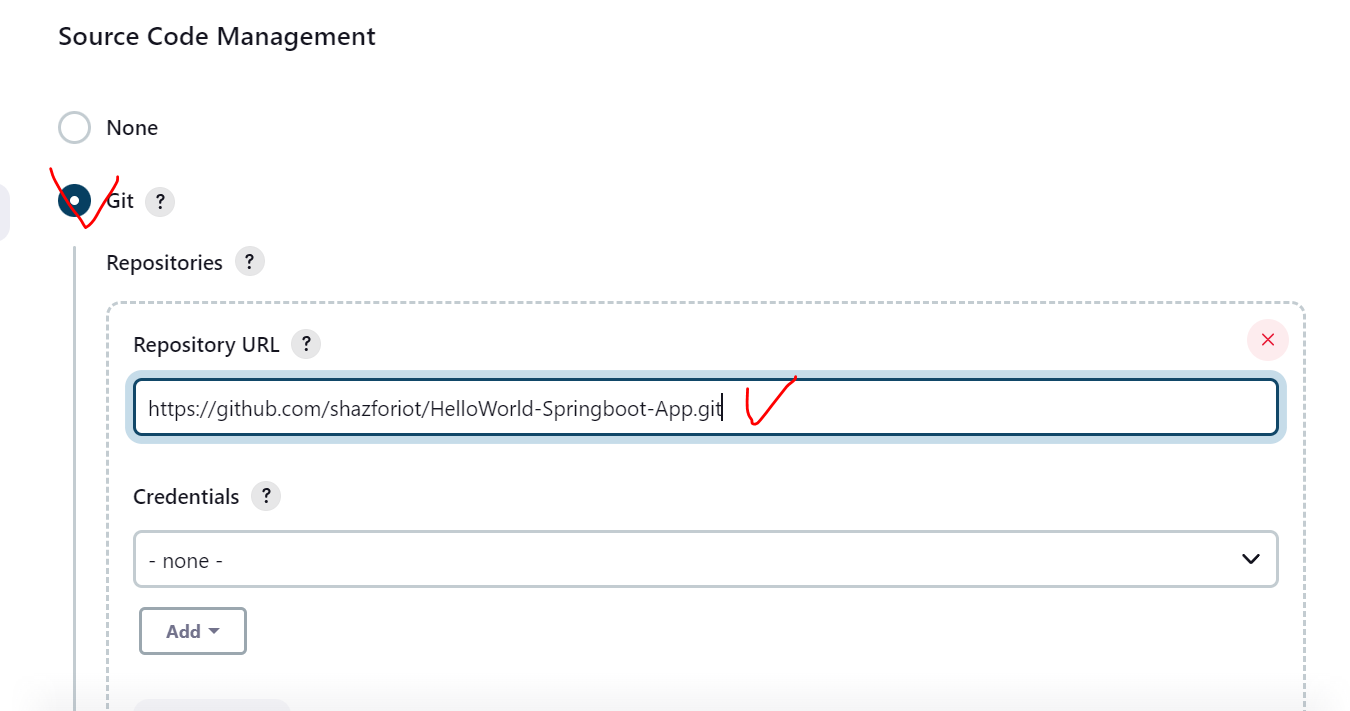
# vi /etc/profile

Paste cấu hình biến PATH vào cuối file

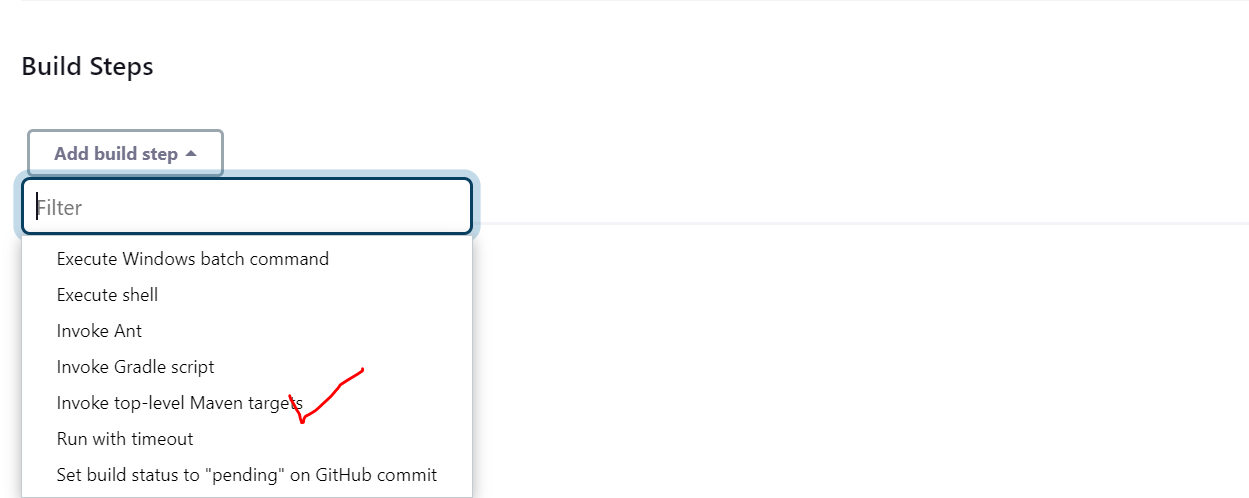
|  |
| --- |
| *export JAVA\_HOME=/usr/lib/jvm/java-1.11.0-openjdk-amd64/*  *export PATH=$JAVA\_HOME/bin:$PATH*  *export MAVEN\_HOME=/user/share/maven* |

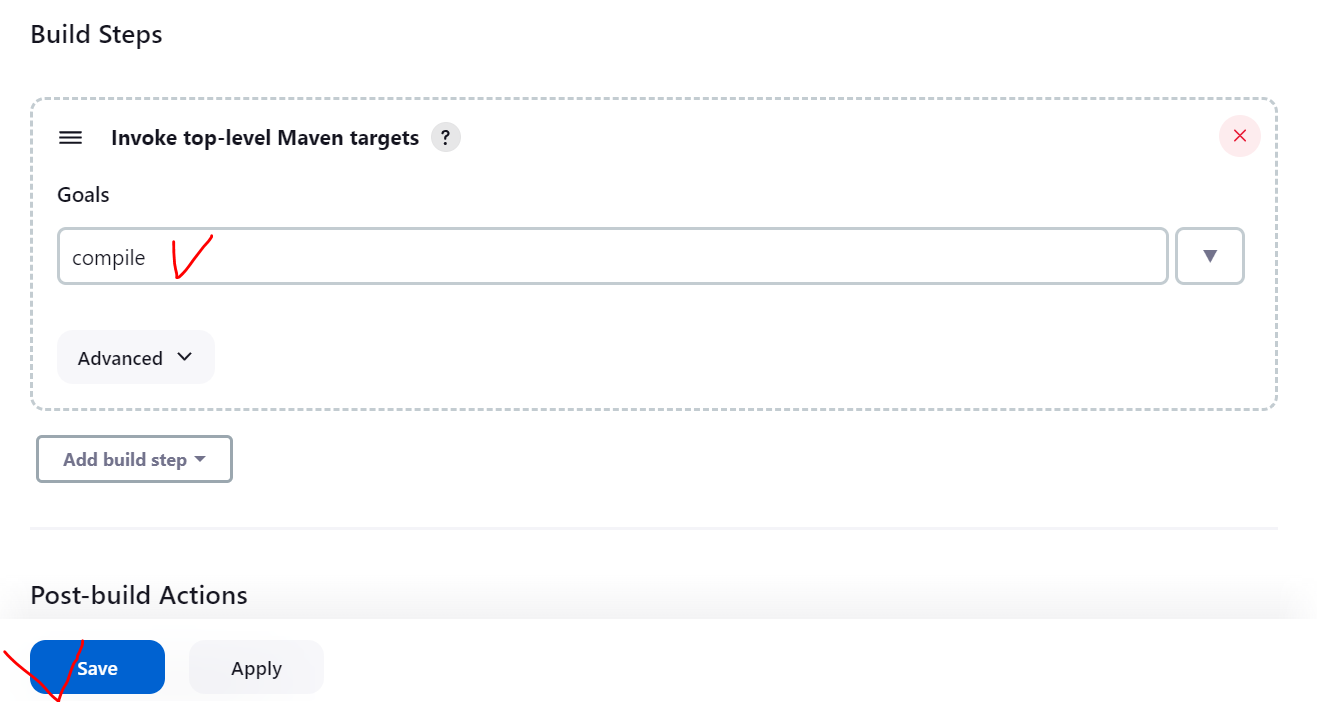


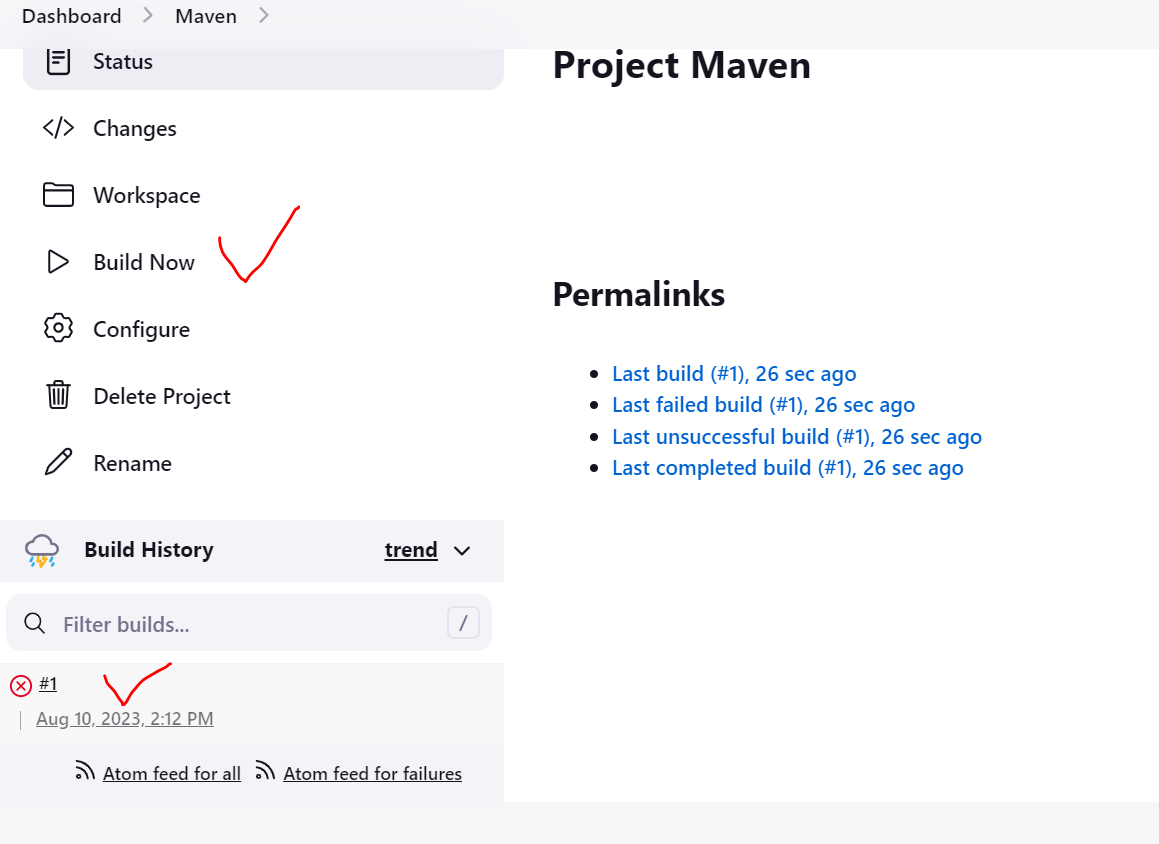
Copy repo URL: https://github.com/shazforiot/HelloWorld-Springboot-App.git



