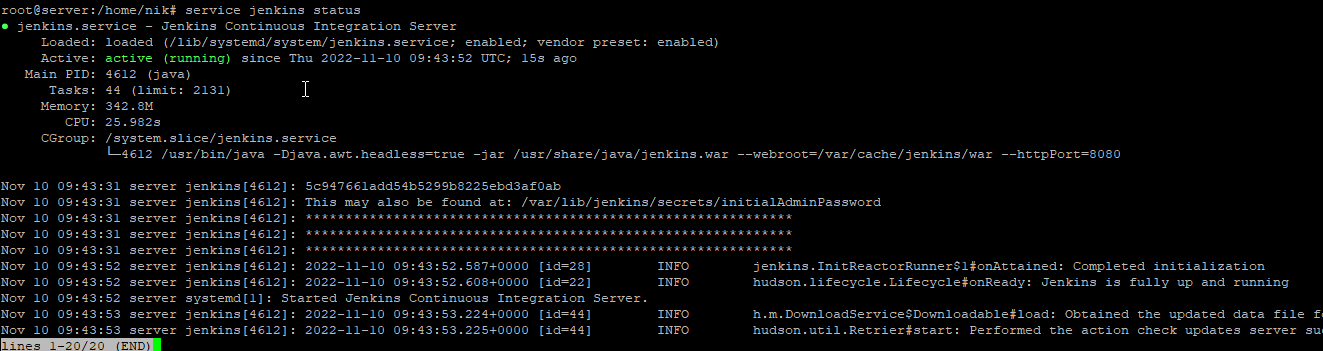
**DevOps**

**Jenkins**

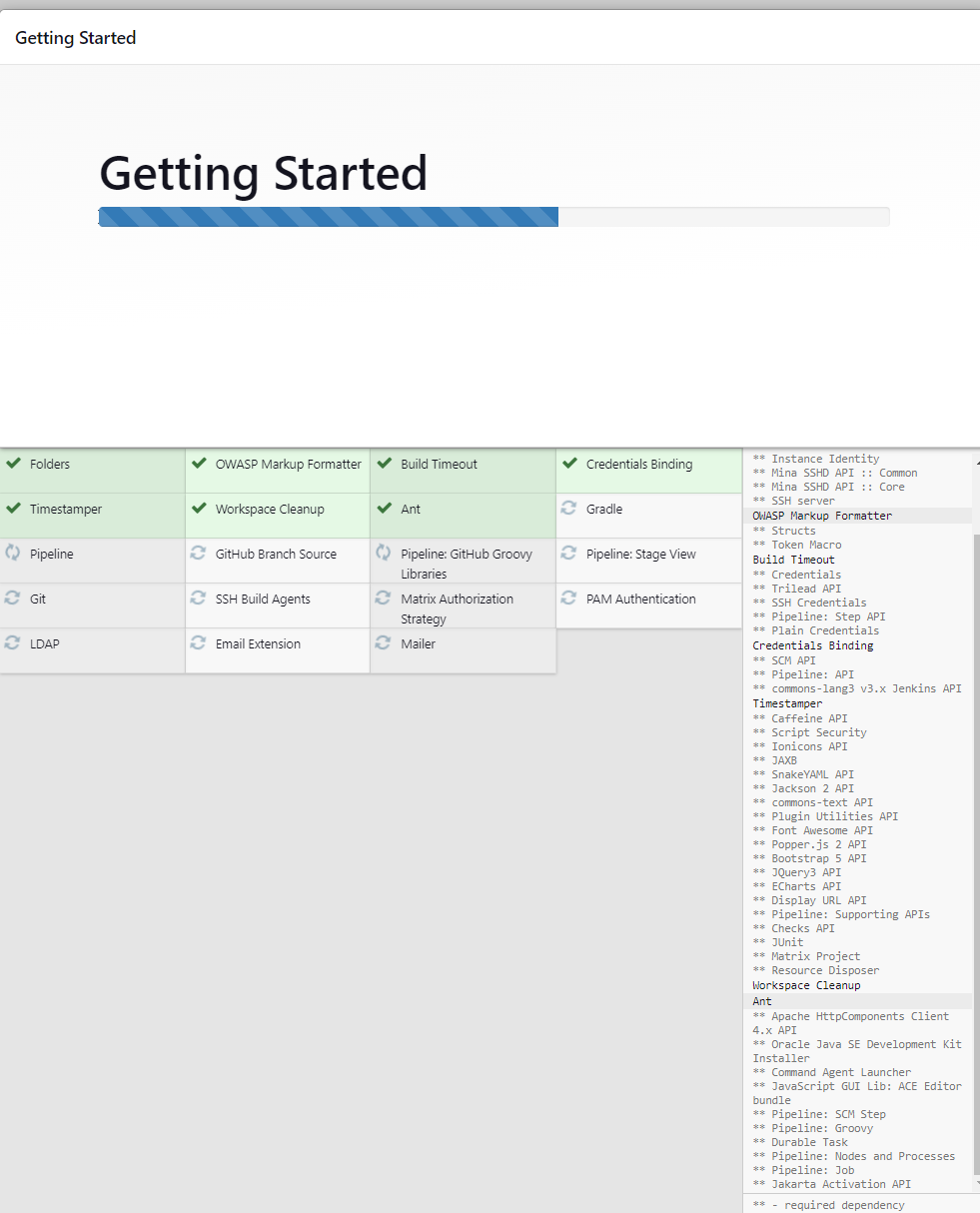
**1 Install Jenkins**

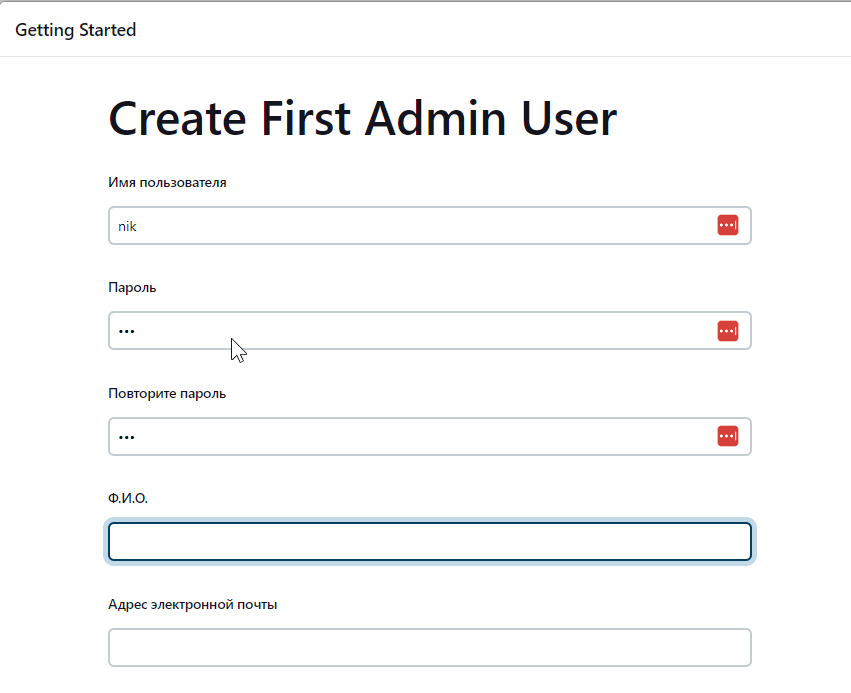
**https://www.jenkins.io/download/**



<http://192.168.0.100:8080/>

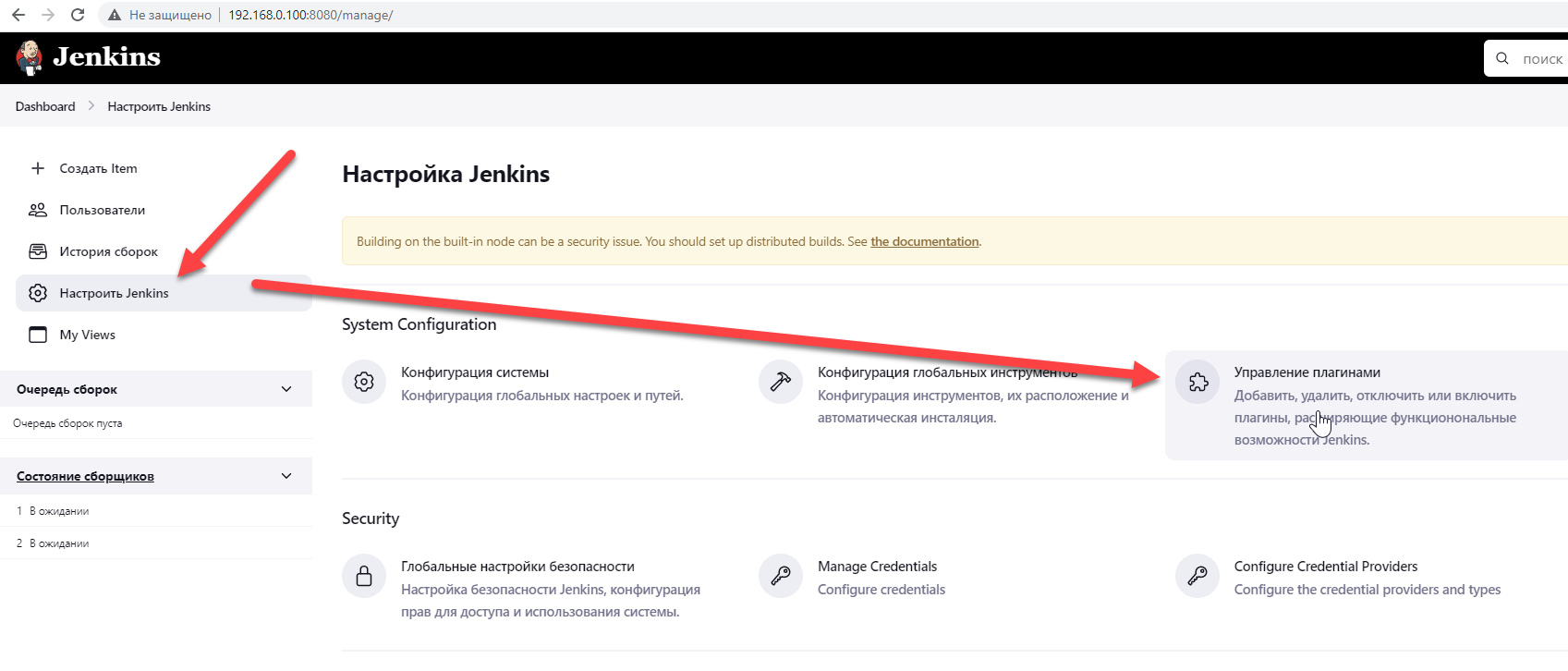
sudo cat /var/lib/jenkins/secrets/initialAdminPassword



