

## • MASTER AND SLAVE CONFIGURATION

- Create an EC2 instance for Jenkins Slavenode server and connect instance with using ssh

```
MINGW64/c:/Users/gandhi/Downloads
```

```
gandhi@LAPTOP-8K6J6U2E MINGW64 ~/Downloads (main)
$ ssh -i "grand.pem" ec2-user@13.126.203.89
The authenticity of host '13.126.203.89 (13.126.203.89)' can't be established.
ED25519 key fingerprint is SHA256:FavUZI2esowN2aStoD7Hk8Zl3CFCf9NrkJep0BDHA.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '13.126.203.89' (ED25519) to the list of known hosts.
```

```
#
#                                     Amazon Linux 2023
#
#                                     https://aws.amazon.com/linux/amazon-linux-2023
#
```

- Edit the sudoers file to edit the file command is
- `sudo vi /etc/sudoers`
- `add slave-5 (ALL) NOPASSWD:ALL`

```

# Adding HOME to env_keep may enable a user to run unrestricted
# commands via sudo.
# Defaults    env_keep += "HOME"
Defaults     secure_path = /usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/var/lib/snapd/snap/bin

## Next comes the main part: which users can run what software on
## which machines (the sudoers file can be shared between multiple
## systems).
## Syntax:
##
## user MACHINE=COMMANDS
##
## The COMMANDS section may have other options added to it.
##
## Allow root to run any commands anywhere
root    ALL=(ALL)        ALL
tomcat  ALL=(ALL)        NOPASSWD: ALL
## Allows members of the 'sys' group to run networking, software,
## service management apps and more.
## %sys ALL = NETWORKING, SOFTWARE, SERVICES, STORAGE, DELEGATING, PROCESSES, LOCATE, DRIVERS

## Allows people in group wheel to run all commands
%wheel  ALL=(ALL)        ALL

## Same thing without a password
%wheel  ALL=(ALL)        NOPASSWD: ALL

## Allows members of the users group to mount and unmount the
## cdrom as root
%users  ALL=/sbin/mount /mnt/cdrom, /sbin/umount /mnt/cdrom

## Allows members of the users group to shutdown this system
%users  localhost=/sbin/shutdown -h now

## Read drop-in files from /etc/sudoers.d (the # here does not mean a comment)
#include_dir /etc/sudoers.d
"/etc/sudoers" [readonly] 120L, 4409B

```

- Creating a new user with `sudo useradd tomcat`
- Adding password to user with `sudo passwd tomcat`
- login as user -> `sudo su - tomcat`

```

ec2-user@ip-10-0-0-12 ~]$ sudo useradd tomcat
[ec2-user@ip-10-0-0-12 ~]$ sudo passwd tomcat
Changing password for user tomcat.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-10-0-0-12 ~]$ sudo vi /etc/sudoers
[ec2-user@ip-10-0-0-12 ~]$ sudo vi /etc/ssh/sshd_config
[ec2-user@ip-10-0-0-12 ~]$ ssh-keygen -t rsa -N "" -f /home/tomcat/.ssh/id_rsa
Generating public/private rsa key pair.
Saving key "/home/tomcat/.ssh/id_rsa" failed: Permission denied
[ec2-user@ip-10-0-0-12 ~]$ sudo su tomcat
[tomcat@ip-10-0-0-12 ec2-user]$ cd
[tomcat@ip-10-0-0-12 ~]$ ssh-keygen -t rsa -N "" -f /home/tomcat/.ssh/id_rsa