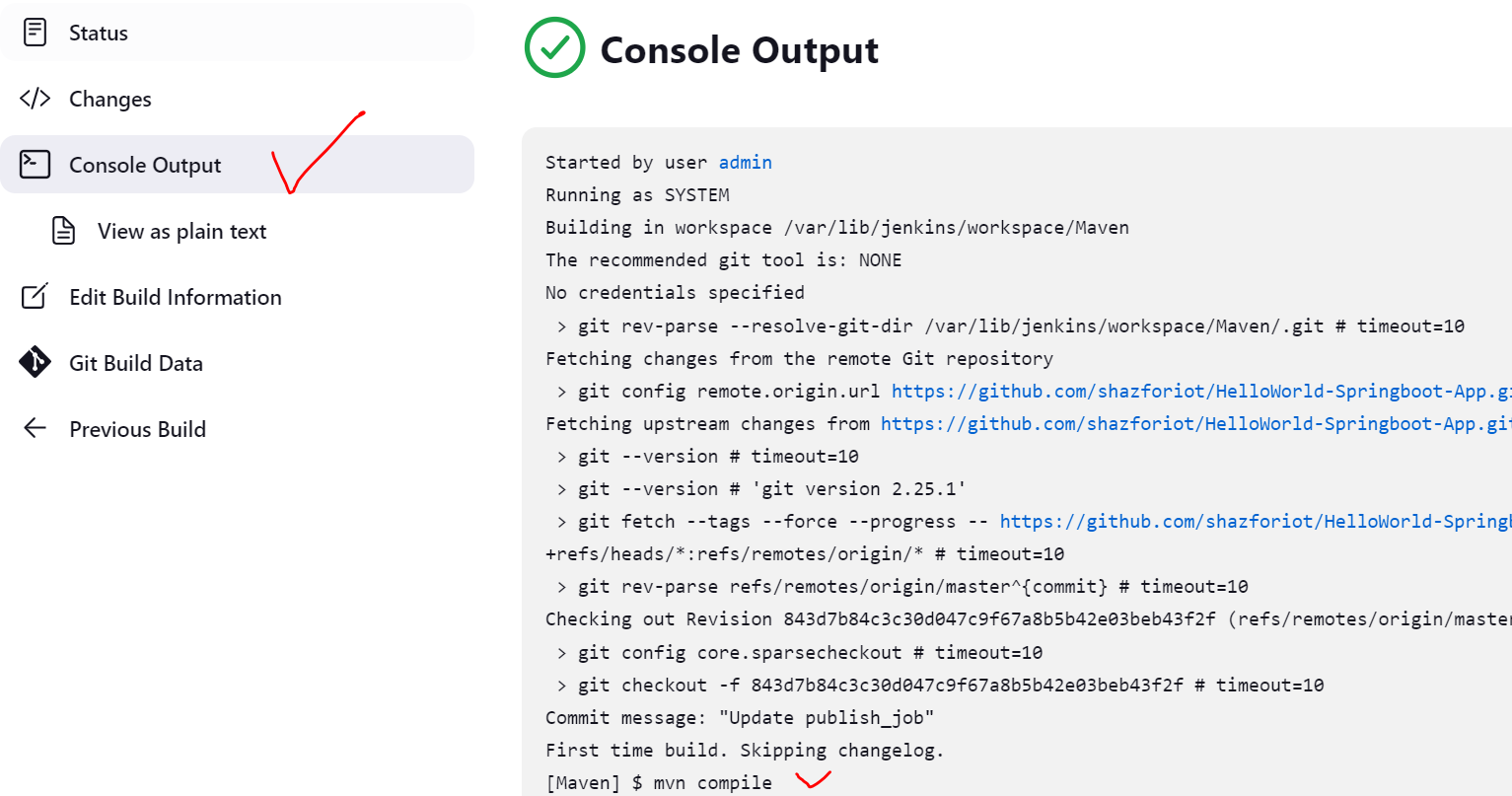


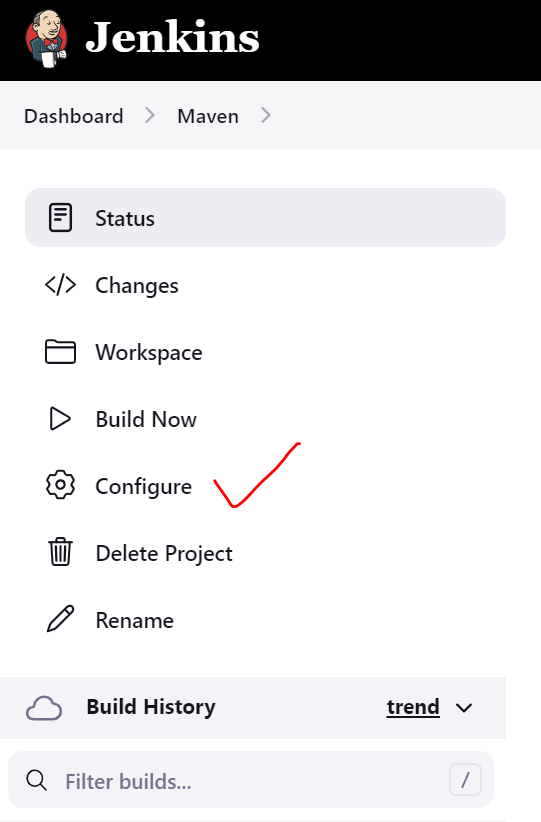






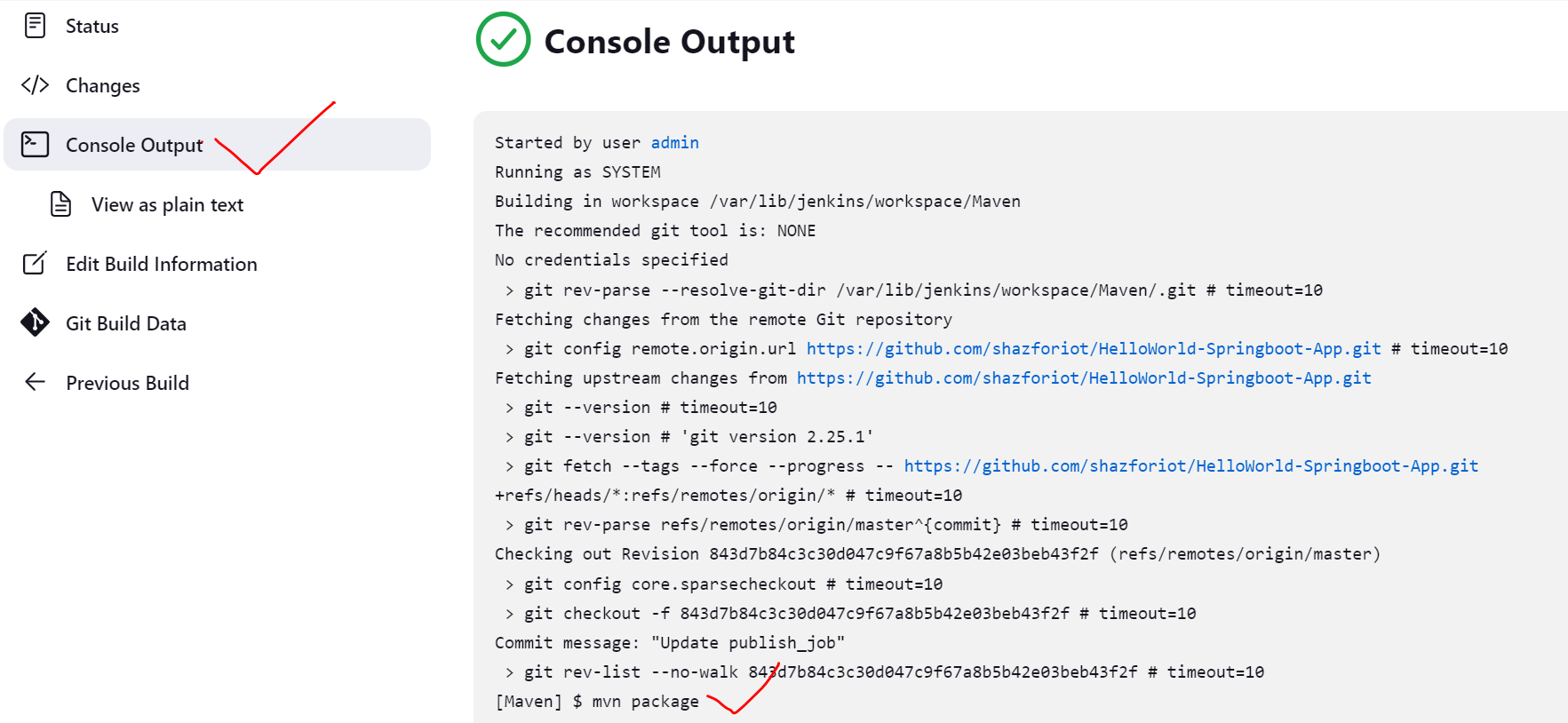






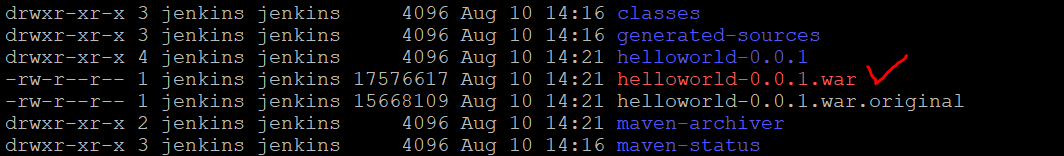




