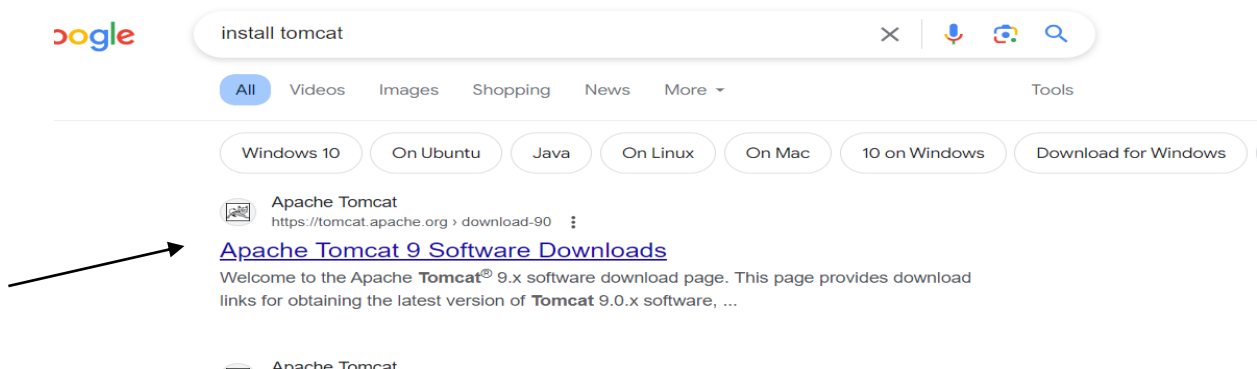


L5 - Install Tomcat web application server in AWS EC2 Ubuntu Instance and access Tomcat using a web browser.

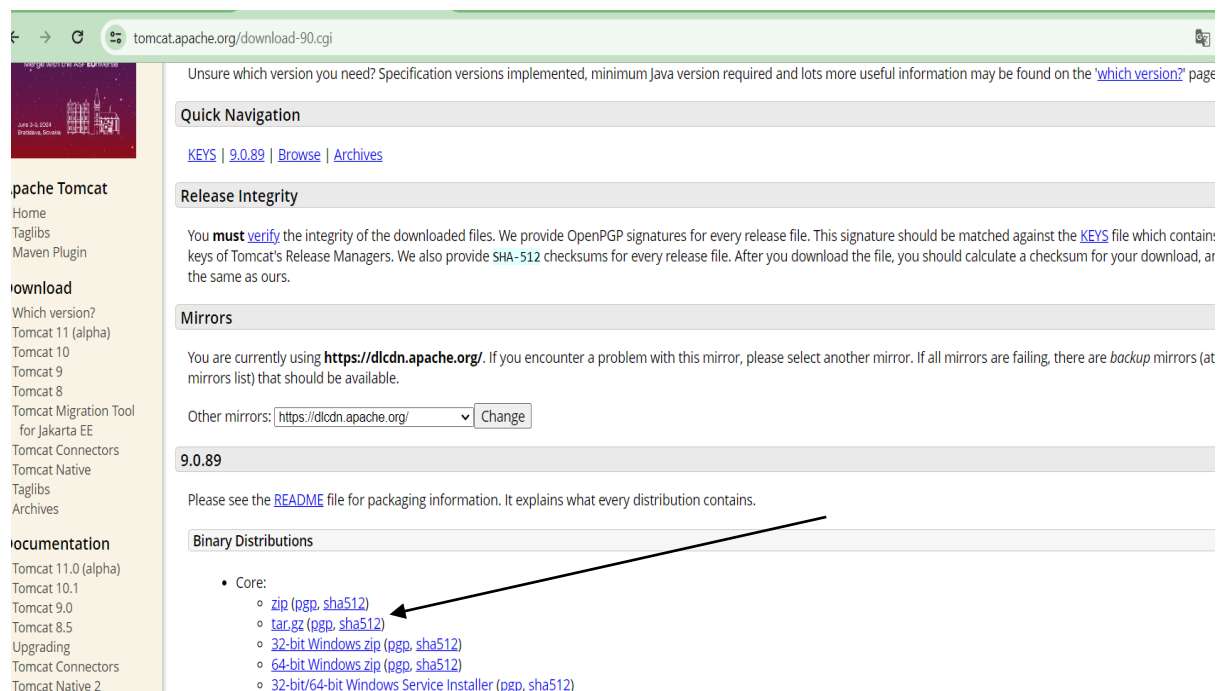
To launch an EC2 Ubuntu Instance [Refer L1](#)

To install Tomcat web application in an EC2 Ubuntu instance follow below steps :

Step 1: Install tomcat from **Apache website.**
Click on Apache website.

