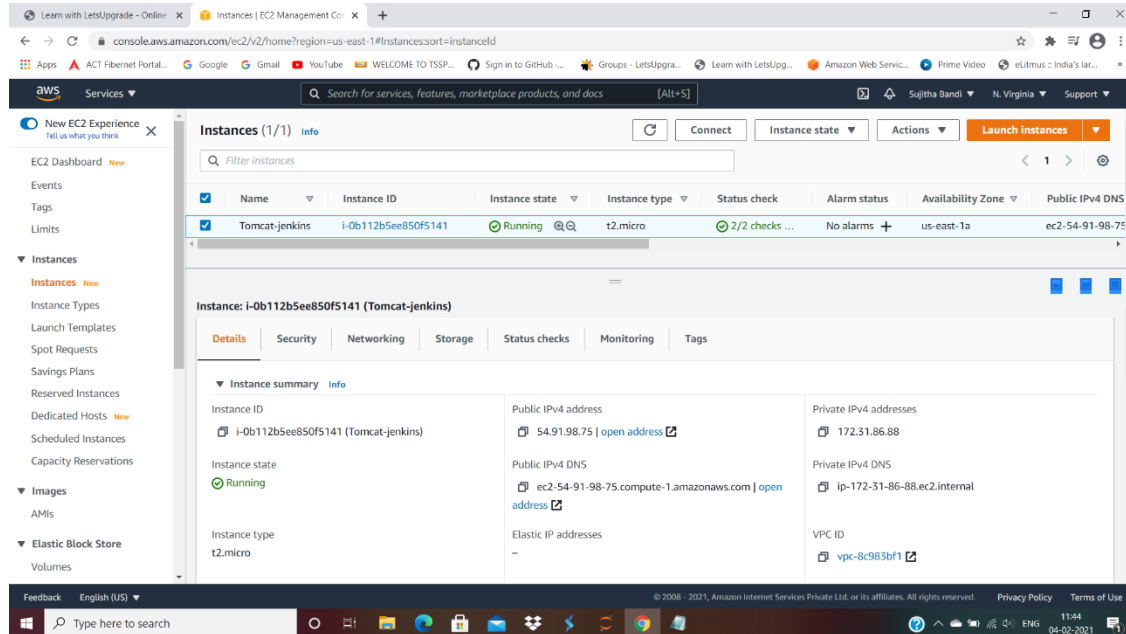


AWS Project 6

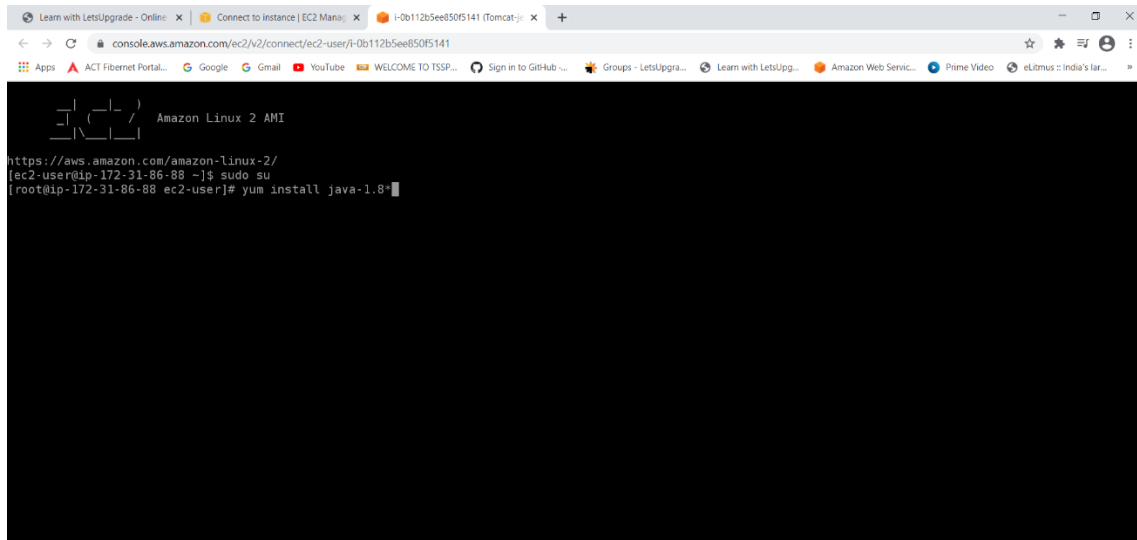
Installing and Configuring Apache tomcat server on Linux

