

Build Tool assignment

- **Write a shell script to automate Install git, install maven, install java, install tomcat pull repository which contains source**

code , build java application using maven steps. And set tomcat server user configuration setting.

Update package list

sudo yum update -y

Install Git

sudo yum install -y git

Install Java

sudo yum install -y java

Install Maven

sudo yum install -y maven

#tomcat installation

#download tomcat application using wget

wget <https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.91/bin/apache-tomcat-9.0.91.tar.gz>

#unzip the the downloaded file

tar -xvzf apache-tomcat-9.0.91.tar.gz

#remove compressed (tar.gz) file

rm -rf apache-tomcat-9.0.91.tar.gz

#rename the file

mv apache-tomcat-9.0.91 tomcat

#start the tomcat

```
sh /home/ec2-user/tomcat/bin/startup.sh
```

```
#clone source code to local repo
```

```
git clone https://github.com/sunilb66/java-hello-world-with-maven
```

```
cd java-hello-world-with-maven
```

```
mvn clean install
```

```
cd target
```

```
cp /home/ec2-user/java-hello-world-with-maven/target/jb-hello-world-maven-0.2.0.jar  
/home/ec2-
```

```
user/tomcat/webapps/
```

- **Steps to configure tomcat server user configuration setting (server status/manger/host manager)**

1) Add port number 8080 in inbound rules of EC2 instance

2) Navigate to path /home/ec2-user/tomcat/webapps/manager/META-INF

3) Vi context.xml

4) Comment out the value

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

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

5) Navigate to path /home/ec2-user/tomcat/webapps/host-manager/META-INF

6) Vi context.xml

7) Comment out the value

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

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

8) Navigate the path cd tomcat/conf

9) vi tomcat-users.xml

10) add roles and set username, passwords (admin,admin-gui,manager,manager-gui)

11) Restart the tomcat sh tomcat/bin/startup.sh

```
EC2
cat: script.sh: No such file or directory
[ec2-user@ip-172-31-35-77 ~]$ cat script.sh
#!/bin/bash

# Update package list
sudo yum update -y
# Install Git
sudo yum install -y git
# Install Java
sudo yum install -y java
# Install Maven
sudo yum install -y maven
#tomcat installation
#download tomcat application using wget
wget https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.91/bin/apache-tomcat-9.0.91.tar.gz
#unzip the the downloaded file
tar -xvzf apache-tomcat-9.0.91.tar.gz
#remove compressed (tar.gz) file
rm -rf apache-tomcat-9.0.91.tar.gz
#rename the file
mv apache-tomcat-9.0.91 tomcat
#start the tomcat
sh /home/ec2-user/tomcat/bin/startup.sh
#clone source code to local repo
git clone https://github.com/sunilb66/java-hello-world-with-maven
cd java-hello-world-with-maven
mvn clean install
cd target
cp /home/ec2-user/java-hello-world-with-maven/target/jb-hello-world-maven-0.2.0.jar /home/ec2-user/tomcat/webapps/
[ec2-user@ip-172-31-35-77 ~]$
```

sg-0cdc8f88d6ebde510 - launch-wizard-1

Actions

Details

Security group name launch-wizard-1	Security group ID sg-0cdc8f88d6ebde510	Description launch-wizard-1 created 2024-07-31T07:47:47.167Z	VPC ID vpc-0992780f62d2fa6ee
Owner 058264408146	Inbound rules count 2 Permission entries	Outbound rules count 1 Permission entry	

Inbound rules | Outbound rules | Tags

Inbound rules (2)

Search

	Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
<input type="checkbox"/>	-	sgr-07b54a030e5f36f52	IPv4	Custom TCP	TCP	8080	0.0.0.0/0	-
<input type="checkbox"/>	-	sgr-0e943b4af3ee76fd6	IPv4	SSH	TCP	22	0.0.0.0/0	-