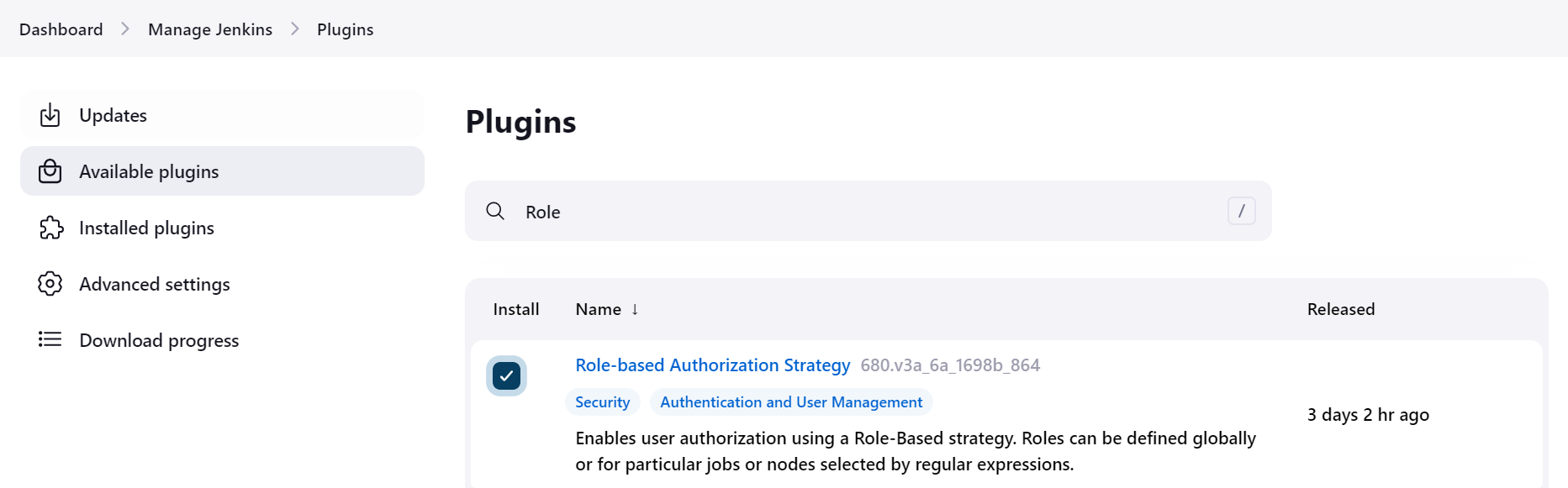


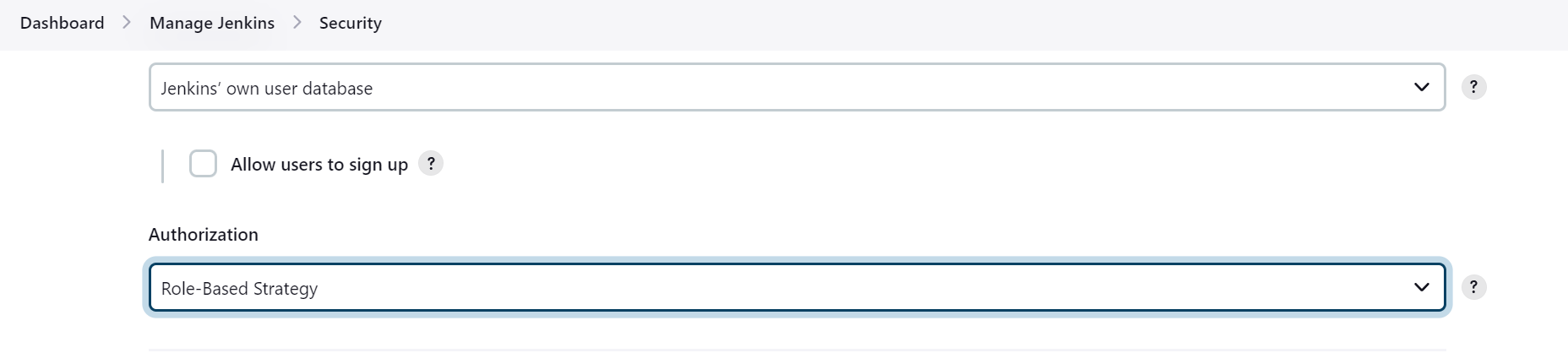
Kiểm tra gói được đóng gói

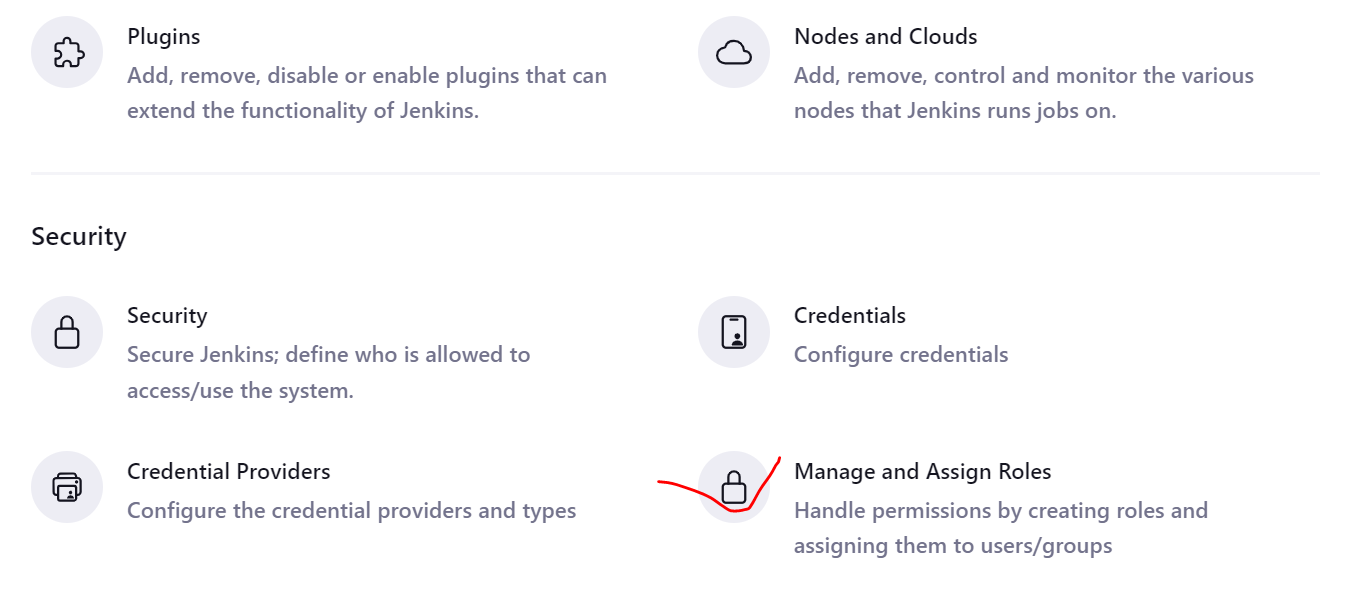
# cd /var/lib/jenkins/workspace/Maven/target