Task 1: EC2 Linux Instance Created



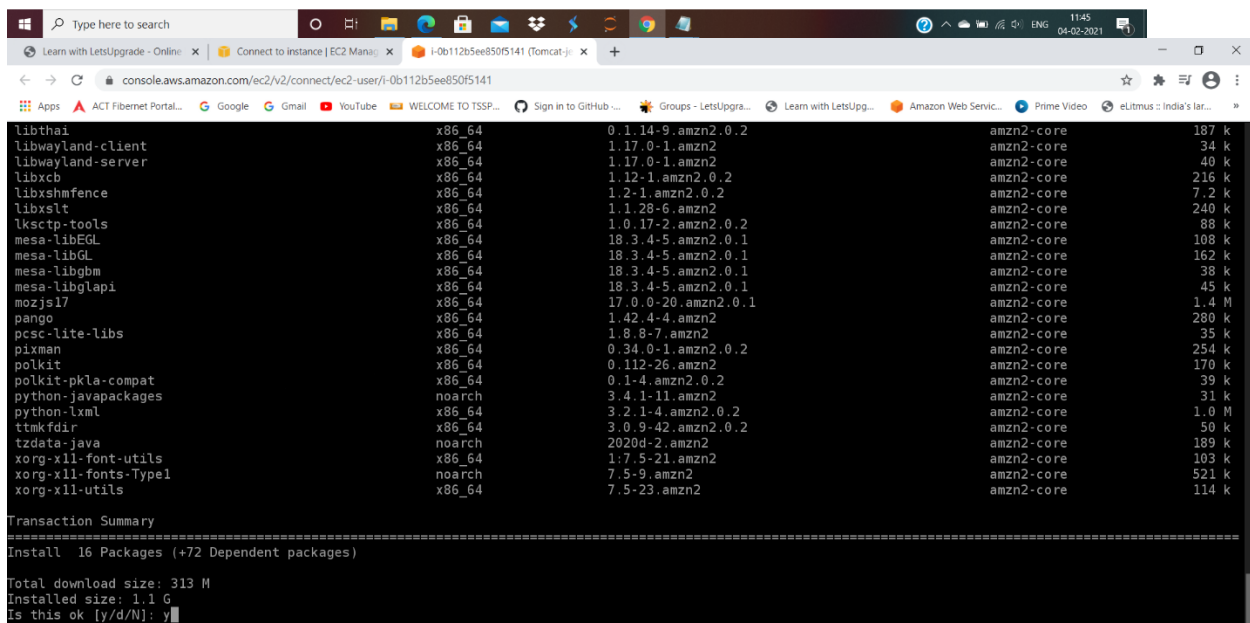
Task 2: Install java

yum install java-1.8*



i-0b112b5ee850f5141 (Tomcat-jenkins)

Public IPs: 54.91.98.75 Private IPs: 172.31.86.88



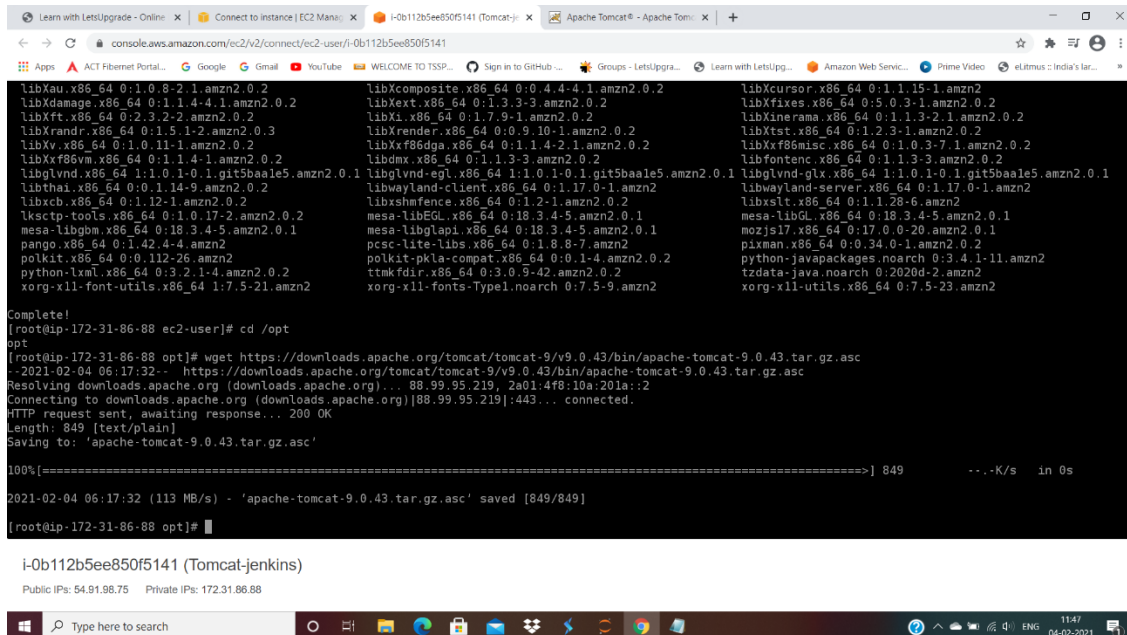
i-0b112b5ee850f5141 (Tomcat-jenkins)

