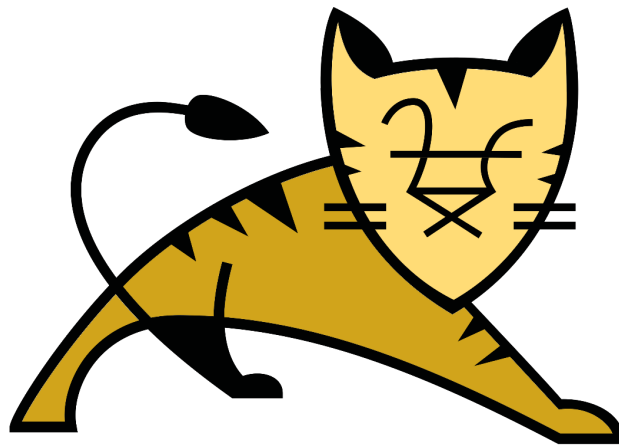


# TomCat Instalación y Configuración



# Apache Tomcat

**Román Millán Díaz**

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## Instalación y configuración

1. Lo primero que tenemos que hacer es en una nueva terminal escribir el comando:  
docker run -it --rm -p 8888:8080 tomcat:9.0 (--rm es solo para el ejemplo ya que una vez que lo cerremos se borrara).

```
estudiante@DAW1:~$ docker run -it --rm -p 8888:8080 tomcat:9.0
Using CATALINA_BASE:   /usr/local/tomcat
Using CATALINA_HOME:   /usr/local/tomcat
Using CATALINA_TMPDIR: /usr/local/tomcat/temp
Using JRE_HOME:        /opt/java/openjdk
Using CLASSPATH:        /usr/local/tomcat/bin/bootstrap.jar:/usr/local/tomcat/bin
/tomcat-juli.jar
Using CATALINA_OPTS:
NOTE: Picked up JDK_JAVA_OPTIONS:  --add-opens=java.base/java.lang=ALL-UNNAMED -
--add-opens=java.base/java.io=ALL-UNNAMED --add-opens=java.base/java.util=ALL-UNN
AMED --add-opens=java.base/java.util.concurrent=ALL-UNNAMED --add-opens=java.rmi
/sun.rmi.transport=ALL-UNNAMED
13-Jan-2023 08:29:54.359 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Server version name:   Apache Tomcat/9.0.70
13-Jan-2023 08:29:54.364 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Server built:         Dec 1 2022 14:05:47 UTC
13-Jan-2023 08:29:54.364 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Server version number: 9.0.70.0
13-Jan-2023 08:29:54.365 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log OS Name:              Linux
13-Jan-2023 08:29:54.365 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log OS Version:           5.15.0-57-generic
13-Jan-2023 08:29:54.365 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Architecture:         amd64
```