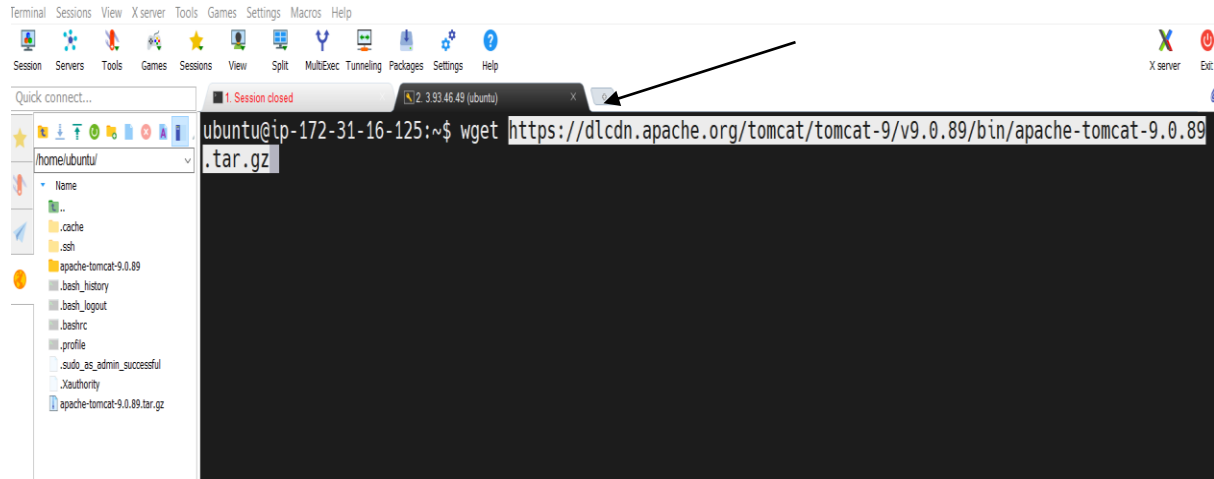


STEP 2:After Copy the link address of tar.gz file as indicated by arrow.



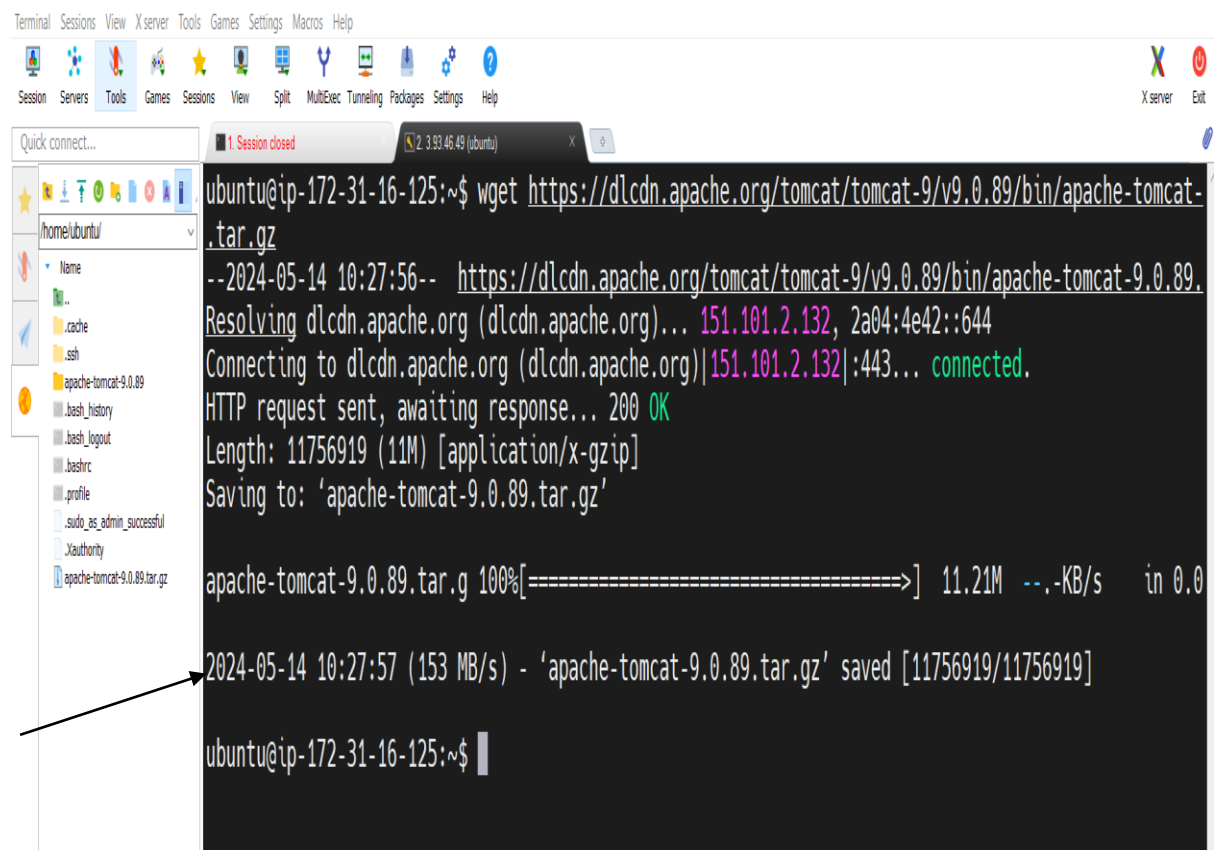
STEP 3: Go to EC2 ubuntu Terminal And Write command as shown below in the picture.

