**1) Setup jenkins CICD pipeline using freestyle job using Docker containers using below code.**

[**https://github.com/betawins/hiring-app.git**](https://github.com/betawins/hiring-app.git)

**Stages:**

**1) Git Clone**

**2) Sonarqube Integration**

**3) Maven Compilation**

**4) Nexus Artifactory**

**5) Slack Notification**

**6) Deploy On tomcat**

>>>>>>>>>>>>>>>>>>>>>>

**STEP:1) setting up the servers**

**#setting up jenkins server**

# yum install git

# yum install java-17\*

# sudo wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat-stable/jenkins.repo

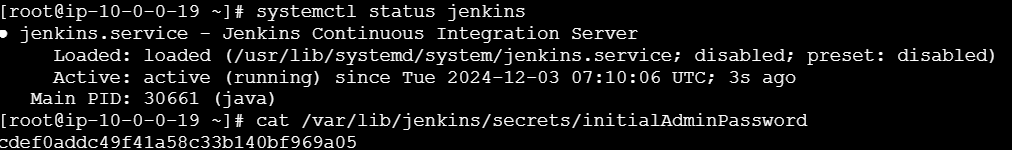
# sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key

# yum install fontconfig java-17-openjdk

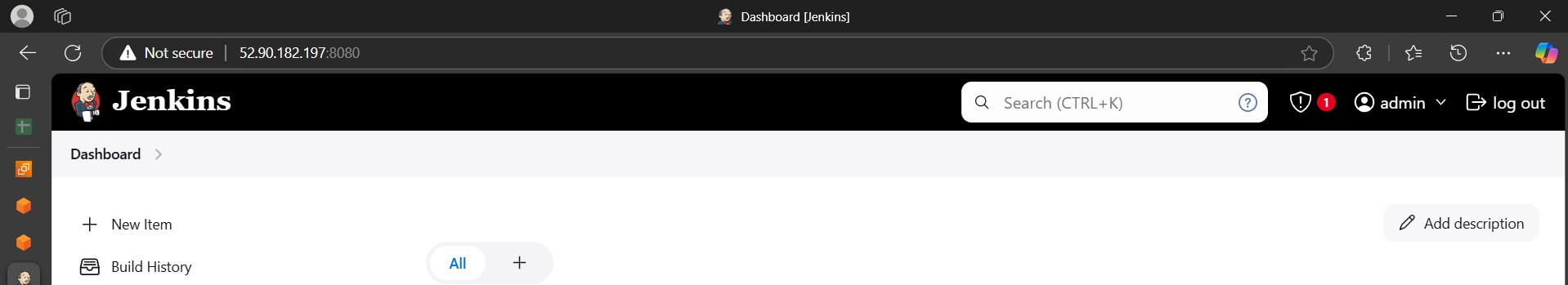
# yum install Jenkins

# systemctl start Jenkins

# systemctl status jenkins

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<**copying the initial password and loggin into server by port:8080 followed by public ip>**



**<installing sonarqube , slack , tomcat deployment plugin on gui>**

**🡪**[**Slack Notification PluginVersion751.v2e44153c8fe1**](https://plugins.jenkins.io/slack)

**🡪**[**SonarQube Scanner for JenkinsVersion2.17.3**](https://plugins.jenkins.io/sonar)

**🡪**[**Deploy to container PluginVersion1.16**](https://plugins.jenkins.io/deploy)

**🡪**[**Nexus Artifact UploaderVersion2.14**](https://plugins.jenkins.io/nexus-artifact-uploader)

**#setting up sonarqube server**

# yum install -y docker

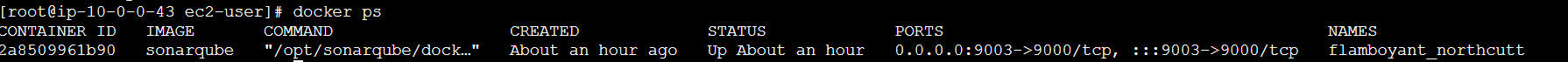
# systemctl start docker

# docker pull sonarqube

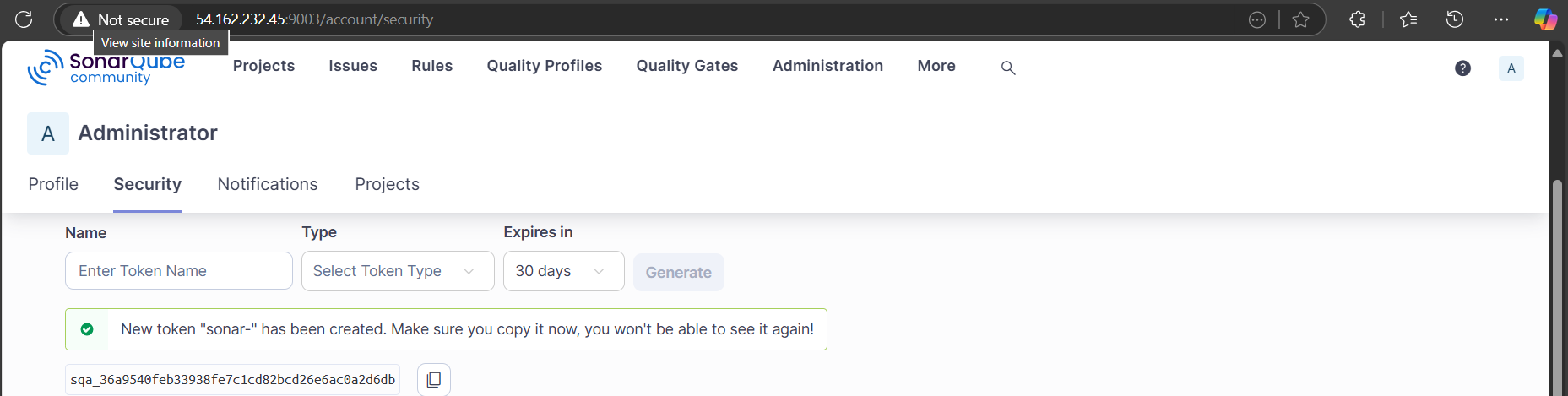
# docker images

# docker run -itd -p 9003:9000 sonarqube

# docker ps



<**logging in to sonarqube server through gui and creating a secret text for integrating it in jenkins>**

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**#setting up maven in jenkins server**