Public IPs: 54.91.98.75 Private IPs: 172.31.86.88

Task 3: Install tomcat

"cd /opt"

"wget https://mirrors.estointernet.in/apache/tomcat/tomcat-8/v8.5.61/bin/apache-tomcat-8.5.61.tar.gz"



```
Complete!
[root@ip-172-31-86-88 ec2-user]# cd /opt
opt
[root@ip-172-31-86-88 opt]# wget https://downloads.apache.org/tomcat/tomcat-9/v9.0.43/bin/apache-tomcat-9.0.43.tar.gz.asc
--2021-02-04 06:17:32-- https://downloads.apache.org/tomcat/tomcat-9/v9.0.43/bin/apache-tomcat-9.0.43.tar.gz.asc
Resolving downloads.apache.org (downloads.apache.org)... 88.99.95.219, 2a01:4f8:10a:201a::2
Connecting to downloads.apache.org (downloads.apache.org)|88.99.95.219|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 849 [text/plain]
Saving to: 'apache-tomcat-9.0.43.tar.gz.asc'

100%[=====] 849 --K/s in 0s

2021-02-04 06:17:32 (113 MB/s) - 'apache-tomcat-9.0.43.tar.gz.asc' saved [849/849]

[root@ip-172-31-86-88 opt]#
```

i-0b112b5ee850f5141 (Tomcat-jenkins)

Public IPs: 54.91.98.75 Private IPs: 172.31.86.88

“tar -zxvf apache-tomcat-8.5.61.tar.gz”

This command will directly unzip and extract the file followed by the file name (apache-tomcat-8.5.61.tar.gz)

Learn with LetsUpgrade - Online | Connect to instance [EC2 Mana] | i-Ob112b5ee850f5141 (Tomcat-j... | Apache Tomcat® - Apache Tomc...

console.aws.amazon.com/ec2/v2/connect/ec2-user/i-Ob112b5ee850f5141

Apps ACT Fibernet Portal... Google Gmail YouTube WELCOME TO TSSP... Sign in to GitHub... Groups - LetsUpgra... Learn with LetsUpgr... Amazon Web Servic... Prime Video eLitmus - India's lar...

```
apache-tomcat-8.5.61/webapps/manager/WEB-INF/web.xml
apache-tomcat-8.5.61/webapps/manager/css/manager.css
apache-tomcat-8.5.61/webapps/manager/images/asf-logo.svg
apache-tomcat-8.5.61/webapps/manager/images/tomcat.svg
apache-tomcat-8.5.61/webapps/manager/index.jsp
apache-tomcat-8.5.61/webapps/manager/status.xsd
apache-tomcat-8.5.61/webapps/manager/xform.xsl
apache-tomcat-8.5.61/bin/catalina.sh
apache-tomcat-8.5.61/bin/ciphers.sh
apache-tomcat-8.5.61/bin/configtest.sh
apache-tomcat-8.5.61/bin/daemon.sh
apache-tomcat-8.5.61/bin/digest.sh
apache-tomcat-8.5.61/bin/setclasspath.sh
apache-tomcat-8.5.61/bin/shutdown.sh
apache-tomcat-8.5.61/bin/startup.sh
apache-tomcat-8.5.61/bin/tool-wrapper.sh
apache-tomcat-8.5.61/bin/version.sh
[root@ip-172-31-86-88 opt]# cd apache-tomcat-8.5.61.tar.gz
bash: cd: apache-tomcat-8.5.61.tar.gz: Not a directory
[root@ip-172-31-86-88 opt]# ls
apache-tomcat-8.5.61      apache-tomcat-9.0.43-src.tar.gz.asc  apache-tomcat-9.0.43.tar.gz.sha512  rh
apache-tomcat-8.5.61.tar.gz  apache-tomcat-9.0.43.tar.gz.asc      aws
[root@ip-172-31-86-88 opt]# cd apache-tomcat-8.5.61
[root@ip-172-31-86-88 apache-tomcat-8.5.61]# ls
bin BUILDING.txt conf CONTRIBUTING.md lib LICENSE logs NOTICE README.md RELEASE-NOTES RUNNING.txt temp webapps work
[root@ip-172-31-86-88 apache-tomcat-8.5.61]# cd bin
[root@ip-172-31-86-88 bin]# ls
bootstrap.jar      ciphers.bat          configtest.bat      digest.sh           shutdown.sh         tomcat-native.tar.gz  version.sh
catalina.bat       ciphers.sh           configtest.sh       digest.sh           startup.bat         tool-wrapper.bat     version.bat
catalina.sh        commons-daemon.jar   daemon.sh           setclasspath.sh    startup.sh         tool-wrapper.sh
catalina-tasks.xml commons-daemon-native.tar.gz digest.bat          shutdown.bat       tomcat-juli.jar    version.bat
[root@ip-172-31-86-88 bin]#
```