1. Phân quyền theo RBAC

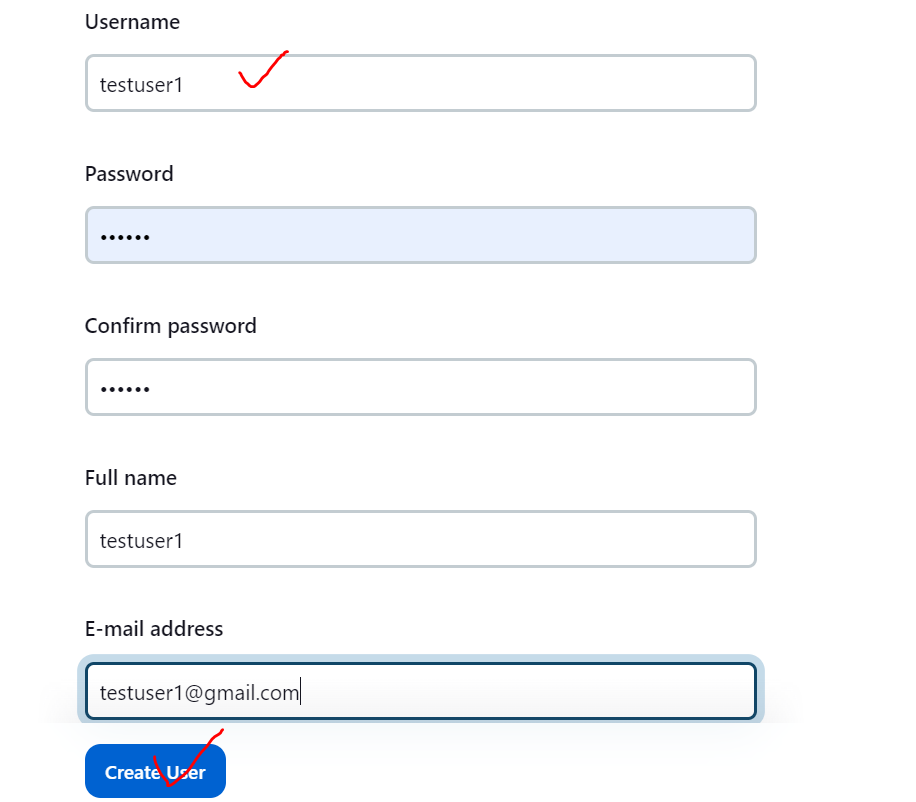


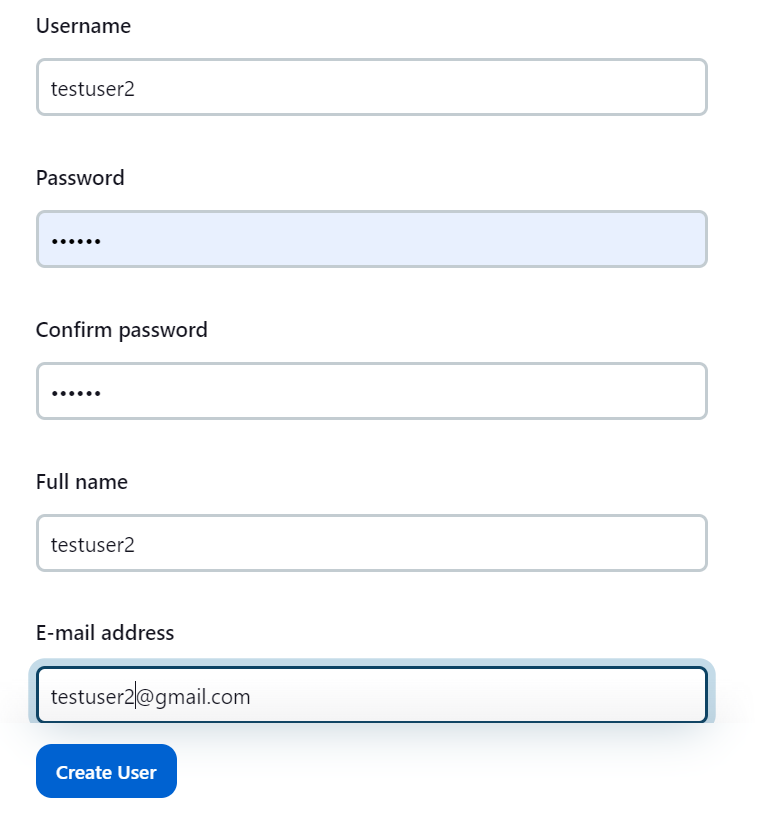


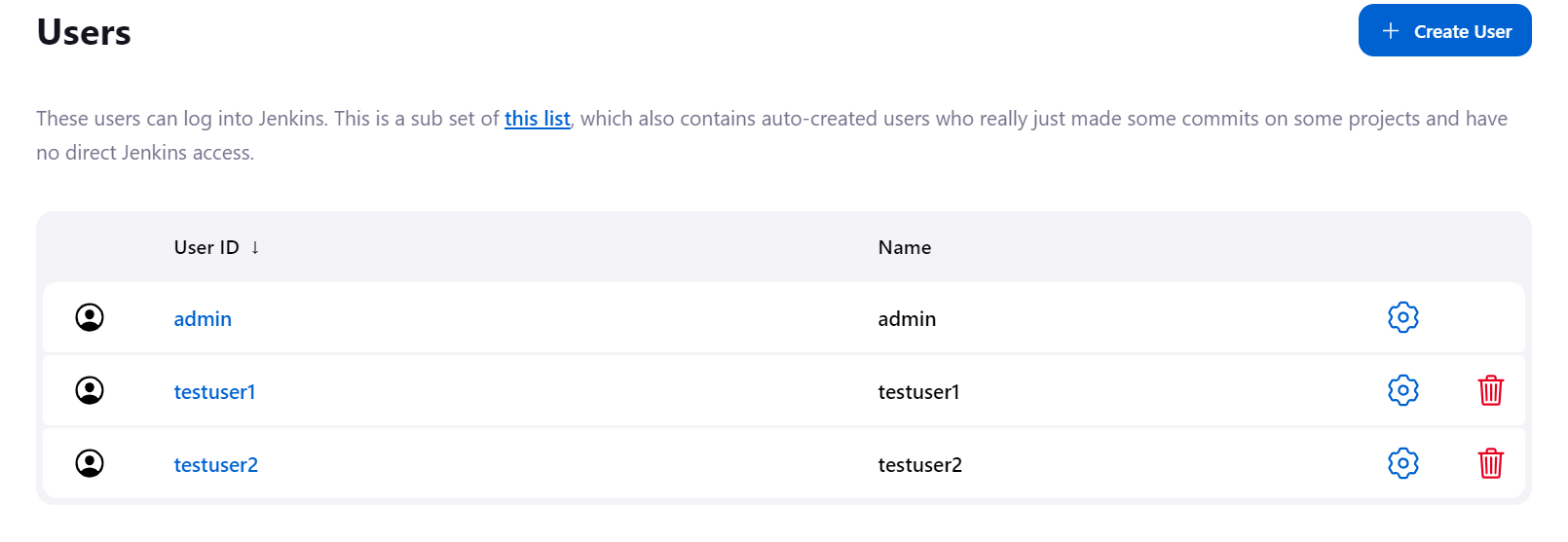


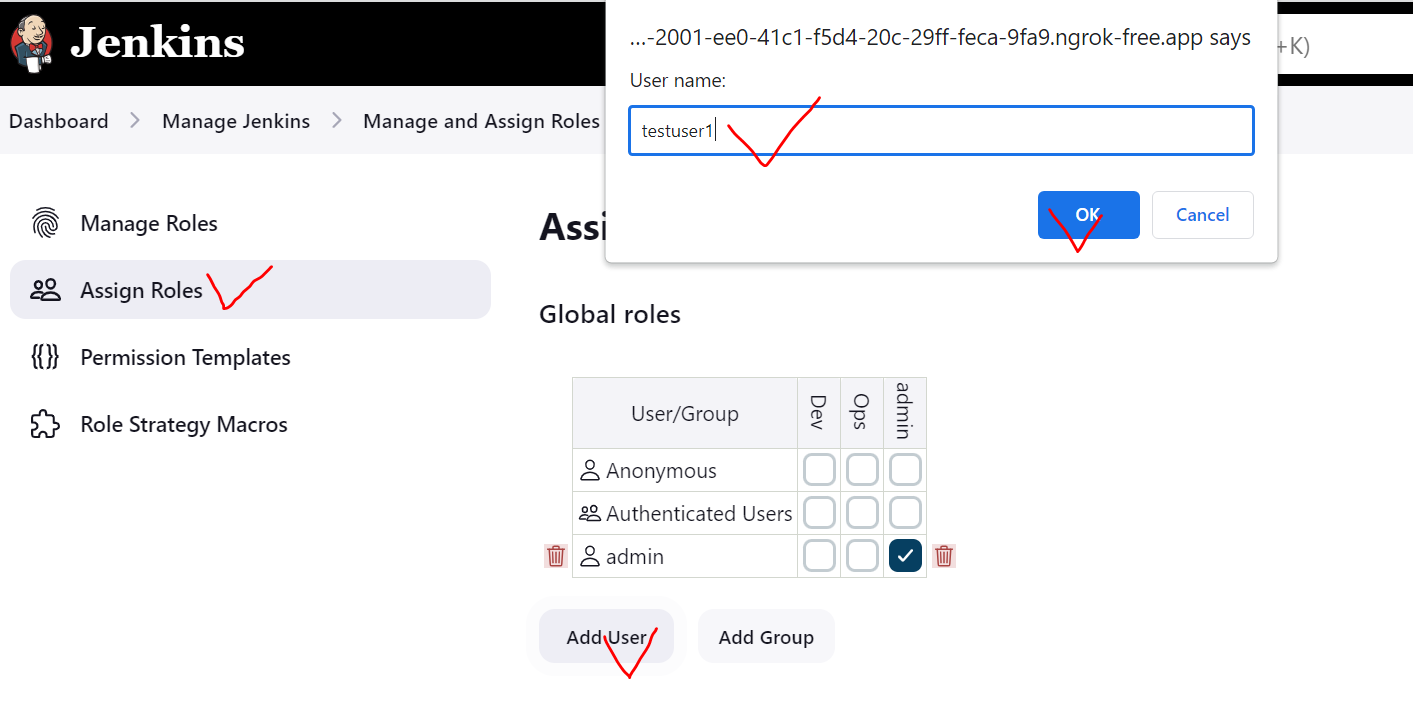


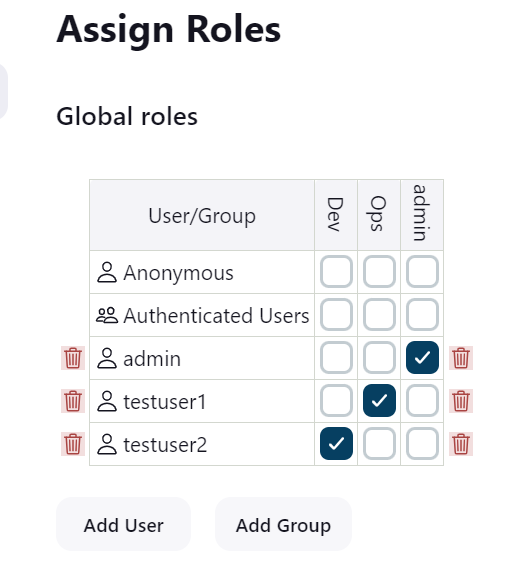




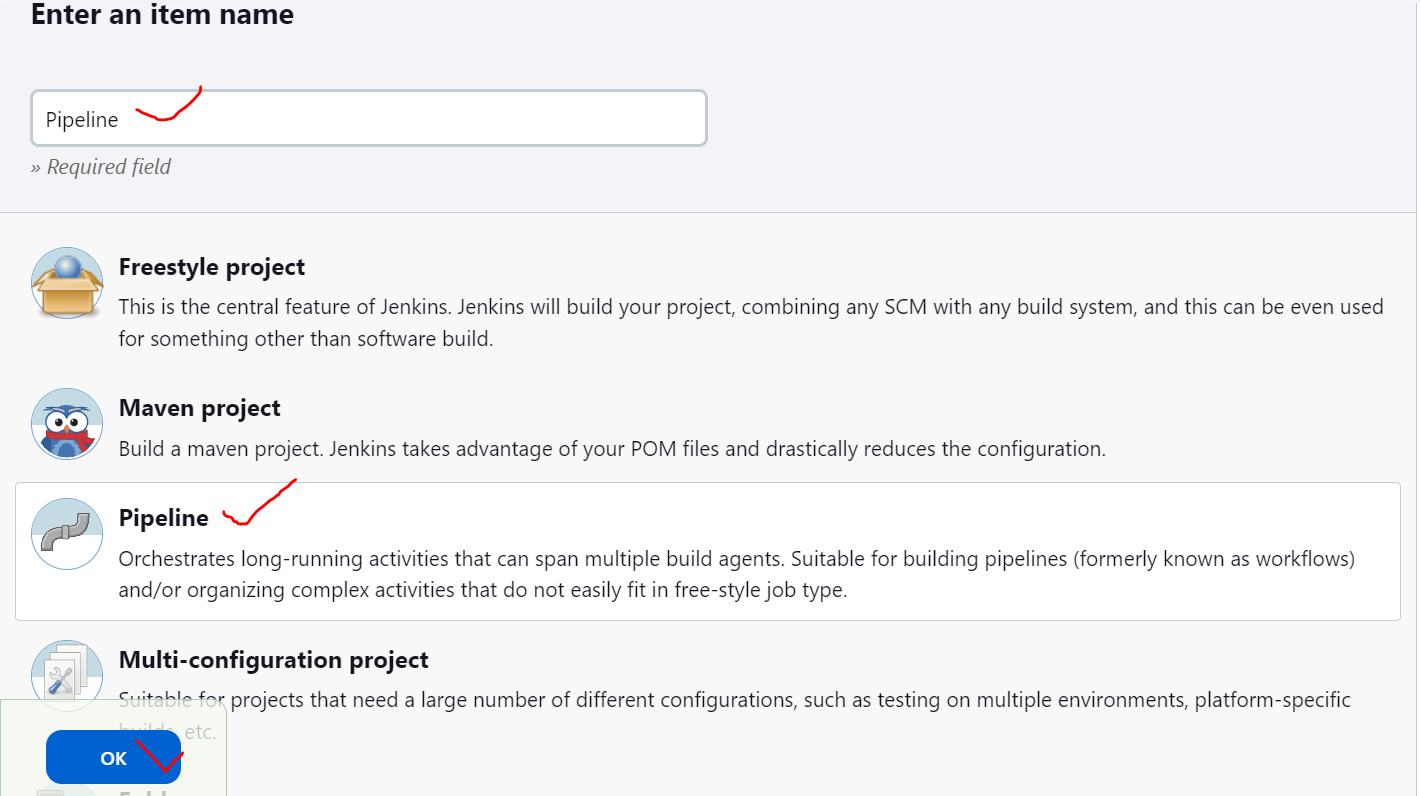


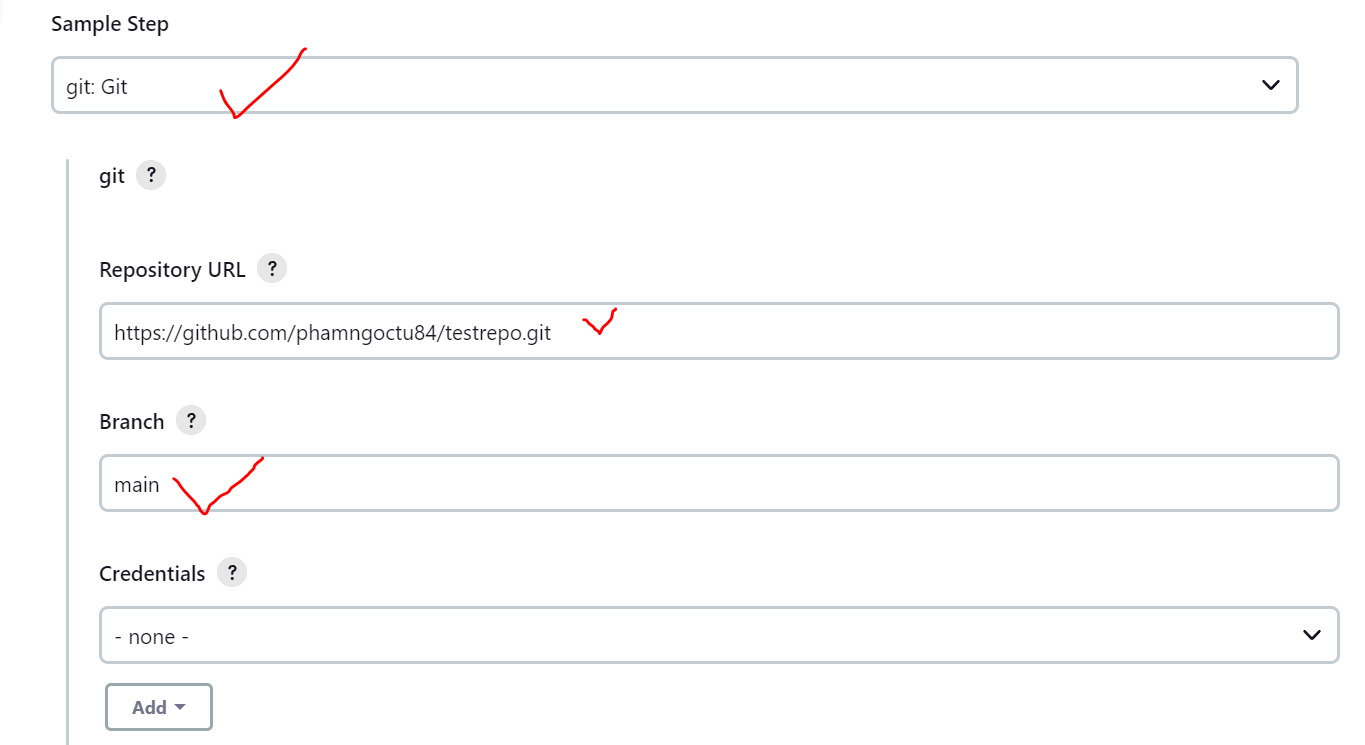


