Despliegue de aplicación en VPS

Tarea realizada por Miguel Valle, Alejandro Cortina y Rubén Gómez

- Instalamos mysql

```
sudo apt-get install mysql-server mysql-client
```

```
master@daw-136:~$ sudo apt-get install mysql-server mysql-client
Reading package lists... Done
```

```
sudo mysql
```

```
master@daw-136:~$ sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 3
Server version: 5.7.37-0ubuntu0.18.04.1 (Ubuntu)
```

```
sudo mysql_secure_installation
```

```
master@daw-136:~$ sudo mysql_secure_installation

Securing the MySQL server deployment.

Connecting to MySQL using a blank password.

VALIDATE PASSWORD PLUGIN can be used to test passwords
and improve security. It checks the strength of password
and allows the users to set only those passwords which are
secure enough. Would you like to setup VALIDATE PASSWORD plugin?

Press y|Y for Yes, any other key for No: n
Please set the password for root here.
```

Borramos usuarios anónimos y eliminamos el root `login` remoto.

```
Remove anonymous users? (Press y|Y for Yes, any other key for No) : y
Success.
```

```
Disallow root login remotely? (Press y|Y for Yes, any other key for No) : y
Success.
```

Eliminamos la base de datos de pruebas y recargamos los privilegios de la base de datos.

```
Remove test database and access to it?
 : y
    Dropping test database
```

```
Reload privilege tables now? (Press y|Y for Yes, any other key for No) : y
Success.

All done!
```

```
alter user 'root'@'localhost' identified with mysql_native_password by 'area';
```

```
mysql> alter user 'root'@'localhost' identified with mysql_native_password by '
area';
Query OK, 0 rows affected (0.00 sec)
```

```
mysql -u root -p
```

```
master@daw-136:~$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 5.7.37-0ubuntu0.18.04.1 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
```

```
create database test_virtual;
```

```
mysql> create database test_virtual;
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
show database;
```

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| sys                |
| test_virtual       |
+--------------------+
5 rows in set (0.00 sec)
```

```
create user 'user'@'localhost' identified by 'user';
```

```
mysql> create user 'user'@'localhost' identified by 'user';
Query OK, 0 rows affected (0.00 sec)
```

```
select user from mysql.user;
```

```
mysql> select user from mysql.user;
+------------------+
| user             |
+------------------+
| debian-sys-maint |
| mysql.session    |
| mysql.sys        |
| root             |
| user             |
+------------------+
5 rows in set (0.00 sec)
```

```
grant all privileges on test_virtaul.* to 'user'@'localhost' with grant Option;
```

```
mysql> grant all privileges on test_virtual.* to 'user'@'localhost' with grant O
ption;
Query OK, 0 rows affected (0.00 sec)
```

```
mysql -u user -p
```

```
master@daw-136:~$ mysql -u user -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 14
Server version: 5.7.37-0ubuntu0.18.04.1 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

```
show databases;
```

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| test_virtual       |
+--------------------+
2 rows in set (0.00 sec)
```

```
mysql -u root -p
```

```
master@daw-136:~$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 15
Server version: 5.7.37-0ubuntu0.18.04.1 (Ubuntu)

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owners.
```

```
flush prvileges;
```

```
mysql> flush privileges;
Query OK, 0 rows affected (0.02 sec)
```

- Instalamos maven

```
sudo apt-get install maven
```

```
master@daw-136:~$ sudo apt-get install maven
Reading package lists... Done
Building dependency tree
Reading state information    Done
```

- Instalamos jdk8

```
sudo apt-get install openjdk-8-jdk
```

```
master@daw-136:~$ sudo apt-get install openjdk-8-jdk
Reading package lists... Done
Building dependency tree
Reading state information... Done
```

```
java -version
```

```
master@daw-136:~$ java -version
openjdk version "11.0.13" 2021-10-19
OpenJDK Runtime Environment (build 11.0.13+8-Ubuntu-0ubuntu1.18.04)
OpenJDK 64-Bit Server VM (build 11.0.13+8-Ubuntu-0ubuntu1.18.04, mixed mode)
```