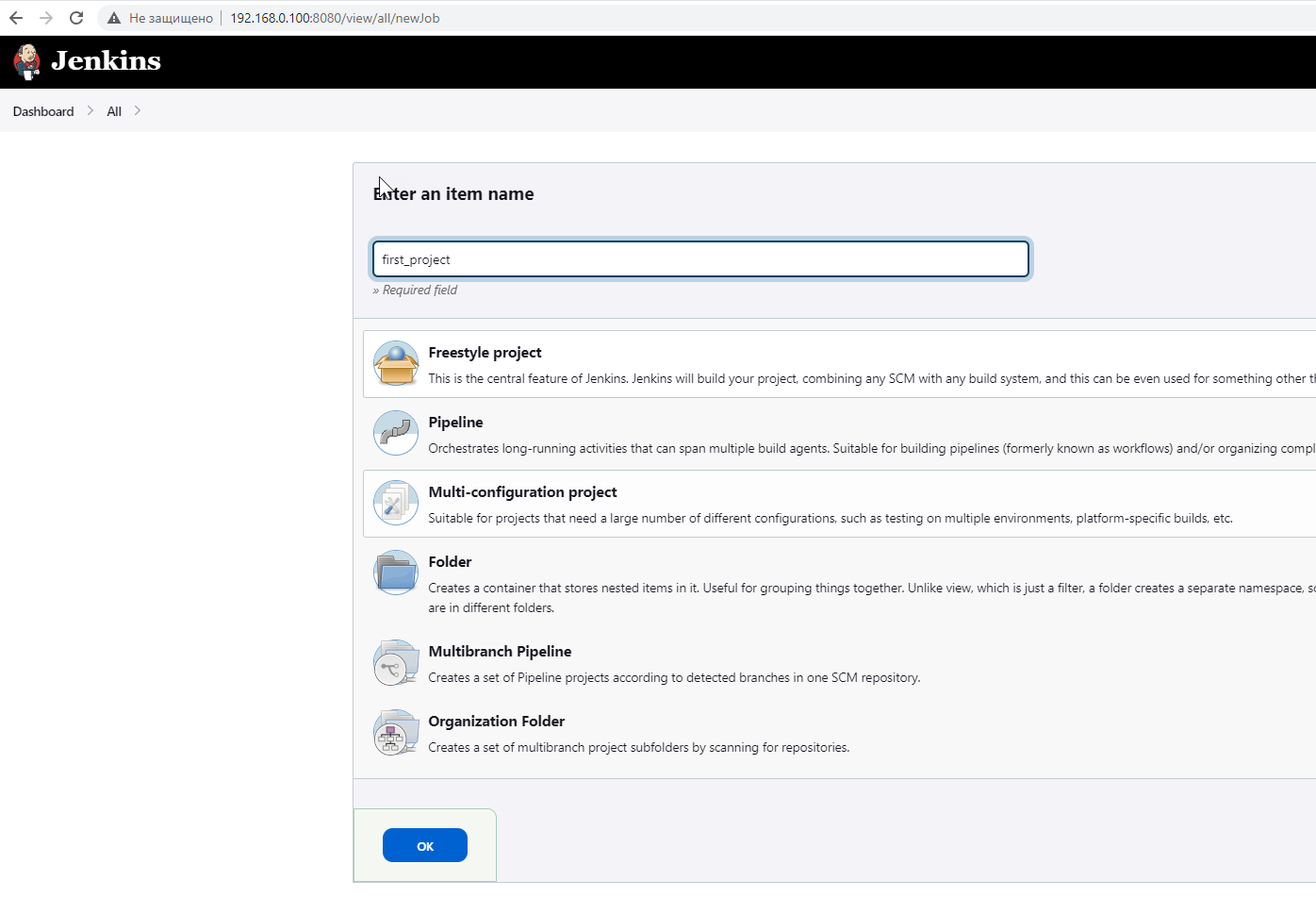


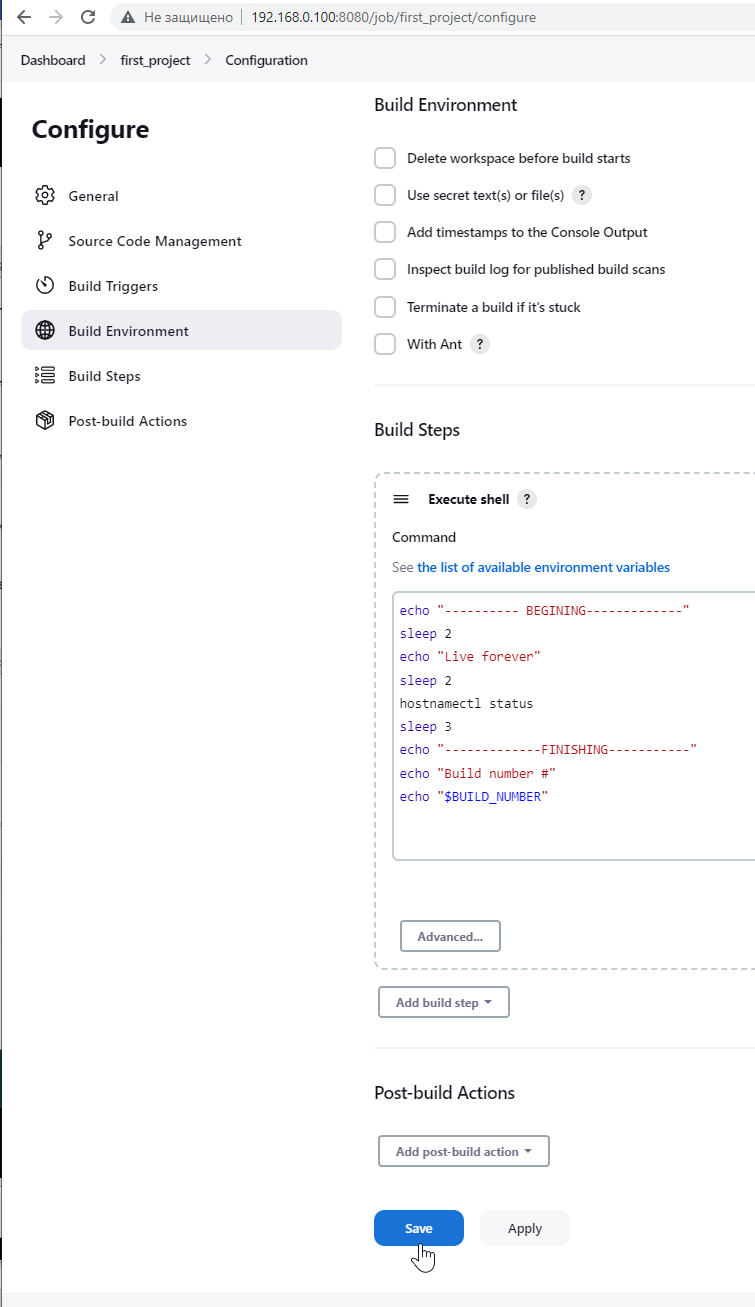
**2 Install plugins.**

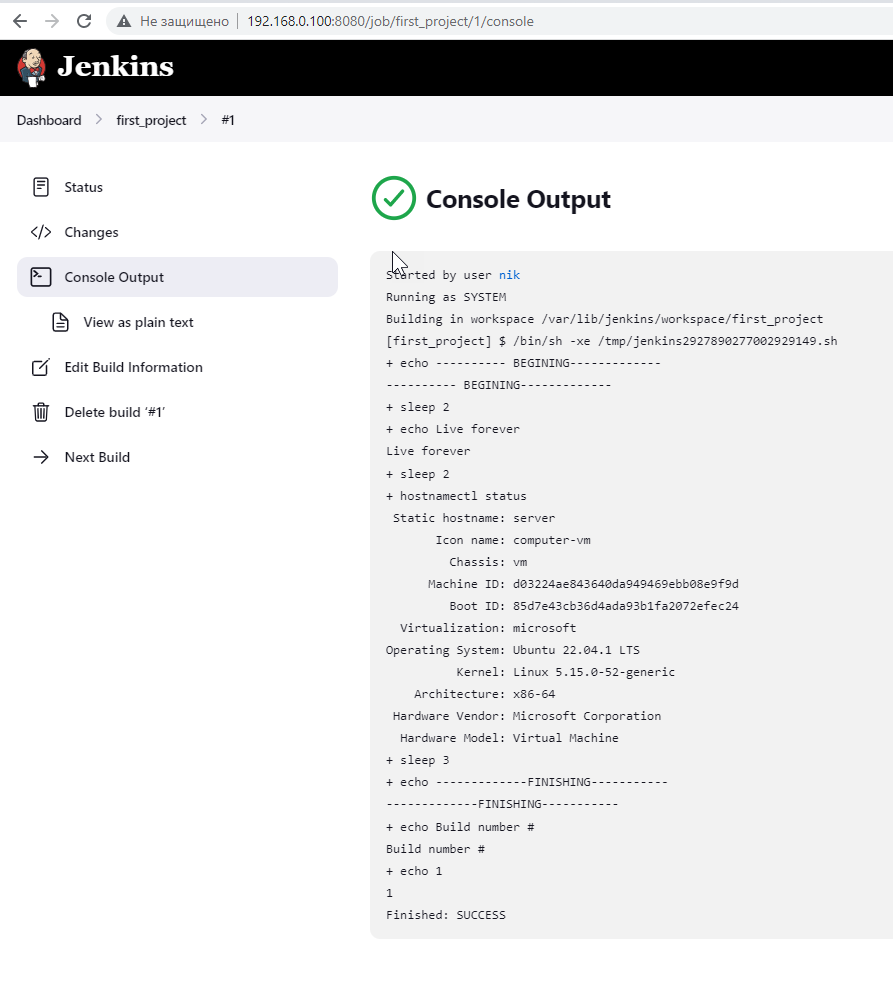
**/var/lib/jenkins**



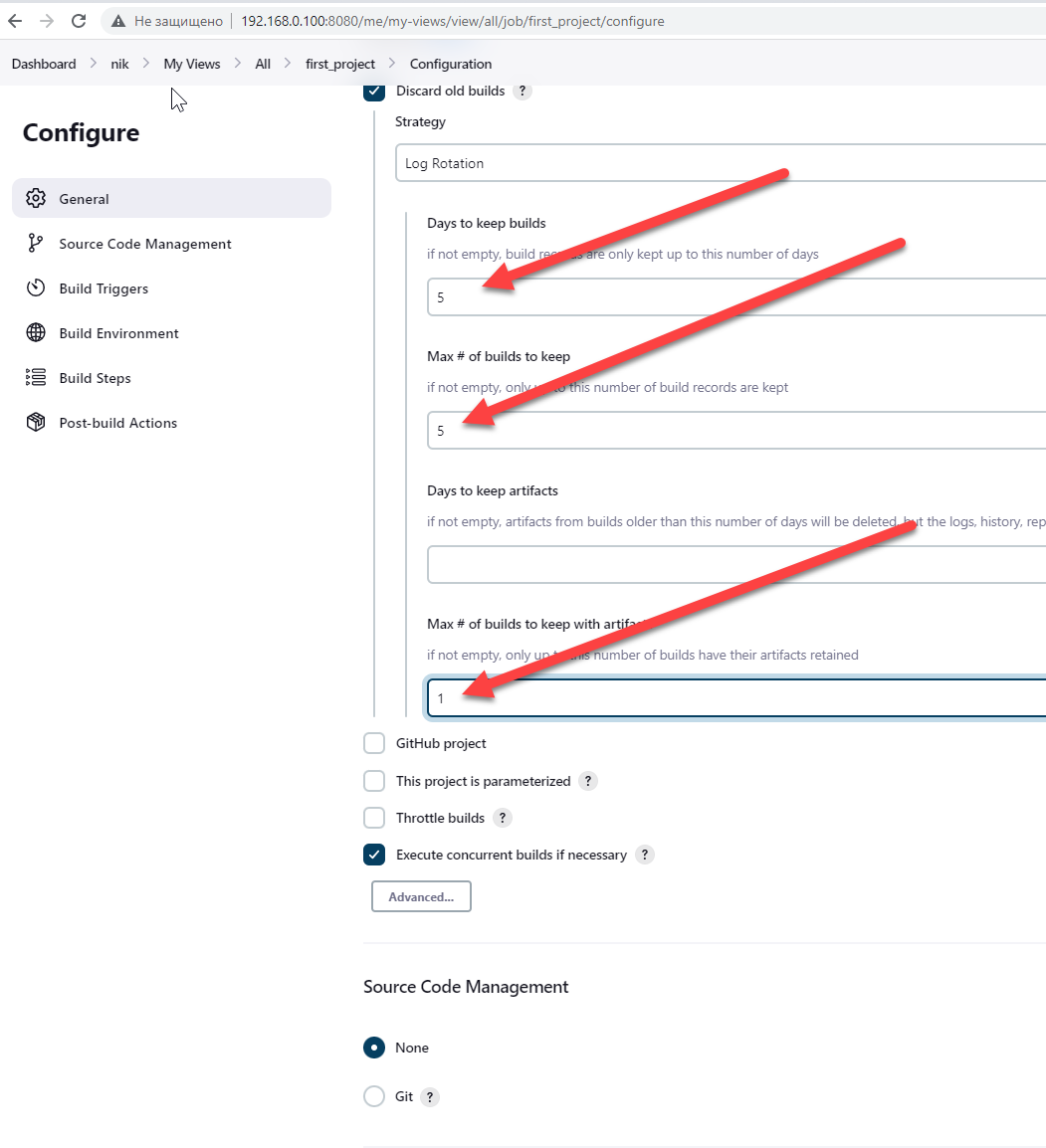
**3 Start first pipeline**







**4 Builds will be saving during 5 days, but if build fail save the last on success**



**5 New pipeline. Start