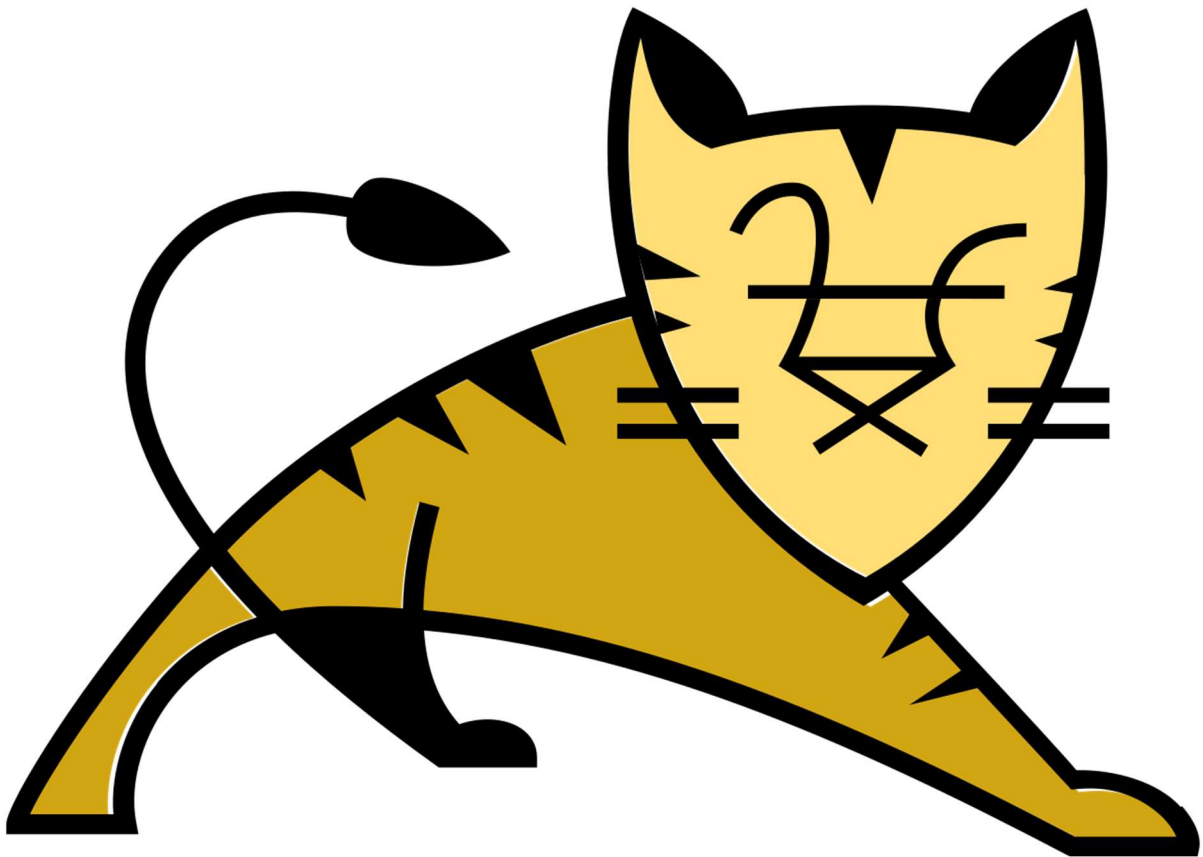


INSTALACIÓN DE TOMCAT CON DOCKER



DESPLIEGUE DE APLICACIONES WEB

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2º DAW

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1. DESCARGAR LA IMAGEN

En el Terminal, descargamos la imagen con el comando

docker run -it -p 8888:8080 tomcat:9.0

```
sandra@sandra-UX410UAK: ~  
sandra@sandra-UX410UAK:~$ docker run -it -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  
17-Jan-2023 09:35:46.567 INFO [main] org.apache.catalina.startup.VersionLoggerLi  
stener.log Server version name:   Apache Tomcat/9.0.70  
17-Jan-2023 09:35:46.573 INFO [main] org.apache.catalina.startup.VersionLoggerLi  
stener.log Server built:         Dec 1 2022 14:05:47 UTC  
17-Jan-2023 09:35:46.573 INFO [main] org.apache.catalina.startup.VersionLoggerLi  
stener.log Server version number: 9.0.70.0  
17-Jan-2023 09:35:46.573 INFO [main] org.apache.catalina.startup.VersionLoggerLi  
stener.log OS Name:             Linux  
17-Jan-2023 09:35:46.574 INFO [main] org.apache.catalina.startup.VersionLoggerLi  
stener.log OS Version:          5.15.0-58-generic  
17-Jan-2023 09:35:46.574 INFO [main] org.apache.catalina.startup.VersionLoggerLi  
stener.log Architecture:        amd64
```

