

JENKINS-NEXUS-TOMCAT-CI/CD PIPELINE PROJECT

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:instanceState=running:v=3;\$case=tags:true%SC_client:false;\$regex=tags:false%SC_client:false

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Instances (3) Info

Find instance by attribute or tag (case-sensitive)

Instance state = running X Clear filters

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status		Av
<input type="checkbox"/>	NEXUS-SERVER	i-08890b0fe63e2499e	Running	t2.medium	2/2 checks passed	No alarms	+	us
<input type="checkbox"/>	TOMCAT-SERVER	i-06134f7275bff28f2	Running	t2.micro	2/2 checks passed	No alarms	+	us
<input type="checkbox"/>	JENKINS-SERVER	i-08856b115811b15bc	Running	t2.micro	2/2 checks passed	No alarms	+	us

Select an instance

CloudShell Feedback Language

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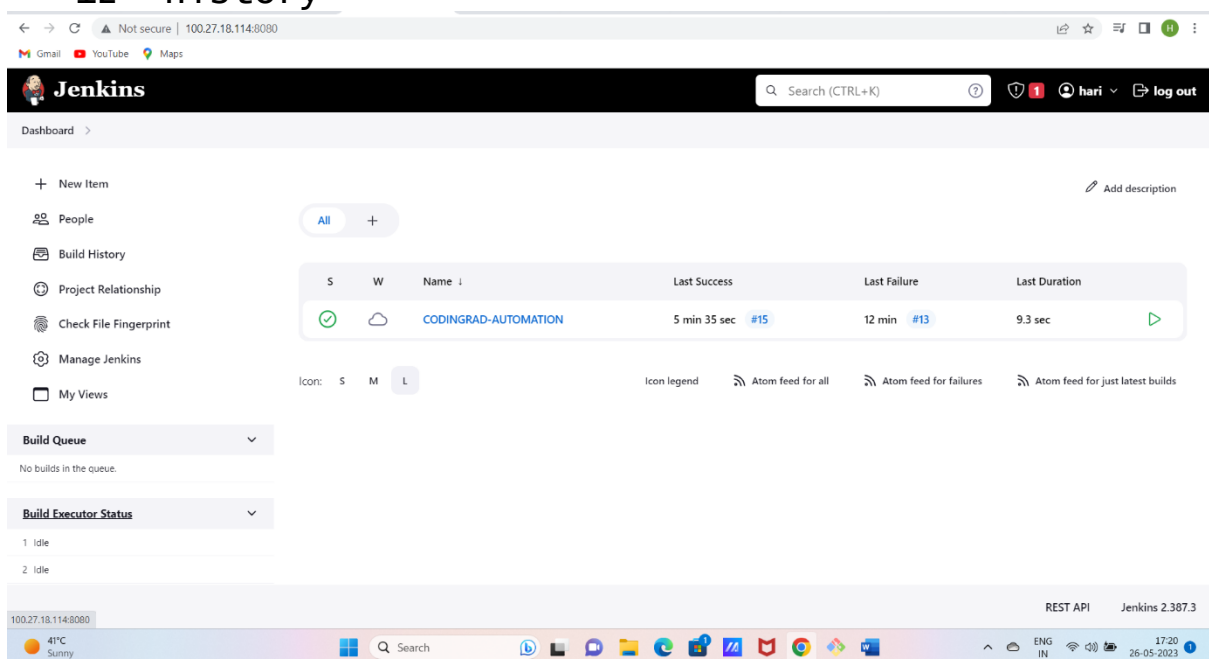
17:16 26-05-2023

```
1 sudo amazon-linux-extras install java-openjdk11 -y
```

```

2  sudo wget -O /etc/yum.repos.d/jenkins.repo
https://pkg.jenkins.io/redhat-stable/jenkins.repo
3  sudo rpm --import
https://pkg.jenkins.io/redhat-stable/jenkins.io-
2023.key
4  sudo yum install jenkins -y
5  systemctl restart jenkins
6  systemctl status jenkins
7  yum install git -y
8  sudo yum install java-1.8.0-openjdk -y
9  update-alternatives --config java
10 sudo yum install maven -y
11 mvn --version
12 history

```



STEP: Goto manage Jenkins option----→ manage plugin option -
→install **nexus artifactory upload** plugin and configure

NEXUS INSTALL COMMANDS

UBUNTU :20.4

T2.MEDIUM

Step 1: sudo apt update

Step2 : sudo apt install openjdk-8-jre-headless -y

Step 3: goto browser and search download nexus and then select Download-sonatype-help option