wget [paste link address copied] And Click enter.



```
Terminal Sessions View X.server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
Quick connect...
/home/ubuntu/
Name
.cache
.ssh
apache-tomcat-9.0.89
.bash_history
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.xauthority
apache-tomcat-9.0.89.tar.gz
1 Session closed
2 3.93.46.49 (ubuntu)
ubuntu@ip-172-31-16-125:~$ wget https://dldn.apache.org/tomcat/tomcat-9/v9.0.89/bin/apache-tomcat-9.0.89.tar.gz
```

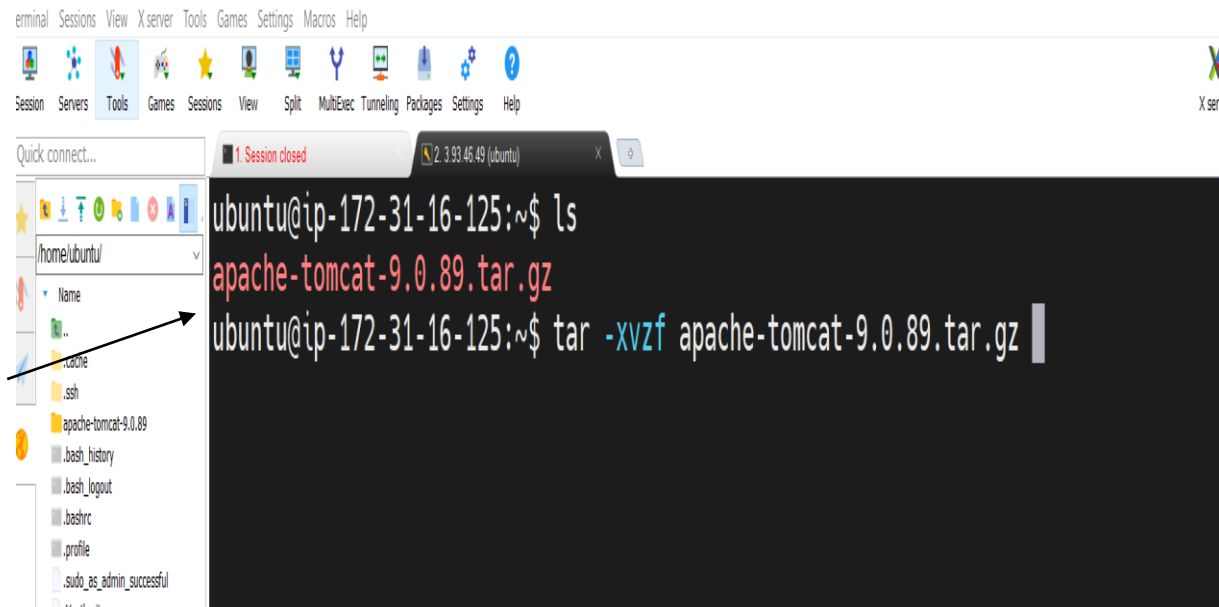
tar.gz file got saved



```
Terminal Sessions View X.server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
Quick connect...
/home/ubuntu/
Name
.cache
.ssh
apache-tomcat-9.0.89
.bash_history
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.xauthority
apache-tomcat-9.0.89.tar.gz
1 Session closed
2 3.93.46.49 (ubuntu)
ubuntu@ip-172-31-16-125:~$ wget https://dldn.apache.org/tomcat/tomcat-9/v9.0.89/bin/apache-tomcat-9.0.89.tar.gz
--2024-05-14 10:27:56-- https://dldn.apache.org/tomcat/tomcat-9/v9.0.89/bin/apache-tomcat-9.0.89.tar.gz
Resolving dldn.apache.org (dldn.apache.org)... 151.101.2.132, 2a04:4e42::644
Connecting to dldn.apache.org (dldn.apache.org)|151.101.2.132|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 11756919 (11M) [application/x-gzip]
Saving to: 'apache-tomcat-9.0.89.tar.gz'
apache-tomcat-9.0.89.tar.g 100%[=====] 11.21M --.-KB/s in 0.0
2024-05-14 10:27:57 (153 MB/s) - 'apache-tomcat-9.0.89.tar.gz' saved [11756919/11756919]
ubuntu@ip-172-31-16-125:~$
```