```

- And give the permissions at sudo vi /etc/ssh/sshd\_config you can give publickey authentication and passwd authentication

```

ec2-user@ip-10-0-0-12 ~
#LoginGraceTime 2m
#PermitRootLogin prohibit-password
#StrictModes yes
#MaxAuthTries 6
#MaxSessions 10

PubkeyAuthentication yes

# The default is to check both .ssh/authorized_keys and .ssh/authorized_keys2
# but this is overridden so installations will only check .ssh/authorized_keys
AuthorizedKeysFile .ssh/authorized_keys

#AuthorizedPrincipalsFile none

# For this to work you will also need host keys in /etc/ssh/ssh_known_hosts
#HostbasedAuthentication no
# Change to yes if you don't trust ~/.ssh/known_hosts for
# HostbasedAuthentication
#IgnoreUserKnownHosts no
# Don't read the user's ~/.rhosts and ~/.shosts files
#IgnoreRhosts yes

# Explicitly disable PasswordAuthentication. By presetting it, we
# avoid the cloud-init set_passwords module modifying sshd_config and
# restarting sshd in the default instance launch configuration.
PasswordAuthentication yes
#PermitEmptyPasswords no

# change to no to disable s/key passwords
#KbdInteractiveAuthentication yes

# Kerberos options
#KerberosAuthentication no
#KerberosOrLocalPasswd yes
#KerberosTicketcleanup yes
#KerberosGetAFSToken no
-- INSERT --

```

- Create ssh key for Slave-5 user with ssh key using -> ssh-keygen -t rsa -N "" -f /home/tomcat/.ssh/id\_rsa
- Going inside the directory -> cd .ssh
- id\_rsa and id\_rsa.pub created
- copy the public key to the authorised\_keys
- give permission to the authorized keys using the command chmod 700 authorized\_keys

```
ec2-user@ip-10-0-0-12:~$ su: user tomcat does not exist or the user entry does not contain all the required fields
[ec2-user@ip-10-0-0-12 ~]$ sudo useradd tomcat
[ec2-user@ip-10-0-0-12 ~]$ sudo passwd tomcat
Changing password for user tomcat.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-10-0-0-12 ~]$ sudo vi /etc/sudoers
[ec2-user@ip-10-0-0-12 ~]$ sudo vi /etc/ssh/sshd_config
[ec2-user@ip-10-0-0-12 ~]$ ssh-keygen -t rsa -N "" -f /home/tomcat/.ssh/id_rsa
Generating public/private rsa key pair.
Saving key "/home/tomcat/.ssh/id_rsa": Permission denied
[ec2-user@ip-10-0-0-12 ~]$ sudo su tomcat
[tomcat@ip-10-0-0-12 ec2-user]$ cd
[tomcat@ip-10-0-0-12 ~]$ ssh-keygen -t rsa -N "" -f /home/tomcat/.ssh/id_rsa
Generating public/private rsa key pair.
Created directory '/home/tomcat/.ssh'.
Your identification has been saved in /home/tomcat/.ssh/id_rsa
Your public key has been saved in /home/tomcat/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:xlVNieJtT72qRr/mHXhu20mhAeci3xChcoZVJqcrQI4 tomcat@ip-10-0-0-12.ap-south-1.compute.internal
The key's randomart image is:
+--[RSA 3072]-----+
|. . . * o +
| B + B
| E + *
| . *
|. S o .
| o @ + .
| o . * X +
| o = o + = .
| . + + = + = o
+-----[SHA256]-----+
[tomcat@ip-10-0-0-12 ~]$ cd .ssh
[tomcat@ip-10-0-0-12 .ssh]$ cat id_rsa.pub > authorized_keys
[tomcat@ip-10-0-0-12 .ssh]$ chmod 700 authorized_keys
```

- Then give user id and public ip to master then connect to master

The screenshot shows the Jenkins web interface. The top navigation bar includes 'Instances | EC2 Management Console', 'Nodes | Jenkins', and 'Apache Tomcat® - Apache Tomcat'. The address bar shows '13.48.128.209:8080/computer/'. The left sidebar has a 'Dashboard' link and a 'Nodes' link. The main content area displays a table of nodes:

Node								
	manasa	Linux (amd64)	In sync	5.90 GB	0 B	5.90 GB	358ms	
	satish	Linux (amd64)	1.2 sec behind	5.92 GB	0 B	5.92 GB	1945ms	
	subhash	Linux (amd64)	1.2 sec behind	5.93 GB	0 B	5.93 GB	1416ms	
	vamsi	Linux (amd64)	1.2 sec ahead	6.13 GB	0 B	1.91 GB	3118ms	
Data obtained		21 sec	20 sec	19 sec	20 sec	20 sec	19 sec	

The bottom status bar shows 'REST API' and 'Jenkins 2.401.3'. The system tray at the very bottom shows the date and time as '10:05 PM 06-08-2023'.