Manage tags | Edit inbound rules

--> sh script.sh

```

[ec2-user@ip-172-31-35-77 ~]$ git --version
git version 2.40.1
[ec2-user@ip-172-31-35-77 ~]$ mvn -v
Apache Maven 3.8.4 (Red Hat 3.8.4-3.amzn2023.0.5)
Maven home: /usr/share/maven
Java version: 17.0.12, vendor: Amazon.com Inc., runtime: /usr/lib/jvm/java-17-amazon-corretto.x86_64
Default locale: en, platform encoding: UTF-8
OS name: "linux", version: "6.1.97-104.177.amzn2023.x86_64", arch: "amd64", family: "unix"
[ec2-user@ip-172-31-35-77 ~]$ ps -ef |grep tomcat
ec2-user 28061      1  0 05:48 pts/0    00:00:04 /usr/bin/java -Djava.util.logging.config.file=/home/ec2-user/tomcat/conf/logging.properties
-Djava.util.logging.manager=org.apache.juli.ClassLoaderLogManager -Djdk.tls.ephemeralDHKeySize=2048 -Djava.protocol.handler.pkgs=org.apache.ca
talina.webresources -Dorg.apache.catalina.security.SecurityListener.UMASK=0027 -Dignore.endorsed.dirs=-classpath /home/ec2-user/tomcat/bin/boo
tstrap.jar:/home/ec2-user/tomcat/bin/tomcat-juli.jar -Dcatalina.base=/home/ec2-user/tomcat -Dcatalina.home=/home/ec2-user/tomcat -Djava.io.tmpd
ir=/home/ec2-user/tomcat/temp org.apache.catalina.startup.Bootstrap start
ec2-user 28444    2517  0 05:55 pts/0    00:00:00 grep --color=auto tomcat

```

```

Tomcat started.
Cloning into 'java-hello-world-with-maven'...
remote: Enumerating objects: 81, done.
remote: Total 81 (delta 0), reused 0 (delta 0), pack-reused 81
Receiving objects: 100% (81/81), 15.12 KiB | 1.16 MiB/s, done.
Resolving deltas: 100% (27/27), done.
[INFO] Scanning for projects...

```

```

Downloaded from central: https://repo.maven.apache.org/maven2/joda-time/joda-time/2.2/joda-time-2.2.jar (574 kB at 4.8 MB/s)
[INFO]
[INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ jb-hello-world-maven ---
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-plugin-api/2.0.6/maven-plugin-api-2.0.6.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-plugin-api/2.0.6/maven-plugin-api-2.0.6.pom (1.5 kB at 132
kB/s)

```

```

Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0/plexus-utils-3.0.jar (226 kB at 3.4 MB/s)
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ jb-hello-world-maven ---
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-project/2.0.6/maven-project-2.0.6.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-project/2.0.6/maven-project-2.0.6.pom (9.6 kB at 330 kB/s)

```

```

Downloaded from central: https://repo.maven.apache.org/maven2/backport-util-concurrent/backport-util-concurrent/3.1/backport-util-concurrent-3.
1.jar (332 kB at 959 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/com/google/guava/guava/11.0.2/guava-11.0.2.jar (1.6 MB at 3.9 MB/s)
[INFO] Including joda-time:joda-time:jar:2.2 in the shaded jar.
[INFO] Replacing original artifact with shaded artifact.
[INFO] Replacing /home/ec2-user/java-hello-world-with-maven/target/jb-hello-world-maven-0.2.0.jar with /home/ec2-user/java-hello-world-with-mav
en/target/jb-hello-world-maven-0.2.0-shaded.jar
[INFO] Dependency-reduced POM written at: /home/ec2-user/java-hello-world-with-maven/dependency-reduced-pom.xml
[INFO]
[INFO] --- maven-install-plugin:2.4:install (default-install) @ jb-hello-world-maven ---
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.5/plexus-utils-3.0.5.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.5/plexus-utils-3.0.5.pom (2.5 kB at 209 kB/s)

```

```

[INFO] Installing /home/ec2-user/java-hello-world-with-maven/target/jb-hello-world-maven-0.2.0.jar to /home/ec2-user/.m2/repository/org/springf
ramework/jb-hello-world-maven/0.2.0/jb-hello-world-maven-0.2.0.jar
[INFO] Installing /home/ec2-user/java-hello-world-with-maven/dependency-reduced-pom.xml to /home/ec2-user/.m2/repository/org/springframework/jb
-hello-world-maven/0.2.0/jb-hello-world-maven-0.2.0.pom
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO]
[INFO] Total time: 10.910 s
[INFO] Finished at: 2024-08-06T05:48:20Z
[INFO] -----