```
javac -version
```

```
master@daw-136:~$ javac -version
javac 1.8.0_312
```

```
systemctl status vsftpd
```

```
master@daw-136:~$ systemctl status vsftpd
Failed to dump process list, ignoring: Input/output error
* vsftpd.service - vsftpd FTP server
   Loaded: loaded (/lib/systemd/system/vsftpd.service; enabled; vendor preset: e
   Active: active (running) since Thu 2022-02-10 10:21:37 UTC; 3 days ago
 Main PID: 1743 (vsftpd)
    Tasks: 1 (limit: 4915)
   CGroup: /system.slice/vsftpd.service
```

```
sudo nano /etc/vsftpd.conf
```

```
master@daw-136:~$ sudo nano /etc/vsftpd.conf
master@daw-136:~$
```

```
#Uncomment ths to enable any form of FTP write command.
write_enable=YES
```

```
# Uncomment this to enable any form of FTP write command.
write_enable=YES
#
```

```
sudo systemctl restart vsftpd.service
```

```
master@daw-136:~$ sudo systemctl restart vsftpd.service
master@daw-136:~$
```

```
sudo systemctl is-enabled vsftpd.service enabled
```

```
master@daw-136:~$ sudo systemctl is-enabled vsftpd.service
enabled
```

```
git clone https://github.com/cavanosa/virtualBACK.git
```

```
C:\Users\diurno\ftp>git clone https://github.com/cavanosa/virtualBACK.git
Cloning into 'virtualBACK'...
remote: Enumerating objects: 44, done.
remote: Counting objects: 100% (44/44), done.
remote: Compressing objects: 100% (30/30), done.
remote: Total 44 (delta 1), reused 44 (delta 1), pack-reused 0
Receiving objects: 100% (44/44), 59.90 KiB | 666.00 KiB/s, done.
Resolving deltas: 100% (1/1), done.
```

- FileZilla


```
ls
mvn clean
ls
```

```
master@daw-136:~$ ls
virtualBACK
master@daw-136:~$ cd virtualBACK
master@daw-136:~/virtualBACK$ []
```

```
master@daw-136:~/virtualBACK$ ls
HELP.md  mvnw  mvnw.cmd  pom.xml  src
master@daw-136:~/virtualBACK$ mvn clean
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.intern
lectUtils$1 (file:/usr/share/maven/lib/guice.jar) to method ja
```

```
hared/maven-shared-utils/3.2.1/maven-share
[INFO] -------------------------------------------
[INFO] BUILD SUCCESS
[INFO] -------------------------------------------
[INFO] Total time:  10.843 s
[INFO] Finished at: 2022-02-14T08:56:42Z
[INFO] -------------------------------------------
master@daw-136:~/virtualBACK$ []
```

```
master@daw-136:~/virtualBACK$ ls
HELP.md  mvnw  mvnw.cmd  pom.xml  src
master@daw-136:~/virtualBACK$ nano pom.xml[]
```

- Comprobamos `pom.xml`

```
GNU nano 2.9.3                       pom.xml                       Modified

        </dependencies>

        <build>
                <plugins>
                        <plugin>
                                <groupId>org.springframework.boot</groupId>
                                <artifactId>spring-boot-maven-plugin</artifactI$
                                <configuration>
                                        <executable>true</executable>
                                        <finalName>virtual</finalName>[]
                                </configuration>
                        </plugin>
                </plugins>
        </build>
</project>
```

```
mvn install
```

```
master@daw-136:~/virtualBACK$ mvn install[]
```

```
[INFO] -------------------------------------------
[INFO] BUILD SUCCESS
[INFO] -------------------------------------------
[INFO] Total time:  43.180 s
[INFO] Finished at: 2022-02-14T09:01:53Z
[INFO] -------------------------------------------
master@daw-136:~/virtualBACK$ []
```

```
sudo ufw allow 8080/tcp
```

```
master@daw-136:~/virtualBACK$ sudo ufw allow 8080/tcp
[sudo] password for master:
Rule added
Rule added (v6)
```

```
ls
java -jar target/virtual.jar
```



```
master@daw-136:~/virtualBACK$ ls
HELP.md  mvnw  mvnw.cmd  pom.xml  src  target
master@daw-136:~/virtualBACK$ ls target
classes                    maven-archiver    test-classes
generated-sources          maven-status      virtual-0.0.1-SNAPSHOT.jar
generated-test-sources  surefire-reports  virtual.jar
master@daw-136:~/virtualBACK$
```