i-Ob112b5ee850f5141 (Tomcat-jenkins)

Public IPs: 54.91.98.75 Private IPs: 172.31.86.88

Type here to search

Modify permissions for startup.sh and shutdown.sh

“chmod +x startup.sh”

“chmod +x shutdown.sh”

Learn with LetsUpgrade - Online | Connect to instance [EC2 Mana] | i-Ob112b5ee850f5141 (Tomcat-j... | Apache Tomcat® - Apache Tomc...

console.aws.amazon.com/ec2/v2/connect/ec2-user/i-Ob112b5ee850f5141

Apps ACT Fibernet Portal... Google Gmail YouTube WELCOME TO TSSP... Sign in to GitHub... Groups - LetsUpgra... Learn with LetsUpgr... Amazon Web Servic... Prime Video eLitmus - India's lar...

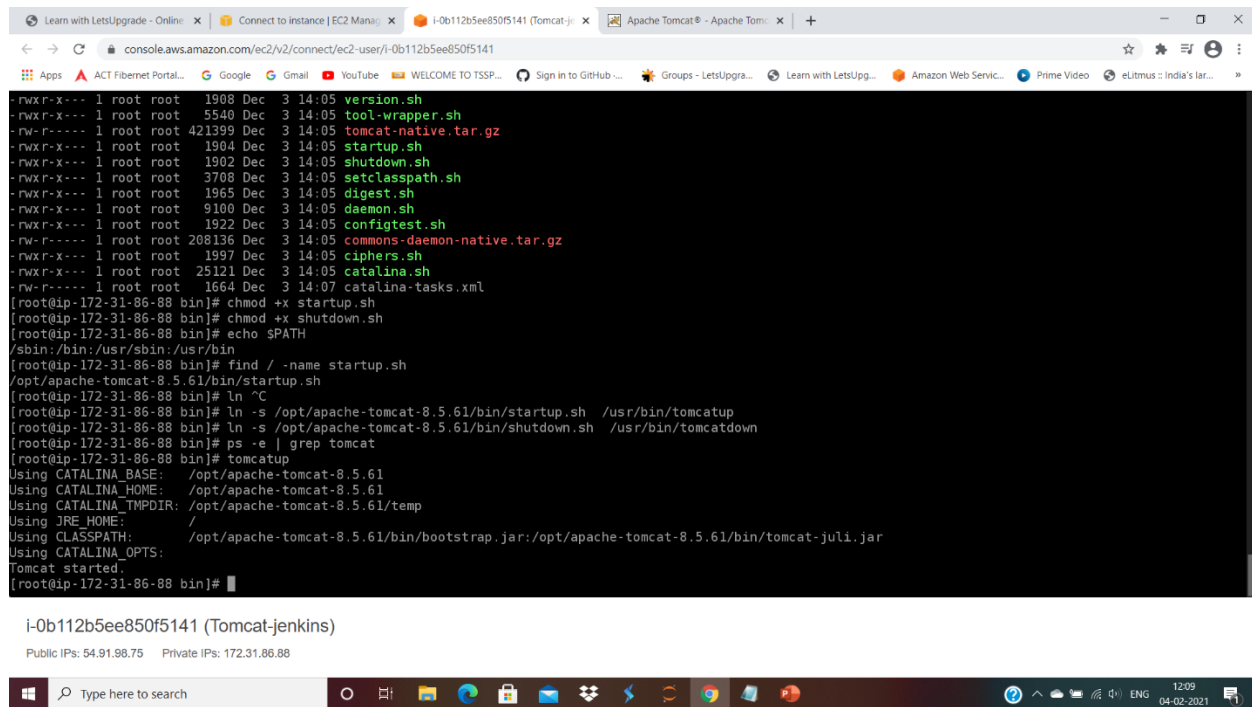
```
[root@ip-172-31-86-88 bin]# ls -ltr
total 868
-rw-r--r-- 1 root root 3460 Dec 3 14:05 setclasspath.bat
-rw-r--r-- 1 root root 2091 Dec 3 14:05 digest.bat
-rw-r--r-- 1 root root 2040 Dec 3 14:05 configtest.bat
-rw-r--r-- 1 root root 25287 Dec 3 14:05 commons-daemon.jar
-rw-r--r-- 1 root root 2123 Dec 3 14:05 ciphers.bat
-rw-r--r-- 1 root root 16655 Dec 3 14:05 catalina.bat
-rw-r--r-- 1 root root 36132 Dec 3 14:05 bootstrap.jar
-rw-r--r-- 1 root root 2026 Dec 3 14:05 version.bat
-rw-r--r-- 1 root root 4574 Dec 3 14:05 tool-wrapper.bat
-rw-r--r-- 1 root root 51204 Dec 3 14:05 tomcat-juli.jar
-rw-r--r-- 1 root root 2022 Dec 3 14:05 startup.bat
-rw-r--r-- 1 root root 2020 Dec 3 14:05 shutdown.bat
-rwxr-x-- 1 root root 1908 Dec 3 14:05 version.sh
-rwxr-x-- 1 root root 5540 Dec 3 14:05 tool-wrapper.sh
-rwxr-x-- 1 root root 421399 Dec 3 14:05 tomcat-native.tar.gz
-rwxr-x-- 1 root root 1904 Dec 3 14:05 startup.sh
-rwxr-x-- 1 root root 1902 Dec 3 14:05 shutdown.sh
-rwxr-x-- 1 root root 3708 Dec 3 14:05 setclasspath.sh
-rwxr-x-- 1 root root 1965 Dec 3 14:05 digest.sh
-rwxr-x-- 1 root root 9100 Dec 3 14:05 daemon.sh
-rwxr-x-- 1 root root 1922 Dec 3 14:05 configtest.sh
-rwxr-x-- 1 root root 208136 Dec 3 14:05 commons-daemon-native.tar.gz
-rwxr-x-- 1 root root 1597 Dec 3 14:05 ciphers.sh
-rwxr-x-- 1 root root 25121 Dec 3 14:05 catalina.sh
-rw-r--r-- 1 root root 1664 Dec 3 14:07 catalina-tasks.xml
[root@ip-172-31-86-88 bin]# chmod +x startup.sh
[root@ip-172-31-86-88 bin]# chmod +x shutdown.sh
[root@ip-172-31-86-88 bin]# echo $PATH
/sbin:/bin:/usr/sbin:/usr/bin
[root@ip-172-31-86-88 bin]#
```

