

Práctica 3 – Instalación Tomcat


Se trata de que instales TOMCAT como servidor de aplicaciones en Ubuntu Server.

Indicaciones generales:

- 1) Genera capturas de cada paso.
- 2) Obtén un documento final <nombre>_<apellido>_practica_<Nº>.pdf
- 3) Súbelo a la plataforma.

Contenido práctica:

- A) Tenemos este escenario inicial:
- a. Tendremos una VM con Ubuntu Server.
 - b. Podremos acceder mediante un cliente web al servidor.



ubuntu

Apache2 Ubuntu Default Page

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in `/usr/share/doc/apache2/README.Debian.gz`**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/  
|-- apache2.conf  
|   |-- ports.conf  
|-- mods-enabled  
|   |-- *.load  
|   |-- *.conf  
|-- conf-enabled  
|   |-- *.conf  
|-- sites-enabled  
|   |-- *.conf
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective `*-available/` counterparts. These should be managed by using our helpers `a2enmod`, `a2dismod`, `a2ensite`

B) Instalación de TOMCAT:

a. apt-get update

```

[ubuntu] password for ubuntu@ubuntu:
ubuntu@ubuntu:~$ sudo apt-get update
[sudo] password for ubuntu:

```

b. apt install -y tomcat9 tomcat9-admin

```

ubuntu@ubuntu:~$ sudo apt install -y tomcat9 tomcat9-admin
Reading package lists... Done
Building dependency tree

```

c. El estado del servicio se comprobará con systemctl status tomcat9

```

ubuntu@ubuntu:~$ systemctl status tomcat9
● tomcat9.service - Apache Tomcat 9 Web Application Server
   Loaded: loaded (/lib/systemd/system/tomcat9.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2021-10-04 14:18:56 UTC; 1min 3s ago
     Docs: https://tomcat.apache.org/tomcat-9.0-doc/index.html
   Main PID: 23698 (java)
    Tasks: 29 (limit: 4617)
   Memory: 83.6M
   CGroup: /system.slice/tomcat9.service
           └─23698 /usr/lib/jvm/default-java/bin/java -Djava.util.logging.config.file=/var/lib/to

Oct 04 14:19:05 ubuntu@ubuntu: tomcat9[23698]: Deployment of deployment descriptor [/etc/tomcat9/Ca
Oct 04 14:19:05 ubuntu@ubuntu: tomcat9[23698]: Deploying deployment descriptor [/etc/tomcat9/Catali
Oct 04 14:19:05 ubuntu@ubuntu: tomcat9[23698]: The path attribute with value [/manager] in deployme
Oct 04 14:19:06 ubuntu@ubuntu: tomcat9[23698]: At least one JAR was scanned for TLDs yet contained
Oct 04 14:19:06 ubuntu@ubuntu: tomcat9[23698]: Deployment of deployment descriptor [/etc/tomcat9/Ca
Oct 04 14:19:06 ubuntu@ubuntu: tomcat9[23698]: Deploying web application directory [/var/lib/tomcat
Oct 04 14:19:07 ubuntu@ubuntu: tomcat9[23698]: At least one JAR was scanned for TLDs yet contained
Oct 04 14:19:07 ubuntu@ubuntu: tomcat9[23698]: Deployment of web application directory [/var/lib/to
Oct 04 14:19:07 ubuntu@ubuntu: tomcat9[23698]: Starting ProtocolHandler ["http-nio-8080"]
Oct 04 14:19:07 ubuntu@ubuntu: tomcat9[23698]: Server startup in [6,263] milliseconds
lines 1-20/20 (END)

```

d. Editamos el archivo /etc/tomcat9/server.xml y en la directiva Connector comprobamos que el puerto por defecto en port es 8080

```

<Connector port="8080" protocol="HTTP/1.1"
            connectionTimeout="20000"
            redirectPort="8443" />
<!-- A "Connector" using the shared thread pool

```

e. Editamos /etc/tomcat9/tomcat-users.xml y analizamos e implementamos un usuario que nos permita tener permiso al admin-gui y al manager-gui

```

-->
<user username="admin" password="adminadmin" roles="admin,manager,admin-gui,manager-gui" />
</tomcat-users>

```

f. Para evitar problemas de acceso a las herramientas administrativas agregamos un comentario HTML a la directiva Valve en el archivo usr/share/tomcat9-admin/manager/META-INF/context.xml

```
-->
<Context antiResourceLocking="false" privileged="true" >
<!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"
      allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" />-->
  <Manager sessionAttributeValueClassNameFilter="java\.lang\.(?:Boolean|
```

- g. Idem para /usr/share/tomcat9-admin/host-manager/META-INF/context.xml

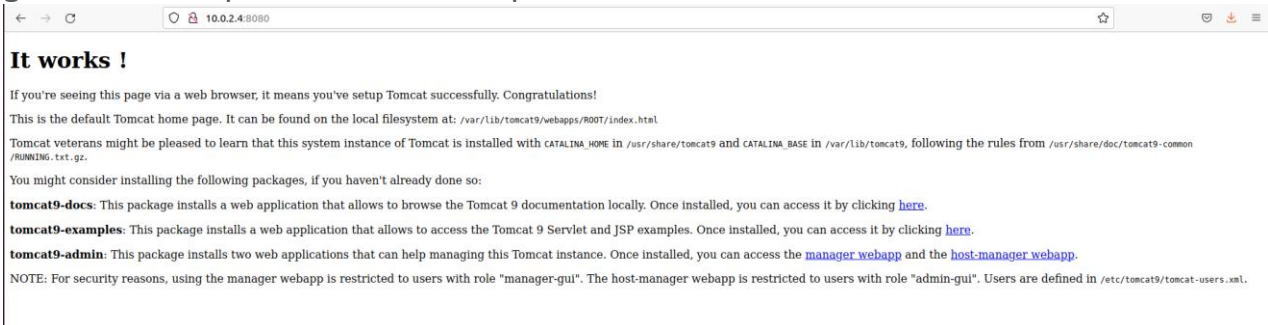
```
<!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"
      allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" />-->
  <Manager sessionAttributeValueClassNameFilter="java\.lang\.(?:Boolean|Ir
</Context>
```

