Application Deployment

Step:1

*Launch 2 instances and name it as Build and Deploy.

*Install java

```
ubuntu@ip-172-31-27-0:~$ java --version
Command 'java' not found, but can be installed with:
sudo apt install openjdk-17-jre-headless  # version 17.0.16+8~us1-0ubuntu1~24.04.1, or
sudo apt install openjdk-21-jre-headless  # version 21.0.8+9~us1-0ubuntu1~24.04.1
sudo apt install default-jre              # version 2:1.17-75
sudo apt install openjdk-11-jre-headless  # version 11.0.28+6-1ubuntu1~24.04.1
sudo apt install openjdk-8-jre-headless   # version 8u462-ga~us1-0ubuntu2~24.04.2
sudo apt install openjdk-19-jre-headless  # version 19.0.2+7-4
sudo apt install openjdk-20-jre-headless  # version 20.0.2+9-1
sudo apt install openjdk-22-jre-headless  # version 22~22ea-1
ubuntu@ip-172-31-27-0:~$ sudo apt install openjdk-17-jre-headless
```

*Install maven

```
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-27-0:~$ sudo apt install maven
```

*Clone the code from github.

github.com/javaparser/javaparser-maven-sample

<> Code   ⊙ Issues 2   ↕ Pull requests 2   ⊙ Actions   ⊞ Projects   ⊘ Security   ⬑ Insights

JP **javaparser-maven-sample** Public   👁 Watch 6 ▾

⌥ master ▾   ⌥ 1 Branch ⬙ 0 Tags   🔍 Go to file   t   Add file ▾   <> Code ▾

⌇ jlerbsc Merge pull request #105 from javaparser/dependabot/maven/com.github.j... •••   f4881f0 · 2 days ago   ⏱ 91 Commits

📁 .github	Update dependabot.yml	4 years ago
📁 src/main	Upgrade dependency and create some output	5 years ago
📄 .gitignore	Upgrade dependency	6 years ago
📄 .travis.yml	switch to openjdk8 (from oraclejdk8)	5 years ago
📄 README.md	Update README.md to clarify info for new users.	last year
📄 pom.xml	Bump com.github.javaparser:javaparser-core from 3.27.0 to...	2 days ago

📖 README   ✎

*mvn package

```
ubuntu@ip-172-31-27-0:~/JavaWebCal$ >pom.xml
ubuntu@ip-172-31-27-0:~/JavaWebCal$ vi pom.xml
ubuntu@ip-172-31-27-0:~/JavaWebCal$ mvn package
```

*Here the build will be Success.

```
[INFO] Packaging webapp
[INFO] Assembling webapp [webapp] in [/home/ubuntu/JavaWebCal/target/webapp]
[INFO] Processing war project
[INFO] Copying webapp resources [/home/ubuntu/JavaWebCal/src/main/webapp]
[INFO] Building war: /home/ubuntu/JavaWebCal/target/webapp.war
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  20.638 s
[INFO] Finished at: 2025-10-07T06:35:36Z
[INFO] ------------------------------------------------------------------------
ubuntu@ip-172-31-27-0:~/JavaWebCal$
```

Step :2

Take another server named as (Deploy).

*Here we need to install Java and Tomcat.

*Install java.

*Install Tomcat


```
ubuntu@ip-172-31-26-7:~$ wget https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.110/bin/apache-t
omcat-9.0.110.tar.gz
```

untar the tomcat.

```
ubuntu@ip-172-31-26-7:~$ ls
apache-tomcat-9.0.110.tar.gz
ubuntu@ip-172-31-26-7:~$ tar -xvf apache-tomcat-9.0.110.tar.gz
```

```
ubuntu@ip-172-31-26-7:~$ ls
apache-tomcat-9.0.110  apache-tomcat-9.0.110.tar.gz
ubuntu@ip-172-31-26-7:~$ mv apache-tomcat-9.0.110 tomcat
```

Comment in webapps/host manager and manager /META/context.xml

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

Change the password in conf/tomcat-user.xml

```
<user username="admin" password="admin" roles="manager-gui"/>
<user username="robot" password="admin" roles="manager-script"/>

<!--
```

Give port number in Security group as 8080

Edit inbound rules Info

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules Info

Security group rule ID	Type Info	Protocol Info	Port range Info	Source Info		Description - optional Info	
sgr-0c5bb9e3689ec7264	SSH ▼	TCP	22	Custom ▼	Q		Delete
					0.0.0.0/0 ✕		
-	Custom TCP ▼	TCP	8080	Anywh... ▼	Q 0.0.0.0/0		Delete
					0.0.0.0/0 ✕		

Add rule

⚠ Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.   ✕

Cancel   Preview changes   **Save rules**

Start tomcat

./start.sh

```
ubuntu@ip-172-31-26-7:~/tomcat/bin$ ./startup.sh
Using CATALINA_BASE:   /home/ubuntu/tomcat
Using CATALINA_HOME:   /home/ubuntu/tomcat
Using CATALINA_TMPDIR: /home/ubuntu/tomcat/temp
Using JRE_HOME:        /usr
Using CLASSPATH:       /home/ubuntu/tomcat/bin/bootstrap.jar:/home/ubuntu/tomcat/bin/tomcat-
juli.jar
Using CATALINA_OPTS:
Tomcat started.
```