Sin cerrar el terminal anterior, abrimos otro y escribimos **docker ps**, para saber el ID del contenedor:

```
root@3813ac03fc16: /usr/local/tomcat  
sandra@sandra-UX410UAK:~$ docker ps  
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS  
PORTS          NAMES  
3813ac03fc16   tomcat:9.0 "catalina.sh run"       58 seconds ago Up 57 seconds  
0.0.0.0:8888->8080/tcp, :::8888->8080/tcp practical_dhawan
```

En este caso es **3813ac03fc16**

Ahora ejecutamos el comando, para entrar dentro del Tomcat:

docker exec -it 2bac8077427f /bin/bash

Y a continuación, el comando:

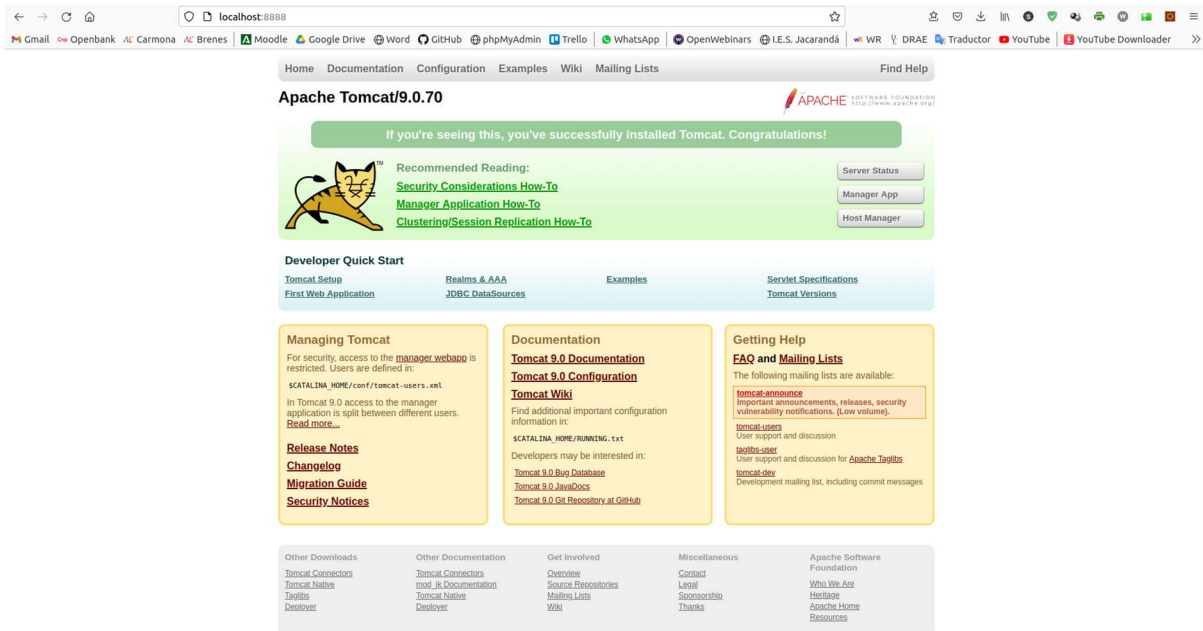
cp -R webapps.dist/* webapps

```
sandra@sandra-UX410UAK:~$ docker exec -it 3813ac03fc16 /bin/bash
root@3813ac03fc16:/usr/local/tomcat# cp -R webapps.dist/* webapps
root@3813ac03fc16:/usr/local/tomcat#
```

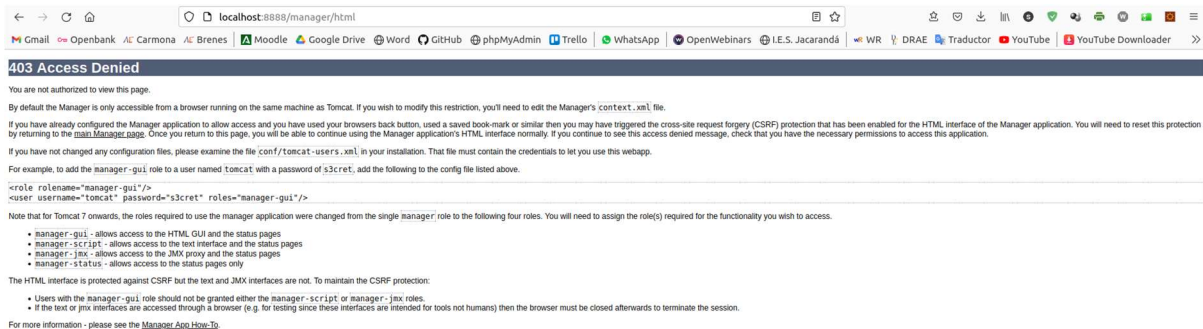
Sin cerrar ninguno de los dos terminales, abrimos el navegador y escribimos:

localhost:8888/

y podemos ver como accedemos a la aplicación:



Si entramos en localhost:8888/manager/html, nos devuelve un error en la petición con código 403, porque no tenemos permisos de administrador.



2. MODIFICAR PARÁMETROS PARA SER ADMINISTRADOR

En el Terminal donde estamos dentro de los ficheros del Tomcat, vamos a instalar el comando nano, por lo que primero hacemos:

apt update

y luego **apt install nano**

Ahora vamos a acceder al fichero manager.xml (si existe) que está dentro del directorio localhost.

