Setup Tomcat Server

Pre-requisite for deployment to Tomcat

- curl -fsSL https://get.docker.com -o get-docker.sh
- sudo sh get-docker.sh
- sudo usermod -aG docker $USER
- sudo docker pull centos
- docker run -dit --name my_tomcat_container --privileged=true -p 8888:8080 -p 221:22 ubuntu
- # Make sure to enable ports 8888 and 221 on Azure portal in Incoming Ports

Pre-requisite for deployment to Tomcat

- sudo docker exec -it tomcat_container /bin/bash
  - cd opt/
  - apt install -y wget
  - wget https://mirrors.estointernet.in/apache/tomcat/tomcat-8/v8.5.58/bin/apache-tomcat-8.5.58.tar.gz
  - tar -xvzf apache-tomcat-8.5.58.tar.gz
  - cd /opt/apache-tomcat-8.5.58/bin/
  - chmod +x shutdown.sh
  - chmod +x startup.sh
  - apt-get install -y openjdk-8-jdk
  - apt intall -y nano
  - ./startup.sh
- Now, go to your browser; Tomcat should be accessible at http://your-ip-addr:8888

Pre-requisite for deployment to Tomcat

- In case you want to access the Manage App, you will have to do some additional settings
- By default, the Manager App section can only be accessed from the local system (i.e., 127.0.0.1).
- sudo docker exec -it tomcat_container /bin/bash
  - find / -name context.xml
  - Edit the file that resides in webapps directory i.e.
    - nano /opt/apache-tomcat-8.5.58/webapps/host-manager/META-INF/context.xml
  - Find the Value class name org.apache.catalina.valves.RemoteAddrValve and comment it:
    - <!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"
    - allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" /> -->
  - Let's do the same thing on the other file as well, i.e.,
    - nano /opt/apache-tomcat-8.5.58/webapps/manager/META-INF/context.xml

Pre-requisite for deployment to Tomcat

- To access the default username and password through the Manager App section, go to conf/tomcat-users.xml and make the following changes:
  - nano /opt/apache-tomcat-8.5.58/conf/tomcat-users.xml
- You will have to add a user and define roles on your Tomcat server
- To copy the file from the remote machine (in our case, the Jenkins server), you will need to define the role Manager Script

Pre-requisite for deployment to Tomcat

- Copy the lines and add it to the end of the file just before the closing tag </tomcat-users>:
    - <role rolename="manager-gui"/>
    - <role rolename="manager-script"/>
    - <role rolename="manager-jmx"/>
    - <role rolename="manager-status"/>
    - <user username="admin" password="admin" roles="manager-gui, manager-script, manager-jmx, manager-status"/>
    - <user username="deployer" password="deployer" roles="manager-script"/>
    - <user username="tomcat" password="s3cret" roles="manager-gui"/>
- Restart Tomcat
    - /opt/apache-tomcat-8.5.58/bin
    - ./shutdown.sh
    - ./startup.sh

You can now access the Tomcat Web Application Manager dashboard; username and password are tomcat and s3cret, respectively.

Pre-requisite for deployment to Tomcat

- After changes in /opt/apache-tomcat-8.5.58/conf/tomcat-users.xml

```
  <user username="both" password="<must-be-changed>" roles="tomcat,role1" />
  <user username="role1" password="<must-be-changed>" roles="role1"/>
-->

<role rolename="manager-gui"/>
    <role rolename="manager-script"/>
    <role rolename="manager-jmx"/>
    <role rolename="manager-status"/>
    <user username="admin" password="admin" roles="manager-gui, manager-script, manager-jmx, manag
er-status"/>
    <user username="deployer" password="deployer" roles="manager-script"/>
    <user username="tomcat" password="s3cret" roles="manager-gui"/>


</tomcat-users>
```

Enable SSH Server in container

- apt-get install openssh-server
- service ssh start
- adduser atin
- ssh atin@localhost

- On Host:
  - ssh atin@localhost -p 221

Alternatively you can spin up a Tomcat container

- sudo docker run -dit --name my_tomcat_container --privileged=true -p 8888:8080 -p 221:22 atingupta2005/tomcat_jenkins_ubuntu
- sudo docker exec -it my_tomcat_container bash
  - # service ssh start
  - # /opt/apache-tomcat-8.5.58/bin/startup.sh

- ssh atin@localhost -p 221 # password 123456
  - # exit
- exit
- ssh root@localhost -p 221 # password 123456

Run Docker Tomcat Container

- sudo docker container start my_tomcat_container
- sudo docker exec -it my_tomcat_container bash
  - # service ssh start
  - # /opt/apache-tomcat-8.5.58/bin/startup.sh
  - # exit

- ssh atin@localhost -p 221 # password 123456
  - # exit
- ssh root@localhost -p 221 # password 123456