i-Ob112b5ee850f5141 (Tomcat-jenkins)

Public IPs: 54.91.98.75 Private IPs: 172.31.86.88

Type here to search

“Find / -name startup.sh”



```
-rwxr-x--- 1 root root 1908 Dec 3 14:05 version.sh
-rwxr-x--- 1 root root 5540 Dec 3 14:05 tool-wrapper.sh
-rw-r----- 1 root root 421399 Dec 3 14:05 tomcat-native.tar.gz
-rwxr-x--- 1 root root 1904 Dec 3 14:05 startup.sh
-rwxr-x--- 1 root root 1902 Dec 3 14:05 shutdown.sh
-rwxr-x--- 1 root root 3708 Dec 3 14:05 setclasspath.sh
-rwxr-x--- 1 root root 1965 Dec 3 14:05 digest.sh
-rwxr-x--- 1 root root 9100 Dec 3 14:05 daemon.sh
-rwxr-x--- 1 root root 1922 Dec 3 14:05 configtest.sh
-rw-r----- 1 root root 208136 Dec 3 14:05 commons-daemon-native.tar.gz
-rwxr-x--- 1 root root 1997 Dec 3 14:05 ciphers.sh
-rwxr-x--- 1 root root 25121 Dec 3 14:05 catalina.sh
-rw-r----- 1 root root 1664 Dec 3 14:07 catalina-tasks.xml
[root@ip-172-31-86-88 bin]# chmod +x startup.sh
[root@ip-172-31-86-88 bin]# chmod +x shutdown.sh
[root@ip-172-31-86-88 bin]# echo $PATH
/sbin:/bin:/usr/sbin:/usr/bin
[root@ip-172-31-86-88 bin]# find / -name startup.sh
/opt/apache-tomcat-8.5.61/bin/startup.sh
[root@ip-172-31-86-88 bin]# ln ^C
[root@ip-172-31-86-88 bin]# ln -s /opt/apache-tomcat-8.5.61/bin/startup.sh /usr/bin/tomcatup
[root@ip-172-31-86-88 bin]# ln -s /opt/apache-tomcat-8.5.61/bin/shutdown.sh /usr/bin/tomcatdown
[root@ip-172-31-86-88 bin]# ps -e | grep tomcat
[root@ip-172-31-86-88 bin]# tomcatup
Using CATALINA_BASE: /opt/apache-tomcat-8.5.61
Using CATALINA_HOME: /opt/apache-tomcat-8.5.61
Using CATALINA_TMPDIR: /opt/apache-tomcat-8.5.61/temp
Using JRE_HOME: /
Using CLASSPATH: /opt/apache-tomcat-8.5.61/bin/bootstrap.jar:/opt/apache-tomcat-8.5.61/bin/tomcat-juli.jar
Using CATALINA_OPTS:
Tomcat started.
[root@ip-172-31-86-88 bin]#
```

i-Ob112b5ee850f5141 (Tomcat-jenkins)

