

INSTALACIÓN DE TOMCAT

Actualizamos los paquetes

- sudo apt update
- sudo apt upgrade

Instalamos la versión por defecto para Java

- sudo apt install default-jdk

```
ubuntu@ip-172-31-46-215:~$ sudo apt install default-jdk
Installing:
 default-jdk

Installing dependencies:
 adwaita-icon-theme      libxkl0.11
 alsactl                  liblcms2-2
```

Comprobamos que existe el JDK en la ruta /usr/lib/jvm

Si existe, lo utilizamos como variable de entorno de la siguiente manera:

- cd /usr/lib/jvm/java-
- export JAVA_HOME=/usr/lib/jvm/java-25

```
ubuntu@ip-172-31-46-215:~$ cd /usr/lib/jvm/
default-java/          java-25-openjdk-amd64/
java-1.25.0-openjdk-amd64/ openjdk-25/
ubuntu@ip-172-31-46-215:~$ cd /usr/lib/jvm/
ubuntu@ip-172-31-46-215:~$ export JAVA_HOME=/usr/lib/jvm/java-25-openjdk-amd64/
```

Buscamos las dependencias disponibles de tomcat para realizar la instalación.

- sudo apt-cache search tomcat

```
ubuntu@ip-172-31-46-215:~$ sudo apt-cache search tomcat
centreon-plugins - Collection of Nagios plugins to monitor OS, services and network devices
css-validator-tomcat10 - W3C CSS Validator - tomcat10 configuration files
css-validator-tomcat11 - W3C CSS Validator - tomcat11 configuration files
libapache-mod-jk-doc - Documentation of libapache2-mod-jk package
libapache2-mod-jk - Apache 2 connector for the Tomcat Java servlet engine
libjnlpservlet-java - simple and convenient packaging format for JNLP applications
liblogback-java - flexible logging library for Java
libnetty-tcnative-java - Tomcat native fork for Netty
libnetty-tcnative-jni - Tomcat native fork for Netty (JNI library)
libspring-instrument-java - modular Java/J2EE application framework - Instrumentation
libtcnative-1 - Tomcat native library using the Apache Portable Runtime
libtomcat10-embed-java - Apache Tomcat 10 - Servlet and JSP engine -- embed libraries
libtomcat10-java - Apache Tomcat 10 - Servlet and JSP engine -- core libraries
libtomcat11-embed-java - Apache Tomcat 11 - Servlet and JSP engine -- embed libraries
libtomcat11-java - Apache Tomcat 11 - Servlet and JSP engine -- core libraries
libtomcat9-java - Apache Tomcat 9 - Servlet and JSP engine -- core libraries

monitoring-plugins-contrib - Plugins for nagios compatible monitoring systems
python3-ajpy - Python module to craft AJP requests
resource-agents-extra - Cluster Resource Agents
tomcat-jakartaee-migration - Apache Tomcat migration tool for Jakarta EE
tomcat10 - Apache Tomcat 10 - Servlet and JSP engine
tomcat10-admin - Apache Tomcat 10 - Servlet and JSP engine -- admin web applications
tomcat10-common - Apache Tomcat 10 - Servlet and JSP engine -- common files
tomcat10-docs - Apache Tomcat 10 - Servlet and JSP engine -- documentation
tomcat10-examples - Apache Tomcat 10 - Servlet and JSP engine -- example web applications
tomcat10-user - Apache Tomcat 10 - Servlet and JSP engine -- tools to create user instances
tomcat11 - Apache Tomcat 11 - Servlet and JSP engine
tomcat11-admin - Apache Tomcat 11 - Servlet and JSP engine -- admin web applications
tomcat11-common - Apache Tomcat 11 - Servlet and JSP engine -- common files
tomcat11-docs - Apache Tomcat 11 - Servlet and JSP engine -- documentation
tomcat11-examples - Apache Tomcat 11 - Servlet and JSP engine -- example web applications
```

instalamos tomcat11

- sudo apt install tomcat11

```
ubuntu@ip-172-31-46-215:~$ sudo apt install tomcat11
Installing:
 tomcat11

Installing dependencies:
 libapr1t64 libeclipse-jdt-core-java libtomcat11-java
 libeclipse-jdt-core-compiler-batch-java libtcnative-1 tomcat11-common
```