pipeline with copy index.html using ssh to Centos 7 with apache server**

**echo "---------- BEGINING-------------"**

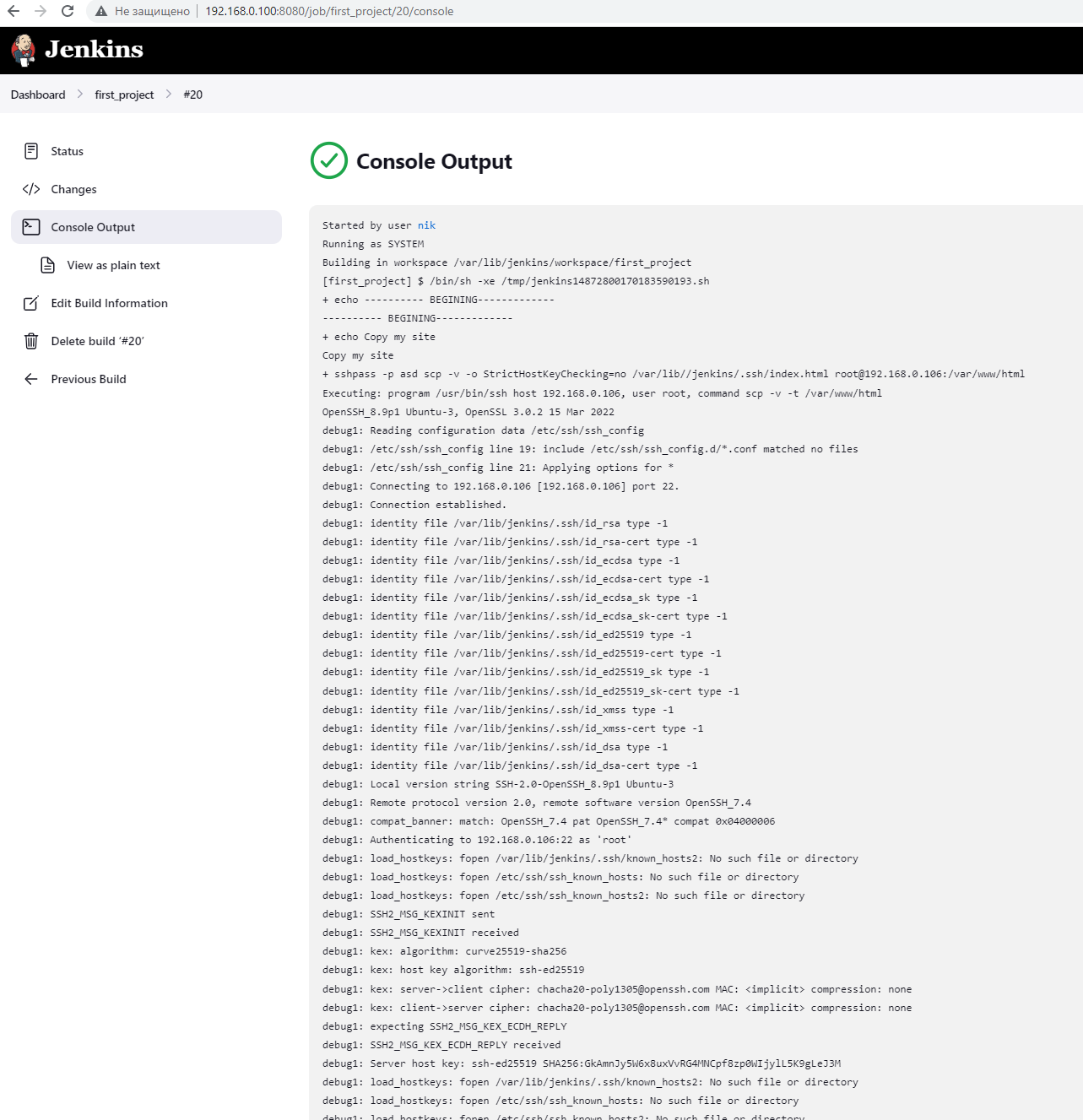
**echo "Copy my site"**

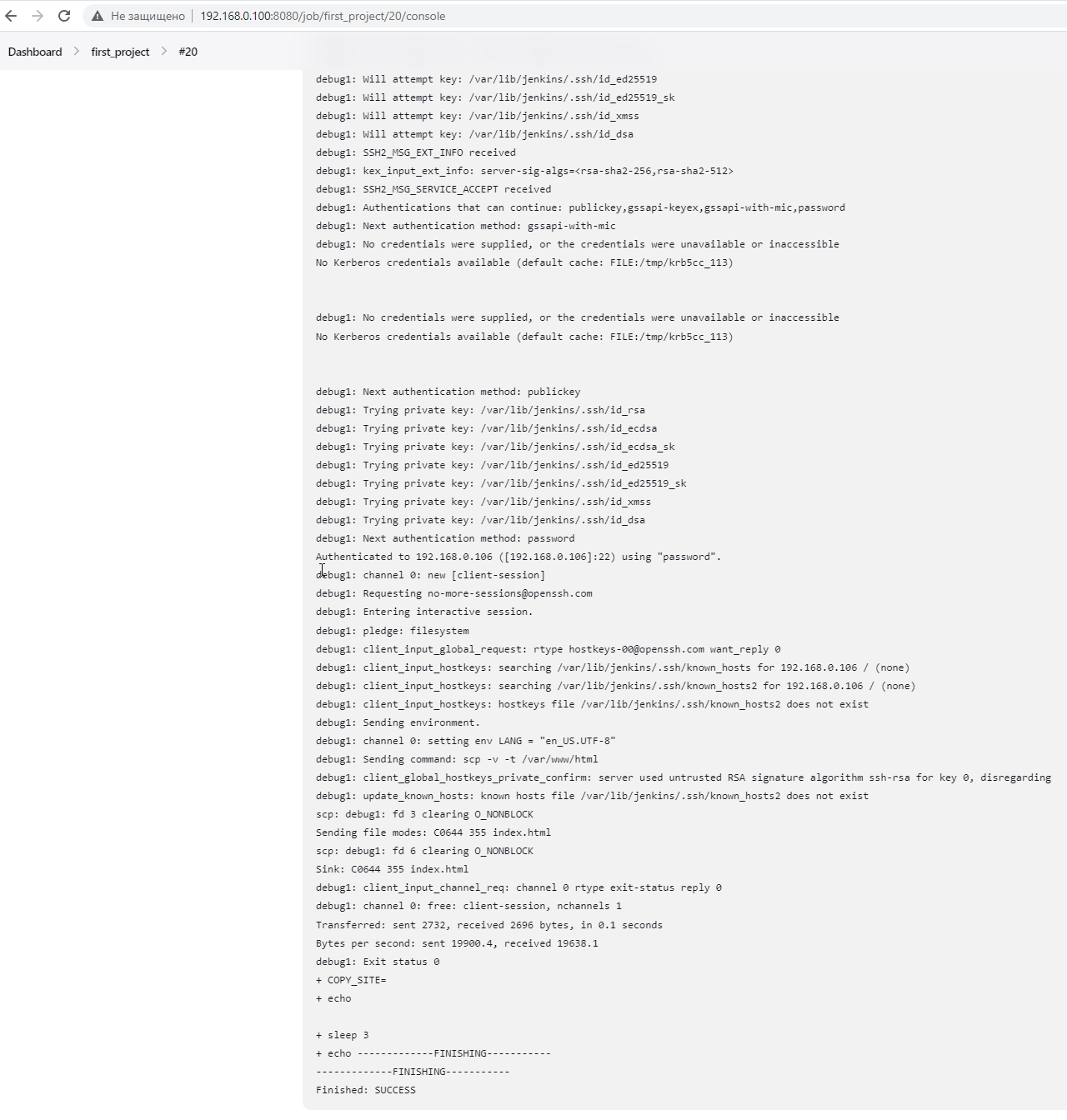
**COPY\_SITE=$(sshpass -p asd scp -v -o StrictHostKeyChecking=no /var/lib//jenkins/.ssh/index.html root@192.168.0.106:/var/www/html)**