Public IPs: 54.91.88.75 Private IPs: 172.31.86.88

Create a Softlink

- “ln -s /opt/apache-tomcat-8.5.61/bin/startup.sh /usr/bin/tomcatup”
- “ln -s /opt/apache-tomcat-8.5.61/bin/shutdown.sh /usr/bin/tomcatdown”

```
Learn with LetsUpgrade - Online | Connect to instance | EC2 Mana... | i-Ob112b5ee850f5141 (Tomcat-j... | Apache Tomcat/8.5.61
console.aws.amazon.com/ec2/v2/connect/ec2-user/i-Ob112b5ee850f5141
Apps ACT Fibernet Portal... Google Gmail YouTube WELCOME TO TSSP... Sign in to GitHub... Groups - LetsUpgra... Learn with LetsUpgr... Amazon Web Servic... Prime Video eLitmus : India's lar...
-rwxr-x--- 1 root root 1965 Dec 3 14:05 digest.sh
-rwxr-x--- 1 root root 9100 Dec 3 14:05 daemon.sh
-rwxr-x--- 1 root root 1922 Dec 3 14:05 configtest.sh
-rw-r----- 1 root root 208136 Dec 3 14:05 commons-daemon-native.tar.gz
-rwxr-x--- 1 root root 1997 Dec 3 14:05 ciphers.sh
-rwxr-x--- 1 root root 25121 Dec 3 14:05 catalina.sh
-rw-r----- 1 root root 1664 Dec 3 14:07 catalina-tasks.xml
[root@ip-172-31-86-88 bin]# chmod +x startup.sh
[root@ip-172-31-86-88 bin]# chmod +x shutdown.sh
[root@ip-172-31-86-88 bin]# echo $PATH
/sbin:/bin:/usr/sbin:/usr/bin
[root@ip-172-31-86-88 bin]# find / -name startup.sh
/opt/apache-tomcat-8.5.61/bin/startup.sh
[root@ip-172-31-86-88 bin]# ln -s /opt/apache-tomcat-8.5.61/bin/startup.sh /usr/bin/tomcatup
[root@ip-172-31-86-88 bin]# ln -s /opt/apache-tomcat-8.5.61/bin/shutdown.sh /usr/bin/tomcatdown
[root@ip-172-31-86-88 bin]# ps -e | grep tomcat
[root@ip-172-31-86-88 bin]# tomcatup
Using CATALINA_BASE: /opt/apache-tomcat-8.5.61
Using CATALINA_HOME: /opt/apache-tomcat-8.5.61
Using CATALINA_TMPDIR: /opt/apache-tomcat-8.5.61/temp
Using JRE_HOME: /
Using CLASSPATH: /opt/apache-tomcat-8.5.61/bin/bootstrap.jar:/opt/apache-tomcat-8.5.61/bin/tomcat-juli.jar
Using CATALINA_OPTS:
Tomcat started.
[root@ip-172-31-86-88 bin]# ls
bootstrap.jar ciphers.bat configtest.bat digest.sh shutdown.sh tomcat-native.tar.gz version.sh
catalina.bat ciphers.sh configtest.sh setclasspath.bat startup.bat tool-wrapper.bat
catalina.sh commons-daemon.jar daemon.sh setclasspath.sh startup.sh tool-wrapper.sh
catalina-tasks.xml commons-daemon-native.tar.gz digest.bat shutdown.bat tomcat-juli.jar version.bat
[root@ip-172-31-86-88 bin]# cd ..
[root@ip-172-31-86-88 apache-tomcat-8.5.61]#
```

i-Ob112b5ee850f5141 (Tomcat-jenkins)