STEP 4: Then write command **ls** you can see **apache-tomcat-9.0.89.tar.gz** file .

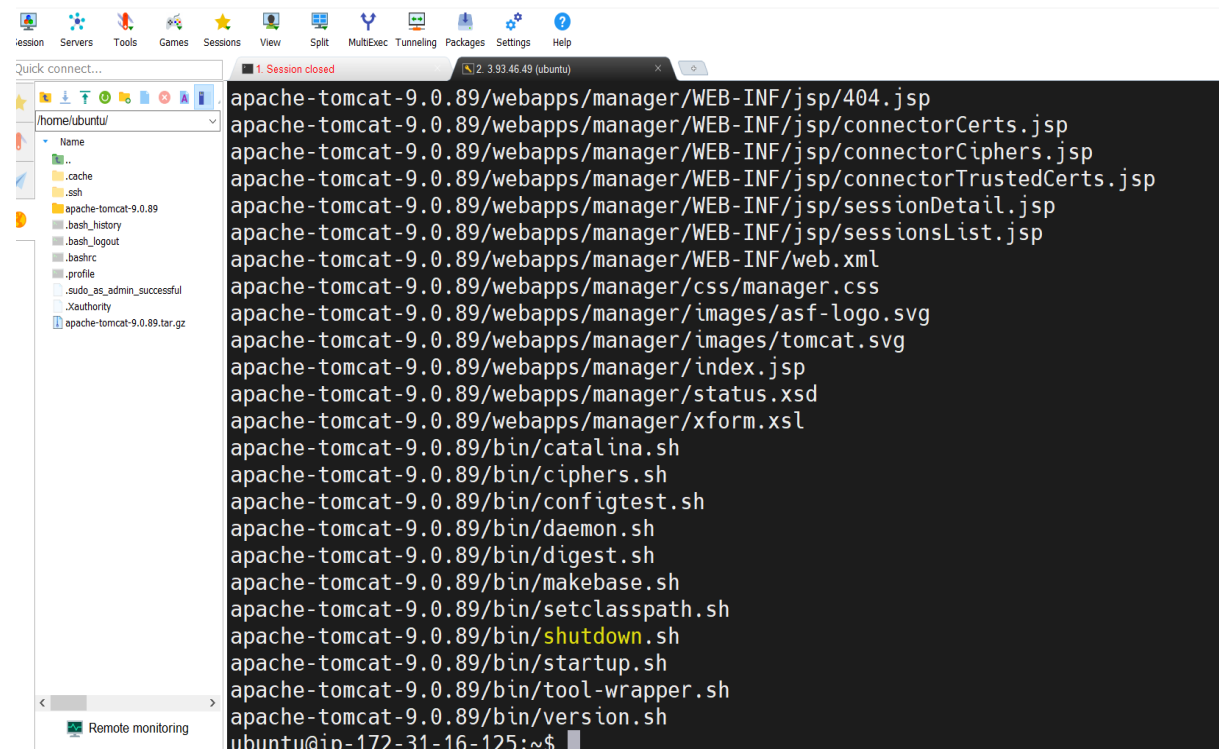
And to **extract** apache tomcat from tar.gz write command
tar -xvzf apache-tomcat-9.0.89.tar.gz And Click Enter.



