

1. Install Required Packages (Java, Maven, Git, etc.)

Switch to root

sudo -i

Update the system

yum update -y

Install Java 17, Maven, Git, Nginx, Unzip, Curl

yum install -y java-17-amazon-corretto-devel maven git nginx unzip curl --allowerasing

Verify Java version

java -version

2. Download & Set Up Tomcat

Download Tomcat 9.0.89

wget https://archive.apache.org/dist/tomcat/tomcat-9/v9.0.89/bin/apache-tomcat-9.0.89.tar.gz

Extract

tar -xvzf apache-tomcat-9.0.89.tar.gz

Rename folder

mv apache-tomcat-9.0.89 tomcat9

Give execute permissions

chmod +x tomcat9/bin/*.sh

3. Change Tomcat Port to 9090

nano tomcat9/conf/server.xml

Search for 8080 and change it to 9090

Ctrl+O (TO SAVE)

Enter

Ctrl+X (TO EXIT)

4. Add Tomcat Deployment User

nano tomcat9/conf/tomcat-users.xml

Before `</tomcat-users>`, add:

```
<role rolename="manager-gui"/>
<role rolename="manager-script"/>
<user username="admin" password="admin" roles="manager-gui,manager-script"/>
```

Save and Exit (**Ctrl+O**, **Enter**, **Ctrl+X**)

5. Allow Remote Access (Manager & Host Manager)

```
nano tomcat9/webapps/manager/META-INF/context.xml
```

Delete the line starting with `<Valve className=...`

Save and Exit (**Ctrl+O**, **Enter**, **Ctrl+X**)

6. Allow Remote Access (Manager & Host Manager)

```
nano tomcat9/webapps/host-manager/META-INF/context.xml
```

Delete the line starting with `<Valve className=...`

Save and Exit (**Ctrl+O**, **Enter**, **Ctrl+X**)

7. Start Tomcat

```
cd tomcat9/bin
```

Set `JAVA_HOME`

```
export JAVA_HOME=/usr/lib/jvm/java-17-amazon-corretto.x86_64
export PATH=$JAVA_HOME/bin:$PATH
```

Start Tomcat

```
./startup.sh
```

Open browser → `http://<Public-IP>:9090`

Login → **username: admin, password: admin**

8. Install Jenkins

Switch to root

```
sudo -i
```

Add Jenkins repo

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

Import Jenkins key

```
rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io.key
```

Install Jenkins

```
yum install -y jenkins
```

Note: If you get GPG error → run:

```
sudo yum clean packages
```

```
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
```

```
sudo yum install -y jenkins
```

9. Start & Enable Jenkins

```
systemctl start jenkins
```

```
systemctl enable jenkins
```

10. Allow Jenkins Port in AWS

Go to AWS EC2 → Security Groups → Instance → Inbound Rules → Edit

Add Rule:

- Type: **Custom TCP**
- Port: **8080**
- Source: **0.0.0.0/0** (or restrict to your IP)

11. Open Jenkins in Browser

URL → `http://<Public-IP>:8080`

Get initial password:

```
cat /var/lib/jenkins/secrets/initialAdminPassword
```

Copy password → Paste in Jenkins setup wizard → Install suggested plugins.