Public IPs: 54.91.98.75 Private IPs: 172.31.86.88



Change the port to 8090 by editing the server.xml by using "vi server.xml"

```
Learn with LetsUpgrade - Online | Connect to instance | EC2 Mana... | i-Ob112b5ee850f5141 (Tomcat-j... | Apache Tomcat/8.5.61
console.aws.amazon.com/ec2/v2/connect/ec2-user/i-Ob112b5ee850f5141
Apps ACT Fibernet Portal... Google Gmail YouTube WELCOME TO TSSP... Sign in to GitHub... Groups - LetsUpgra... Learn with LetsUpgr... Amazon Web Servic... Prime Video eLitmus : India's lar...
--> Documentation at /do s/config/service.html
<!--The connectors can use a shared executor, you can define one or more named thread pools-->
<!--
<Executor name="tomcatThreadPool" namePrefix="catalina-exec-"
maxThreads="150" minSpareThreads="4"/>
-->

<!-- A "Connector" represents an endpoint by which requests are received
and responses are returned. Documentation at :
Java HTTP Connector: /docs/config/http.html
Java AJP Connector: /docs/config/ajp.html
APR (HTTP/AJP) Connector: /docs/apr.html
Define a non-SSL/TLS HTTP/1.1 Connector on port 8080
-->
<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" />
-->
<!-- Define an SSL/TLS HTTP/1.1 Connector on port 8443
This connector uses the NIO implementation. The default
SSLImplementation will depend on the presence of the APR/native
library and the useOpenSSL attribute of the
AprLifecycleListener.
-->
```

i-Ob112b5ee850f5141 (Tomcat-jenkins)

Public IPs: 54.91.98.75 Private IPs: 172.31.86.88



Check configuration in 8090

Learn with LetsUpgrade - Online | Connect to instance | EC2 Mana... | I-Ob112b5ee850f5141 (Tomcat-j... | Apache Tomcat/8.5.61


Not secure | 54.91.98.75:8090

Apps ACT Fibernet Portal... Google Gmail YouTube WELCOME TO TSSP... Sign in to GitHub... Groups - LetsUpgra... Learn with LetsUpg... Amazon Web Servic... Prime Video eLitmus - India's lar...

Home Documentation Configuration Examples Wiki Mailing Lists Find Help

Apache Tomcat/8.5.61

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 DataSources
- Examples
- Servlet Specifications
- Tomcat Versions

Managing Tomcat

For security, access to the `manager.webapp` is restricted. Users are restricted in:

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

In Tomcat 8.5 access to the manager application is split between different users. [Read more...](#)

[Release Notes](#)
[Changelog](#)
[Migration Guide](#)
[Security Notices](#)

Documentation

- [Tomcat 8.5 Documentation](#)
- [Tomcat 8.5 Configuration](#)
- [Tomcat Wiki](#)

Find additional important configuration information in:

`$CATALINA_HOME/RUNNING.txt`

Developers may be interested in:

- [Tomcat 8.5 Bug Database](#)
- [Tomcat 8.5 JavaDocs](#)
- [Tomcat 8.5 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

Type here to search

12:13 04-02-2021

"vi context.xml"

Learn with LetsUpgrade - Online | Connect to instance | EC2 Mana... | I-Ob112b5ee850f5141 (Tomcat-j... | Apache Tomcat/8.5.61

console.aws.amazon.com/ec2/v2/connect/ec2-user/i-Ob112b5ee850f5141

Apps ACT Fibernet Portal... Google Gmail YouTube WELCOME TO TSSP... Sign in to GitHub... Groups - LetsUpgra... Learn with LetsUpg... Amazon Web Servic... Prime Video eLitmus - India's lar...

```
<?xml version="1.0" encoding="UTF-8"?>
<!--
Licensed to the Apache Software Foundation (ASF) under one or more
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

Unless required by applicable law or agreed to in writing, software
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|0:0:0:0:0:0:1" /> -->
  <Manager sessionAttributeValueClassNameFilter="java\.lang\.(?:Boolean|Integer|Long|Number|string)|org\.apache\.catalina\.filters\.CsrfPreventionFilter\$LruC
ache(?:\$1)?|java\.util\.(?:Linked)?HashMap"/>
</Context>

-- INSERT --
```