**echo $COPY\_SITE**

**sleep 3**

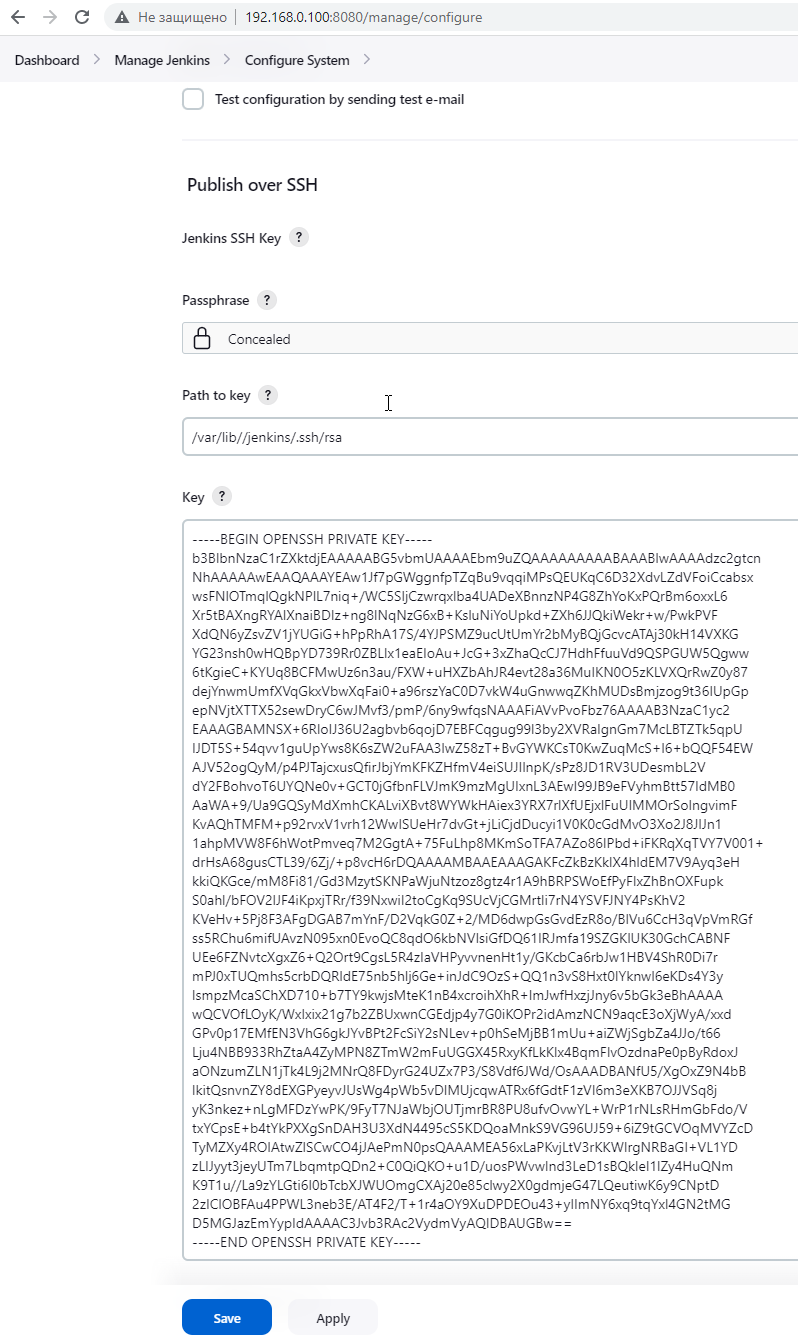
**echo "-------------FINISHING-----------"**





**6 SSH in Jenkins**

Available plugins 🡪 Publish over SSH



**SSH server**

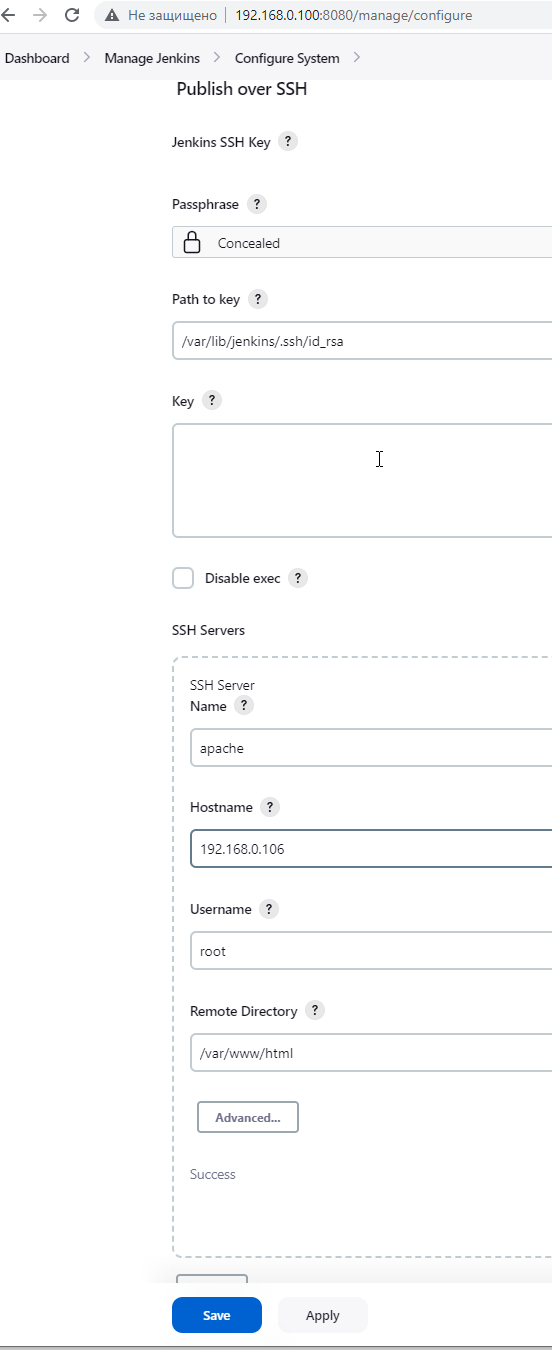
**ssh-keygen -t rsa -C "jenkins" -m PEM -P "" -f /var/lib/jenkins/.ssh/id\_rsa**

**ssh-copy-id -i /var/lib/jenkins/.ssh/id\_rsa root@192.168.0.106**

**ssh -v root@192.168.0.106**

**chown jenkins /var/lib/jenkins/.ssh/id\_rsa**

**Success**



**7 Pipeline with SSH in Jenkins**

echo "Start build"