The screenshot shows a terminal window with a menu bar (terminal, Sessions, View, Xserver, Tools, Games, Settings, Macros, Help) and a toolbar. On the left, a 'Quick connect...' sidebar shows a file tree for 'home/ubuntu' with folders like '.cache', '.ssh', and 'apache-tomcat-9.0.89'. The terminal pane shows the following commands and output:

```
ubuntu@ip-172-31-16-125:~$ ls
apache-tomcat-9.0.89.tar.gz
ubuntu@ip-172-31-16-125:~$ tar -xvzf apache-tomcat-9.0.89.tar.gz
```

apache-tomcat-9.0.89 got extracted as seen below

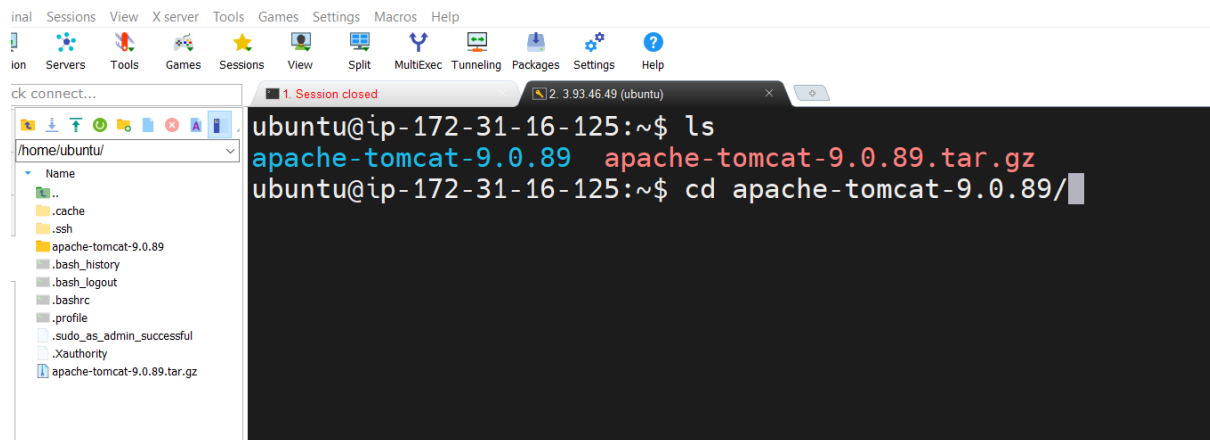


The screenshot shows the same terminal window after the extraction. The terminal pane now displays a long list of files and directories within the 'apache-tomcat-9.0.89' directory:

```
apache-tomcat-9.0.89/webapps/manager/WEB-INF/jsp/404.jsp
apache-tomcat-9.0.89/webapps/manager/WEB-INF/jsp/connectorCerts.jsp
apache-tomcat-9.0.89/webapps/manager/WEB-INF/jsp/connectorCiphers.jsp
apache-tomcat-9.0.89/webapps/manager/WEB-INF/jsp/connectorTrustedCerts.jsp
apache-tomcat-9.0.89/webapps/manager/WEB-INF/jsp/sessionDetail.jsp
apache-tomcat-9.0.89/webapps/manager/WEB-INF/jsp/sessionsList.jsp
apache-tomcat-9.0.89/webapps/manager/WEB-INF/web.xml
apache-tomcat-9.0.89/webapps/manager/css/manager.css
apache-tomcat-9.0.89/webapps/manager/images/asf-logo.svg
apache-tomcat-9.0.89/webapps/manager/images/tomcat.svg
apache-tomcat-9.0.89/webapps/manager/index.jsp
apache-tomcat-9.0.89/webapps/manager/status.xsd
apache-tomcat-9.0.89/webapps/manager/xform.xsl
apache-tomcat-9.0.89/bin/catalina.sh
apache-tomcat-9.0.89/bin/ciphers.sh
apache-tomcat-9.0.89/bin/configtest.sh
apache-tomcat-9.0.89/bin/daemon.sh
apache-tomcat-9.0.89/bin/digest.sh
apache-tomcat-9.0.89/bin/makebase.sh
apache-tomcat-9.0.89/bin/setclasspath.sh
apache-tomcat-9.0.89/bin/shutdown.sh
apache-tomcat-9.0.89/bin/startup.sh
apache-tomcat-9.0.89/bin/tool-wrapper.sh
apache-tomcat-9.0.89/bin/version.sh
ubuntu@ip-172-31-16-125:~$
```