Step 4: cd /opt/

Step 6: sudo wget <https://download.sonatype.com/nexus/3/nexus-3.41.1-01-unix.tar.gz>

Step 7:ls -ltr

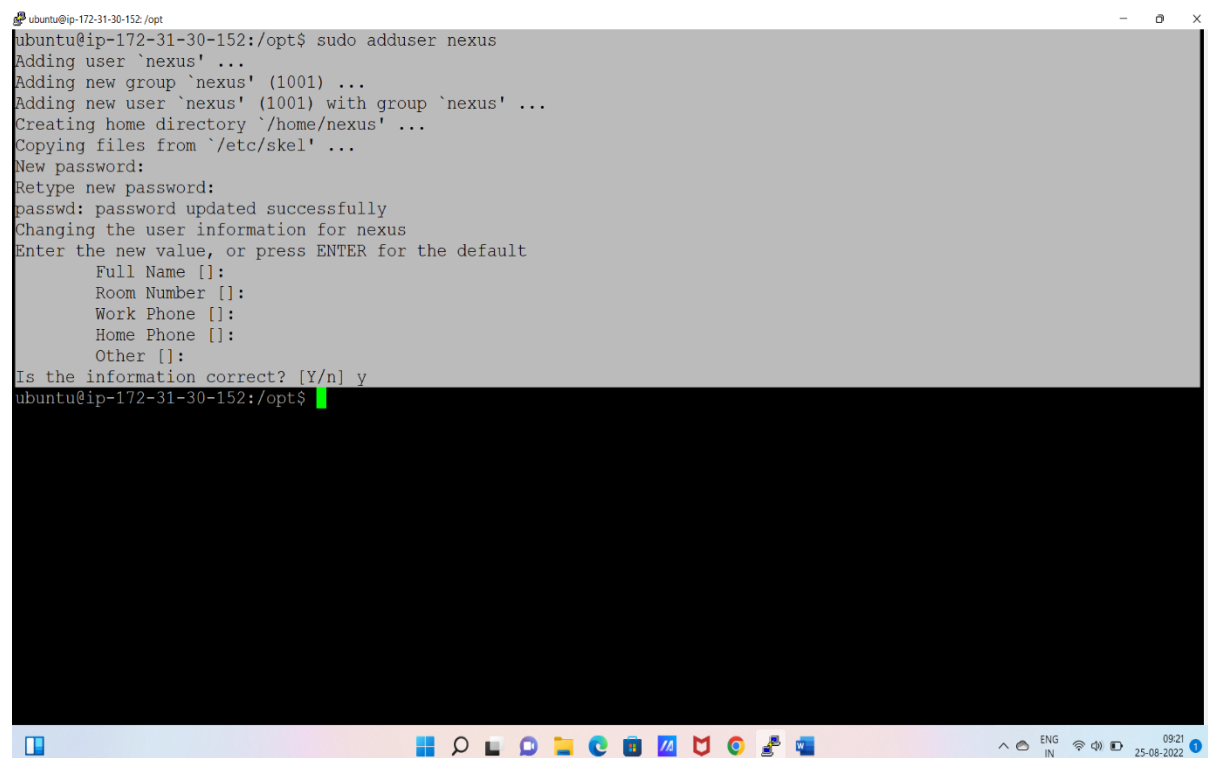
Step 8: sudo tar -zxvf nexus-3.41.1-01-unix.tar.gz

Step 9:ls -ltr

Step 10: sudo mv /opt/nexus-3.41.1-01 /opt/nexus

Step 11:ls -ltr

Step 12 : sudo adduser nexus



```
ubuntu@ip-172-31-30-152:/opt$ sudo adduser nexus
Adding user `nexus' ...
Adding new group `nexus' (1001) ...
Adding new user `nexus' (1001) with group `nexus' ...
Creating home directory `/home/nexus' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for nexus
Enter the new value, or press ENTER for the default
  Full Name []:
   Room Number []:
   Work Phone []:
   Home Phone []:
    Other []:
Is the information correct? [Y/n] y
ubuntu@ip-172-31-30-152:/opt$
```

Step 13: sudo visudo

```
nexus    ALL=(ALL)    NOPASSWD:ALL
```

Save: ctr+x ctr+y enter

Step 14: ls -ltra

Step 15:sudo chown -R nexus:nexus /opt/nexus

Step 16: sudo chown -R nexus:nexus/opt/sonatype-work

Step 17: ls -ltr

Step 18: cd nexus/

Step 19: sudo apt install tree

Step 20: tree

Step 21: sudo vim /opt/nexus/bin/nexus.rc

#run_as_user="" "

