

ANSIBLE PROJECT

Steps to install tomcat on Amazon EC2 Linux:

1. Install java using below command.

```
yum install java-1.8.0-openjdk-devel
```

```
[root@ip-172-31-11-20 ~]# yum install java-1.8.0-openjdk-devel -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
---> Package java-1.8.0-openjdk-devel.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 will be installed
--> Processing Dependency: java-1.8.0-openjdk(x86-64) = 1:1.8.0.312.b07-1.amzn2.0.2 for package
l-1.8.0.312.b07-1.amzn2.0.2.x86_64
```

2. Go to /opt directory. Download the tomcat and extract the zip folder.

```
wget https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.62/bin/apache-tomcat-9.0.62.tar.gz
```

```
tar -xvf apache-tomcat-9.0.62.tar.gz
```

```
[root@ip-172-31-11-20 opt]# wget https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.62/bin/apache-tomcat-9.0.62.tar.gz
--2022-05-13 15:23:07-- https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.62/bin/apache-tomcat-9.0.62.tar.gz
Resolving dlcdn.apache.org (dlcdn.apache.org)... 151.101.2.132, 2a04:4e42::644
Connecting to dlcdn.apache.org (dlcdn.apache.org)|151.101.2.132|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 11560971 (11M) [application/x-gzip]
Saving to: 'apache-tomcat-9.0.62.tar.gz'

100%[=====] 11,560,971 --.-K/s in 0.1s

2022-05-13 15:23:07 (102 MB/s) - 'apache-tomcat-9.0.62.tar.gz' saved [11560971/11560971]

[root@ip-172-31-11-20 opt]# tar -xvf apache-tomcat-9.0.62.tar.gz
apache-tomcat-9.0.62/conf/
apache-tomcat-9.0.62/conf/catalina.policy
```

3. Go to /opt/apache-tomcat-9.0.62/bin and provide the executable permission to below file. Create the soft link for both executable file.

```
chmod +x startup.sh
```

```
chmod +x shutdown.sh
```

```
ln -s /opt/apache-tomcat-9.0.62/bin/startup /usr/local/bin/tomcatup
```

```
ln -s /opt/apache-tomcat-9.0.62/bin/shutdown.sh /usr/local/bin/tomcatdown
```

```
[root@ip-172-31-11-20 bin]# pwd
/opt/apache-tomcat-9.0.62/bin
[root@ip-172-31-11-20 bin]# chmod +x startup.sh
[root@ip-172-31-11-20 bin]# chmod +x shutdown.sh
```

```
[root@ip-172-31-11-20 ~]# ln -s /opt/apache-tomcat-9.0.62/bin/startup.sh /usr/local/bin/tomcatup
[root@ip-172-31-11-20 ~]# ln -s /opt/apache-tomcat-9.0.62/bin/shutdown.sh /usr/local/bin/tomcatdown
[root@ip-172-31-11-20 ~]#
```

4. Change the default port number of tomcat. Go to /opt/apache-tomcat-9.0.62/conf and edit the file as below.

vi server.xml and edit below line -

<Connector port="8090" protocol="HTTP/1.1"

```
[root@ip-172-31-11-20 conf]# pwd
/opt/apache-tomcat-9.0.62/conf
[root@ip-172-31-11-20 conf]# ls
Catalina catalina.properties jaspic-providers.xml logging.properties tomcat-users.xml web.xml
catalina.policy context.xml jaspic-providers.xsd server.xml tomcat-users.xsd
[root@ip-172-31-11-20 conf]# vi server.xml
```

```
-->
<Connector port="8090" protocol="HTTP/1.1"
    connectionTimeout="20000"
    redirectPort="8443" />
<!-- A "Connector" using the shared thread pool-->
<!--
<Connector executor="tomcatThreadPool"
    port="8080" protocol="HTTP/1.1"
    connectionTimeout="20000"
    redirectPort="8443" />
```

5. Open the file and comment the mentioned line.

vi /opt/apache-tomcat-9.0.62/webapps/host-manager/META-INF/context.xml

```
<!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"
allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" /> -->
```

```
[root@ip-172-31-11-20 META-INF]# pwd
/opt/apache-tomcat-9.0.62/webapps/host-manager/META-INF
[root@ip-172-31-11-20 META-INF]# vi context.xml
```

```
<!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"
allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" /> -->
```

6. Open the file and comment the mentioned line.

```
vi /opt/apache-tomcat-9.0.62/webapps/manager/META-INF/context.xml
```

```
<!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"
allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:1" /> -->
```

```
[root@ip-172-31-11-20 META-INF]# pwd
/opt/apache-tomcat-9.0.62/webapps/manager/META-INF
[root@ip-172-31-11-20 META-INF]# vi context.xml
```

```
<!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"
allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:1" /> -->
```

