

Practica 3.3. Integrar Tomcat con Nginx

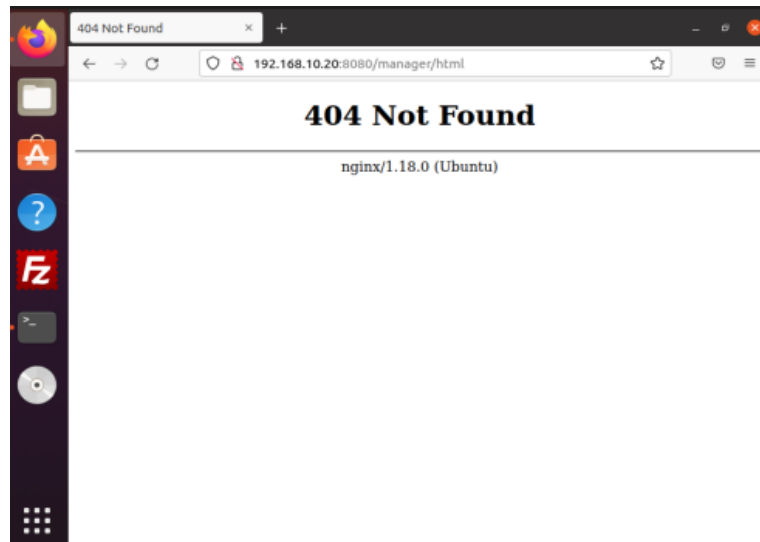


Apache
Tomcat

0. Comienza comprobando que Nginx NO puede ejecutar un servlet o JSP por sí mismo:
Prueba a lanzar un servlet desde Nginx (¡no desde Tomcat!)
http://IP_nginx/examples/servlets

Nota: Nginx no va a saber responder. Pero al final de esta práctica eso ya te debería funcionar.

Como no tenemos instalado tomcat ni nada no va a funcionar por eso nos sale el error 404.



1. Modifica el fichero principal de Nginx para conectarlo con Tomcat como se indica en el tema.pdf

Aquí en este fichero indicamos la ip del cliente para que se pueda conectar a tomcat

```
GNU nano 4.8 /etc/nginx/nginx.conf
# gzip_http_version 1.1;
# gzip_types text/plain text/css application/json application/javascript text/xml application/xml
#
##
## Virtual Host Configs
##

include /etc/nginx/conf.d/*.conf;
include /etc/nginx/sites-enabled/*;

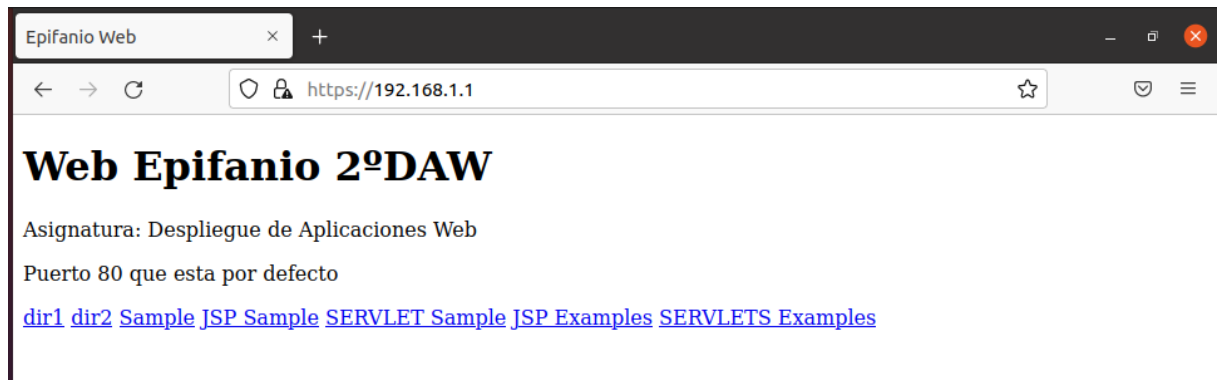
upstream tomcat{
    #define la ip del cliente
    server 192.168.1.10:8080;
}

#mail {
# See sample authentication script at:
# http://wiki.nginx.org/ImapAuthenticateWithApachePhpScript
#
# auth_http localhost/auth.php;
# pop3_capabilities "TOP" "USER";
# imap_capabilities "IMAP4rev1" "UIDPLUS";
#
server {
    listen    localhost:110;
    protocol  pop3;
    proxy     on;
}

server {
    listen    localhost:143;
```

2. Ahora prepara la comunicación entre un site y Tomcat.

- a) Crea un index que con dos links: uno a un jsp y otro a un servlet.



- b) Captura la configuración en el site para que se redirija a Tomcat las peticiones a servlets y .jsp

Esta comentado porque hice la práctica con la expresión regular

```
# location /sample{
#     proxy_pass http://192.168.1.1:8080;
# }
# location /examples{
#     proxy_pass http://192.168.1.1:8080;
# }

location ~ /\.jsp$ {
    proxy_pass http://192.168.1.1:8080;
}
```

- c) Prueba ahora que funciona la ejecución del servlet desde Nginx: `http://site1/examples/[algun_servlet]`




Servlet Examples with Code

This is a collection of examples which demonstrate some of the more frequently used parts of the Servlet API. Familiarity with the Java(tm) Programming Language is assumed.

These examples will only work when viewed via an http URL. They will not work if you are viewing these pages via a "file:///..." URL. Please refer to the *README* file provide with this Tomcat release regarding how to configure and start the provided web server.

Wherever you see a form, enter some data and see how the servlet reacts. When playing with the Cookie and Session Examples, jump back to the Headers Example to see exactly what your browser is sending the server.