- h. Reinicia TOMCAT

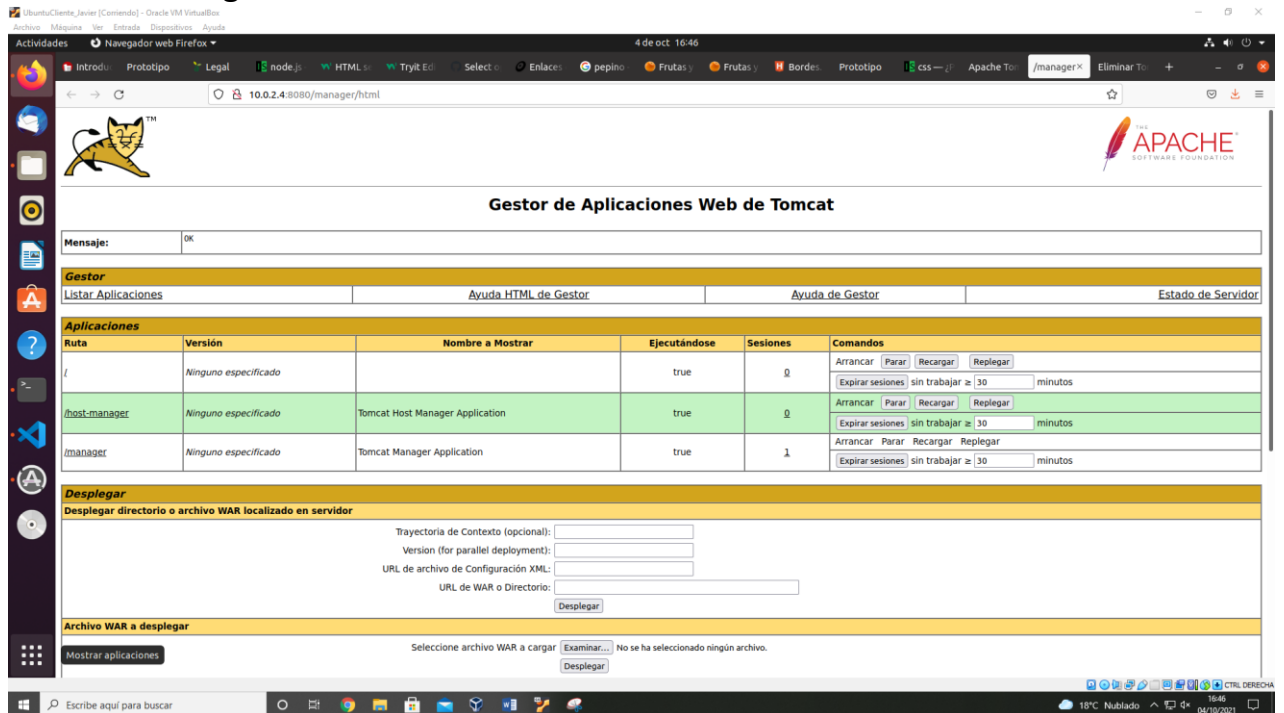
```
ubuntuservidor@ubuntuservidor:~$ sudo systemctl restart tomcat9
ubuntuservidor@ubuntuservidor:~$ _
```

C) Lanzamiento de TOMCAT:

D) Accede a la IP de tu servidor en el puerto 8080 y observa gráficamente que el servidor de aplicaciones está corriendo.



- a. Verifica que puedes acceder al administrador gui y al de la máquina virtual autenticándote con el usuario creado en el apartado B)e. Manager:



Host manager:

The screenshot shows the Apache Tomcat Host Manager web interface. The browser's address bar displays the URL `10.0.2.4:8080/host-manager/html`. The page features the Apache logo and the title "Gestor de Máquina Virtual de Tomcat".

At the top, there is a message box with the text "Mensaje: OK". Below this, a navigation bar includes links for "Lista de Máquinas Virtuales", "Ayuda de Gestor de Máquina HTML (¡En breve!)", "Ayuda de Gestor de Máquina", and "Estado de Servidor".

The main content area is divided into two sections. The first section, titled "Nombre de Máquina", contains a table with the following data:

| Nombre de Máquina | Alias de Máquina | Comandos |
|-------------------|------------------|--|
| localhost | | Instalado Gestor de Máquinas - comandos desactivados |

The second section, titled "Añadir Máquina Virtual", contains a form for adding a new virtual machine. The form includes input fields for "Nombre:", "Alias:", and "App base:", and a list of checkboxes for "AutoDeploy", "DeployOnStartup", "DeployXML", "UnpackWARs", "App de Gestor", and "CopyXML". The "Añadir" button is located at the bottom of the form.

Below the form, there is a section titled "Configuración persistente" with a checkbox labeled "All" and the text "Save current configuration (including virtual hosts) to server.xml and per web application context.xml files".

The bottom of the page features a section titled "Información de Servidor".