7. Go to the /opt/apache-tomcat-9.0.62/conf and create the tomcat user as below.

```
vi /opt/apache-tomcat-9.0.62/conf/tomcat-users.xml
```

```
<role rolename="manager-gui"/>
<role rolename="manager-script"/>
<role rolename="manager-jmx"/>
<role rolename="manager-status"/>
<user username="admin" password="admin" roles="manager-gui, manager-script, manager-jmx, manager-
status"/>
<user username="deployer" password="deployer" roles="manager-script"/>
<user username="tomcat" password="s3cret" roles="manager-gui"/>
```

```
[root@ip-172-31-11-20 conf]#
[root@ip-172-31-11-20 conf]# pwd
/opt/apache-tomcat-9.0.62/conf
[root@ip-172-31-11-20 conf]# vi tomcat-users.xml
```

```
<role rolename="manager-gui"/>
<role rolename="manager-script"/>
<role rolename="manager-jmx"/>
<role rolename="manager-status"/>
<user username="admin" password="admin" roles="manager-gui, manager-script, manager-jmx, manager-status"/>
<user username="deployer" password="deployer" roles="manager-script"/>
<user username="tomcat" password="s3cret" roles="manager-gui"/>
```

8. Go to Stop and start the tomcat service.

```
/opt/apache-tomcat-9.0.62/bin
```

```
sh shutdown.sh
```

```
sh startup.sh
```

```

[root@ip-172-31-11-20 bin]# ls
bootstrap.jar      ciphers.sh          daemon.sh           setclasspath.bat  startup.sh          version.bat
catalina.bat       commons-daemon.jar  digest.bat         setclasspath.sh   tomcat-juli.jar    version.sh
catalina.sh        commons-daemon-native.tar.gz digest.sh           shutdown.bat      tomcat-native.tar.gz
catalina-tasks.xml configtest.bat      makebase.bat       shutdown.sh        tool-wrapper.bat
ciphers.bat        configtest.sh       makebase.sh        startup.bat        tool-wrapper.sh

[root@ip-172-31-11-20 bin]# sh shutdown.sh
Using CATALINA_BASE:   /opt/apache-tomcat-9.0.62
Using CATALINA_HOME:   /opt/apache-tomcat-9.0.62
Using CATALINA_TMPDIR: /opt/apache-tomcat-9.0.62/temp
Using JRE_HOME:        /
Using CLASSPATH:       /opt/apache-tomcat-9.0.62/bin/bootstrap.jar:/opt/apache-tomcat-9.0.62/bin/tomcat-juli.jar
Using CATALINA_OPTS:
[root@ip-172-31-11-20 bin]# sh startup.sh
Using CATALINA_BASE:   /opt/apache-tomcat-9.0.62
Using CATALINA_HOME:   /opt/apache-tomcat-9.0.62
Using CATALINA_TMPDIR: /opt/apache-tomcat-9.0.62/temp
Using JRE_HOME:        /
Using CLASSPATH:       /opt/apache-tomcat-9.0.62/bin/bootstrap.jar:/opt/apache-tomcat-9.0.62/bin/tomcat-juli.jar
Using CATALINA_OPTS:
Tomcat started.
[root@ip-172-31-11-20 bin]#

```

9. Access tomcat server using the URL <http://IPADDRESS:8090>

① 35.154.66.156:8090/manager/html

Sign in to access this site

Authorization required by <http://35.154.66.156:8090>
Your connection to this site is not secure

Username

Password

Sign in

Cancel

Apache Tomcat/9.0.62



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](#)

[Migration Guide](#)

[Security Notices](#)

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 Bug Database](#)

[Tomcat 9.0 JavaDocs](#)

[Tomcat 9.0 Git Repository at GitHub](#)

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](#)
Development mailing list, including commit messages

Other Downloads

[Tomcat Connectors](#)

[Tomcat Native](#)

[Taglibs](#)

[Deployer](#)

Other Documentation

[Tomcat Connectors](#)

[mod_jk Documentation](#)

[Tomcat Native](#)

[Deployer](#)

Get Involved

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Miscellaneous

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[Heritage](#)

[Apache Home](#)

[Resources](#)



Tomcat Web Application Manager

Message: OK

Manager

[List Applications](#)

[HTML Manager Help](#)

[Manager Help](#)

