Apache Tomcat Installation Process

sudo apt update

sudo apt install default-jdk

java -version

sudo useradd -m -d /opt/tomcat -U -s /bin/false tomcat

cd /tmp

wget https://archive.apache.org/dist/tomcat/tomcat-9/v9.0.74/bin/apache-tomcat-9.0.74.tar.gz

sudo tar xzvf apache-tomcat-9.0.74.tar.gz -C /opt/tomcat --strip-components=1

sudo chown -R tomcat:tomcat /opt/tomcat/

sudo chmod -R u+x /opt/tomcat/bin

sudo nano /opt/tomcat/conf/tomcat-users.xml

<role rolename="manager-gui" />

<user username="manager" password="manager\_password" roles="manager-gui" />

<role rolename="admin-gui" />

<user username="admin" password="admin\_password" roles="manager-gui,admin-gui" />

sudo update-java-alternatives -l

sudo nano /etc/systemd/system/tomcat.service

[Unit]

Description=Tomcat

After=network.target

[Service]

Type=forking

User=tomcat

Group=tomcat

Environment="JAVA\_HOME=/usr/lib/jvm/java-1.11.0-openjdk-amd64"

Environment="JAVA\_OPTS=-Djava.security.egd=file:///dev/urandom"

Environment="CATALINA\_BASE=/opt/tomcat"

Environment="CATALINA\_HOME=/opt/tomcat"

Environment="CATALINA\_PID=/opt/tomcat/temp/tomcat.pid"

Environment="CATALINA\_OPTS=-Xms512M -Xmx1024M -server -XX:+UseParallelGC"

ExecStart=/opt/tomcat/bin/startup.sh

ExecStop=/opt/tomcat/bin/shutdown.sh

RestartSec=10

Restart=always

[Install]

WantedBy=multi-user.target

sudo systemctl daemon-reload

sudo systemctl start tomcat

sudo systemctl status tomcat

sudo systemctl enable tomcat

Above commands for deploying tomcate application on virtual machine

SSL Certificate Installation in Tomcat

# create ssl certicates using keytool

: keytool -genkey -keyalg RSA -alias keys -keystore domain.jks -validity 90 -keysize 2048

: # After generating ssl certificate and go to server.xml file in tomcat ---> sudo nano /opt/tomcat/updated/conf/server.xml

# add information into the server.xml file (add below information under Connector port=8080)

<Connector port="9000"

maxThreads="150" SSLEnabled="true"

scheme="https" secure="true"

keystoreFile="/home/kshema/codez.jks"

keystorePass=" 15A91a35333537"

clientAuth="false" sslProtocol="TLS" keyAlias="keys" />

## after adding above information into server.xml file and restarting tomcat using tomcat command (sudo systemctl restart tomcat.service)

## and check your application status

(sudo systemctl status tomcat.service)

go to chrome use url (https://public-ip:9000)

## i think above information is enough to assign ssl certificates to the tomcat server

Sudo -i (for move to root user)

for tomcat find the version

root@ops-dev-vm01:/opt/tomcat/bin# ./catalina.sh version (for tomcat version check)

ps aux | grep tomcat for check the user name

    sudo wget <https://downloads.apache.org/tomcat/tomcat-9/v9.0.74/bin/apache-tomcat-9.0.74.tar.gz>  
  729  ls  
  730  sudo tar -xf apache-tomcat-9.0.74.tar.gz  
  731  ls  
  732  sudo mv apache-tomcat-9.0.74 tomcat  
  733  ls  
  734  clear  
  735  sudo chmod +x /tomcat/bin/startup.sh  
  736  sudo nano /etc/systemd/system/tomcat.service  
  737  sudo /tomcat/bin/startup.sh  
  738  clear  
  739  ls  
  740  history

731 : sudo chown -R pocuser01: /tomcat/

After install above steps run below commands

sudo systemctl daemon-reload

sudo systemctl start tomcat

sudo systemctl status tomcat.service

For tomcat installation and auto restart url:\_-<https://www.digitalocean.com/community/tutorials/install-tomcat-9-ubuntu-1804>

Auto Restart tomcat process are below: -

sudo nano /etc/systemd/system/tomcat.service (WE NEED TO MODIFY BASED ON OUR REQUIREMENT IN BELOW FORMAT)

[Unit]

Description=Apache Tomcat Web Application Container

After=network.target

[Service]

Type=forking

Environment=JAVA\_HOME=/usr/lib/jvm/java-1.11.0-openjdk-amd64

Environment=CATALINA\_PID=/tomcat/temp/tomcat.pid

Environment=CATALINA\_HOME=/tomcat

Environment=CATALINA\_BASE=/tomcat

Environment='CATALINA\_OPTS=-Xms512M -Xmx1024M -server -XX:+UseParallelGC'

Environment='JAVA\_OPTS=-Djava.awt.headless=true -Djava.security.egd=file:/dev/./urandom'

ExecStart=/tomcat/bin/startup.sh

ExecStop=/opt/tomcat/bin/shutdown.sh

User=pocuser01

Group=pocuser01

UMask=0007

RestartSec=10

Restart=always

[Install]

WantedBy=multi-user.target

sudo systemctl daemon-reload

sudo systemctl start tomcat

sudo systemctl status tomcat