```

```

<?xml version="1.0" encoding="UTF-8"?>
<!--
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contributor license agreements. See the NOTICE file distributed with
this work for additional information regarding copyright ownership.
The ASF licenses this file to You under the Apache License, Version 2.0
(the "License"); you may not use this file except in compliance with
the License. You may obtain a copy of the License at

    http://www.apache.org/licenses/LICENSE-2.0

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distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->
<Context antiResourceLocking="false" privileged="true" >
  <CookieProcessor className="org.apache.tomcat.util.http.Rfc6265CookieProcessor"
    sameSiteCookies="strict" />
  <!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"
    allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" />-->
  <Manager sessionAttributeValueClassNameFilter="java\.lang\.(?:Boolean|Integer|Long|Number|string)|org\.apache\.catalina\.filters\.CsrfPreventio
nFilter|org\.apache\.catalina\.filters\.HttpHeaderFilter|java\.util\.(?:Linked)?HashMap"/>
</Context>

```

```

The users below are wrapped in a comment and are therefore ignored. If you
wish to configure one or more of these users for use with the manager web
application, do not forget to remove the <!-- ..> that surrounds them. You
will also need to set the passwords to something appropriate.
-->
<!--
  <user username="admin" password="<must-be-changed>" roles="manager-gui"/>
  <user username="robot" password="<must-be-changed>" roles="manager-script"/>
-->
<!--
The sample user and role entries below are intended for use with the
examples web application. They are wrapped in a comment and thus are ignored
when reading this file. If you wish to configure these users for use with the
examples web application, do not forget to remove the <!-- ..> that surrounds
them. You will also need to set the passwords to something appropriate.
-->
<!--
  <role rolename="tomcat"/>
  <role rolename="role1"/>
  <user username="tomcat" password="<must-be-changed>" roles="tomcat"/>
  <user username="both" password="<must-be-changed>" roles="tomcat,role1"/>
  <user username="role1" password="<must-be-changed>" roles="role1"/>
-->

  <role rolename="admin"/>
  <role rolename="manager"/>
  <role rolename="admin-gui"/>
  <role rolename="manager-gui"/>
  <user username="admin" password="1234" roles="admin,manager,admin-gui,manager-gui"/>
</tomcat-users>
"tomcat-users.xml" 62L, 2964B

```

Apache Tomcat/9.0.91



If you're seeing this, you've successfully installed Tomcat. Congratulations!



Recommended Reading:

[Security Considerations How-To](#)

[Manager Application How-To](#)

[Clustering/Session Replication How-To](#)

Server Status

Manager App

Host Manager

Developer Quick Start

[Tomcat Setup](#)

[First Web Application](#)

[Realms & AAA](#)

[JDBC Data Sources](#)

[Examples](#)

[Servlet Specifications](#)

[Tomcat Versions](#)

Managing Tomcat

For security, access to the [manager webapp](#) is restricted. Users are defined in:

`$CATALINA_HOME/conf/tomcat-users.xml`

In Tomcat 9.0 access to the manager application is split between different users.

[Read more...](#)

[Release Notes](#)

[Changelog](#)

Documentation

[Tomcat 9.0 Documentation](#)

[Tomcat 9.0 Configuration](#)

[Tomcat Wiki](#)

Find additional important configuration information in:

`$CATALINA_HOME/RUNNING.txt`

Developers may be interested in:

[Tomcat 9.0 Dev Database](#)

Getting Help

[FAQ and Mailing Lists](#)

The following mailing lists are available:

[tomcat-announce](#)
Important announcements, releases, security vulnerability notifications. (Low volume).

[tomcat-users](#)
User support and discussion

[taglibs-user](#)
User support and discussion for [Apache Taglibs](#)

[tomcat-dev](#)



Tomcat Web Application Manager

Message: OK

Manager

[List Applications](#) [HTML Manager Help](#) [Manager Help](#) [Server Status](#)

Applications					
Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/docs	None specified	Tomcat Documentation	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/examples	None specified	Servlet and JSP Examples	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/host-manager	None specified	Tomcat Host Manager Application	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes



Tomcat Virtual Host Manager

Message: OK

Host Manager			
List Virtual Hosts	HTML Host Manager Help	Host Manager Help	Server Status

Host name		
Host name	Host aliases	Commands
localhost		Host Manager installed - commands disabled

Add Virtual Host	
Host	