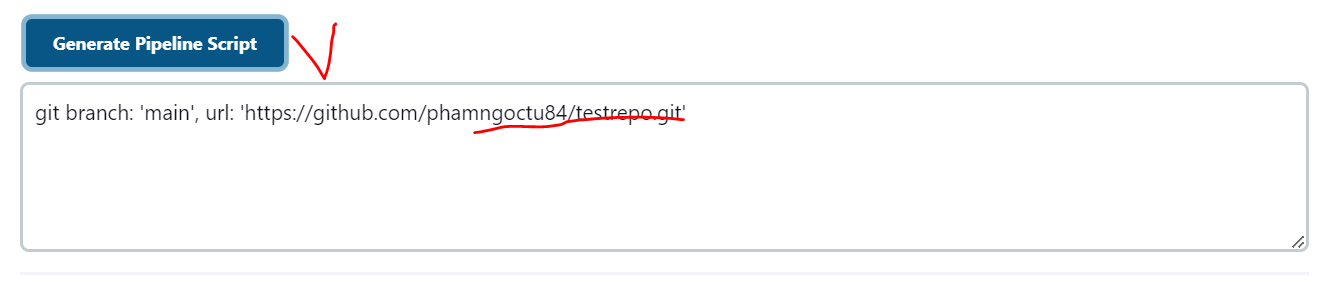




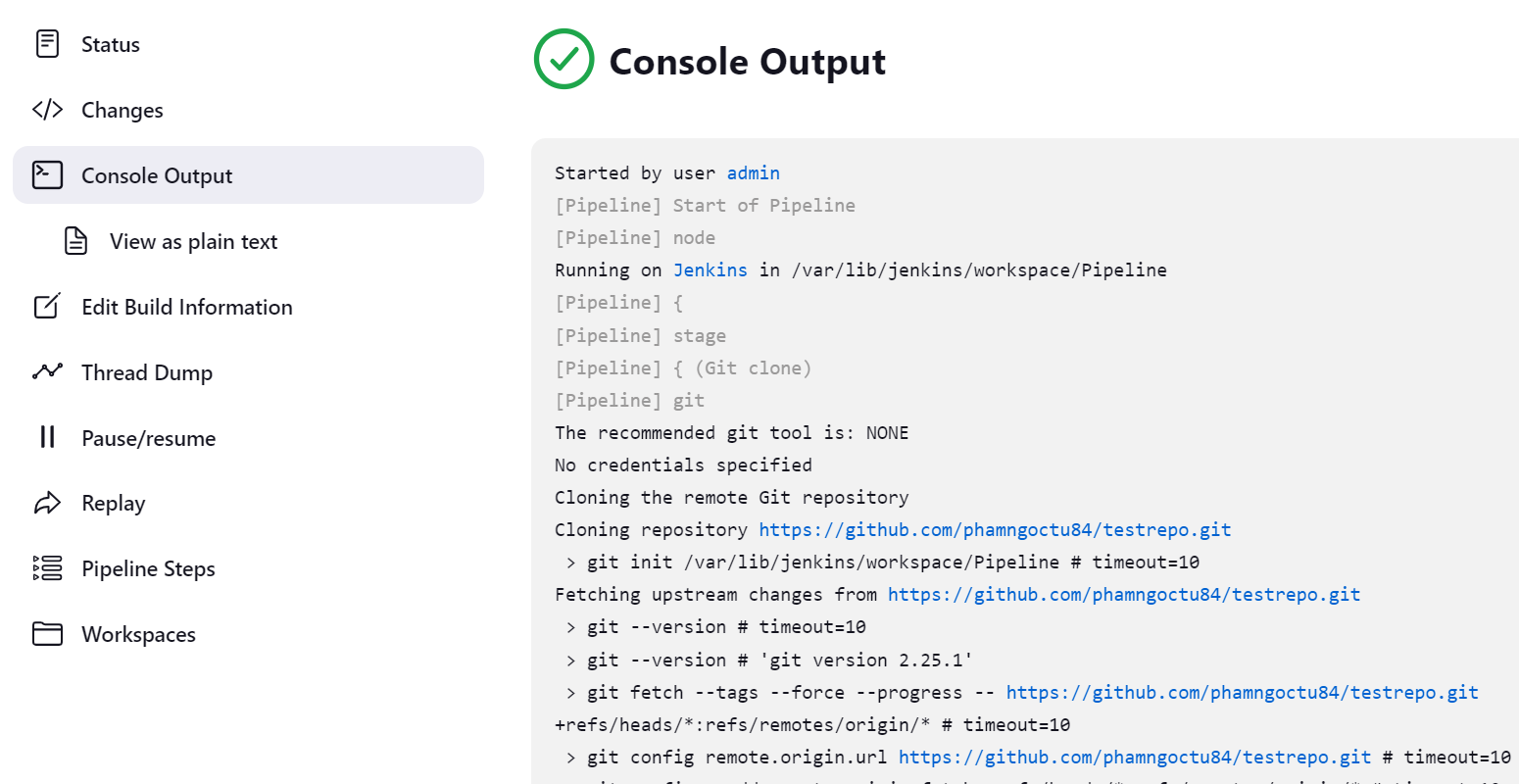
1. Jenkins Pipeline

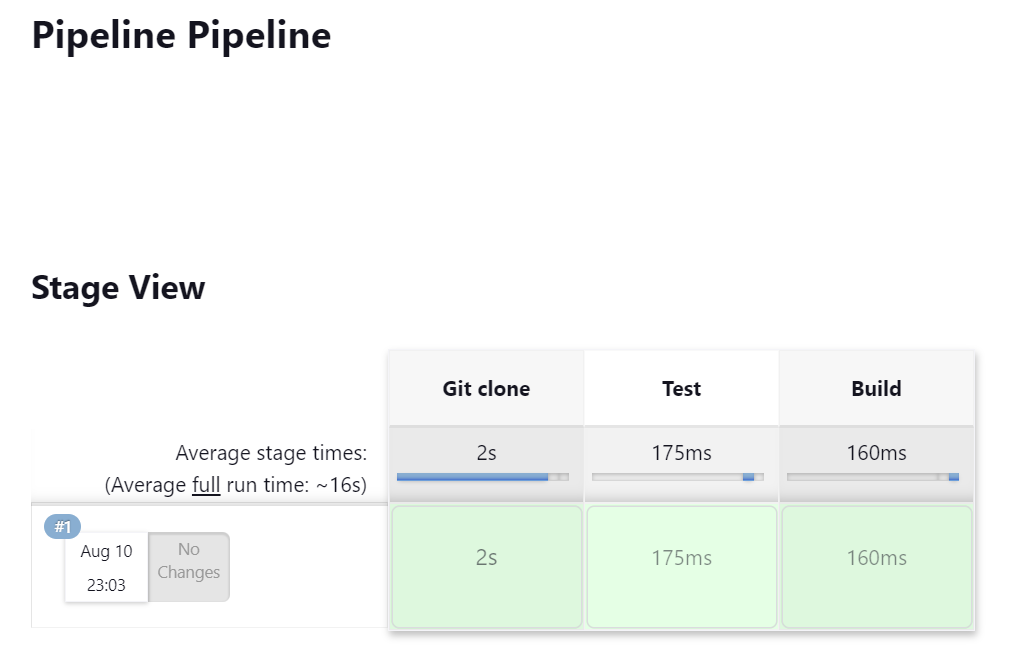






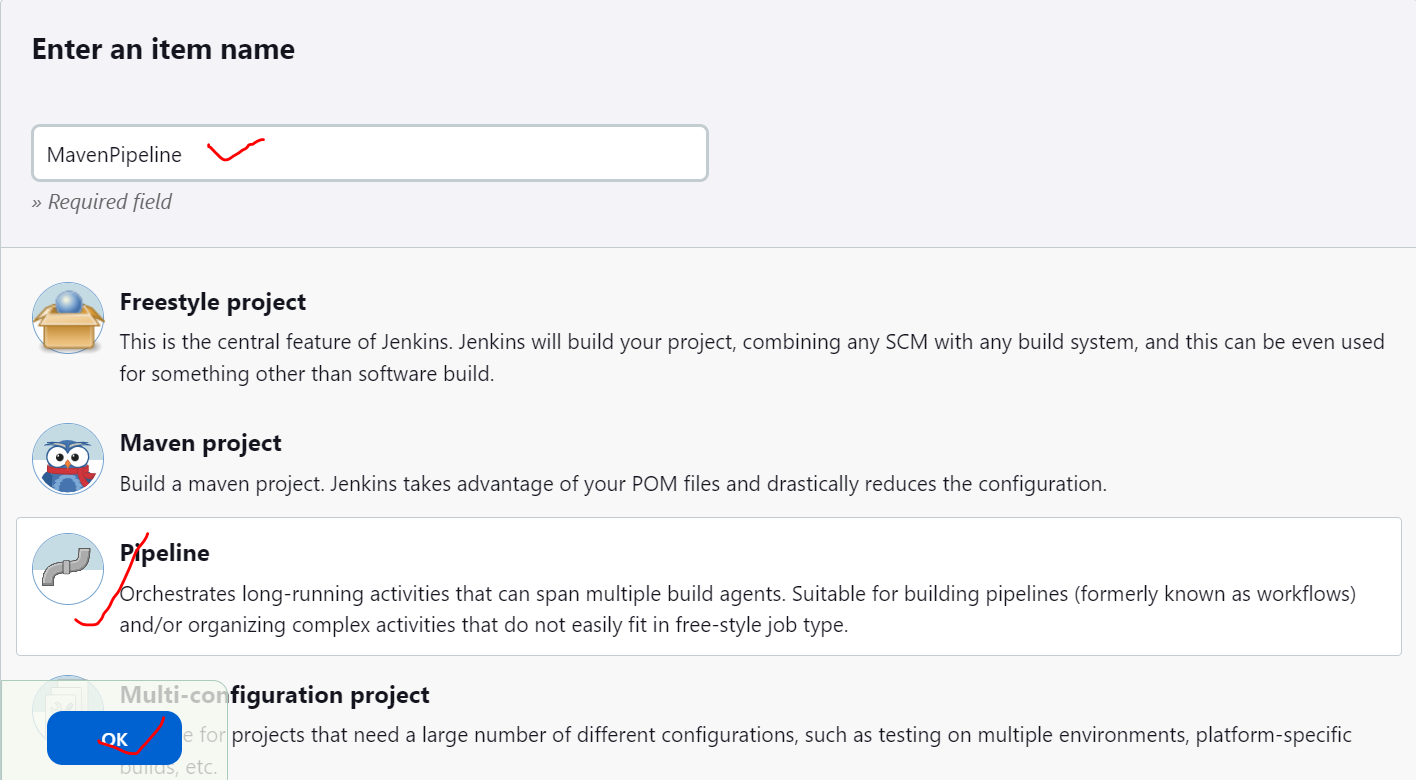




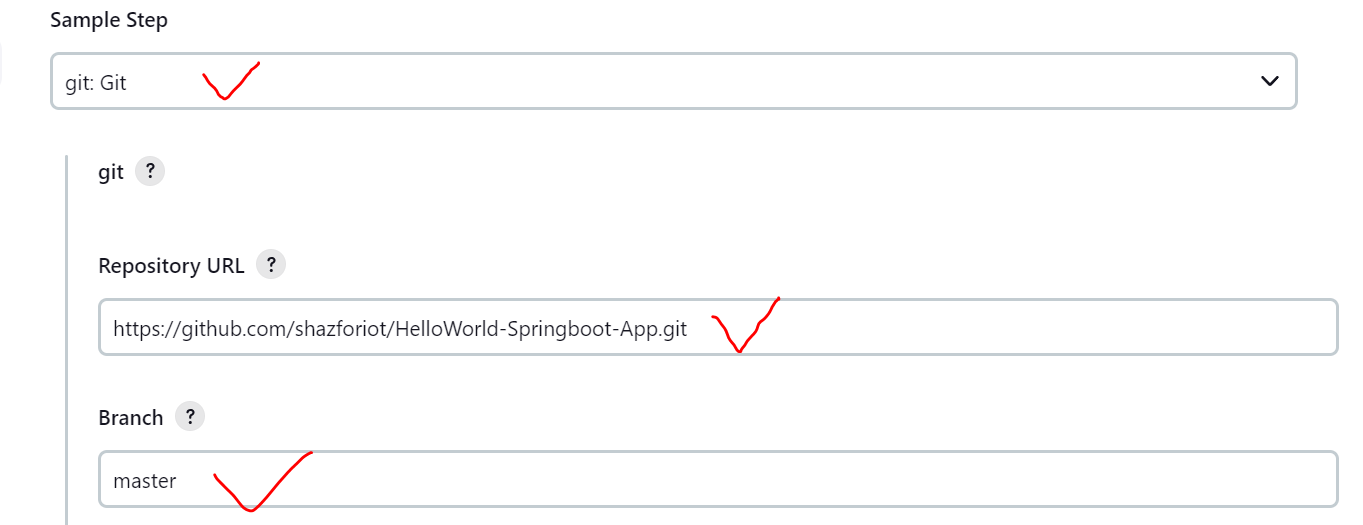


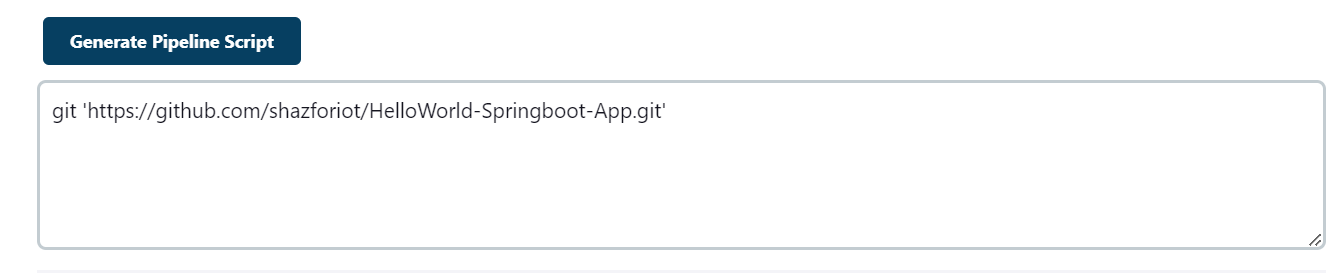
1. Maven Pipeline

* Tạo New job