- Then you can install tomcat on slave and also install java and git and maven

The screenshot shows a web browser at `tomcat.apache.org/download-11.cgi#11.0.0-M9`. The page title is "11.0.0-M9". It includes a sidebar with links like "Wiki", "Problems?", "Get Involved", "Media", and "Misc". The main content area has a heading "Please see the [README](#) file for packaging information. It explains what every distribution contains." Below this, there are two sections: "Binary Distributions" and "Source Code Distributions".

Under "Binary Distributions", there are three main categories: "Core:", "Full documentation", and "Deployer:". Each category lists a "tar.gz (pgp, sha512)" file. A context menu is open over the "tar.gz (pgp, sha512)" link under the "Core:" section, showing options like "Open link in new tab", "Open link in new window", "Open link in incognito window", "Save link as...", "Copy link address", and "Inspect".

Under "Source Code Distributions", there are two links: "tar.gz (pgp, sha512)" and "zip (pgp, sha512)".

Below the browser, a terminal window shows the installation of various Java packages and the download of the Tomcat tar.gz file using `wget`.

```

ec2-user@ip-10-0-0-130:~$
Verifying : yacl-2.0.4-4.amzn2.0.3.x86_64
Verifying : elfutils-libs-0.176-2.amzn2.0.1.x86_64
Verifying : python-configobj-4.7.2-7.amzn2.0.1.noarch
Verifying : openldap-2.4.44-25.amzn2.0.7.x86_64
Verifying : python3-setuptools-49.1.3-1.amzn2.0.3.noarch
Verifying : elfutils-libs-0.176-2.amzn2.x86_64
Verifying : python3-setuptools-49.1.3-1.amzn2.0.2.noarch
Verifying : elfutils-default-yama-scope-0.176-2.amzn2.noarch
Verifying : elfutils-libelf-0.176-2.amzn2.x86_64
Verifying : python-configobj-4.7.2-7.amzn2.noarch
Verifying : yacl-2.0.4-4.amzn2.0.2.x86_64
Verifying : openldap-2.4.44-25.amzn2.0.6.x86_64
Installed:
kernel.x86_64 0:5.10.186-179.751.amzn2
Updated:
elfutils-default-yama-scope.noarch 0:0.176-2.amzn2.0.1
elfutils-libs.x86_64 0:0.176-2.amzn2.0.1
python-configobj.noarch 0:4.7.2-7.amzn2.0.1
yacl.x86_64 0:2.0.4-4.amzn2.0.3
elfutils-libelf.x86_64 0:0.176-2.amzn2.0.1
openldap.x86_64 0:2.4.44-25.amzn2.0.7
python3-setuptools.noarch 0:49.1.3-1.amzn2.0.3
Complete!
[ec2-user@ip-10-0-0-130 ~]$ wget https://d1cdn.apache.org/tomcat/tomcat-11/v11.0.0-M9/bin/apache-tomcat-11.0.0-M9.tar.gz
--2023-08-08 04:40:39-- https://d1cdn.apache.org/tomcat/tomcat-11/v11.0.0-M9/bin/apache-tomcat-11.0.0-M9.tar.gz
Resolving d1cdn.apache.org (d1cdn.apache.org)... 151.101.2.132, 2a04:4e42::644
Connecting to d1cdn.apache.org (d1cdn.apache.org)|151.101.2.132|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 12058949 (12M) [application/x-gzip]
Saving to: 'apache-tomcat-11.0.0-M9.tar.gz'

100%[=====] 12,058,949 --.-K/s in 0.09s

2023-08-08 04:40:40 (125 MB/s) - 'apache-tomcat-11.0.0-M9.tar.gz' saved [12058949/12058949]

[ec2-user@ip-10-0-0-130 ~]$ ll
total 11780
-rw-rw-r-- 1 ec2-user ec2-user 12058949 ju1 4 10:55 apache-tomcat-11.0.0-M9.tar.gz
[ec2-user@ip-10-0-0-130 ~]$