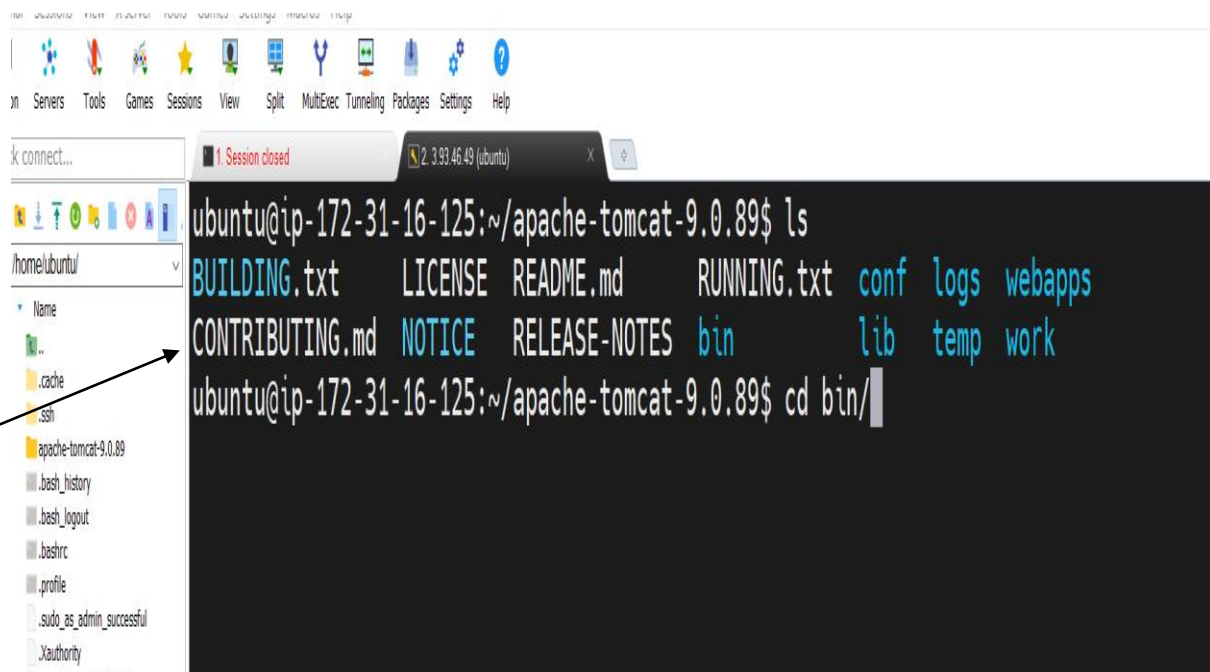
STEP 5: write command **ls** to see files.

Then go inside **apache-tomcat-9.0.89** by writing command **cd apache-tomcat-9.0.89** And Click enter.



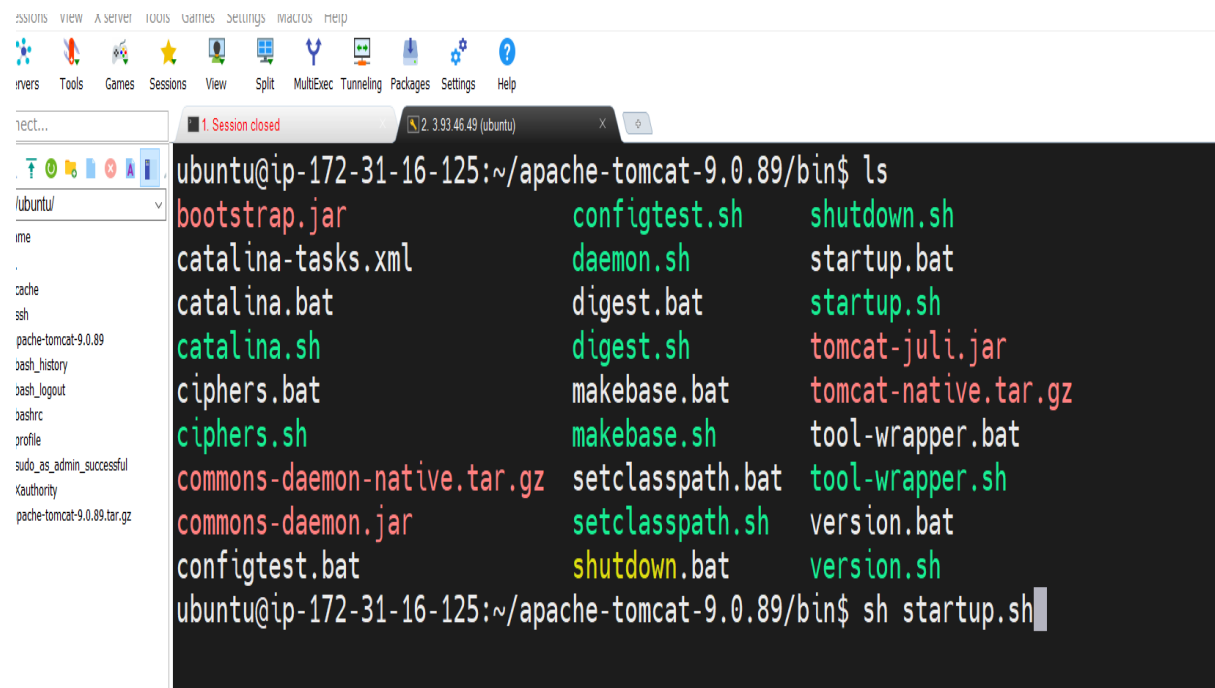
STEP 6: Now in the **Apache directory** as we can see below write **ls** command to see dir/files in Apache directory.