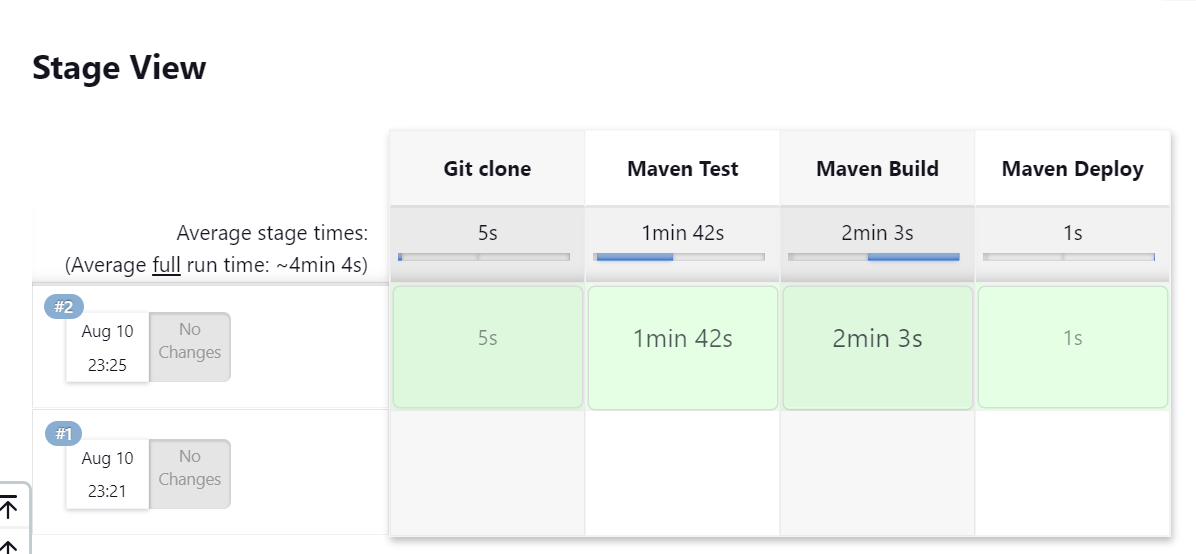


* Tạo sample code:









1. Jenkins Master – Slave

**Trên Jenkins Slave:**

Cài đặt Java

# yum install java-11-openjdk -y

Thêm biến môi trường PATH

# *vi /etc/profile*

|  |
| --- |
| export JAVA\_HOME=/usr/lib/jvm/java-11-openjdk-11.0.19.0.7-1.el7\_9.x86\_64/  export PATH=$JAVA\_HOME/bin:$PATH |