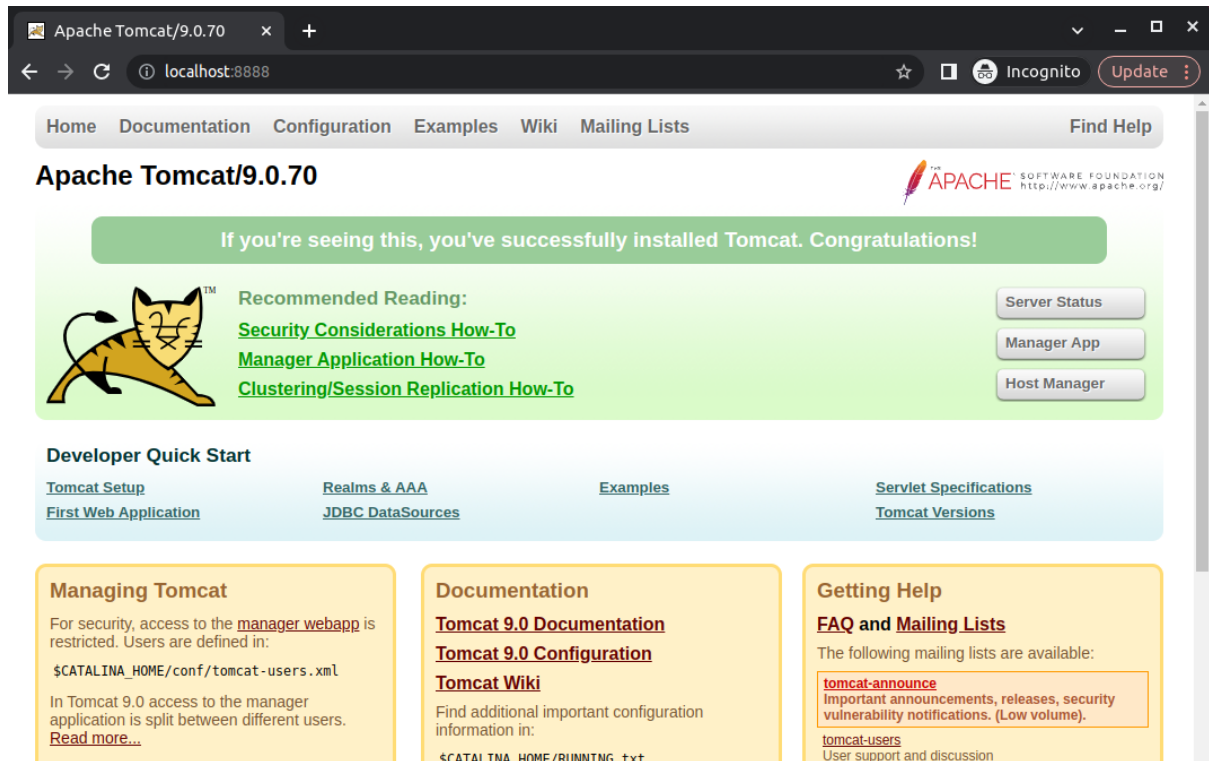
2. Podemos con: docker ps ver que el contenedor está activado.
3. Ahora tenemos que abrir otra terminal y poner docker exec -it <<ID del contenedor>> /bin/bash
4. y una vez en tomcat# escribir cp -R webapps.dist/\* webapps

```
estudiante@DAW1:~$ docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        P
ORTS          NAMES
9e37eb96943a   tomcat:9.0 "catalina.sh run"        9 seconds ago Up 8 seconds   0
.0.0.0:8888->8080/tcp, :::8888->8080/tcp   wonderful_chandrasekhar
estudiante@DAW1:~$ docker exec -it 9e37eb96943a /bin/bash
root@9e37eb96943a:/usr/local/tomcat# cp -R webapps.dist/* webapps
root@9e37eb96943a:/usr/local/tomcat#
```

## Despliegue de aplicaciones web

Román Millán Díaz

- Ahora podemos comprobar que el servidor tomcat funciona con: localhost:88888 y no deberá salir la página oficial de Apache Tomcat como se muestra abajo en la imagen.



- Después si queremos acceder a localhost:8888/manager/html nos saldrá un error de acceso denegado.



7. Para eliminar este error tendremos que modificar un par de cosas para poder tener acceso. Veamos cómo se hace.
8. Lo primero que tenemos que hacer es actualizarlo con: `apt update`

```
root@17739b19edd0:/usr/local/tomcat# apt update
Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy InRelease [270 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [114 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [659 kB]
Get:5 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [99.8 kB]
Get:6 http://archive.ubuntu.com/ubuntu jammy/restricted amd64 Packages [164 kB]
Get:7 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [726 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [264 kB]
Get:9 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [4,732 B]
Get:10 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [86 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [17.5 MB]
Get:12 http://archive.ubuntu.com/ubuntu jammy/main amd64 Packages [1,792 kB]
```