```

- Then unzip the tar file using `tar -xvzf apache-tomcat-version.tar.gz`

```
total 11780
-rw-rw-r-- 1 ec2-user ec2-user 12058949 Jul  4 10:55 apache-tomcat-11.0.0-M9.tar.gz
[ec2-user@ip-10-0-0-130 ~]$
[ec2-user@ip-10-0-0-130 ~]$ tar xvfz apache-tomcat-11.0.0-M9.tar.gz
apache-tomcat-11.0.0-M9/conf/
apache-tomcat-11.0.0-M9/conf/catalina.properties
apache-tomcat-11.0.0-M9/conf/context.xml
apache-tomcat-11.0.0-M9/conf/jaspic-providers.xml
apache-tomcat-11.0.0-M9/conf/jaspic-providers.xsd
apache-tomcat-11.0.0-M9/conf/logging.properties
apache-tomcat-11.0.0-M9/conf/server.xml
apache-tomcat-11.0.0-M9/conf/tomcat-users.xml
apache-tomcat-11.0.0-M9/conf/tomcat-users.xsd
apache-tomcat-11.0.0-M9/conf/web.xml
apache-tomcat-11.0.0-M9/bin/
apache-tomcat-11.0.0-M9/lib/
apache-tomcat-11.0.0-M9/logs/
apache-tomcat-11.0.0-M9/temp/
apache-tomcat-11.0.0-M9/webapps/
apache-tomcat-11.0.0-M9/webapps/ROOT/
apache-tomcat-11.0.0-M9/webapps/ROOT/WEB-INF/
apache-tomcat-11.0.0-M9/webapps/docs/
apache-tomcat-11.0.0-M9/webapps/docs/META-INF/
apache-tomcat-11.0.0-M9/webapps/docs/WEB-INF/
apache-tomcat-11.0.0-M9/webapps/docs/WEB-INF/jsp/
apache-tomcat-11.0.0-M9/webapps/docs/annotationapi/
apache-tomcat-11.0.0-M9/webapps/docs/api/
apache-tomcat-11.0.0-M9/webapps/docs/appdev/
apache-tomcat-11.0.0-M9/webapps/docs/appdev/sample/
apache-tomcat-11.0.0-M9/webapps/docs/appdev/sample/docs/
apache-tomcat-11.0.0-M9/webapps/docs/appdev/sample/src/
apache-tomcat-11.0.0-M9/webapps/docs/appdev/sample/src/mypackage/
apache-tomcat-11.0.0-M9/webapps/docs/appdev/sample/web/
apache-tomcat-11.0.0-M9/webapps/docs/appdev/sample/web/WEB-INF/
apache-tomcat-11.0.0-M9/webapps/docs/appdev/sample/web/images/
apache-tomcat-11.0.0-M9/webapps/docs/architecture/
apache-tomcat-11.0.0-M9/webapps/docs/architecture/requestProcess/
apache-tomcat-11.0.0-M9/webapps/docs/architecture/startup/
apache-tomcat-11.0.0-M9/webapps/docs/config/
```