Tạo user

*# useradd jenkins*

*# passwd jenkins*

**Trên Jenkins Master**

Tạo SSH Key

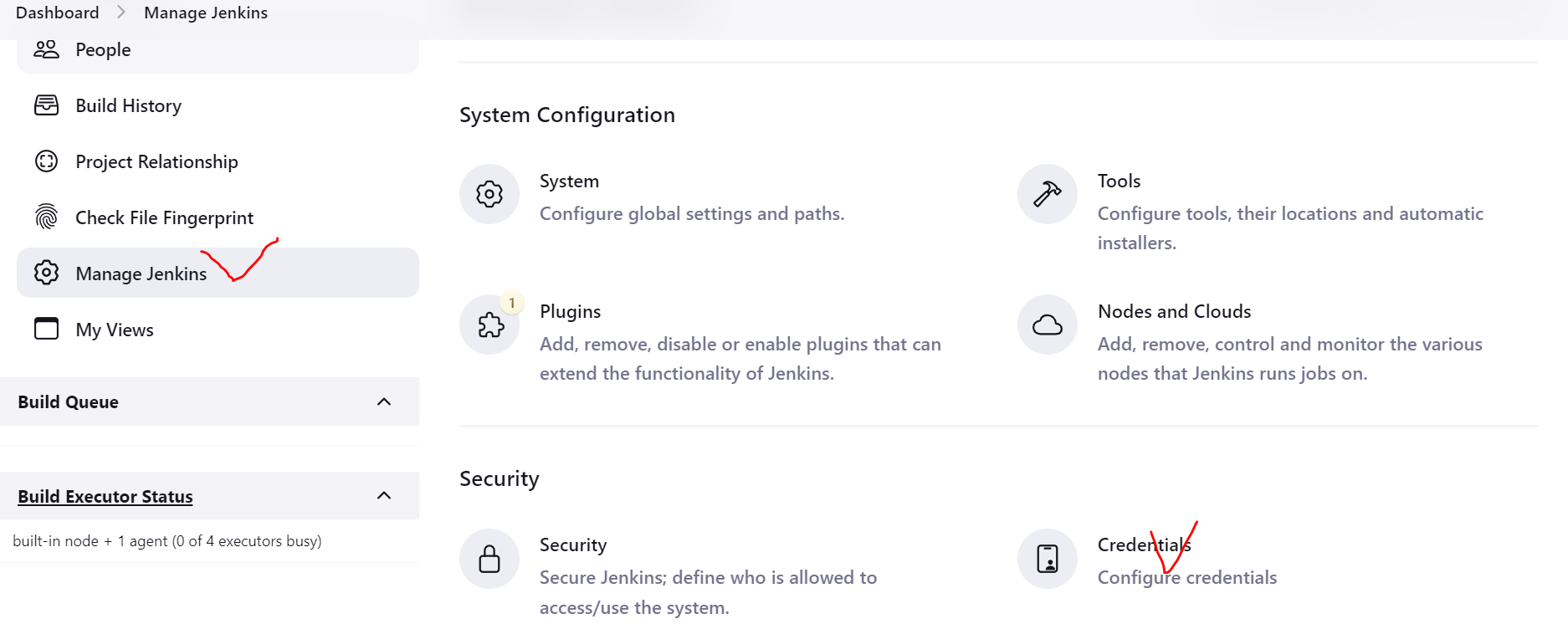
*# su – jenkins*

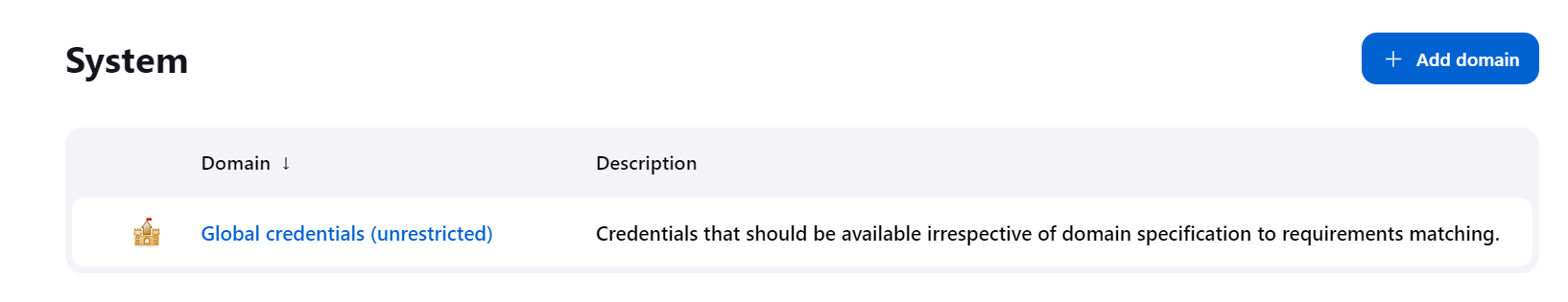
*# ssh-keygen*

*# ssh-copy-id -i .ssh/id\_rsa.pub Jenkins\_Slave\_IP*

*# ssh 192.168.1.15*

*# exit*

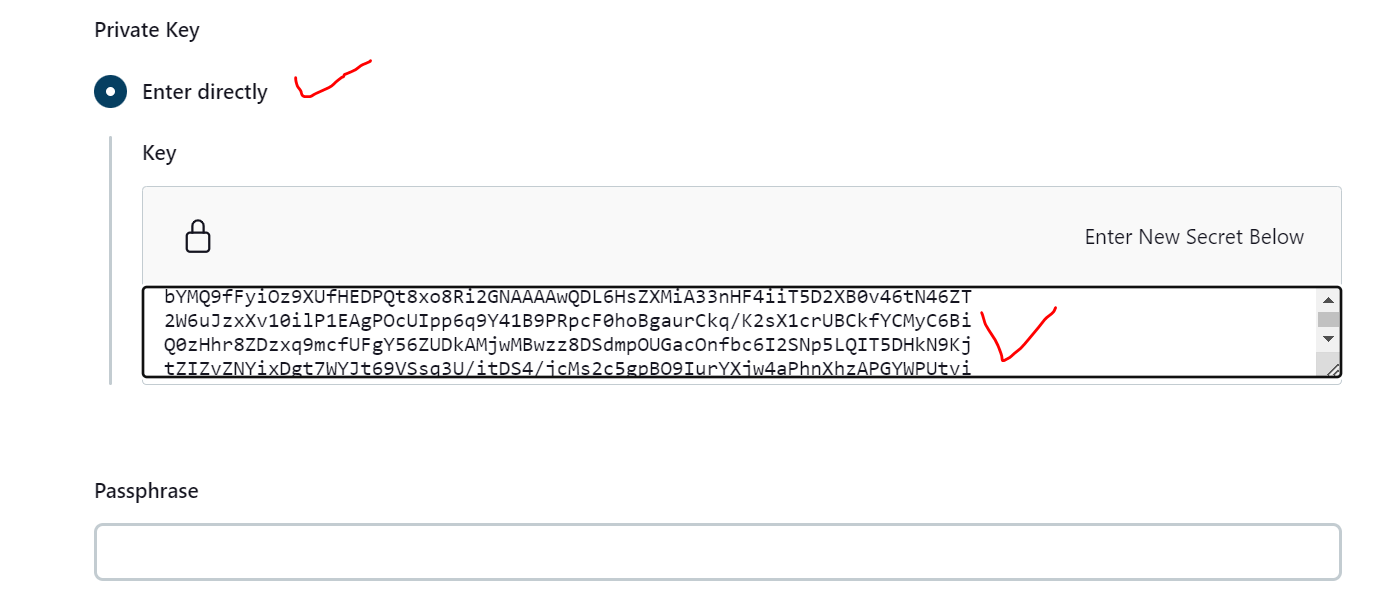