9. Y una vez actualizado necesitamos instalar nano, con: `apt install nano`

```
root@17739b19edd0:/usr/local/tomcat# apt install nano
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
  hunspell
The following NEW packages will be installed:
  nano
0 upgraded, 1 newly installed, 0 to remove and 5 not upgraded.
Need to get 280 kB of archives.
After this operation, 881 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu jammy/main amd64 nano amd64 6.2-1 [280 kB]
Fetched 280 kB in 0s (1,239 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package nano.
(Reading database ... 7923 files and directories currently installed.)
Preparing to unpack .../archives/nano_6.2-1_amd64.deb ...
Unpacking nano (6.2-1) ...
Setting up nano (6.2-1) ...
```

10. Una vez instalado nano nos vamos a la ruta `usr/local/tomcat/conf/Catalina/localhost#` y creamos un archivo llamado `manager.xml` con nano.

```
root@17739b19edd0:/usr/local/tomcat# cd ../../../../
root@17739b19edd0:/# ls
bin  dev  home  lib32  libx32  mnt  proc  run  srv  tmp  var
boot  etc  lib  lib64  media  opt  root  sbin  sys  usr
root@17739b19edd0:/# cd usr/local/tomcat/conf/Catalina/localhost/
root@17739b19edd0:/usr/local/tomcat/conf/Catalina/localhost# nano
```

```
root@17739b19edd0:/usr/local/tomcat/conf/Catalina/localhost# nano manager.xml
root@17739b19edd0:/usr/local/tomcat/conf/Catalina/localhost#
```

### 11. Una vez dentro de nano copiamos:

```
<!--
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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.
-->
<!-- The contents of this file will be loaded for each web
application -->
<Context privileged="true" antiResourceLocking="false"
docBase="${catalina.home}/webapps/manager">
<!-- Default set of monitored resources. If one of these changes, the
-->
<!-- web application will be reloaded.
-->
<WatchedResource>WEB-INF/web.xml</WatchedResource>
<WatchedResource>WEB-INF/tomcat-web.xml</WatchedResource>
<WatchedResource>${catalina.base}/conf/web.xml</WatchedResource>
<Valve className="org.apache.catalina.valves.RemoteAddrValve"
allow="^.*$"/>
</Context>
<!-- Uncomment this to disable session persistence across Tomcat
restarts -->
<!--
    <Manager pathname="" />
-->
```

```
GNU nano 6.2 manager.xml *
<!--
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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

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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.
-->
<!-- The contents of this file will be loaded for each web application -->
<Context privileged="true" antiResourceLocking="false" docBase="${catalina.home}"/>
<!-- Default set of monitored resources. If one of these changes, the -->
<!-- web application will be reloaded. -->

^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify   ^_ Go To Line
```

12. Después nos tendremos que ir hacia atrás al conf/ y abrir el archivo tomcat-users.xml y agregar

```
GNU nano 6.2 tomcat-users.xml *
<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 th
examples web application, do not forget to remove the <!-- .. --> that surround
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="tomcat" roles="manager-gui"/>
</tomcat-users>

^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify   ^_ Go To Line
```

13. Una vez modificado el archivo ya podemos ingresar con nombre y contraseña :  
tomcat y nos mostrará la siguiente pantalla.

Tomcat Web Application Manager

Message: OK

Manager

[List Applications](#) [HTML Manager Help](#)

Path	Version	Display Name	Running	Sessions
/	None specified	Welcome to Tomcat	true	0
/docs	None specified	Tomcat Documentation	true	0
/examples	None specified	Servlet and JSP Examples	true	0
/host-manager	None specified	Tomcat Host Manager Application	true	0
/manager	None specified	Tomcat Manager Application	true	1

Save password?

Save only on this device

Username: tomcat

Password: .....

Never Save

Passwords are saved to Google Password Manager on this device.

Expire sessions with idle ≥ 30 minutes

Start Stop Reload Undeploy

Expire sessions with idle ≥ 30 minutes

Start Stop Reload Undeploy

Expire sessions with idle ≥ 30 minutes

Start Stop Reload Undeploy

Expire sessions with idle ≥ 30 minutes