Remove # and give name as nexus("nexus")

Save and quit

Step 22: sudo ln -s /opt/nexus/bin/nexus /etc/init.d/nexus

Step 23: su - nexus

Give password

Step 24: /etc/init.d/nexus start

Step 25: sudo netstat -plnt

You need install sudo apt install net-tools

```
nexus@ip-172-31-30-152: ~  
ubuntu@ip-172-31-30-152:/opt/nexus$ sudo vim /opt/nexus/bin/nexus.rc  
ubuntu@ip-172-31-30-152:/opt/nexus$ sudo ln -s /opt/nexus/bin/nexus /etc/init.d/nexus  
ubuntu@ip-172-31-30-152:/opt/nexus$ su - nexus  
Password:  
nexus@ip-172-31-30-152:~$ /etc/init.d/nexus start  
Starting nexus  
nexus@ip-172-31-30-152:~$ sudo apt install net-tools  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following NEW packages will be installed:  
  net-tools  
0 upgraded, 1 newly installed, 0 to remove and 58 not upgraded.  
Need to get 196 kB of archives.  
After this operation, 864 kB of additional disk space will be used.  
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 net-tools amd64 1.60+git20180626.aebd88e-1ubuntu1 [196 kB]  
Fetched 196 kB in 0s (5778 kB/s)  
Selecting previously unselected package net-tools.  
(Reading database ... 61755 files and directories currently installed.)  
Preparing to unpack .../net-tools_1.60+git20180626.aebd88e-1ubuntu1_amd64.deb ...  
Unpacking net-tools (1.60+git20180626.aebd88e-1ubuntu1) ...  
Setting up net-tools (1.60+git20180626.aebd88e-1ubuntu1) ...  
Processing triggers for man-db (2.9.1-1) ...  
nexus@ip-172-31-30-152:~$ sudo netstat -plnt  
Active Internet connections (only servers)  
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name  
tcp        0      0 127.0.0.1:41927         0.0.0.0:*                LISTEN      3795/java  
tcp        0      0 0.0.0.0:8081           0.0.0.0:*                LISTEN      3795/java  
tcp        0      0 127.0.0.53:53          0.0.0.0:*                LISTEN      429/systemd-resolve  
tcp        0      0 0.0.0.0:22             0.0.0.0:*                LISTEN      715/sshd: /usr/sbin  
tcp6       0      0 :::22                  :::*                    LISTEN      715/sshd: /usr/sbin  
nexus@ip-172-31-30-152:~$
```