- Then go into the unzipped file

```
apache-tomcat-11.0.0-M9/webapps/host-manager/WEB-INF/web.xml
apache-tomcat-11.0.0-M9/webapps/host-manager/css/manager.css
apache-tomcat-11.0.0-M9/webapps/host-manager/images/asf-logo.svg
apache-tomcat-11.0.0-M9/webapps/host-manager/images/tomcat.svg
apache-tomcat-11.0.0-M9/webapps/host-manager/index.jsp
apache-tomcat-11.0.0-M9/webapps/manager/META-INF/context.xml
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/jsp/401.jsp
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/jsp/403.jsp
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/jsp/404.jsp
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/jsp/connectorCerts.jsp
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/jsp/connectorCiphers.jsp
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/jsp/connectorTrustedCerts.jsp
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/jsp/sessionDetail.jsp
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/jsp/sessionsList.jsp
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/web.xml
apache-tomcat-11.0.0-M9/webapps/manager/css/manager.css
apache-tomcat-11.0.0-M9/webapps/manager/images/asf-logo.svg
apache-tomcat-11.0.0-M9/webapps/manager/images/tomcat.svg
apache-tomcat-11.0.0-M9/webapps/manager/index.jsp
apache-tomcat-11.0.0-M9/webapps/manager/status.xsd
apache-tomcat-11.0.0-M9/webapps/manager/xform.xml
apache-tomcat-11.0.0-M9/bin/catalina.sh
apache-tomcat-11.0.0-M9/bin/ciphers.sh
apache-tomcat-11.0.0-M9/bin/configtest.sh
apache-tomcat-11.0.0-M9/bin/daemon.sh
apache-tomcat-11.0.0-M9/bin/digest.sh
apache-tomcat-11.0.0-M9/bin/makebase.sh
apache-tomcat-11.0.0-M9/bin/migrate.sh
apache-tomcat-11.0.0-M9/bin/setclasspath.sh
apache-tomcat-11.0.0-M9/bin/shutdown.sh
apache-tomcat-11.0.0-M9/bin/startup.sh
apache-tomcat-11.0.0-M9/bin/tool-wrapper.sh
apache-tomcat-11.0.0-M9/bin/version.sh
[ec2-user@ip-10-0-0-130 ~]$ ls
apache-tomcat-11.0.0-M9  apache-tomcat-11.0.0-M9.tar.gz
[ec2-user@ip-10-0-0-130 ~]$ cd apache-tomcat-11.0.0-M9/
[ec2-user@ip-10-0-0-130 apache-tomcat-11.0.0-M9]$ ls
bin  BUILDING.txt  conf  CONTRIBUTING.md  lib  LICENSE  logs  NOTICE  README.md  RELEASE-NOTES  RUNNING.txt  temp  webapps  work
[ec2-user@ip-10-0-0-130 apache-tomcat-11.0.0-M9]$
```

- Go in to webapp/manager/META-INF/open context.xml file using vi command and hide value line



```
root@ip-10-0-0-130:/home/ec2-user/apache-tomcat-10.1.11/webapps/manager/META-INF
<?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

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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|0:0:0:0:0:0:1" />-->
  <Manager sessionAttributeValueClassNameFilter="java\.lang\.(?:Boolean|Integer|Long|Number|string)|org\.apache\.catalina\.filters\.\CsrfPreventionFilter|LruCache(?:\s1)?|java\.util\.(?:Linked)?HashMap"/>
</Context>

"context.xml" 25L, 1357B
```

- Go in to webapp/host-manager/META-INF/open context.xml file using vi command and hide value line

```

root@ip-10-0-0-130/home/ec2-user/apache-tomcat-10.1.11/webapps/manager/META-INF
<?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|LruCache(?:\{?\.?|java\.util\.(?:Linked)?HashMap?"/>
</Context>

"context.xml" 25L, 1357B

```

- Then go to conf and open server.xml file and change port

```
root@ip-10-0-0-12:/home/tomcat/apache-tomcat-9.0.78/conf
so you may not define subcomponents such as "valves" at this level.
Documentation at /docs/config/service.html
-->
<Service name="Catalina">

  <!--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="8081" protocol="HTTP/1.1"
    connectionTimeout="20000"
    redirectPort="8443"
    maxParameterCount="1000"
  />

  <!-- A "Connector" using the shared thread pool-->
  <!--
  <Connector executor="tomcatThreadPool"
    port="8080" protocol="HTTP/1.1"
    connectionTimeout="20000"
    redirectPort="8443"
    maxParameterCount="1000"
  />
  -->
  <!-- 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.
  Either JSSE or OpenSSL style configuration may be used regardless of
  "server.xml" 180L, 7856B
69,25 34%
```