cat <<EOF > index.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8" />

<meta name="viewport" content="width=device-width, initial-scale=1.0" />

<meta http-equiv="X-UA-Compatible" content="ie=edge" />

<title>Document</title>

<link rel="stylesheet" href="style.css" />

</head>

<body>

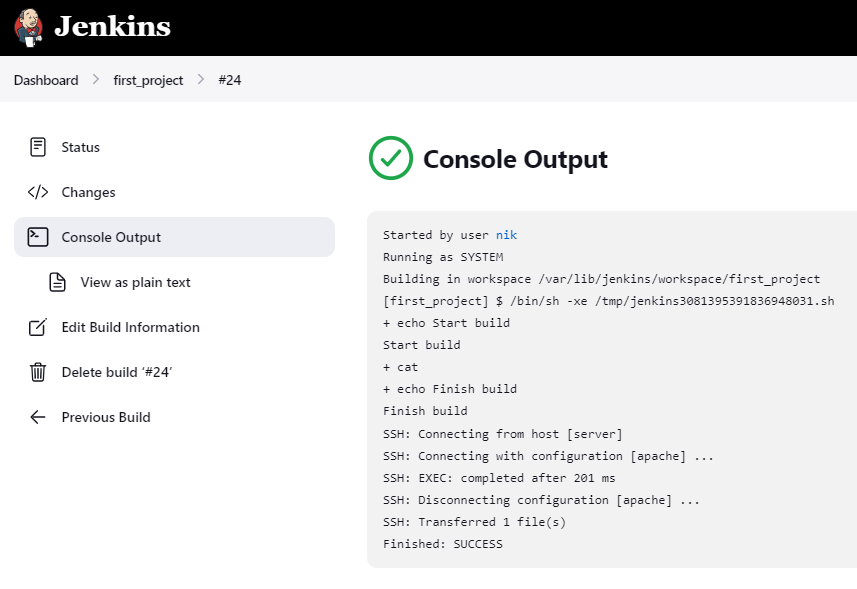
<h1>**My new the best site**</h1>

</body>

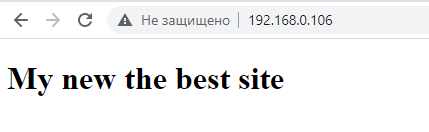
</html>

EOF

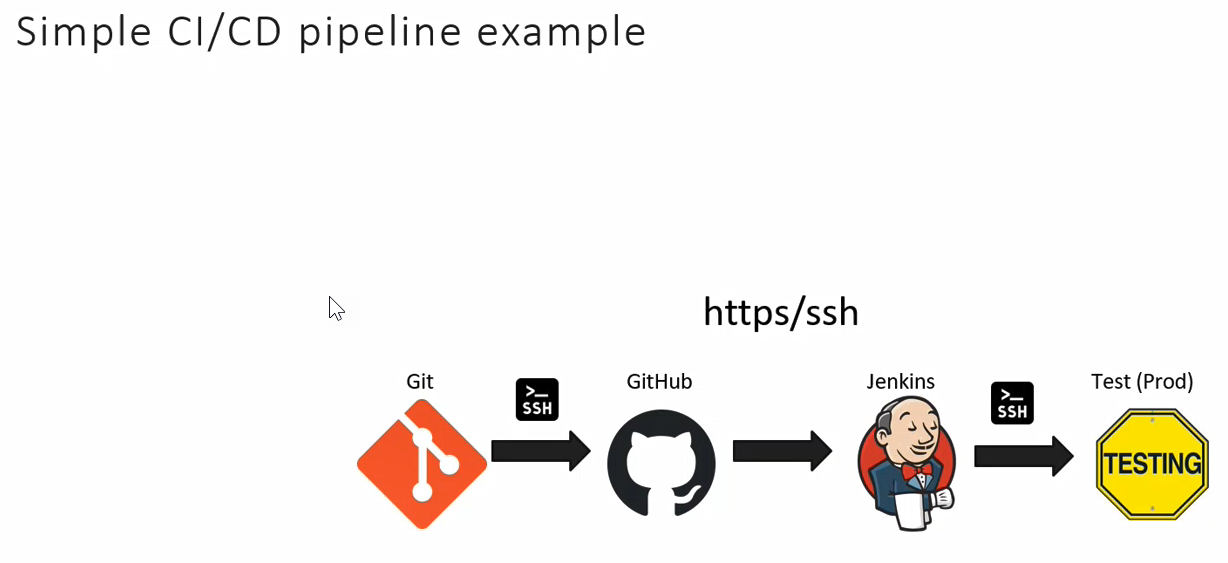
**echo "Finish build"**



**192.168.0.106 Apache server**



**8 Gitlab, githab version of pipeline**



**# create ssh-key**

**ssh-keygen -t rsa -C "jenkins" -m PEM -P "" -f /var/lib/jenkins/.ssh/id\_rsa\_git**

**# give rights Jenkins user to ssh-key**

**chown jenkins /var/lib/jenkins/.ssh/id\_rsa\_git.pub**

**chown jenkins /var/lib/jenkins/.ssh/id\_rsa\_git**

**# restart sshd**

**service sshd restart**

**git init**

**checkout -b main**

**git add . ( . = all ; or some file)**

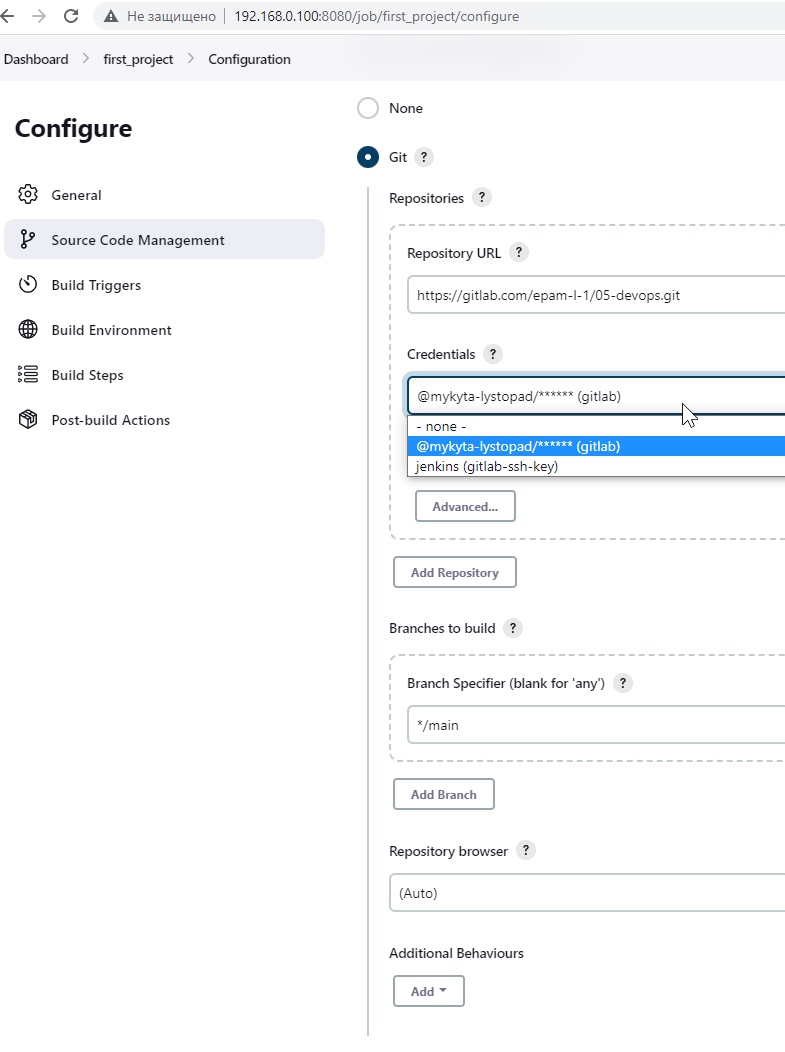
**git commit -m "Init"**

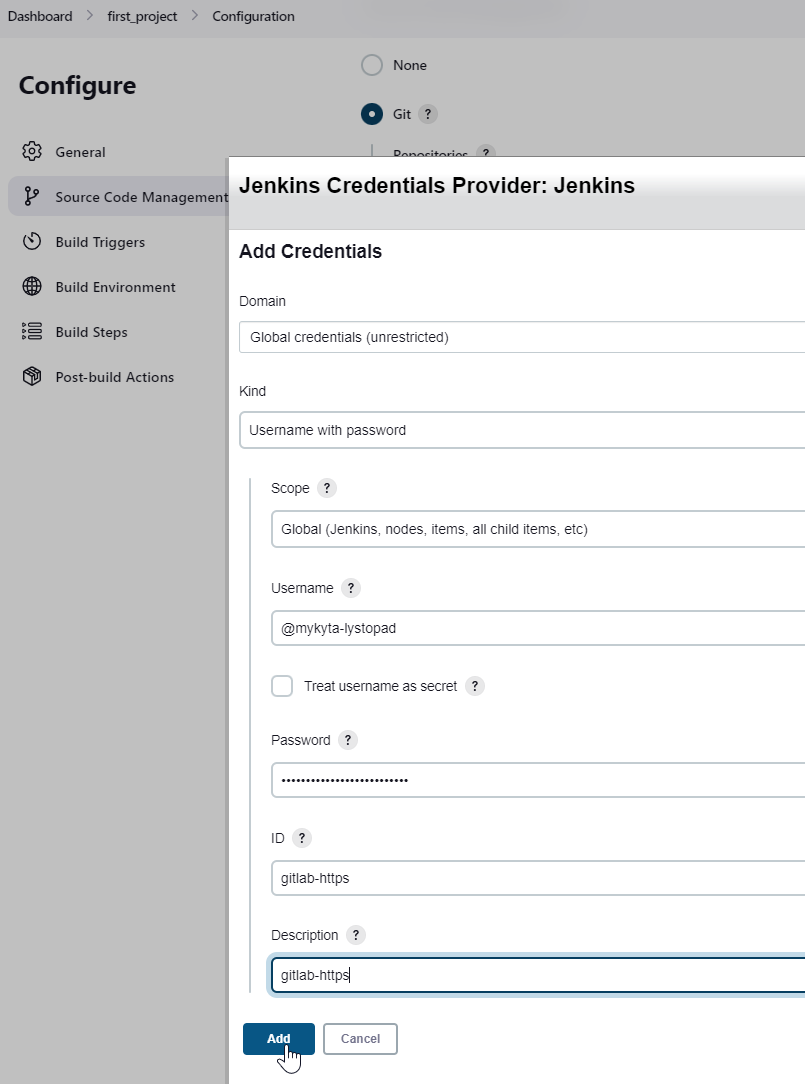
**git remote add origin** [**https://gitlab.com/epam-l-1/05-devops.git**](https://gitlab.com/epam-l-1/05-devops.git)

**git clone** [**https://gitlab.com/epam-l-1/05-devops.git**](https://gitlab.com/epam-l-1/05-devops.git)

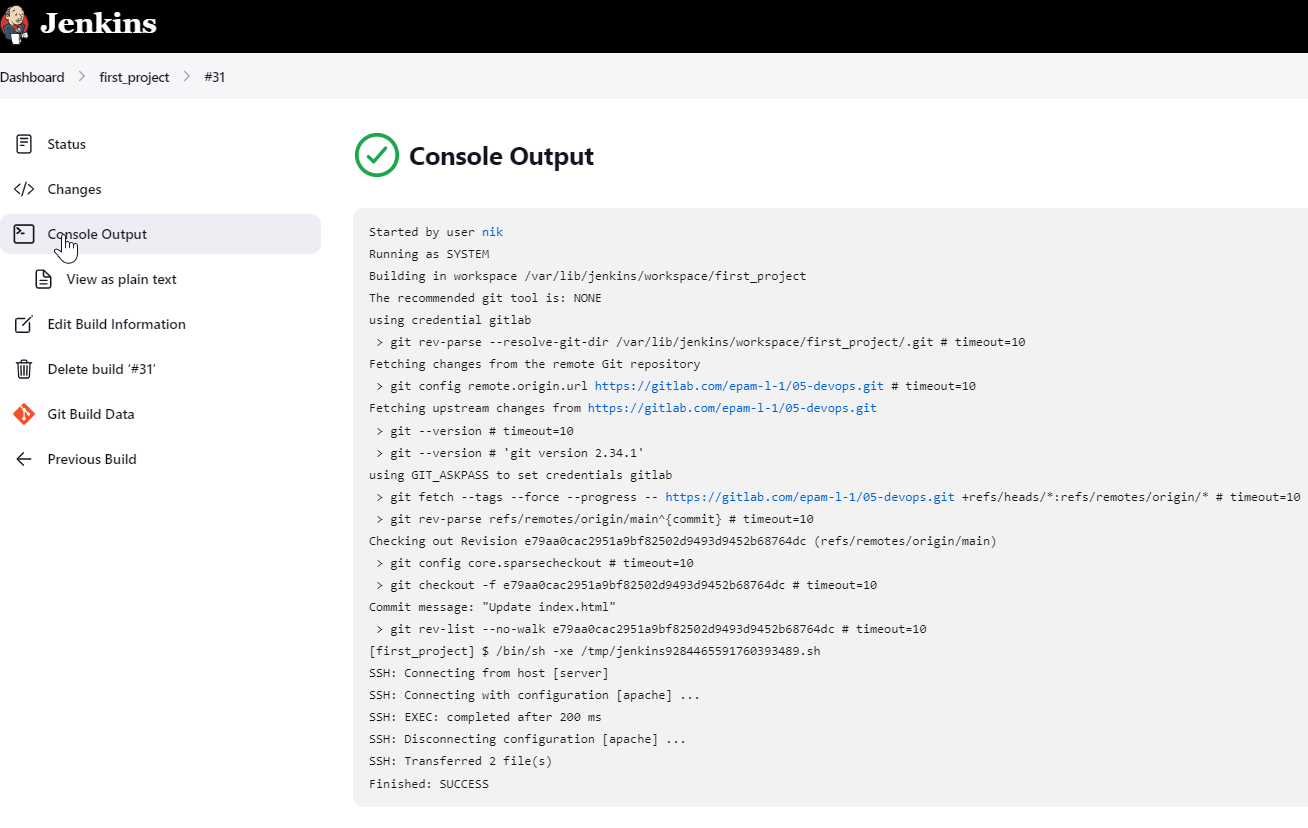
**8.1 Gitlab - HTTPS**

[**https://gitlab.com/epam-l-1/05-devops.git**](https://gitlab.com/epam-l-1/05-devops.git)