To navigate your way through the examples, the following icons will help:

-  Execute the example
-  Look at the source code for the example
-  Return to this screen

Tip: To see the cookie interactions with your browser, try turning on the "notify when setting a cookie" option in your browser preferences. This will let you see when a

- d) Prueba ahora que funciona la ejecución del servlet desde Nginx: <http://site1/examples/> [un JSP]

JSP Samples

This is a collection of samples demonstrating the usage of different parts of the Java Server Pages (JSP) specification. Both JSP 2.0 and JSP 1.2 examples are presented below.

These examples will only work when these pages are being served by a servlet engine; of course, we recommend [Tomcat](#). They will not work if you are viewing these pages via a "file://..." URL.

To navigate your way through the examples, the following icons will help:



Execute the example



Look at the source code for the example



Return to this screen

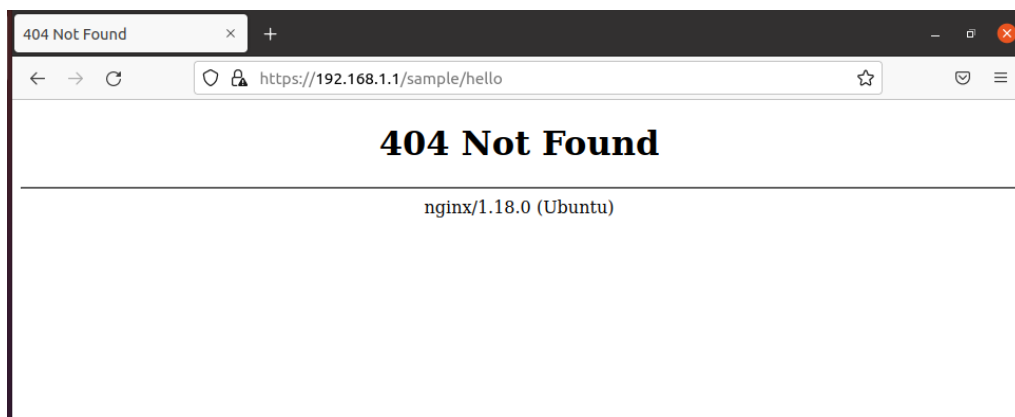
Tip: For session scoped beans to work, the cookies must be enabled. This can be done using browser options.

JSP 2.0 Examples

Expression Language

3. Modifica ahora el location en otro site para que sólo redirija las .jsp (ver ejemplo en el .pdf del tema)

- a) <http://site2/examples/> (uno de los ejemplos de servlet) NO DEBERIA FUNCIONAR



b) [http://site2/examples/\(pinchar enlace del jsp\)](http://site2/examples/(pinchar enlace del jsp))



4. ¿Qué ficheros de log has revisado ?

a) Captura pantallas de los logs de Nginx

```
javi@epi@ubusrv-jepi:/var/www/html/epifanio/error$ ls -l
total 48
-rw-r--r-- 1 root    root    406 ene 17 09:41 404.html
-rw-r--r-- 1 www-data root 30126 mar  2 21:30 epifanio_access.log
-rw-r--r-- 1 www-data root  2308 feb 18 13:22 error_epifanio.log
-rw-r--r-- 1 root    root    406 ene 14 12:45 index.html
javi@epi@ubusrv-jepi:/var/www/html/epifanio/error$ _
```

b) Captura pantalla del log de Tomcat

```
catalina.2022-02-04.log      localhost.2022-02-16.log
catalina.2022-02-11.log     localhost.2022-02-23.log
catalina.2022-02-16.log     localhost.2022-02-24.log
catalina.2022-02-23.log     localhost_access_log.2022-02-04.txt
catalina.2022-02-24.log     localhost_access_log.2022-02-11.txt
catalina.out                localhost_access_log.2022-02-16.txt
host-manager.2022-02-04.log  localhost_access_log.2022-02-23.txt
host-manager.2022-02-11.log  localhost_access_log.2022-02-24.txt
host-manager.2022-02-16.log  manager.2022-02-04.log
host-manager.2022-02-23.log  manager.2022-02-11.log
host-manager.2022-02-24.log  manager.2022-02-16.log
localhost.2022-02-04.log     manager.2022-02-23.log
localhost.2022-02-11.log     manager.2022-02-24.log
tomas@tomasubuntu:/opt/tomcat/logs$ cat localhost.2022-02-04.log | tail -5
04-Feb-2022 12:23:11.423 INFORMACIÓN [main] org.apache.catalina.core.ApplicationContext.log SessionL
istener: contextDestroyed()
04-Feb-2022 12:23:11.427 INFORMACIÓN [main] org.apache.catalina.core.ApplicationContext.log ContextL
istener: contextDestroyed()
04-Feb-2022 12:23:24.642 INFORMACIÓN [main] org.apache.catalina.core.ApplicationContext.log ContextL
istener: contextInitialized()
04-Feb-2022 12:23:24.644 INFORMACIÓN [main] org.apache.catalina.core.ApplicationContext.log SessionL
istener: contextInitialized()
04-Feb-2022 12:23:24.646 INFORMACIÓN [main] org.apache.catalina.core.ApplicationContext.log ContextL
istener: attributeAdded('StockTicker', 'async.StockTicker@6a1d204a')
```

c) Indica los errores que han ido apareciendo y cómo los has solucionado.

```
2022/02/24 08:53:56 [emerg] 2248#2248: unexpected "}" in /etc/nginx/nginx.conf:66
2022/02/24 08:54:05 [emerg] 2267#2267: unexpected "}" in /etc/nginx/nginx.conf:66
2022/02/24 08:54:58 [info] 2297#2297: Using 32768KiB of shared memory for nchan in /etc/nginx/nginx.
conf:68
```

El error que he solucionado ha salido porque me faltó poner un corchete en el fichero nginx.conf.