- Go to conf/ open tomcat-user.xml

```
root@ip-10-0-0-130:/home/ec2-user/apache-tomcat-10.1.11/conf
version="1.0">
<!--
By default, no user is included in the "manager-gui" role required
to operate the "/manager/html" web application. If you wish to use this app,
you must define such a user - the username and password are arbitrary.

Built-in Tomcat manager roles:
- manager-gui - allows access to the HTML GUI and the status pages
- manager-script - allows access to the HTTP API and the status pages
- manager-jmx - allows access to the JMX proxy and the status pages
- manager-status - allows access to the status pages only

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="manager-gui"/>
<user username="tomcat" password="s3cret" roles="manager-gui,manager-script,manager-jmx,manager-status"/>
</tomcat-users>
-- INSERT --
57,103 Bot
11:06 08-08-2023
```

- Then go to bin/ start the tomcat engine using ./startup.sh

```
ec2-user@ip-10-0-0-130:~/apache-tomcat-11.0.0-M9/bin
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/jsp/connectorCiphers.jsp
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/jsp/connectorTrustedCerts.jsp
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/jsp/sessionDetail.jsp
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/jsp/sessionsList.jsp
apache-tomcat-11.0.0-M9/webapps/manager/WEB-INF/web.xml
apache-tomcat-11.0.0-M9/webapps/manager/css/manager.css
apache-tomcat-11.0.0-M9/webapps/manager/images/asf-logo.svg
apache-tomcat-11.0.0-M9/webapps/manager/images/tomcat.svg
apache-tomcat-11.0.0-M9/webapps/manager/index.jsp
apache-tomcat-11.0.0-M9/webapps/manager/status.xsd
apache-tomcat-11.0.0-M9/webapps/manager/xform.xsl
apache-tomcat-11.0.0-M9/bin/catalina.sh
apache-tomcat-11.0.0-M9/bin/ciphers.sh
apache-tomcat-11.0.0-M9/bin/configtest.sh
apache-tomcat-11.0.0-M9/bin/daemon.sh
apache-tomcat-11.0.0-M9/bin/digest.sh
apache-tomcat-11.0.0-M9/bin/makebase.sh
apache-tomcat-11.0.0-M9/bin/migrate.sh
apache-tomcat-11.0.0-M9/bin/setclasspath.sh
apache-tomcat-11.0.0-M9/bin/shutdown.sh
apache-tomcat-11.0.0-M9/bin/startup.sh
apache-tomcat-11.0.0-M9/bin/tool-wrapper.sh
apache-tomcat-11.0.0-M9/bin/version.sh
[ec2-user@ip-10-0-0-130 ~]$ ls
apache-tomcat-11.0.0-M9  apache-tomcat-11.0.0-M9.tar.gz
[ec2-user@ip-10-0-0-130 ~]$ cd apache-tomcat-11.0.0-M9/
[ec2-user@ip-10-0-0-130 apache-tomcat-11.0.0-M9]$ ls
bin BUILDING.txt conf CONTRIBUTING.md lib LICENSE logs NOTICE README.md RELEASE-NOTES RUNNING.txt temp webapps work
[ec2-user@ip-10-0-0-130 bin]$ ls
bootstrap.jar ciphers.sh daemon.sh migrate.bat shutdown.sh tool-wrapper.bat
catalina.bat commons-daemon.jar digest.bat migrate.sh startup.bat tool-wrapper.sh
catalina.sh commons-daemon-native.tar.gz digest.sh setclasspath.bat startup.sh version.bat
catalina-tasks.xml configtest.bat makebase.sh setclasspath.sh tomcat-juli.jar version.sh
ciphers.bat configtest.sh makebase.sh shutdown.bat tomcat-native.tar.gz
[ec2-user@ip-10-0-0-130 bin]$ ./startup.sh
Neither the JAVA_HOME nor the JRE_HOME environment variable is defined