Then Go **inside /bin** directory by command **cd bin** and click enter.



STEP 7: Now in **bin** directory write command **ls** to see files/dir.

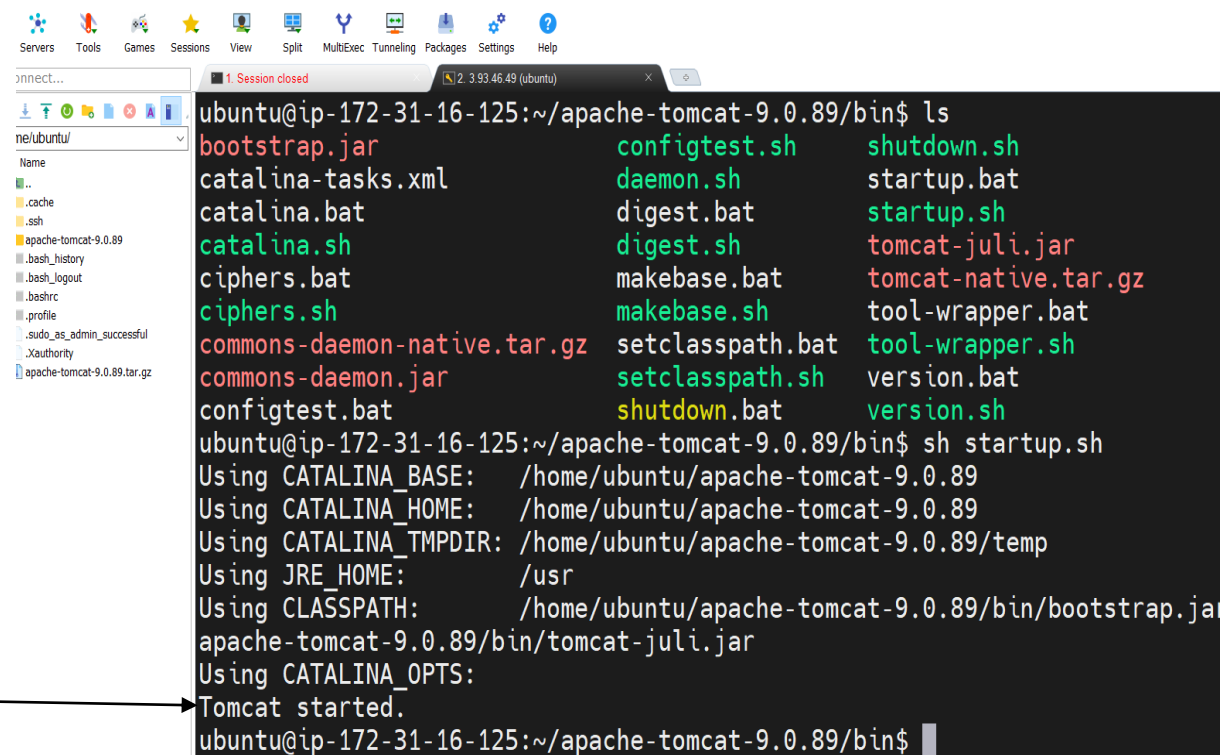
Then write command **sh startup.sh** and **click** enter to start **Tomcat**.