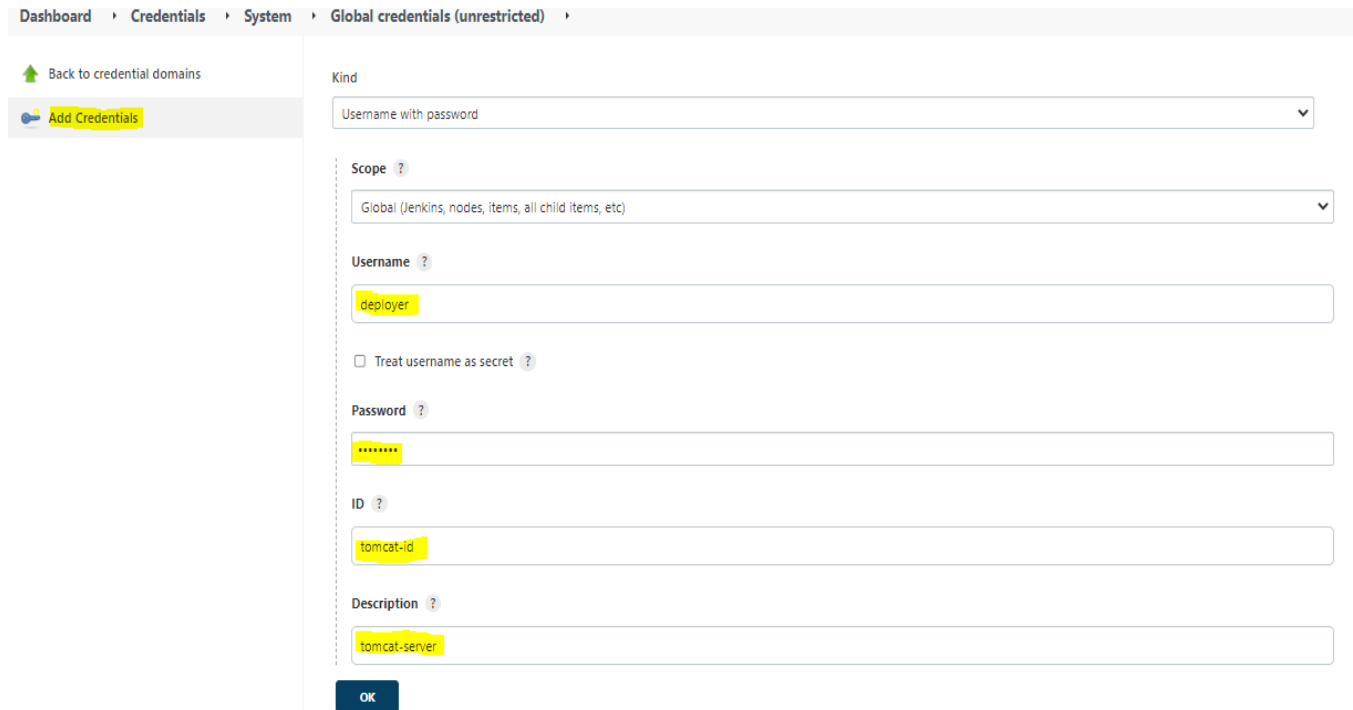
[Server Status](#)

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
/manager	None specified	Tomcat Manager Application	true	1	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes

Steps to integrate with Jenkins:-

1. Login to Jenkins server. Go to (manage Jenkins – manage credentials) and click on Jenkins. Click on Global credential and add the credential as per screenshot.



The screenshot shows the Jenkins 'Add Credentials' form. The breadcrumb trail at the top is 'Dashboard > Credentials > System > Global credentials (unrestricted)'. On the left sidebar, there is a link 'Back to credential domains' and a button 'Add Credentials'. The main form area has the following fields:

- Kind:** A dropdown menu with 'Username with password' selected.
- Scope:** A dropdown menu with 'Global (Jenkins, nodes, items, all child items, etc)' selected.
- Username:** A text input field containing 'deployer'.
- ☐ **Treat username as secret:** An unchecked checkbox.
- Password:** A text input field containing masked characters '*****'.
- ID:** A text input field containing 'tomcat-id'.
- Description:** A text input field containing 'tomcat-server'.

At the bottom of the form is an 'OK' button.

2. Create the maven project and deploy the application as per below screenshot.

Git URL - <https://github.com/bhavukm/maven-project.git>

Enter an item name

» Required field



Freestyle project

This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.



Maven project

Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.



Pipeline

Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.



Multi-configuration project

Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.



Folder

Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.

OK

multibranch Pipeline

Source Code Management

☐ None

☒ Git ?

Repositories ?

Repository URL ?

<https://github.com/bhavukm/maven-project.git>

Credentials ?

- none -

Add

General Source Code Management Build Triggers Build Environment Pre Steps Build Post Steps Build Settings **Post-build Actions**

Deploy war/ear to a container

WAR/EAR files ?

****/*.war**

Context path ?

Containers

Tomcat 9.x Remote

Credentials

deployer/***** (tomcat-server) **Add**

Tomcat URL ?

http://35.154.66.156:8090/

Advanced...

Add Container

☐ Deploy on failure

Save **Apply**

3. Access the application by the URL <http://35.154.66.156:8090/webapp/>

← → ↻ ⚠ Not secure | 35.154.66.156:8090/webapp/

Apps Gmail YouTube Maps Amazon Web Se









Welcome

Enter username:

Enter number of multiplication tables:


Submit

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 [Back to Dashboard](#) [Status](#) [Changes](#) [Workspace](#) [Build Now](#) [Configure](#) [Delete Maven project](#) [Modules](#) [Rename](#) [Build History](#) [trend](#) ^

No builds

Maven project maven_project

 [Workspace](#) [Recent Changes](#)

Permalinks

END