# cd /opt/

# wget <https://dlcdn.apache.org/maven/maven-3/3.9.9/binaries/apache-maven-3.9.9-bin.tar.gz>

# tar xvf apache-maven-3.9.9-bin.tar.gz

# cd ~

# vi .bash\_profile

MAVEN=/opt/apache-maven-3.9.9/bin

PATH=$PATH:$HOME/bin:$MAVEN

# chown -R jenkins:jenkins apache-maven-3.9.9

**#setting up nexus server**

# yum install java-1.8\*

# cd /opt

# wget https://sonatype-download.global.ssl.fastly.net/nexus/3/nexus-3.0.2-02-unix.tar.gz

# tar -zxvf nexus-3.0.2-02-unix.tar.gz

# mv /opt/nexus-3.0.2-02 /opt/nexus

# sudo adduser nexus

# visudo \\ nexus ALL=(ALL) NOPASSWD: ALL

# sudo chown -R nexus:nexus /opt/nexus

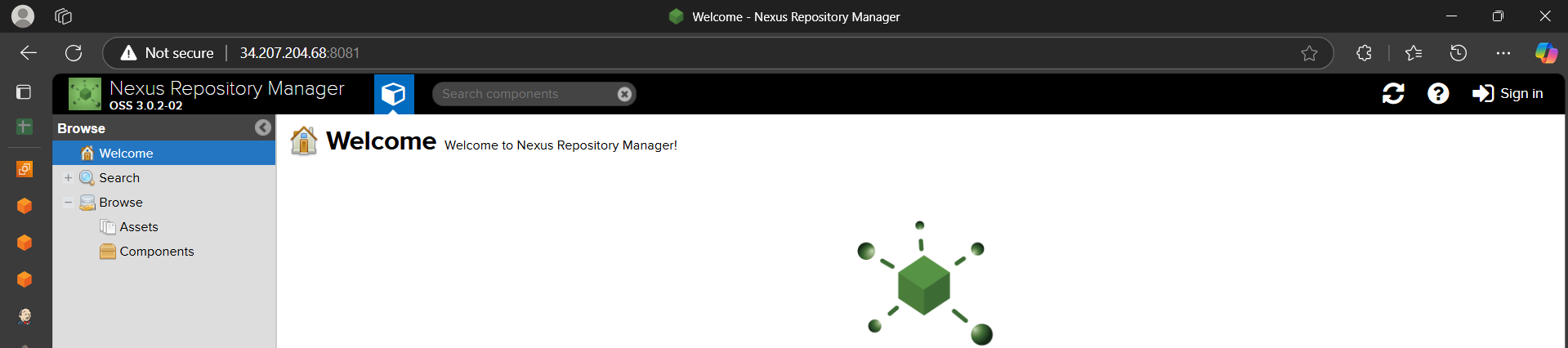