Para ello hacemos **cd conf/Catalina/localhost**

```
root@2bac8077427f:/usr/local/tomcat# cd conf/Catalina/localhost
root@2bac8077427f:/usr/local/tomcat/conf/Catalina/localhost# ls
root@2bac8077427f:/usr/local/tomcat/conf/Catalina/localhost# ls manager.xml
ls: cannot access 'manager.xml': No such file or directory
root@2bac8077427f:/usr/local/tomcat/conf/Catalina/localhost#
```

Como no tengo creado el fichero manager.xml, lo creo con el comando

nano manager.xml

y dentro pegamos lo siguiente:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<!--
```

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```
-->
```

```
<!-- 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>
```

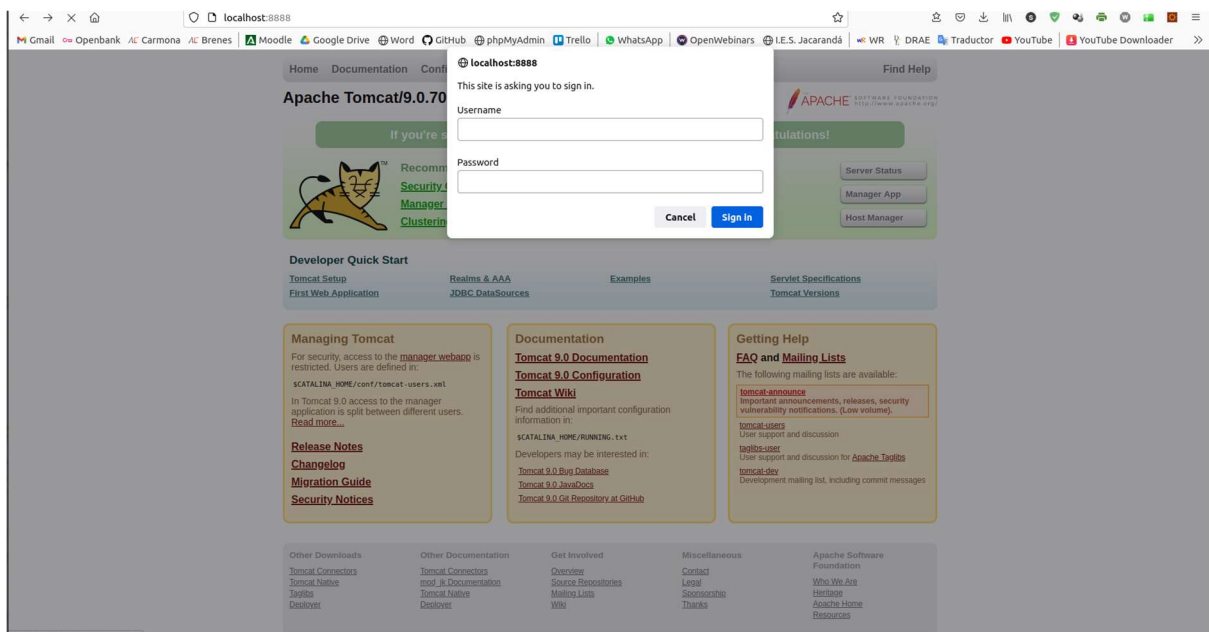
```
<!-- Uncomment this to disable session persistence across Tomcat restarts -->
<!--
<Manager pathname="" />
-->
```

Después, nos vamos al directorio **conf** y entramos dentro del fichero **tomcat-users.xml** y le añadimos estas líneas al final:

```
-->
<role rolename="manager-gui" />
<user username="tomcat" password="tomcat" roles="manager-gui" />
</tomcat-users>
```

3. ACCESO DESDE EL NAVEGADOR COMO ADMINISTRADOR

En el navegador, escribimos **localhost:8888** y en la interfaz, hacemos clic en Manager App. Nos pedirá usuario y contraseña.



Tenemos que meter el usuario y la contraseña que hemos añadido en el fichero tomcat-users.xml, en este caso, tomcat y tomcat.

Y ya nos entra en la aplicación:

The screenshot shows the Tomcat Web Application Manager interface in a web browser. The browser's address bar shows the URL `localhost:8888/manager/html`. The page features the Tomcat logo on the left and the Apache Software Foundation logo on the right. Below the logos, the title "Tomcat Web Application Manager" is centered. A message box at the top left contains the text "Message:" and "OK".

The main content area is divided into several sections. The "Manager" section includes links for "List Applications", "HTML Manager Help", "Manager Help", and "Server Status". Below this is the "Applications" section, which displays a table of running 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 |

Below the applications table is the "Deploy" section, which includes a sub-section "Deploy directory or WAR file located on server". This section contains input fields for "Context Path:", "Version (for parallel deployment):", "XML Configuration file path:", and "WAR or Directory path:". A "Deploy" button is located at the bottom of this section.