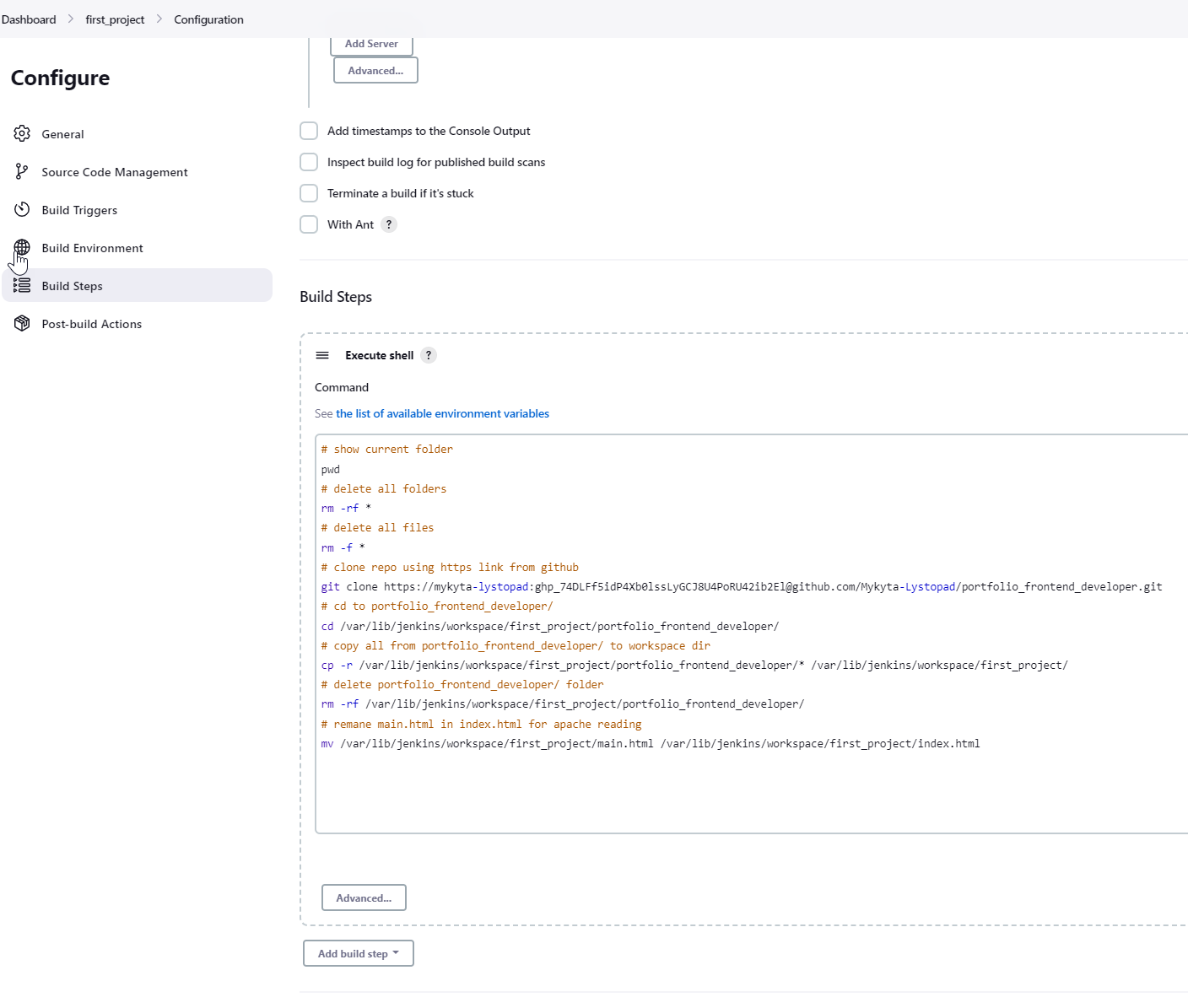




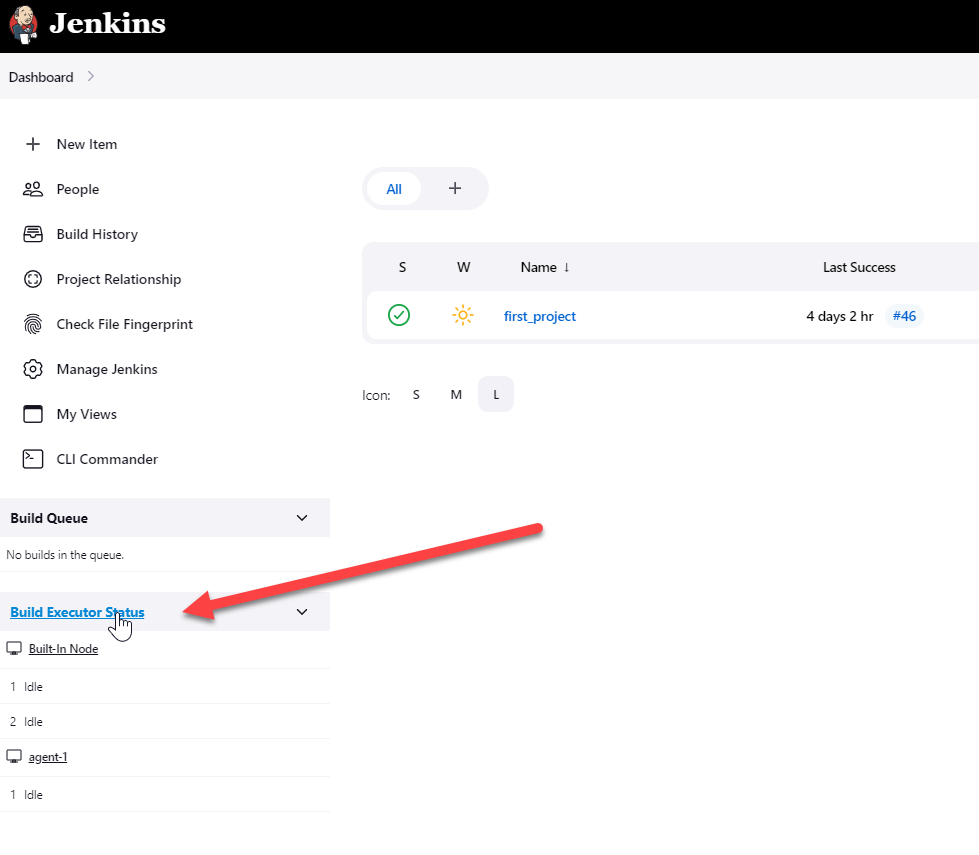
**Password – Accesses token**

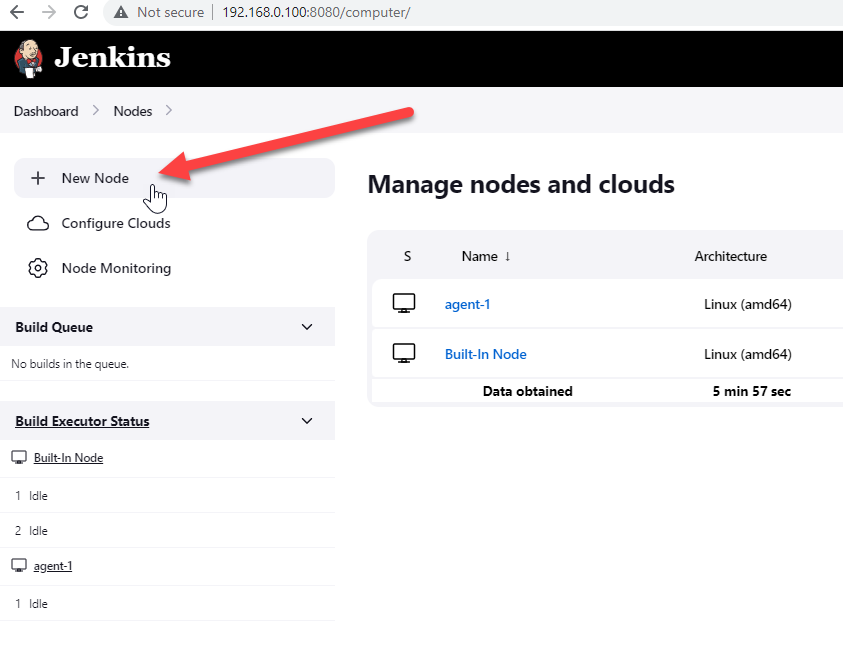


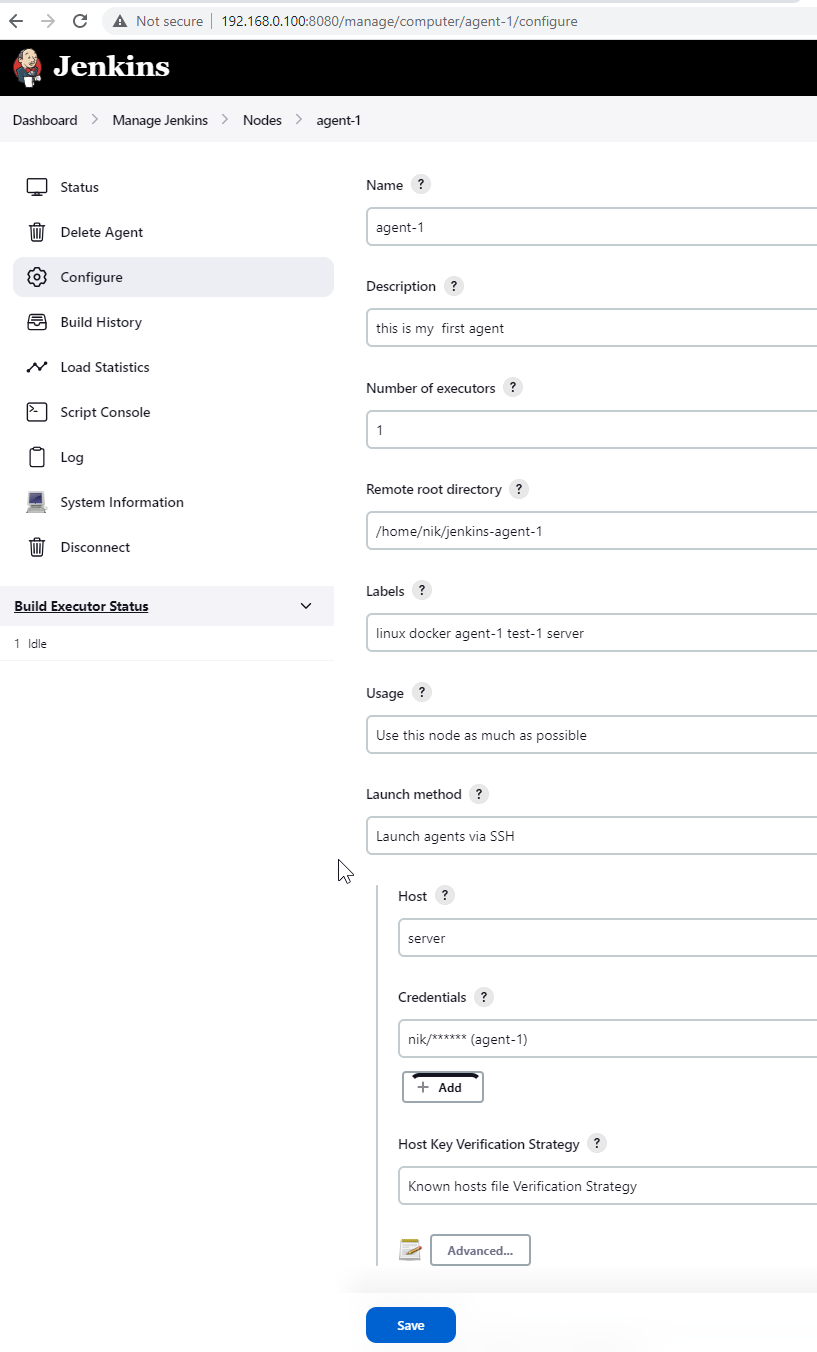
**8.2 Clone github without GIT Jenkins**