# vi /opt/nexus/bin/nexus.rc

# sudo ln -s /opt/nexus/bin/nexus /etc/init.d/nexus

# su – nexus

# service nexus start

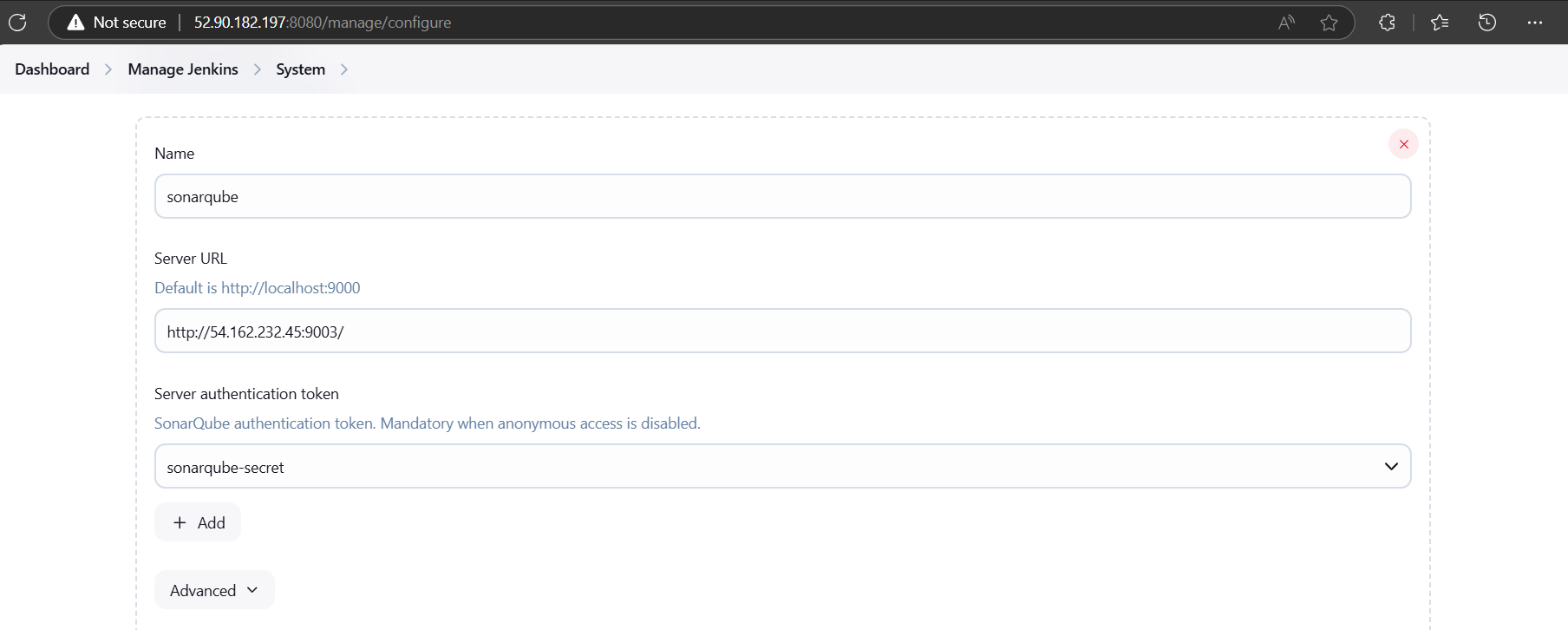


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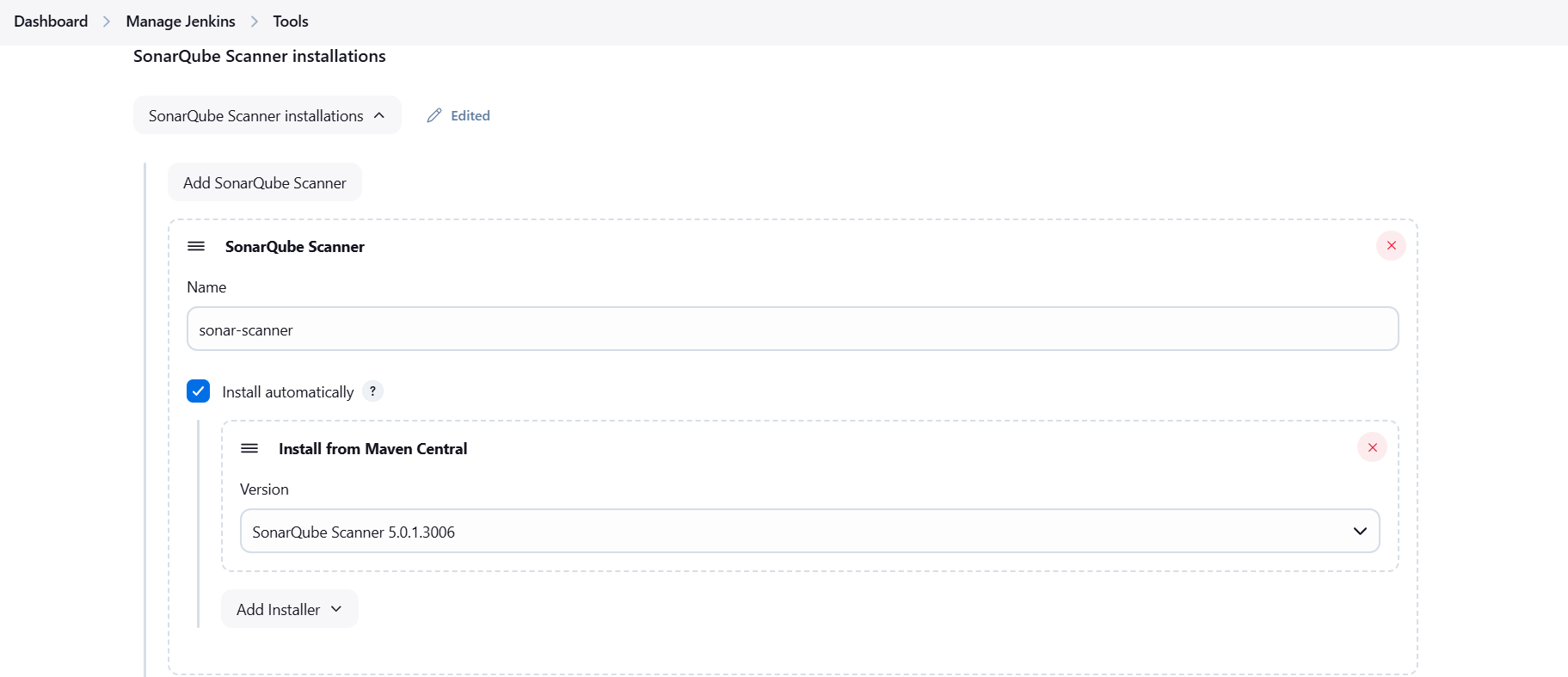
<default username is admin and password is admin123>

**#configuration in jenkins gui**

adding the sonar url and secret text that we created



adding the sonar scanner for integration of the code to sonarcube for quality check



adding slack notifications

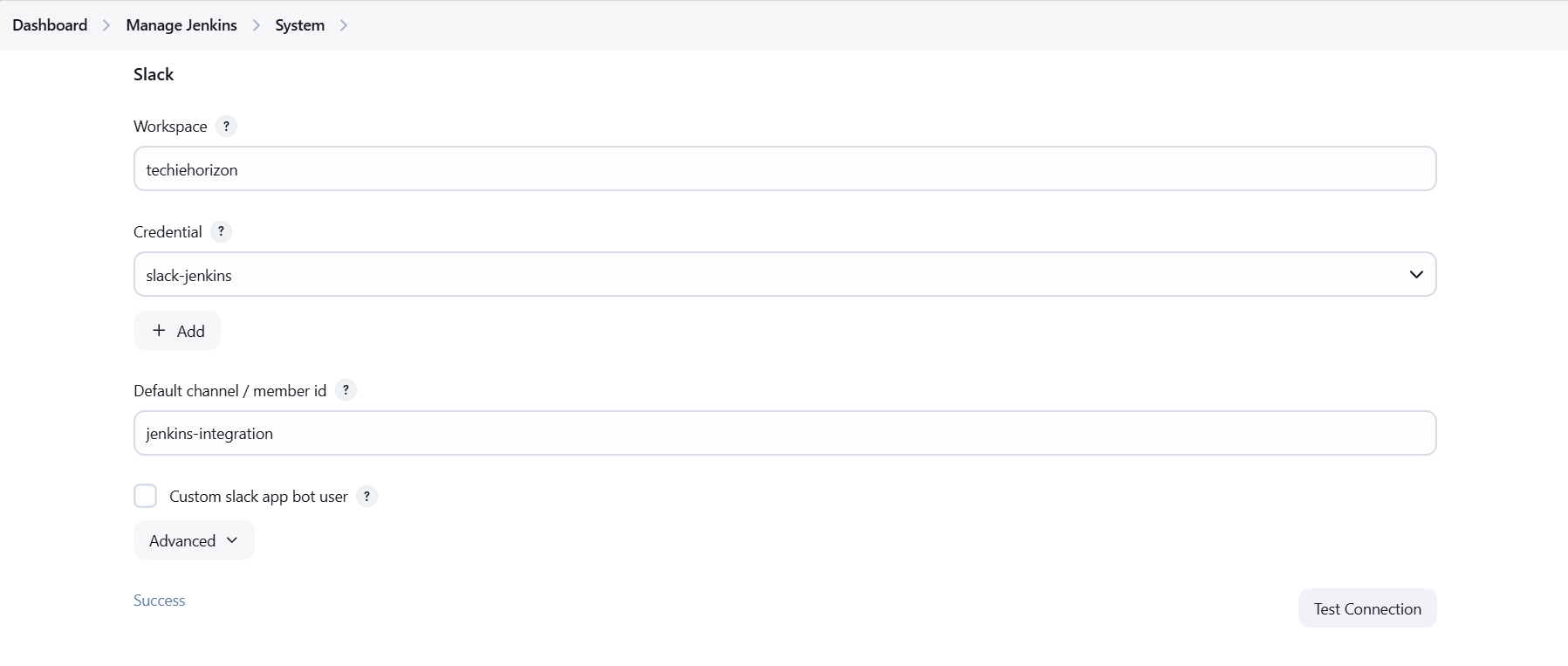
open slack>apps>jenkins>configure>select channel>