Comprobamos que se ha instalado correctamente tomcat

ii = instalado

un = no instalado

- dpkg --list tomcat*

```
ubuntu@ip-172-31-46-215:~$ dpkg --list tomcat*
+-- Desired=Unknown/Install/Remove/Purge/Hold
|+- Status=Not/Inst/Conf-files/Unpacked/half-Inst/trig-await/Trig-pend
||+ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)
||| Name Version Architecture Description
+++-----
ii tomcat11 11.0.18-1 all Apache Tomcat 11 - Servlet and JSP engine
un tomcat11-admin <none> <none> (no description available)
ii tomcat11-common 11.0.18-1 all Apache Tomcat 11 - Servlet and JSP engine -- common files
un tomcat11-docs <none> <none> (no description available)
un tomcat11-examples <none> <none> (no description available)
un tomcat11-user <none> <none> (no description available)
```

Con todas las variables, comprobamos que la ruta existe, y en caso afirmativo, las exportamos.

export CATALINA_HOME=/usr/share/tomcat**

```
ubuntu@ip-172-31-46-215:~$ cd /usr/share/tomcat11
ubuntu@ip-172-31-46-215:/usr/share/tomcat11$ export CATALINA_HOME=/usr/share/tomcat11
```

export CATALINA_BASE=/var/lib/tomcat**

```
ubuntu@ip-172-31-46-215:/usr/share/tomcat11$ cd /var/lib/tomcat11
ubuntu@ip-172-31-46-215:/var/lib/tomcat11$ export CATALINA_BASE=/var/lib/tomcat11
```

export JAVA_BASE=/usr/lib/jvm/java-25-openjdk-amd64/

```
ubuntu@ip-172-31-46-215:/var/lib/tomcat11$ cd /usr/lib/jvm/java-25-openjdk-amd64/
ubuntu@ip-172-31-46-215:/usr/lib/jvm/java-25-openjdk-amd64$ export JAVA_BASE=/usr/lib/jvm/java-25-openjdk-amd64/
```

export JAVA_HOME=/usr/lib/jvm/java-25-openjdk-amd64/jre

```
ubuntu@ip-172-31-46-215:/usr/lib/jvm/java-25-openjdk-amd64$ cd /usr/lib/jvm/java-25-openjdk-amd64/jre
-bash: cd: /usr/lib/jvm/java-25-openjdk-amd64/jre: No such file or directory
```

Esta no existe, por lo que dejaremos la que pusimos anteriormente (sin 'jre' al final).

Instalamos este paquete para ver los puertos activos

```
ubuntu@ip-172-31-46-215:~$ sudo apt install net-tools
Installing:
net-tools

Summary:
```

```
ubuntu@ip-172-31-46-215:~$ netstat -ltn
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 127.0.0.53:53          0.0.0.0:*               LISTEN
tcp        0      0 127.0.0.54:53          0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:22             0.0.0.0:*               LISTEN
tcp6       0      0 :::8080                 :::*                    LISTEN
tcp6       0      0 :::22                   :::*                    LISTEN
```

Editamos las reglas de entrada de la instancia, para poder entrar en el puerto 8080 (el de tomcat) que ya está activo en el contenedor, pero bloqueado.

ID de la regla del grupo de seguridad	Tipo	Protocolo	Intervalo de puertos	Origen	Descripción: opcional
sgr-011539c807ec77bac	SSH	TCP	22	Persona...	
-	TCP personalizado	TCP	8080	Anywher...	Tomcat

En el navegador, insertamos la IP pública de la instancia y el puerto 8080 una vez que lo hemos actualizado.

```
54.82.24.132:8080
```

Como vemos, ya nos aparecerá que tomcat está funcionando correctamente.

It works !

If you're seeing this page via a web browser, it means you've setup Tomcat successfully. Congratulations!

This is the default Tomcat home page. It can be found on the local filesystem at: `/var/lib/tomcat11/webapps/ROOT/index.html`

Tomcat veterans might be pleased to learn that this system instance of Tomcat is installed with `CATALINA_HOME` in `/usr/share/tomcat11` and `CATALINA_BASE` in `/var/lib/tomcat11`, following the rules from `/usr/share/doc/tomcat11-common/RUNNING.txt.gz`.

You might consider installing the following packages, if you haven't already done so:

tomcat11-docs: This package installs a web application that allows to browse the Tomcat 11 documentation locally. Once installed, you can access it by clicking [here](#).

tomcat11-examples: This package installs a web application that allows to access the Tomcat 11 Servlet and JSP examples. Once installed, you can access it by clicking [here](#).

tomcat11-admin: This package installs two web applications that can help managing this Tomcat instance. Once installed, you can access the [manager.webapp](#) and the [host-manager.webapp](#).