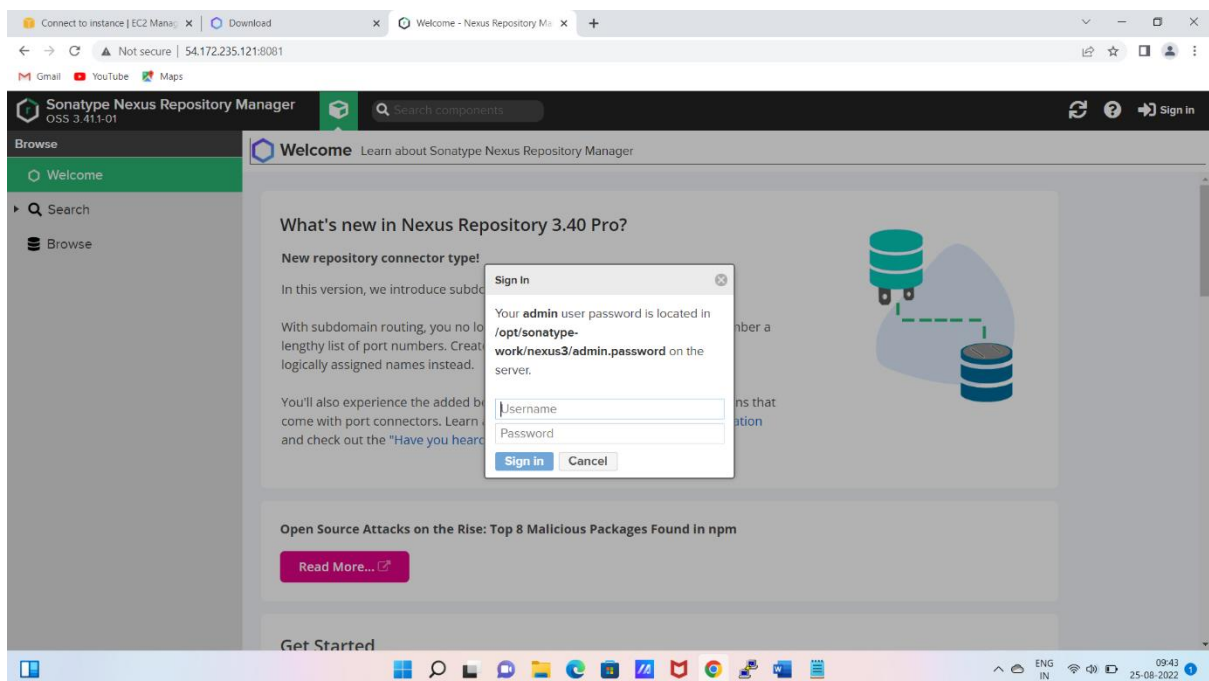
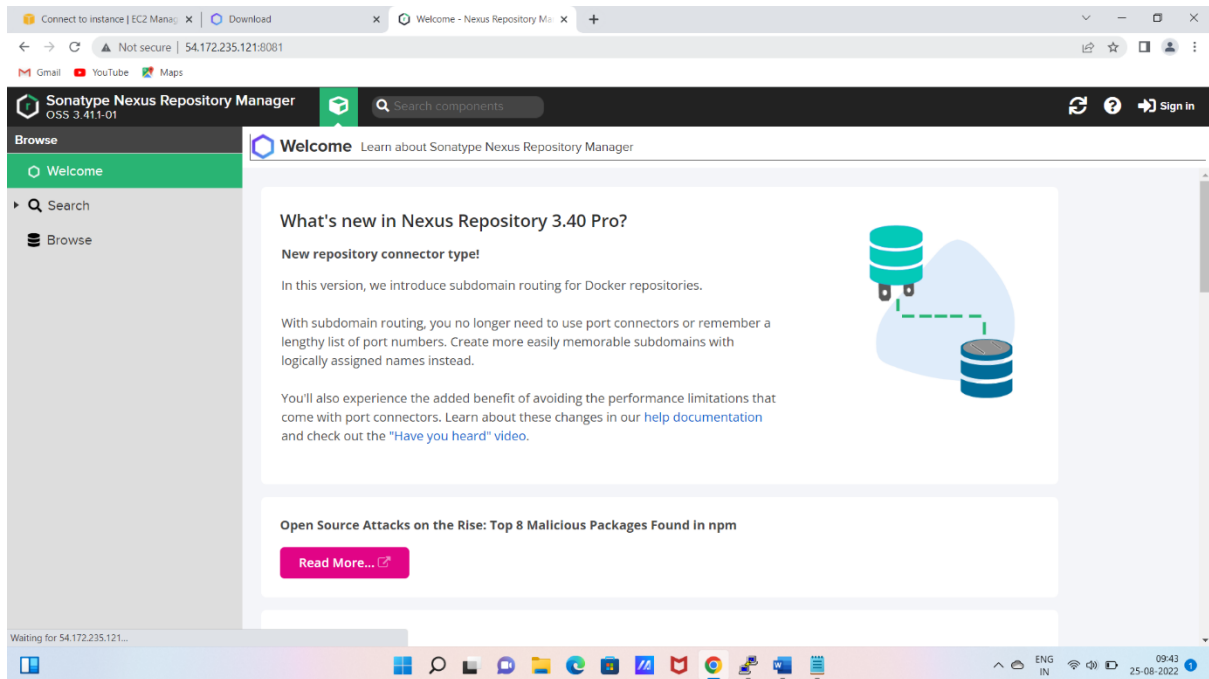
Step 26: goto instance copy public and paste it into browser like(public ip:8081)

Step 27: click on sign option (copy url path)