follow instructions to setup in jenkins gui

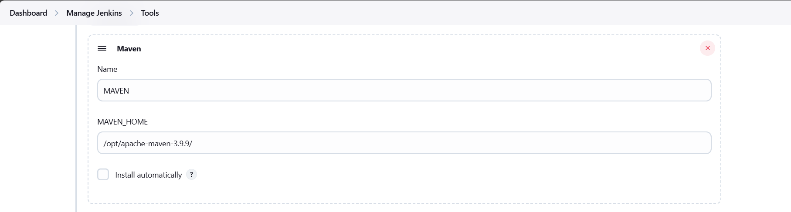
>add workspace

>add secret text

>add channel name and **test**

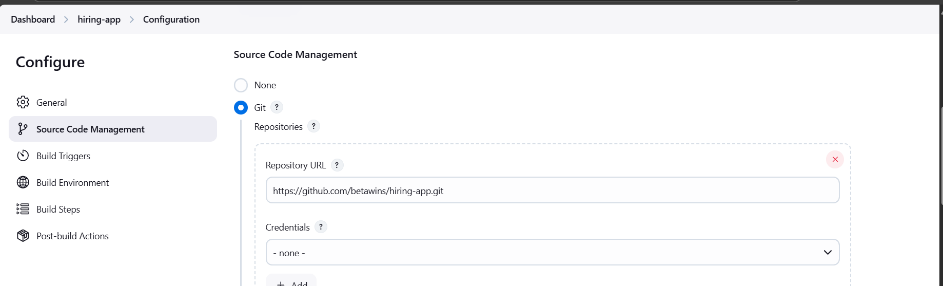


add maven configuration

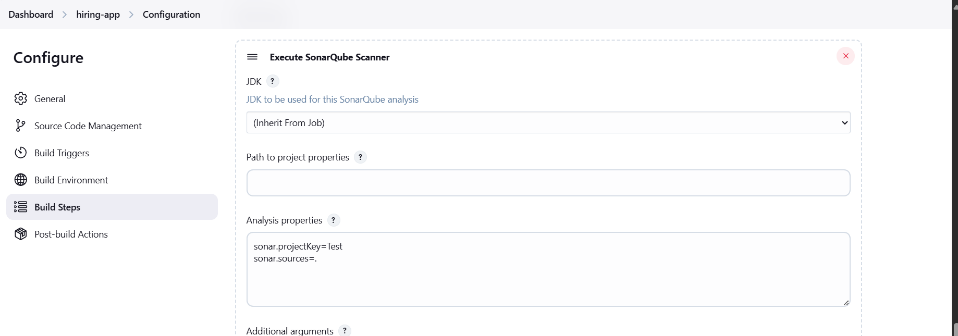