```
master@daw-136:~/virtualBACK$ java -jar target/virtual.jar
```



```
tualApplication  : Started VirtualApplication in 6.723 seconds (JVM running for
5)
2022-02-14 09:13:59.483  INFO 11506 --- [nio-8080-exec-1] o.a.c.c.C.[Tomcat].[lo
lhost].[/]       : Initializing Spring DispatcherServlet 'dispatcherServlet'
2022-02-14 09:13:59.483  INFO 11506 --- [nio-8080-exec-1] o.s.web.servlet.Dispat
erServlet        : Initializing Servlet 'dispatcherServlet'
2022-02-14 09:13:59.492  INFO 11506 --- [nio-8080-exec-1] o.s.web.servlet.Dispat
erServlet        : Completed initialization in 9 ms
]
```

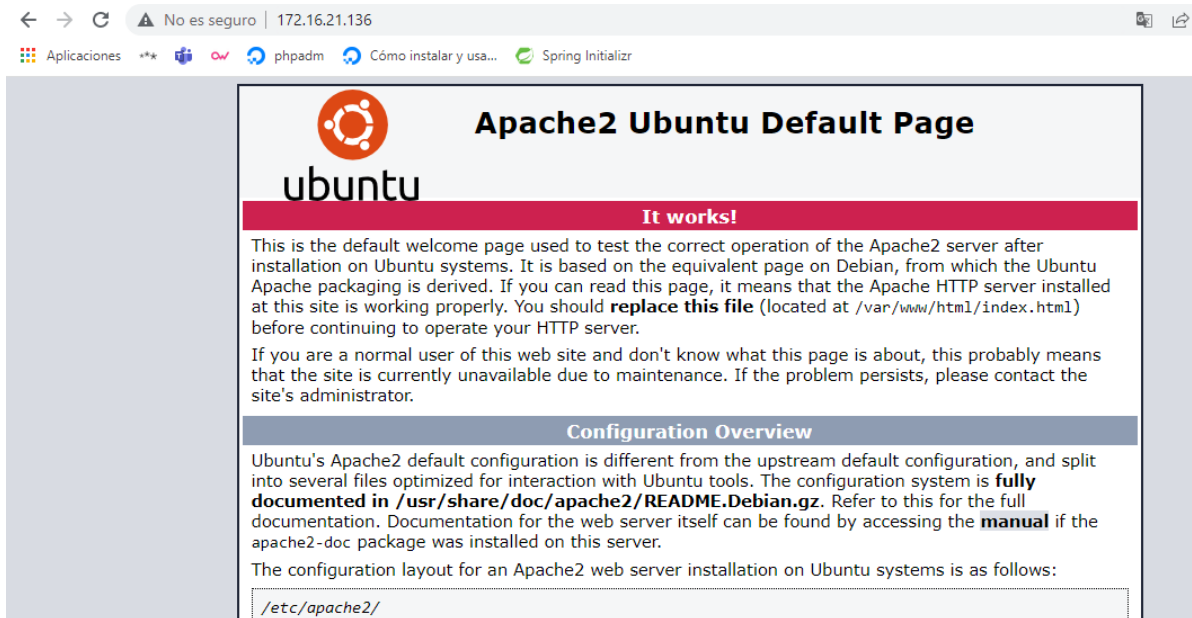- Accedemos desde el navegador web

Whitelabel Error Page

This application has no explicit mapping for /error, so you are seeing this as a fallback.

Mon Feb 14 09:13:59 UTC 2022
There was an unexpected error (type=Not Found, status=404).
No message available

::: Aplicaciones ＊＊＊ 🔷 ow 🔵 phpadm 🔵 Cómo instalar y usa... 🔄 Spring Initializr

Apache2 Ubuntu Default Page

ubuntu

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/
```

::: Aplicaciones ＊＊＊ 🔷 ow 🔵 phpadm 🔵 Cómo instalar y usa...