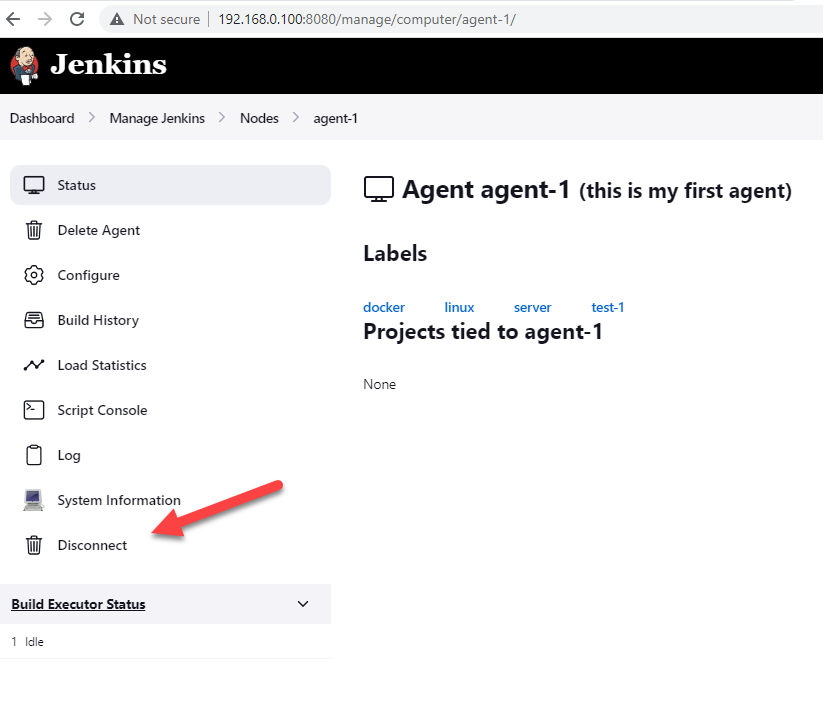


**9 Add Jenkins-agent on local VM**









**ssh-keyscan -H <name of agent> >> /var/lib/jenkins/.ssh/known\_hosts**

**if don’t help:**

**mkdir -p /var/lib/jenkins/.ssh**

**chown -R jenkins:jenkins /var/lib/jenkins/.ssh**

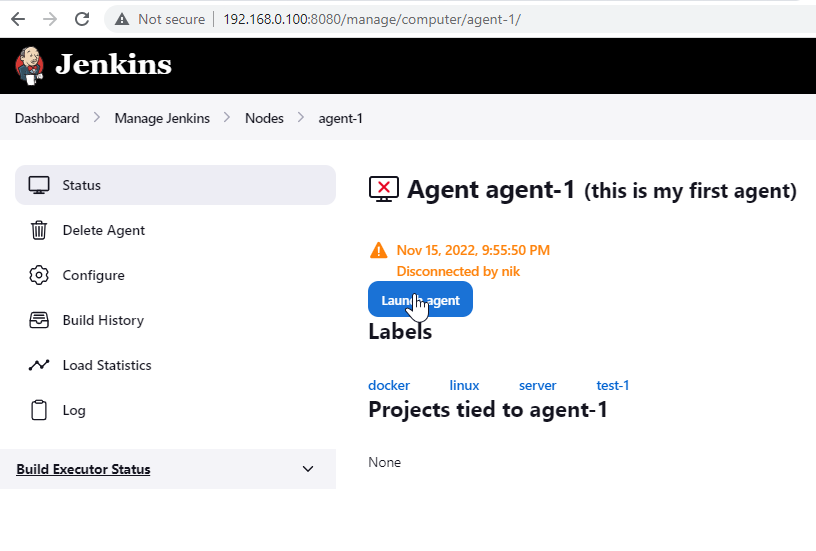
**Cd /var/lib/jenkins/.ssh**

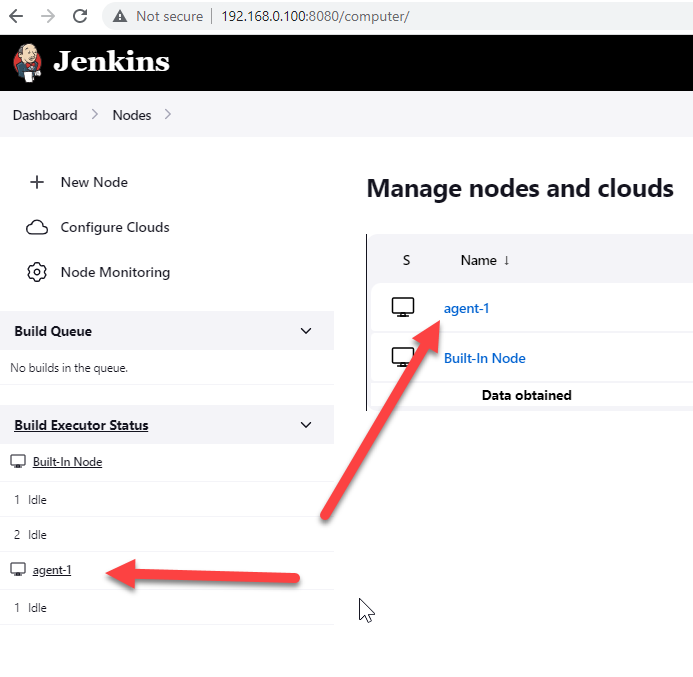
**ssh-keygen**

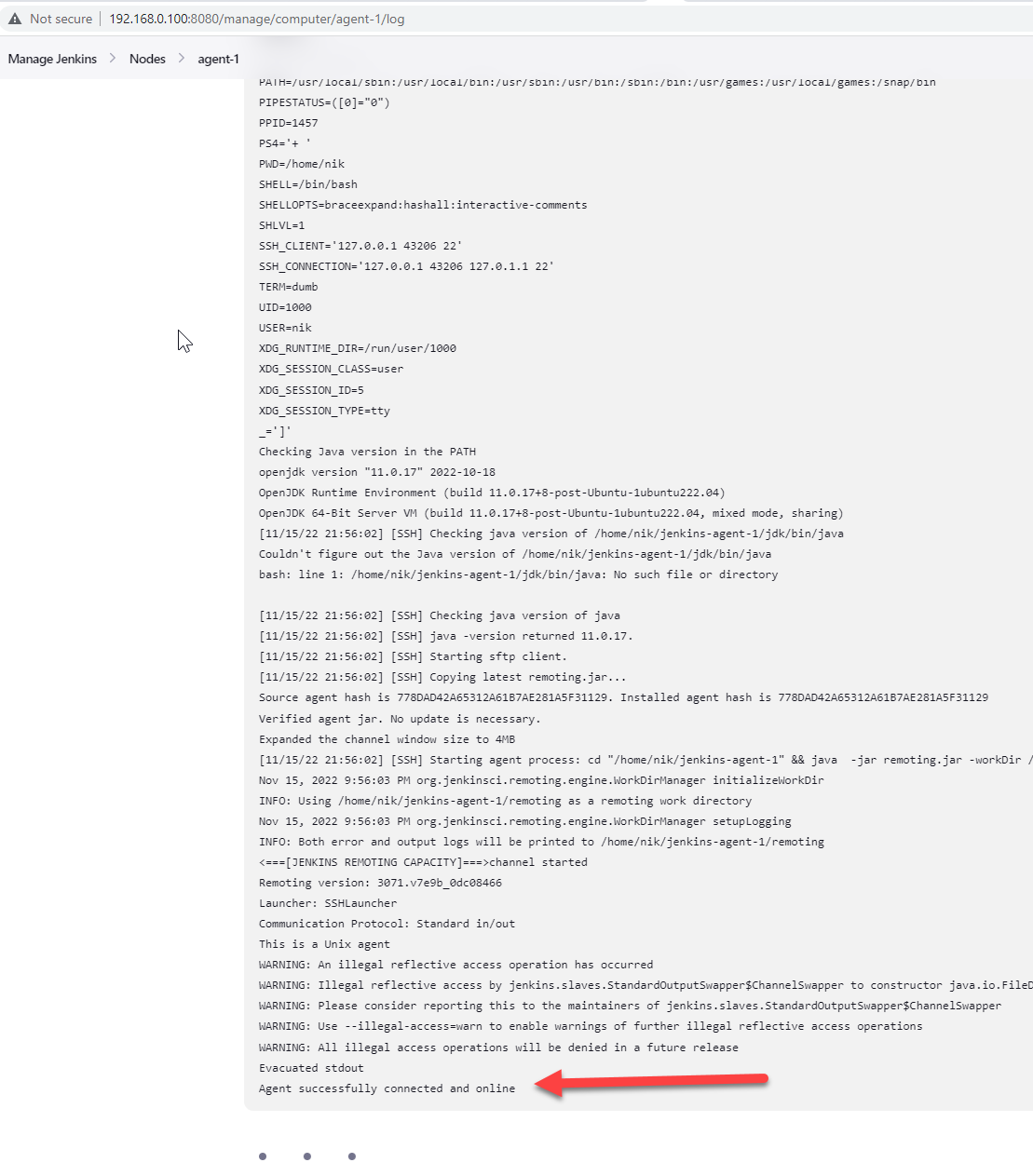
**# add to known\_hosts file all \*.pub key that we have on this VM**

**ssh-keyscan -H server >> /var/lib/jenkins/.ssh/known\_hosts**

**server - hostname of VM**







**=== pipeline for jenkins agent**

**# show current folder**

**pwd**

**# delete all folders**

**rm -rf \***

**# delete all files**

**rm -f \***

**# clone repo using https link from github**

**git clone https://mykyta-lystopad:ghp\_74DLFf5idP4Xb0lssLyGCJ8U4PoRU42ib2El@github.com/Mykyta-Lystopad/portfolio\_frontend\_developer.git**