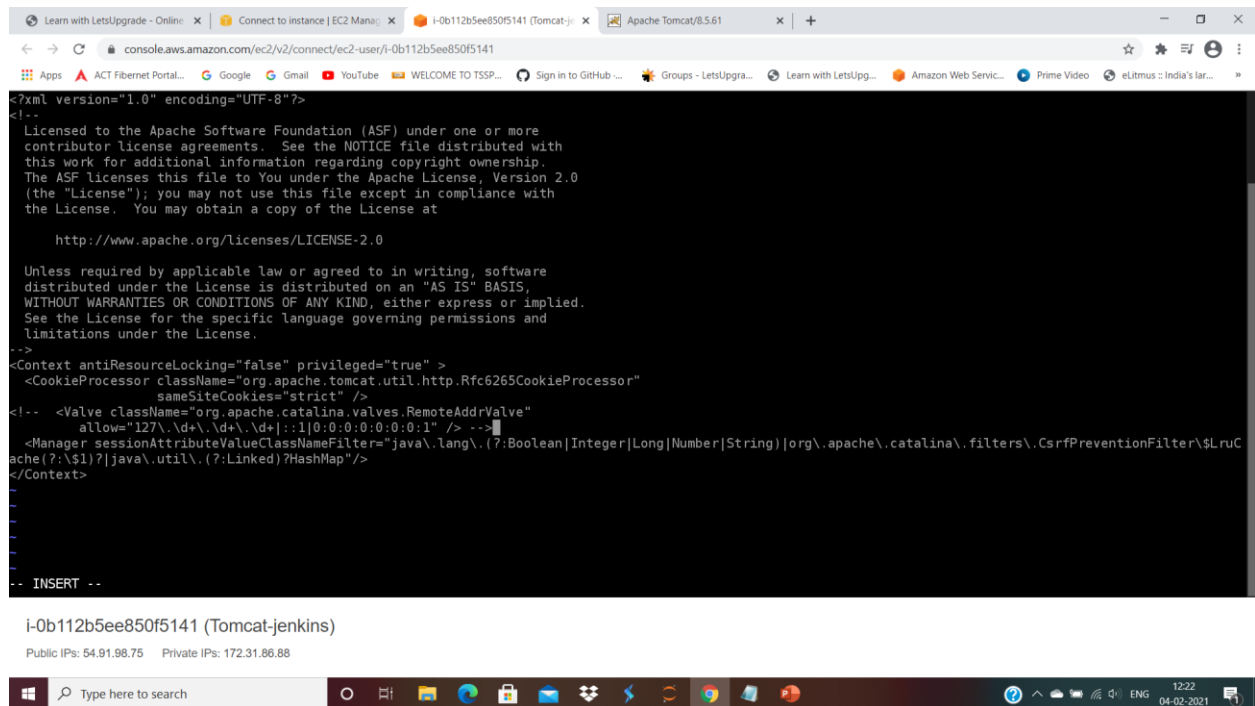
I-Ob112b5ee850f5141 (Tomcat-jenkins)

Public IPs: 54.91.98.75 Private IPs: 172.31.86.88

Type here to search

12:21 04-02-2021

"vi tomcat-users.xml"



```
<?xml version="1.0" encoding="UTF-8"?>
<!--
Licensed to the Apache Software Foundation (ASF) under one or more
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

Unless required by applicable law or agreed to in writing, software
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 sessionAttributeClassNameFilter="java.lang.{?:Boolean|Integer|Long|Number|String}|org.apache.catalina.filters.CsrfPreventionFilter\LruC
ache{?:\$1}?|java.util.{?:Linked}?HashMap"/>
</Context>

-- INSERT --
```

i-Ob112b5ee850f5141 (Tomcat-jenkins)

Public IPs: 54.91.98.75 Private IPs: 172.31.86.88

```
<role rolename="manager-gui"/>
<role rolename="manager-script"/>
<role rolename="manager-jmx"/>
<role rolename="manager-status"/>
<user username="admin" password="sujji123" roles="manager-gui,manager-script,manager-
jmx,manager-status"/>
<user username="deployer" password="sujji123" roles="manager-script"/>
<user username="tomcat" password="sujji123" roles="manager-gui"/>
```



```
Connect to instance | EC2 Manu... x i-Ob112b5ee850f5141 (Tomcat-j... x 54.91.98.75:8090/manager/html x +
console.aws.amazon.com/ec2/v2/connect/ec2-user/i-Ob112b5ee850f5141
Apps ACT Fibernet Portal... Google Gmail YouTube WELCOME TO TSSP... Sign in to GitHub ... Groups - LetsUpgra... Learn with LetsUpg... Amazon Web Servic... Prime Video eLitmus : India's lar... »

you must define such a user - the username and password are arbitrary. It is
strongly recommended that you do NOT use one of the users in the commented out
section below since they are intended for use with the examples web
application.
-->
<!--
NOTE: 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="manager-gui"/>
<role rolename="manager-script"/>
<role rolename="manager-jmx"/>
<role rolename="manager-status"/>
<user username="admin" password="sujji123" roles="manager-gui,manager-script,manager-jmx,manager-status"/>
<user username="deployer" password="sujji123" roles="manager-script"/>
<user username="tomcat" password="sujji123" roles="manager-gui"/>
</tomcat-users>

-- INSERT --
```

i-Ob112b5ee850f5141 (Tomcat-jenkins)

Public IPs: 54.91.98.75 Private IPs: 172.31.86.88