NOTE: For security reasons, using the manager.webapp is restricted to users with role "manager-gui". The host-manager.webapp is restricted to users with role "admin-gui". Users are defined in `/etc/tomcat11/tomcat-users.xml`.

Como vemos, algunas de las dependencias que antes aparecían como desinstaladas ('un'), nos aparecen a continuación.

Vamos a comenzar por la instalación de tomcat11-admin

- sudo apt install tomcat11-admin

```
ubuntu@ip-172-172-31-46-215:~$ sudo apt install tomcat11-admin
Installing:
 tomcat11-admin

Summary:
  Upgrading: 0, Installing: 1, Removing: 0, Not Upgrading: 0
  Download size: 72.4 kB
  Space needed: 346 kB / 4009 MB available

Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu resolute/universe amd64v3 tomcat11-admin all 11.0.18-1 [72.4 kB]
Fetched 72.4 kB in 0s (2131 kB/s)
Selecting previously unselected package tomcat11-admin.
(Reading database ... 95195 files and directories currently installed.)
Preparing to unpack ../tomcat11-admin_11.0.18-1_all.deb ...
Unpacking tomcat11-admin (11.0.18-1) ...
Setting up tomcat11-admin (11.0.18-1) ...
```

Finalmente, instalamos los tres restantes (el -y para que no necesite verificación y se haga del tirón).

```
ubuntu@ip-172-31-46-215:~$ sudo apt install tomcat11-docs tomcat11-examples tomcat11-user -y
Installing:
 tomcat11-docs tomcat11-examples tomcat11-user

Summary:
  Upgrading: 0, Installing: 3, Removing: 0, Not Upgrading: 0
  Download size: 1748 kB
  Space needed: 6014 kB / 3983 MB available

Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu resolute/universe amd64v3 tomcat11-docs all 11.0.18-1 [1322 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu resolute/universe amd64v3 tomcat11-examples all 11.0.18-1 [394 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu resolute/universe amd64v3 tomcat11-user all 11.0.18-1 [31.1 kB]

```

Editar acceso

Editamos el siguiente archivo

```
ubuntu@ip-172-31-46-215:~$ sudo vim /etc/tomcat11/tomcat-users.xml
```

Y abajo, descomentamos los roles y cambiamos la contraseña.

```
<role rolename="manager-gui"/>
<role rolename="manager-script"/>
<user username="tomcat" password="1234" roles="manager-gui"/>
```

Cambiamos

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

Reiniciamos el servicio

```
sudo service tomcat11 restart
```

Actualizamos la página web y entramos con las credenciales



Gestor de Aplicaciones Web de Tomcat

Mensaje: OK

Gestor
 Listar Aplicaciones Ayuda HTML de Gestor Ayuda de Gestor Estado de Servidor

Aplicaciones						
Ruta	Versión	Nombre a Mostrar	Ejecutandose	Sesiones	Comandos	
/	Ninguno especificado		true	0	<input type="button" value="Arrancar"/> <input type="button" value="Parar"/> <input type="button" value="Recargar"/> <input type="button" value="Replegar"/>	<input type="button" value="Expirar sesiones"/> sin trabajar > 30 minutos
/docs	Ninguno especificado	Tomcat Documentation	true	0	<input type="button" value="Arrancar"/> <input type="button" value="Parar"/> <input type="button" value="Recargar"/> <input type="button" value="Replegar"/>	<input type="button" value="Expirar sesiones"/> sin trabajar > 30 minutos
/examples	Ninguno especificado	Servlet and JSP Examples	true	0	<input type="button" value="Arrancar"/> <input type="button" value="Parar"/> <input type="button" value="Recargar"/> <input type="button" value="Replegar"/>	<input type="button" value="Expirar sesiones"/> sin trabajar > 30 minutos
/host-manager	Ninguno especificado	Tomcat Host Manager Application	true	0	<input type="button" value="Arrancar"/> <input type="button" value="Parar"/> <input type="button" value="Recargar"/> <input type="button" value="Replegar"/>	<input type="button" value="Expirar sesiones"/> sin trabajar > 30 minutos
/manager	Ninguno especificado	Tomcat Manager Application	true	1	<input type="button" value="Arrancar"/> <input type="button" value="Parar"/> <input type="button" value="Recargar"/> <input type="button" value="Replegar"/>	<input type="button" value="Expirar sesiones"/> sin trabajar > 30 minutos