**STEP:2) creating a job with git-repo , sonar integration , slack , maven , nexus**

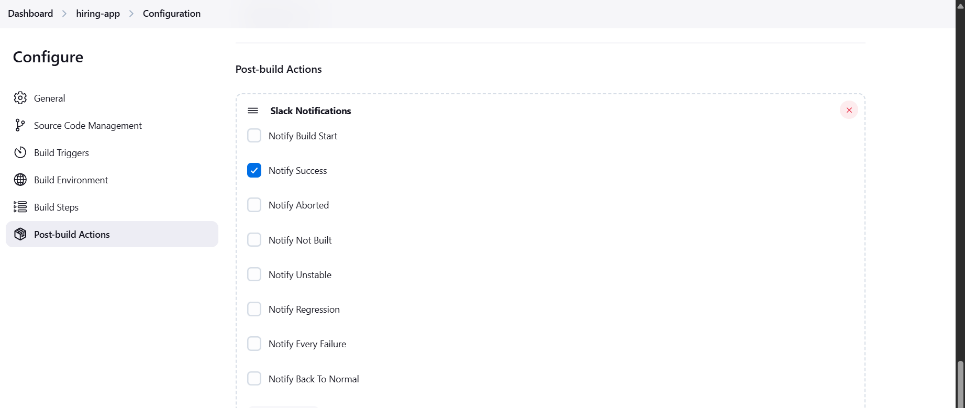
🡪add git repo



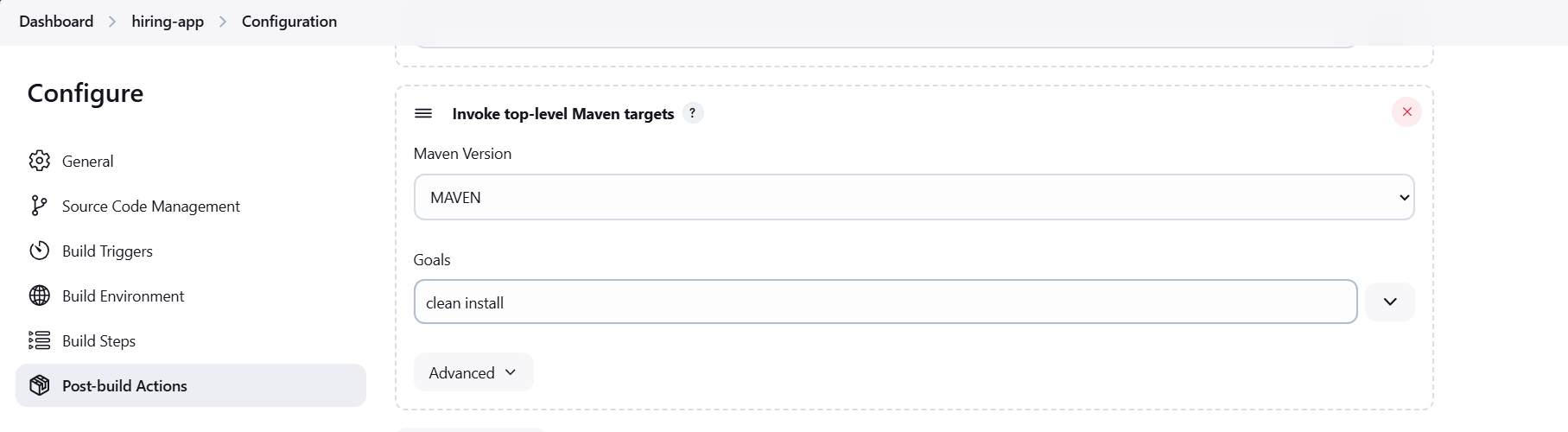
🡪adding sonar



🡪adding slack

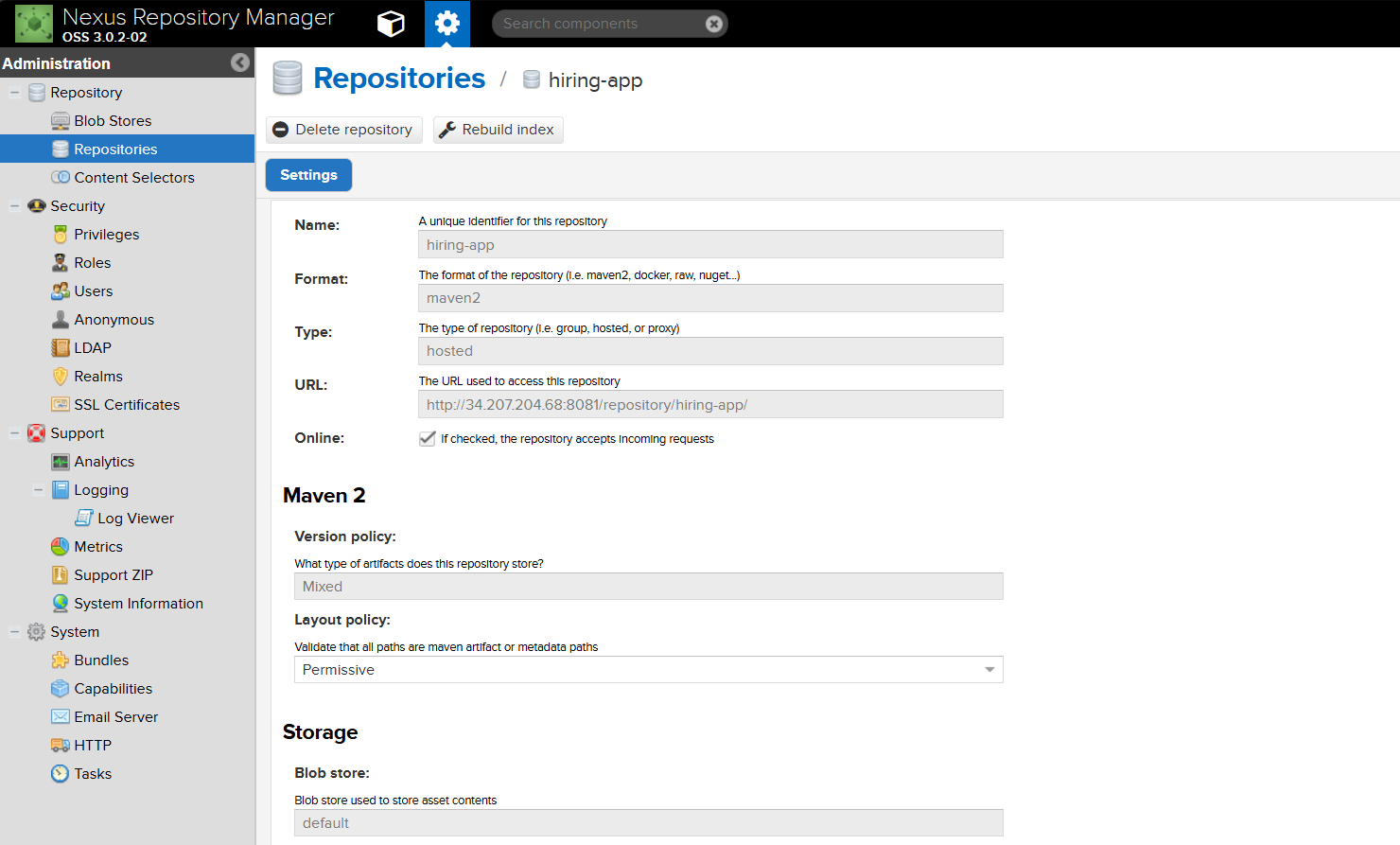


🡪Adding maven