At least one of these environment variable is needed to run this program
[ec2-user@ip-10-0-0-130 bin]$

Verifying : libxslt-1.1.28-6.amzn2.x86_64 21/28
Verifying : python-javapackages-3.4.1-11.amzn2.noarch 22/28
Verifying : libxtst-1.2.3-1.amzn2.0.2.x86_64 23/28
Verifying : alsa-lib-1.1.4-1.2.amzn2.x86_64 24/28
Verifying : fontpackages-filesystem-1.44-8.amzn2.noarch 25/28
Verifying : libICE-1.0.9-9.amzn2.0.2.x86_64 26/28
Verifying : libX11-common-1.6.7-3.amzn2.0.3.noarch 27/28
Verifying : javapackages-tools-3.4.1-11.amzn2.noarch 28/28

Installed:
java-17-amazon-corretto.x86_64 1:17.0.8+7-1.amzn2.1

Dependency Installed:
alsa-lib.x86_64 0:1.1.4-1.2.amzn2
dejavu-fonts-common.noarch 0:2.33-6.amzn2
dejavu-sans-fonts.noarch 0:2.33-6.amzn2
dejavu-serif-fonts.noarch 0:2.33-6.amzn2
fontpackages-filesystem.noarch 0:1.44-8.amzn2
java-17-amazon-corretto-headless.x86_64 1:17.0.8+7-1.amzn2.1
libICE.x86_64 0:1.0.9-9.amzn2.0.2
libX11.x86_64 0:1.6.7-3.amzn2.0.3
libXau.x86_64 0:1.0.8-2.1.amzn2.0.2
libXi.x86_64 0:1.7.9-1.amzn2.0.2
libXrandr.x86_64 0:1.5.1-2.amzn2.0.3
libXt.x86_64 0:1.1.5-3.amzn2.0.2
libxcb.x86_64 0:1.12-1.amzn2.0.2
log4j-cve-2021-44228-hotpatch.noarch 0:1.3-7.amzn2
python-lxml.x86_64 0:3.2.1-4.amzn2.0.4
dejavu-fonts-common.noarch 0:2.33-6.amzn2
dejavu-sans-mono-fonts.noarch 0:2.33-6.amzn2
fontconfig.x86_64 0:2.13.0-4.3.amzn2
giflib.x86_64 0:4.1.6-9.amzn2.0.2
javapackages-tools.noarch 0:3.4.1-11.amzn2
libSM.x86_64 0:1.2.2-2.amzn2.0.2
libX11-common.noarch 0:1.6.7-3.amzn2.0.3
libXext.x86_64 0:1.3.3-3.amzn2.0.2
libXinerama.x86_64 0:1.1.3-2.1.amzn2.0.2
libXrender.x86_64 0:0.9.10-1.amzn2.0.2
libxtst.x86_64 0:1.2.3-1.amzn2.0.2
libxslt.x86_64 0:1.1.28-6.amzn2
python-javapackages.noarch 0:3.4.1-11.amzn2

Complete!
[ec2-user@ip-10-0-0-130 bin]$ ./startup.sh
Using CATALINA_BASE: /home/ec2-user/apache-tomcat-11.0.0-M9
Using CATALINA_HOME: /home/ec2-user/apache-tomcat-11.0.0-M9
Using CATALINA_TMPDIR: /home/ec2-user/apache-tomcat-11.0.0-M9/temp
Using JRE_HOME: /usr
Using CLASSPATH: /home/ec2-user/apache-tomcat-11.0.0-M9/bin/bootstrap.jar:/home/ec2-user/apache-tomcat-11.0.0-M9/bin/tomcat-juli.jar
Using CATALINA_OPTS:
Tomcat started.
[ec2-user@ip-10-0-0-130 bin]$
```

- Then browse the public ip



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

**Deploy**

Deploy directory or WAR file located on server

Context Path:

Version (for parallel deployment):

XML Configuration file path:

WAR or Directory path:

Deploy

- And copy the path like <http://13.235.9.47:8081/>
- And copy github url [amar-m-cloud/maven-project](https://github.com/amar-m-cloud/maven-project) (github.com)
- Then send it for master
- After deployment browse the refresh the output page

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
/webapp	None specified	Webapp	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes

**Deploy**

Deploy directory or WAR file located on server

Context Path:

Version (for parallel deployment):

XML Configuration file path:

WAR or Directory path:

Deploy

- Then show output webapp and click on webap