The screenshot shows a terminal window with the following content:

```
ubuntu@ip-172-31-16-125:~/apache-tomcat-9.0.89/bin$ ls
bootstrap.jar          configtest.sh          shutdown.sh
catalina-tasks.xml     daemon.sh              startup.bat
catalina.bat           digest.bat             startup.sh
catalina.sh            digest.sh              tomcat-juli.jar
ciphers.bat            makebase.bat           tomcat-native.tar.gz
ciphers.sh             makebase.sh            tool-wrapper.bat
commons-daemon-native.tar.gz setclasspath.bat       tool-wrapper.sh
commons-daemon.jar     setclasspath.sh        version.bat
configtest.bat         shutdown.bat           version.sh
ubuntu@ip-172-31-16-125:~/apache-tomcat-9.0.89/bin$ sh startup.sh
```

Tomcat started as we can see below



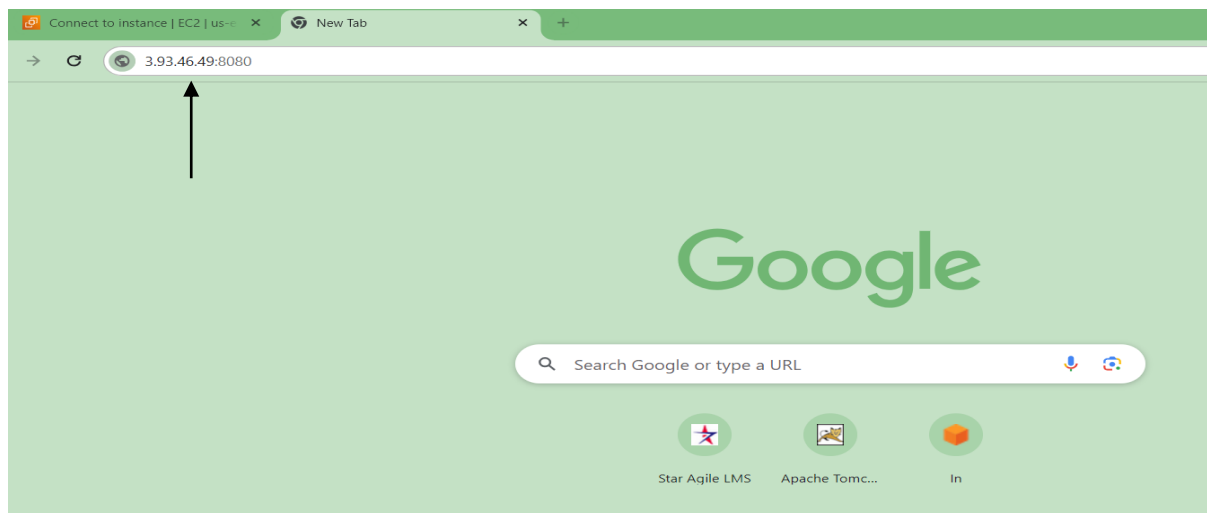
The screenshot shows a terminal window with the following content:

```
ubuntu@ip-172-31-16-125:~/apache-tomcat-9.0.89/bin$ ls
bootstrap.jar          configtest.sh          shutdown.sh
catalina-tasks.xml     daemon.sh              startup.bat
catalina.bat           digest.bat             startup.sh
catalina.sh            digest.sh              tomcat-juli.jar
ciphers.bat            makebase.bat           tomcat-native.tar.gz
ciphers.sh             makebase.sh            tool-wrapper.bat
commons-daemon-native.tar.gz setclasspath.bat       tool-wrapper.sh
commons-daemon.jar     setclasspath.sh        version.bat
configtest.bat         shutdown.bat           version.sh
ubuntu@ip-172-31-16-125:~/apache-tomcat-9.0.89/bin$ sh startup.sh
Using CATALINA_BASE:   /home/ubuntu/apache-tomcat-9.0.89
Using CATALINA_HOME:   /home/ubuntu/apache-tomcat-9.0.89
Using CATALINA_TMPDIR: /home/ubuntu/apache-tomcat-9.0.89/temp
Using JRE_HOME:        /usr
Using CLASSPATH:        /home/ubuntu/apache-tomcat-9.0.89/bin/bootstrap.jar
                        /home/ubuntu/apache-tomcat-9.0.89/bin/tomcat-juli.jar
Using CATALINA_OPTS:
Tomcat started.
ubuntu@ip-172-31-16-125:~/apache-tomcat-9.0.89/bin$
```

An arrow points to the line "Tomcat started."

To Access using web browser

1st copy the Public IP address of the instance in which tomcat started then paste in google search bar like [3.93.46.49:8080] and click enter



Tomacat application is accessed over web browser