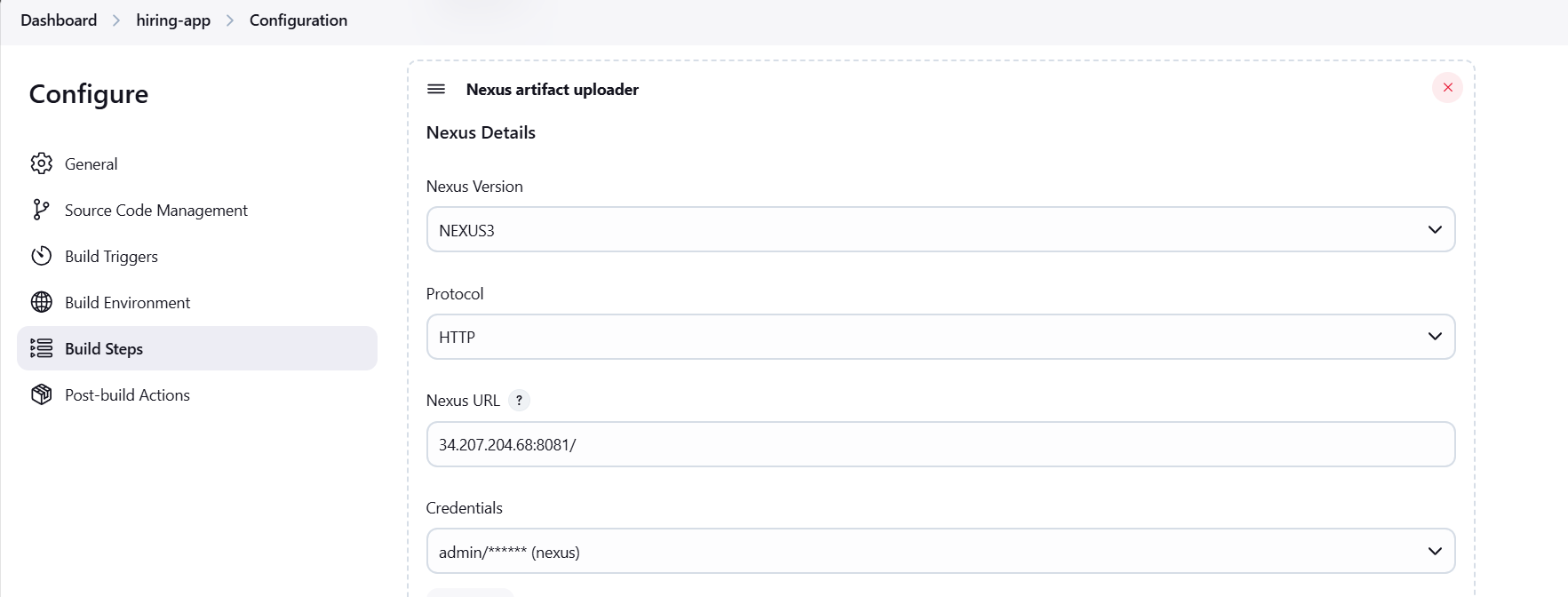


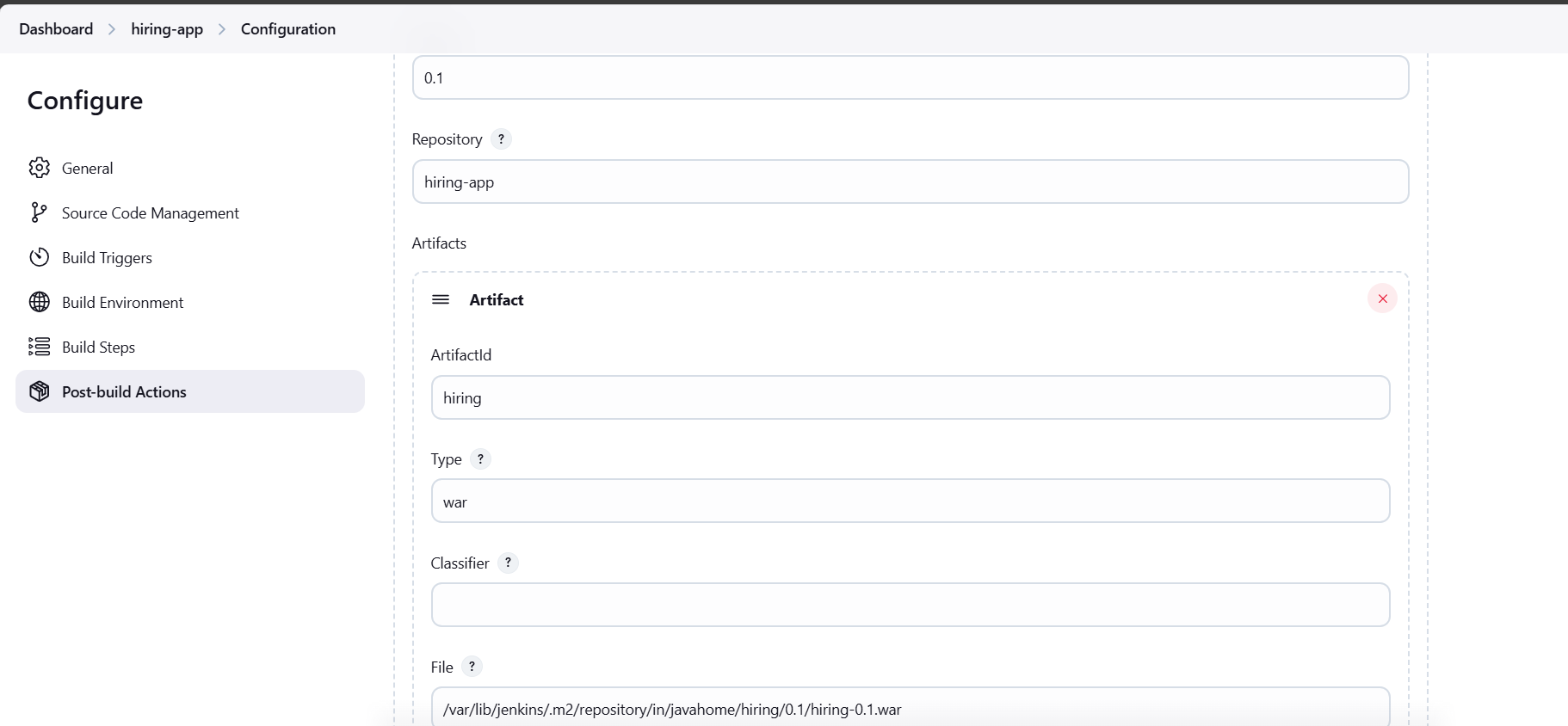
🡪adding nexus

>>first creating a repo



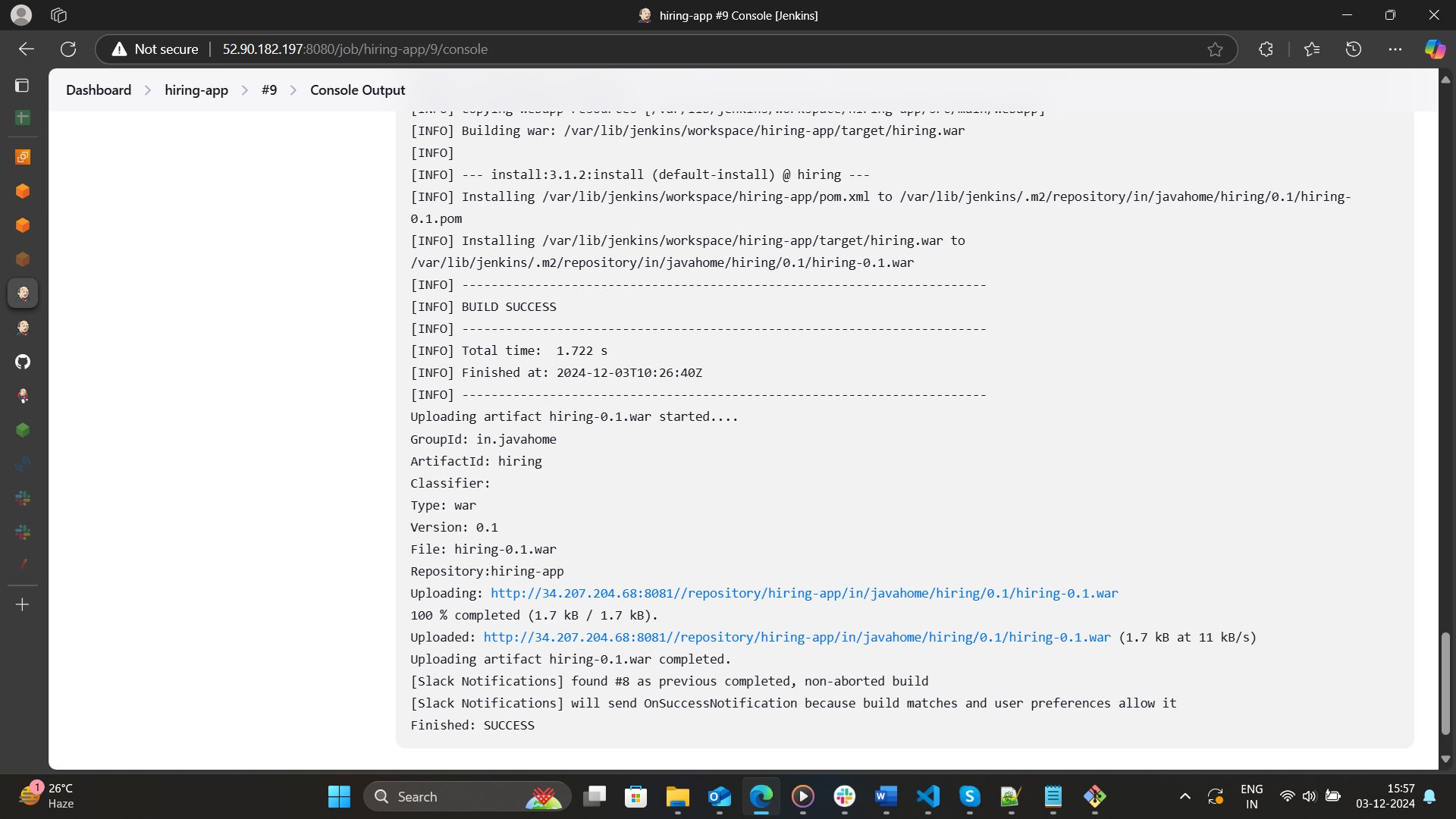
>>adding to jenkins job **note**: details that has to filled will be found in ***pom.xml***