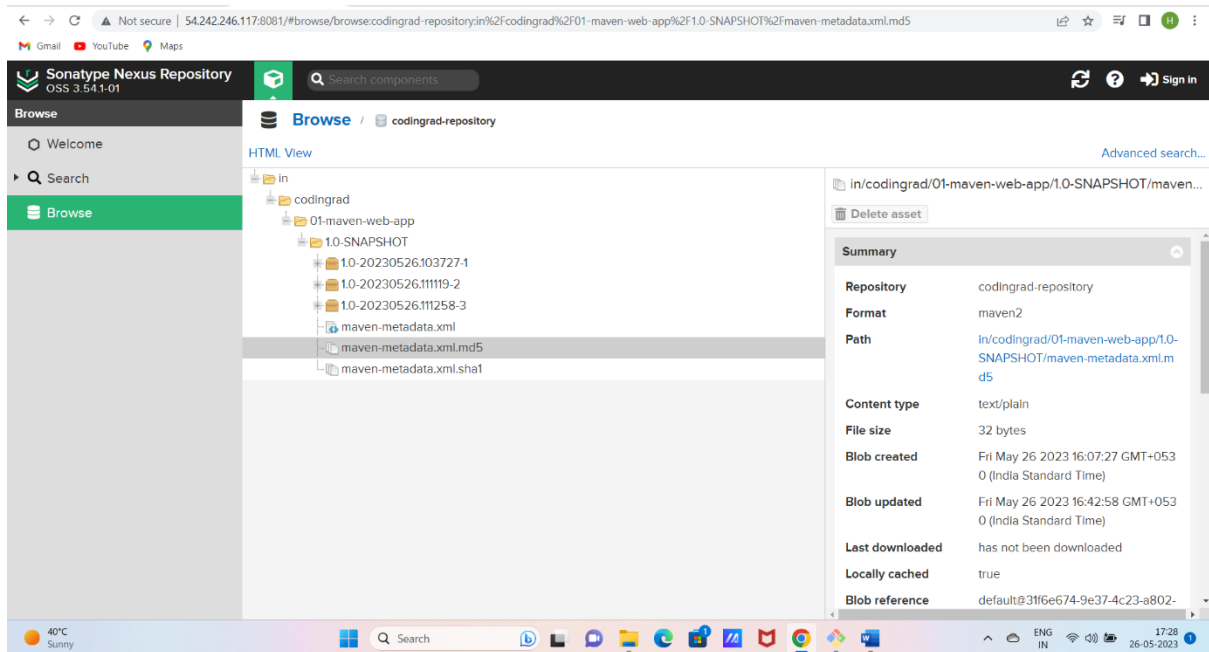
Step 28: cat paste url path and copy password

Now again sign to the nexus username:admin and use password

Change your password



STEP: CREATE a repository in nexus



APACHE-TOMCAT-INSTALLATION:

```
1  sudo yum install java-1.8.0-openjdk -y
2  sudo wget
https://downloads.apache.org/tomcat/tomcat-
9/v9.0.75/bin/apache-tomcat-9.0.75.tar.gz
3  ls
4  tar -zxvf apache-tomcat-9.0.75.tar.gz
5  cd apache-tomcat-9.0.75/
6  ls
7  cd webapps/
8  ls
9  cd manager/
10 ls
11 cd META-INF/
12 ls
13 sudo vim context.xml
14 cd ../../..
15 cd conf/
16 ls
```

```

17 sudo vim tomcat-users.xml
18 cd ..
19 cd bin/
20 ls
21 ./startup.sh
22 cd ..
23 ls
24 cd webapps/
25 pwd

```

STEP: Goto manage Jenkins option --> manage plugin
option-->install SSHAGENT PLUGIN. Configure that
plugin

```

node {
    stage('clone repo'){
        git credentialsId: 'git-credentials', url:
        'https://github.com/Milky19/maven-web-app.git'
    }
    stage('build maven'){
        sh 'mvn clean package'
    }
    stage('upload war file'){
        nexusArtifactUploader artifacts:
        [[artifactId: '01-maven-web-app', classifier: '',
        file: 'target/01-maven-web-app.war', type: 'war']],
        credentialsId: 'nexus', groupId: 'in.codingrad',
        nexusUrl: '54.242.246.117:8081/', nexusVersion:
        'nexus3', protocol: 'http', repository: 'codingrad-
        repository', version: '1.0-SNAPSHOT'
    }
    stage('deploy'){
        sshagent(['Tomcat-Server-agent']) {
            sh 'scp -o StrictHostKeyChecking=no target/01-
            maven-web-app.war ec2-user@34.205.24.175:/home/ec2-
            user/apache-tomcat-9.0.75/webapps'
        }
    }
}

```

← → ↻ Not secure | 100.27.18.114:8080/job/CODINGRAD-AUTOMATION/

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Dashboard > CODINGRAD-AUTOMATION >

Status

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

Rename

Pipeline Syntax

GitHub Hook Log

Pipeline CODINGRAD-AUTOMATION

Add description

Disable Project

Stage View

Average stage times:
(Average full run time: ~7s)

	clone repo	build maven	upload war file	deploy
#15 May 26 17:15 1 commit	3s	5s	205ms	489ms
#14 May 26 17:09 No Changes	411ms	5s	223ms	388ms
#13 May 26 17:08 No Changes				

Build History trend

Filter builds...

#15
May 26, 2023, 11:45 AM

#14

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Search

ENG IN

17:24 26-05-2023

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