Access Tomcat in web browser with public ip and port number.
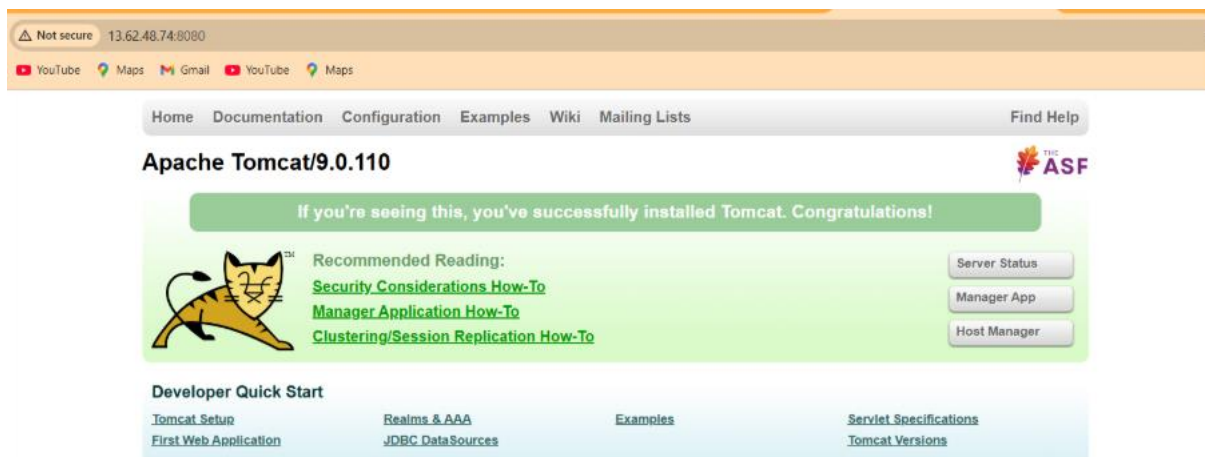
Login to Manager with username and password(admin)
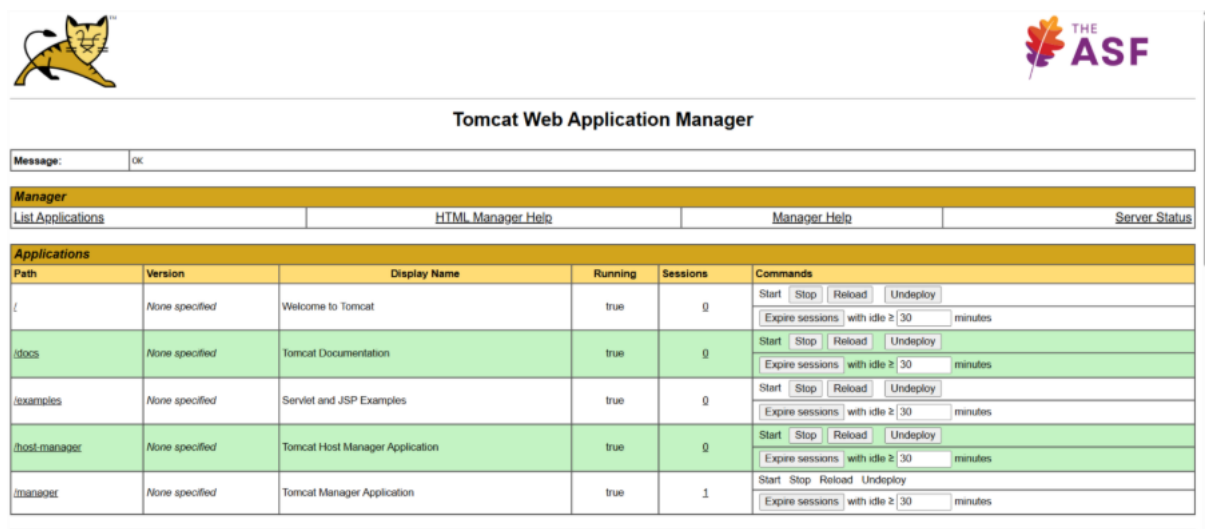
Step :3(Build server).

- Create ssh-keygen

- Cat public id generated

- Copy the public key and paste it in Deploy server (Authorized keys.

Step:4(Deploy server)

*Go to .ssh

*vi authorized keys paste the keys generated in Bulid server.

Step:5

*Copying the War file from Build server to Deploy server.

(scp /home/ubuntu/javaparser-maven-sample/target/*.war ubuntu@52.204.123.70
:/home/ubuntu/apache-tomcat-9.0.110/webapps

```
ubuntu@ip-172-31-30-19:~/apache-tomcat-9.0.110$ cd bin/
ubuntu@ip-172-31-30-19:~/apache-tomcat-9.0.110/bin$ cd ../webapps/
ubuntu@ip-172-31-30-19:~/apache-tomcat-9.0.110/webapps$ ls
ROOT   examples        javaparser-maven-sample       manager
docs   host-manager    javaparser-maven-sample.war
ubuntu@ip-172-31-30-19:~/apache-tomcat-9.0.110/webapps$ pwd
/home/ubuntu/apache-tomcat-9.0.110/webapps
```

```
ubuntu@ip-172-31-23-178:~/javaparser-maven-sample/target$ cd
ubuntu@ip-172-31-23-178:~$ scp /home/ubuntu/javaparser-maven-sample/target/*.war  ubuntu@52.204.123.70 :/home/ubuntu/apache-tomcat-9.0.110/webapps
```

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
/javaparser-maven-sample	None specified		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