**# cd to portfolio\_frontend\_developer/**

**cd /home/nik/jenkins-agent-1/workspace/first\_project/portfolio\_frontend\_developer/**

**# copy all from portfolio\_frontend\_developer/ to workspace dir**

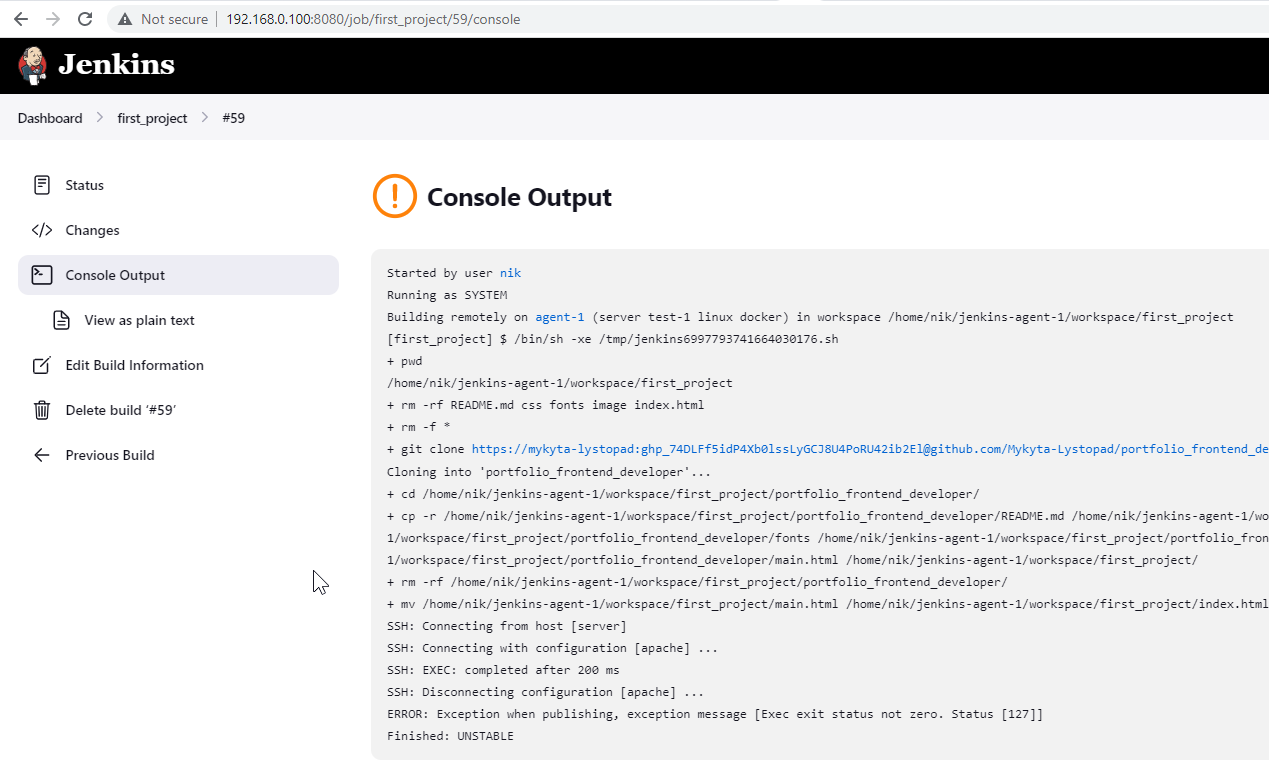
**cp -r /home/nik/jenkins-agent-1/workspace/first\_project/portfolio\_frontend\_developer/\* /home/nik/jenkins-agent-1/workspace/first\_project/**

**# delete portfolio\_frontend\_developer/ folder**

**rm -rf /home/nik/jenkins-agent-1/workspace/first\_project/portfolio\_frontend\_developer/**

**# remane main.html in index.html for apache reading**

**mv /home/nik/jenkins-agent-1/workspace/first\_project/main.html /home/nik/jenkins-agent-1/workspace/first\_project/index.html**



**Update Jenkins**

cat /var/lib/jenkins/config.xml | grep '<version>'

sudo wget https://updates.jenkins-ci.org/latest/jenkins.war

cp /usr/share/java/jenkins.war /usr/share/java/jenkins.war\_copy

cp /root/jenkins.war /usr/share/java/

sudo service jenkins restart

cat /var/lib/jenkins/config.xml | grep '<version>'

**Add Jenkins agent to remote VM**

**On Master**

nano /etc/ssh/sshd\_config

Port 22

service sshd restart

# create ssh-key

ssh-keygen -t rsa -C "jenkins" -m PEM -P "" -f /var/lib/jenkins/.ssh/id\_rsa\_agent-2

# copy to client

ssh-copy-id -i /var/lib/jenkins/.ssh/id\_rsa\_agent-2 [root@192.168.0.103](mailto:root@192.168.0.103)

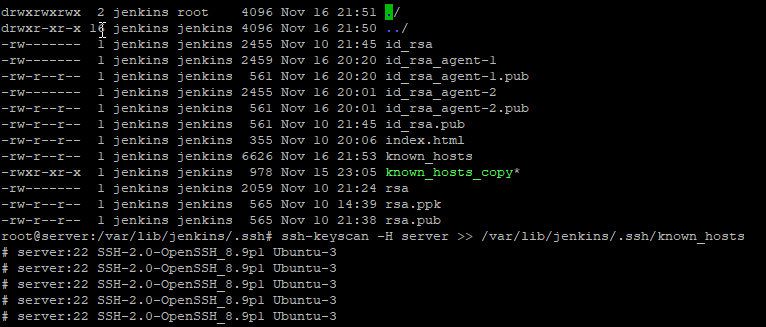
maybe:

# add to known\_hosts file all \*.pub key that we have on this VM

ssh-keyscan -H server >> /var/lib/jenkins/.ssh/known\_hosts

server - hostname of VM

service sshd restart



**Remote agent VM**

yum update

yum install -y java-11-openjdk-devel

# chose the version

alternatives --config java

java -version

# install maven

yum install maven -y

#Add a jenkins user with the home /var/lib/Jenkins

# Create an authorized\_keys file for the Jenkins user

useradd -d /var/lib/jenkins jenkins

mkdir -p /var/lib/jenkins/.ssh

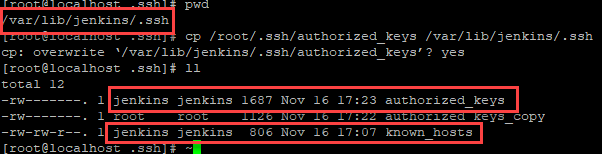
cd /root/.ssh

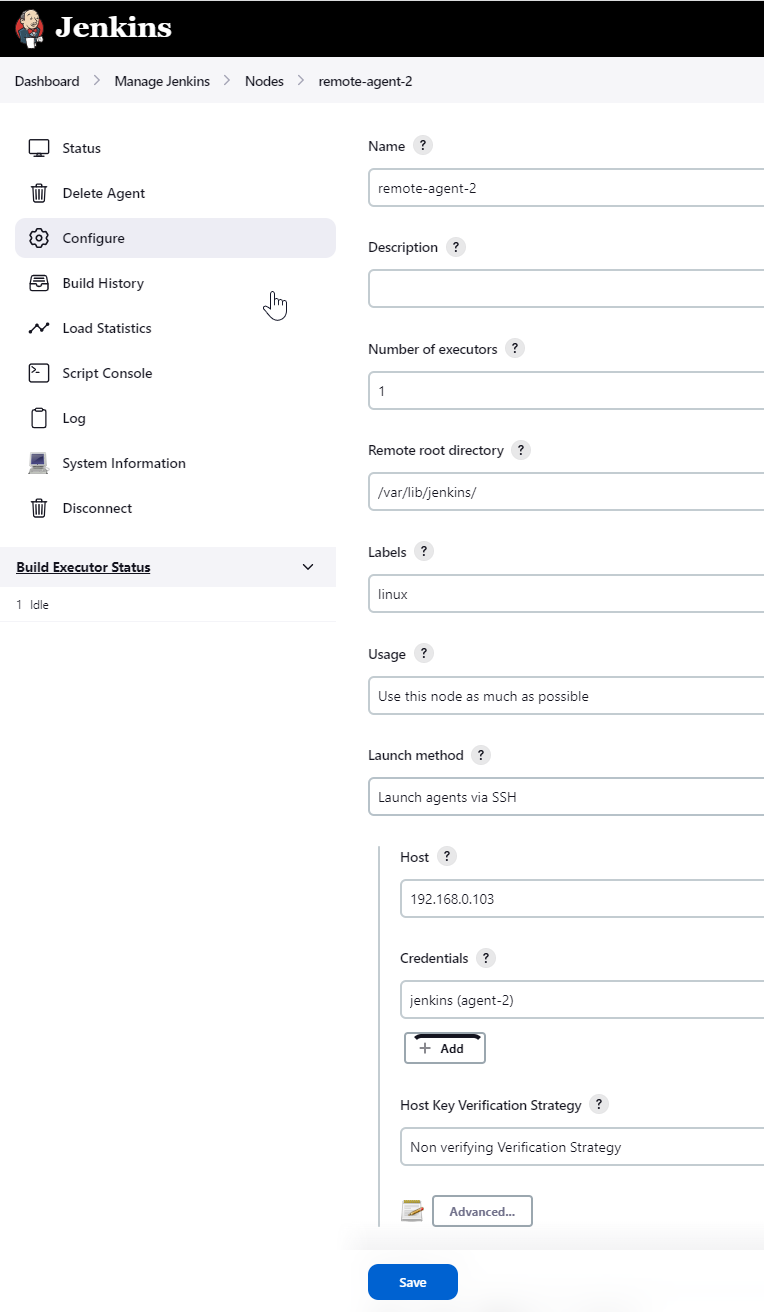
cp authorized\_keys /var/lib/jenkins/.ssh/

chown -R jenkins /var/lib/jenkins/.ssh

chmod 600 /var/lib/jenkins/.ssh/authorized\_keys

chmod 700 /var/lib/jenkins/.ssh





# show current folder

pwd

# delete all folders

rm -rf \*

# delete all files

rm -f \*

# clone repo using https link from github

git clone https://mykyta-lystopad:ghp\_74DLFf5idP4Xb0lssLyGCJ8U4PoRU42ib2El@github.com/Mykyta-Lystopad/portfolio\_frontend\_developer.git

# cd to portfolio\_frontend\_developer/

cd /var/lib/jenkins/workspace/first\_project/portfolio\_frontend\_developer/

# copy all from portfolio\_frontend\_developer/ to workspace dir

cp -r /var/lib/jenkins/workspace/first\_project/portfolio\_frontend\_developer/\* /var/lib/jenkins/workspace/first\_project/

# delete portfolio\_frontend\_developer/ folder

rm -rf /var/lib/jenkins/workspace/first\_project/portfolio\_frontend\_developer/

# remane main.html in index.html for apache reading

mv /var/lib/jenkins/workspace/first\_project/main.html /var/lib/jenkins/workspace/first\_project/index.html