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*\*The file location is the location where the maven is saving the package\**

**🡪saving it and clicking build🡨**

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**STEP:3) deploying the hiring-app on apache tomcat**

🡪launch one instance and install java and apache tomcat in it

# yum install java-17\*

# cd /opt

# wget <https://dlcdn.apache.org/tomcat/tomcat-10/v10.1.33/bin/apache-tomcat-10.1.33.tar.gz>

# tar xvf apache-tomcat-10.1.33.tar.gz

# find / -name context.xml

🡪edit all the context.xml file and comment the value with <!-- -->

for example

<!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"

allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" /> -->

# vi /opt/apache-tomcat-10.1.33/conf/tomcat-users.xml

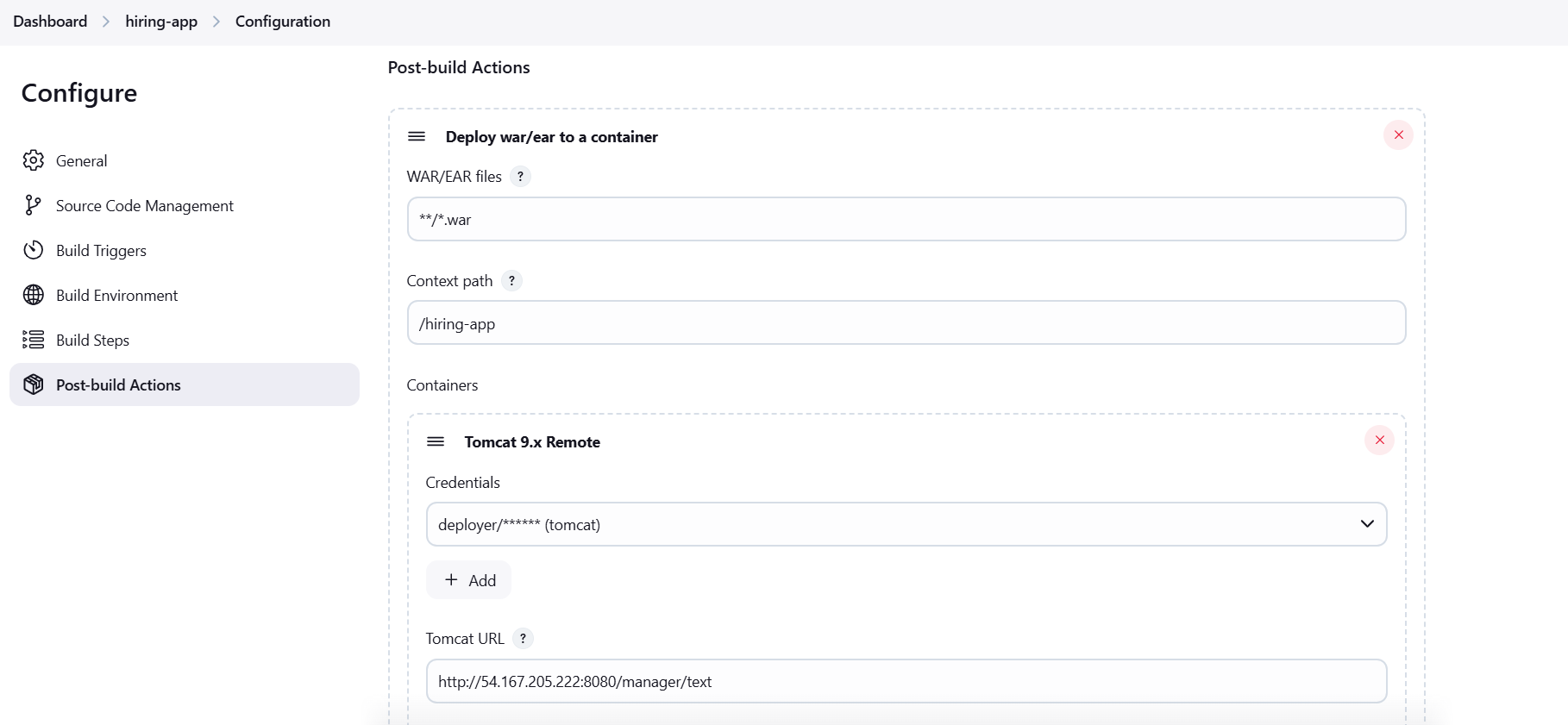
🡪add this value in the file

<role rolename="manager-gui"/>

<role rolename="manager-script"/>

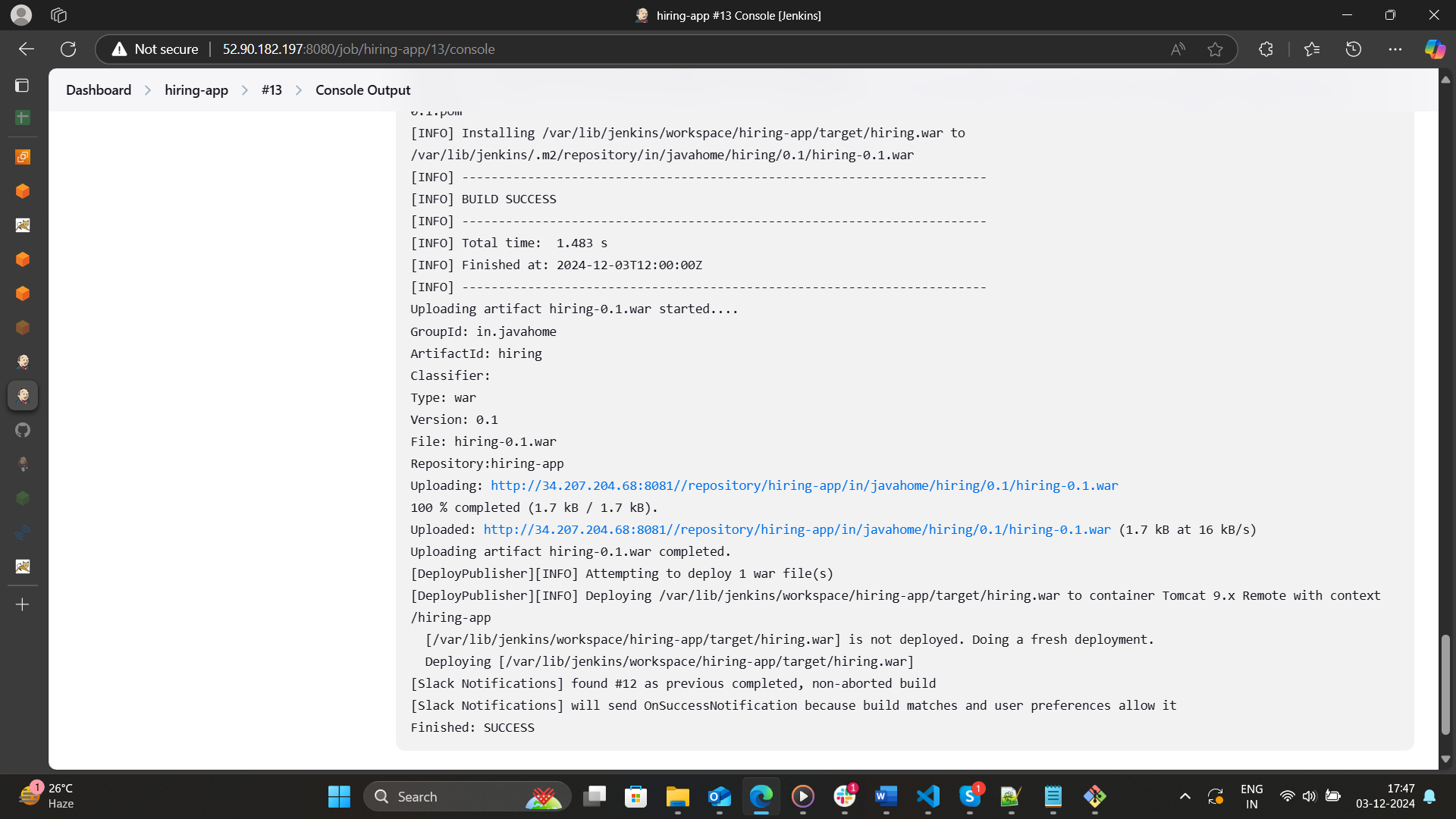
<user username="deployer" password="deployer" roles="manager-gui,manager-script"/>

>>adding the post build action in jenkins

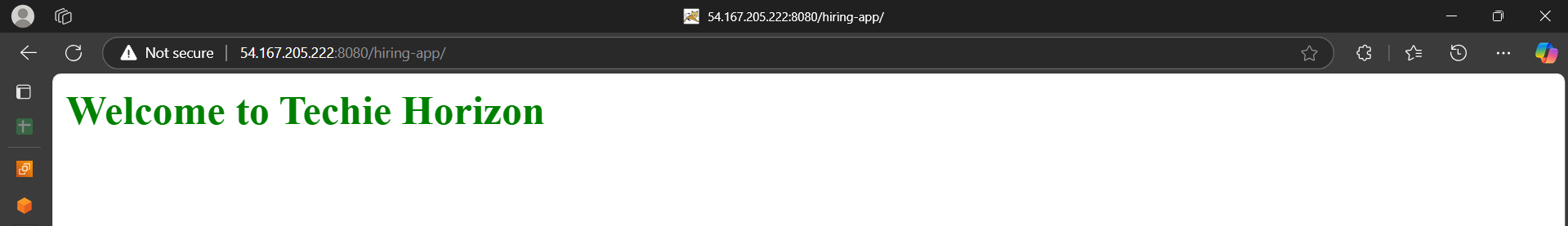
****

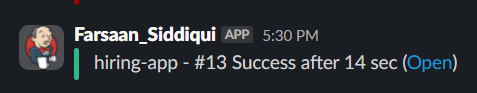
**\*credentials are username and password that we saved in tomcat-users.xml file\***

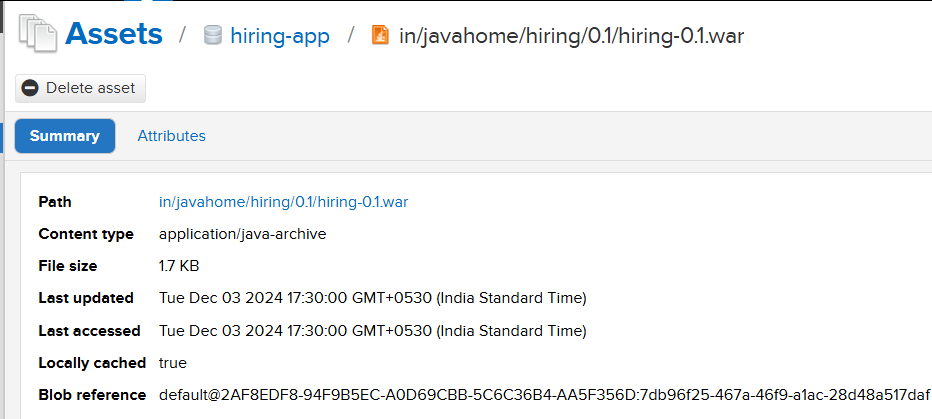
**STEP:4) build the job and check the output**

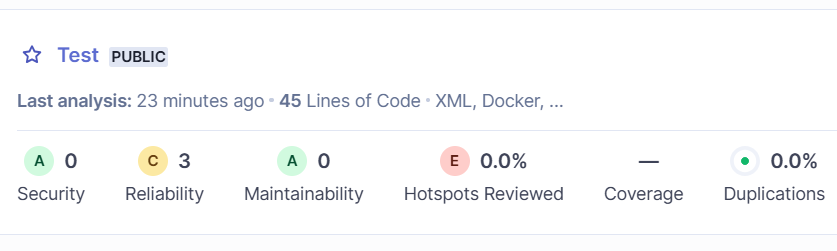
****

**<checking the slack , sonarqube , nexus and the url of our deployed path>**

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