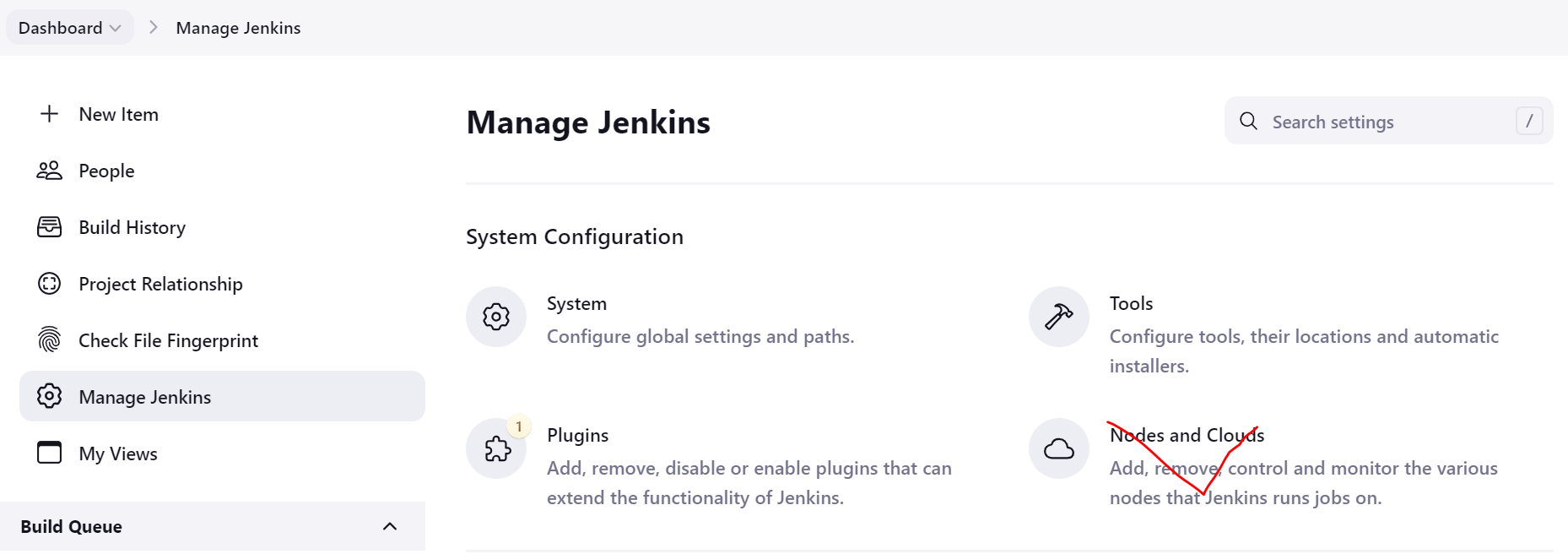


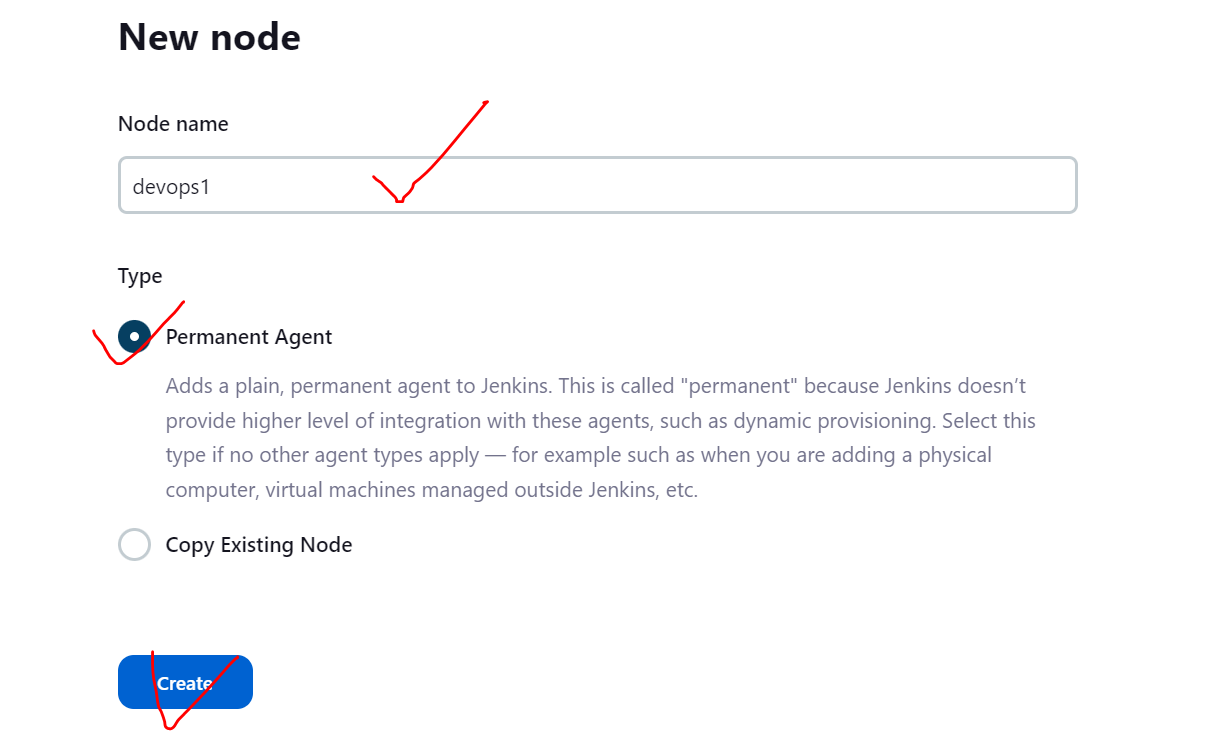
Copy Private Key rồi paste vào phần Key

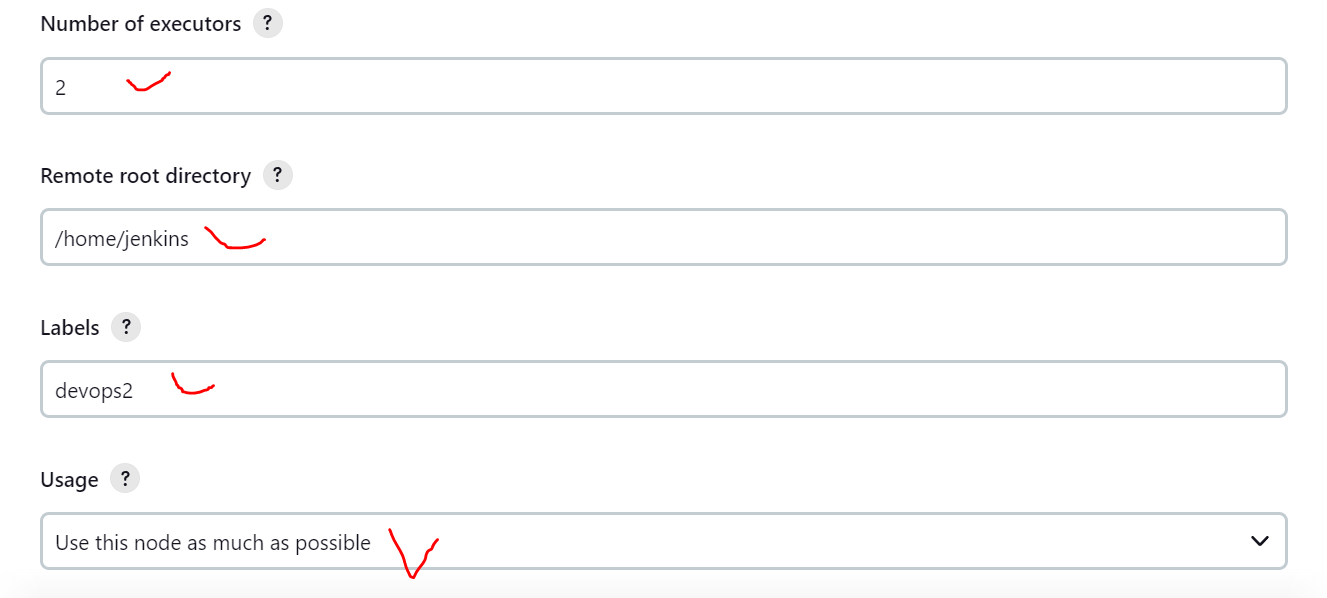
# *cat .ssh/id\_rsa*

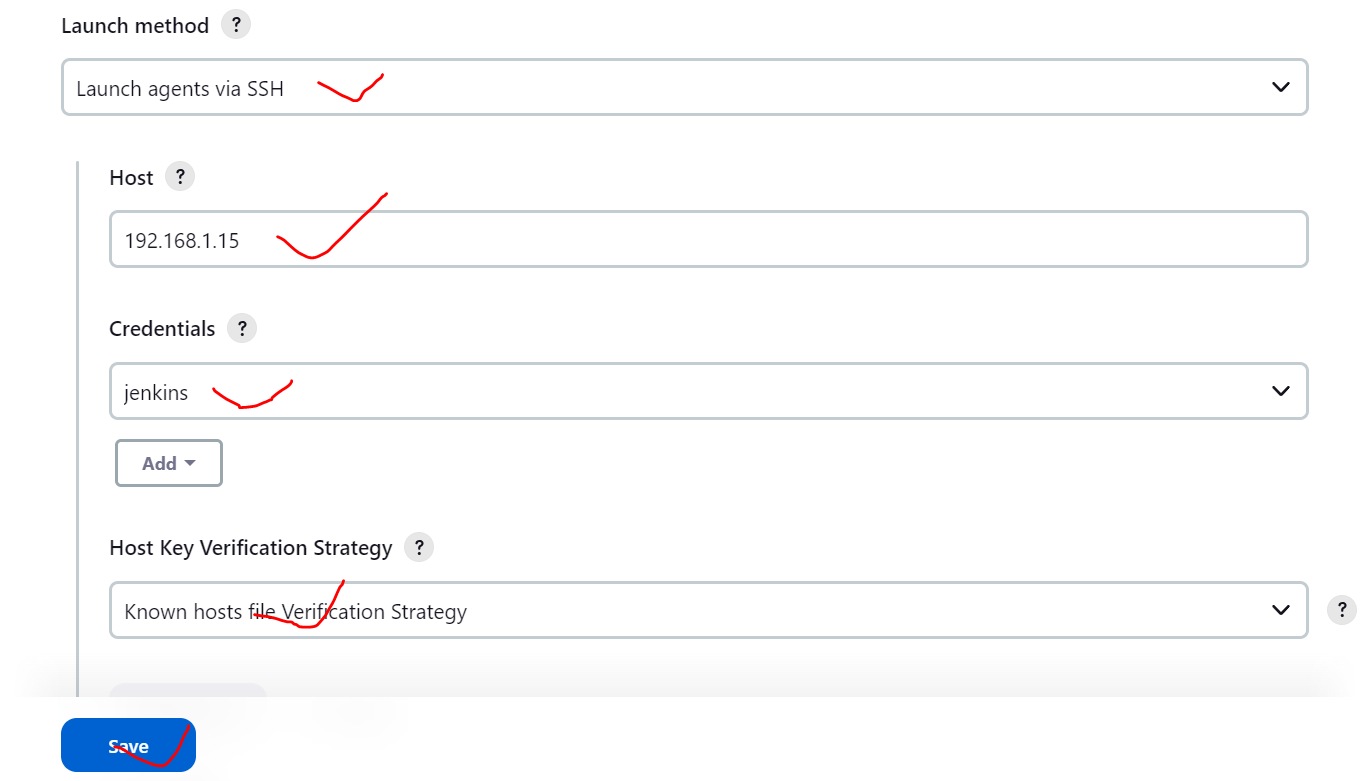


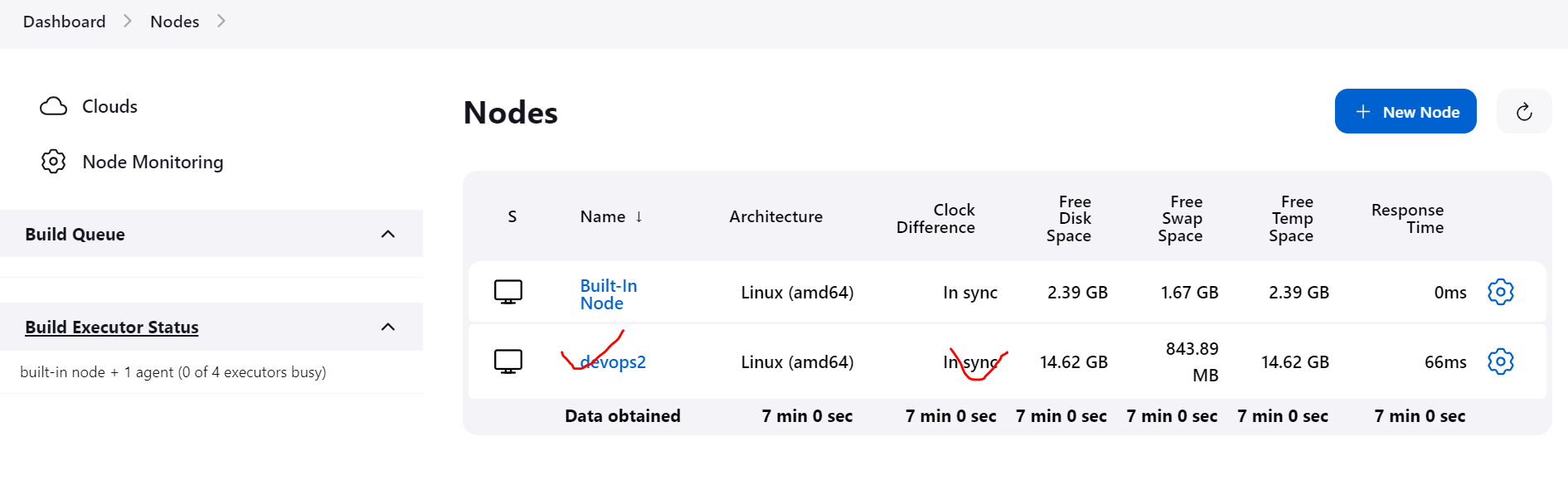
Tạo Node Slave











Tạo Job