[]

::: Aplicaciones ＊＊＊ 🔷 ow 🔵 phpadm 🔵 Cómo instalar y usa... 🟢

{"mensaje":"no existe"}

```
sudo nano /etc/systemd/systemd/system/spring.service
```

```
master@daw-136:~/virtualBACK$ sudo nano /etc/systemd/system/spring.service
```

```
[Unit]
Properties=my spring boot app

[Service]
Restart=always
ExecStart=
SuccessExitStatus=143

[Install]
wanted-by=multi-user.target
```

```
  GNU nano 2.9.3               /etc/systemd/system/spring.service

[Unit]
Properties=my spring boot app

[Service]
Restart=always
ExecStart=
SuccessExitStatus=143

[Install]
wanted-by=multi-user.target
```

```
sudo nano /etc/systemd/system/spring.service
pwd /home/master/virtualBACK
cd target
ls
pwd /home/master/virtualBACK/target
```

```
master@daw-136:~/virtualBACK$ sudo nano /etc/systemd/system/spring.service
master@daw-136:~/virtualBACK$ pwd
/home/master/virtualBACK
master@daw-136:~/virtualBACK$ cd target/
master@daw-136:~/virtualBACK/target$ ls
classes                 maven-archiver      test-classes
generated-sources       maven-status        virtual-0.0.1-SNAPSHOT.jar
generated-test-sources  surefire-reports    virtual.jar
master@daw-136:~/virtualBACK/target$ pwd
/home/master/virtualBACK/target
```

```
sudo nano /etc/systemd/system/spring/spring.service
```

```
master@daw-136:~/virtualBACK/target$ sudo nano /etc/systemd/system/spring.service
```

```
  GNU nano 2.9.3               /etc/systemd/system/spring.service

[Unit]
Properties=my spring boot app

[Service]
Restart=always
ExecStart=/home/master/virtualBACK/target/virtual.jar
SuccessExitStatus=143

[Install]
wanted-by=multi-user.target
```

```
sudo systemctl enable spring.service
```

```
master@daw-136:~/virtualBACK/target$ sudo systemctl enable spring.service
The unit files have no installation config (WantedBy, RequiredBy, Also, Alias
settings in the [Install] section, and DefaultInstance for template units).
This means they are not meant to be enabled using systemctl.
Possible reasons for having this kind of units are:
1) A unit may be statically enabled by being symlinked from another unit's
   .wants/ or .requires/ directory.
2) A unit's purpose may be to act as a helper for some other unit which has
   a requirement dependency on it.
3) A unit may be started when needed via activation (socket, path, timer,
   D-Bus, udev, scripted systemctl call, ...).
4) In case of template units, the unit is meant to be enabled with some
   instance name specified.
master@daw-136:~/virtualBACK/target$
```

```
  GNU nano 2.9.3                /etc/systemd/system/spring.service

[Unit]
Description=my spring boot app

[Service]
Restart=always
ExecStart=/home/master/virtualBACK/target/virtual.jar
SuccessExitStatus=143

[Install]
WantedBy=multi-user.target
```

```
sudo systemctl enable spring.service
```

```
master@daw-136:~/virtualBACK/target$ sudo systemctl enable spring.service
Created symlink /etc/systemd/system/multi-user.target.wants/spring.service -> /etc
/systemd/system/spring.service.
```

```
sudo systemctl is-enabled spring.service enabled
```

```
master@daw-136:~/virtualBACK/target$ sudo systemctl is-enabled spring.service
enabled
master@daw-136:~/virtualBACK/target$
```

```
sudo systemctl status start spring.service
sudo systemctl is-active spring.service active
```

```
master@daw-136:~/virtualBACK/target$ sudo systemctl start spring.service
master@daw-136:~/virtualBACK/target$ sudo systemctl is-active spring.service
active
master@daw-136:~/virtualBACK/target$
```

- Instalamos Apache

```
sudo apt-get install apache2
```

```
master@daw-136:~$ sudo apt-get install apache2
Reading package lists... Done
Building dependency tree
```

```
sudo systemctl is-enabled apache2 enabled
```

```
master@daw-136:~$ sudo systemctl is-enabled apache2
enabled
master@daw-136:~$
```

```
sudo systemctl is-active apache2 active
```

```
master@daw-136:~$ sudo systemctl is-active apache2
active
```
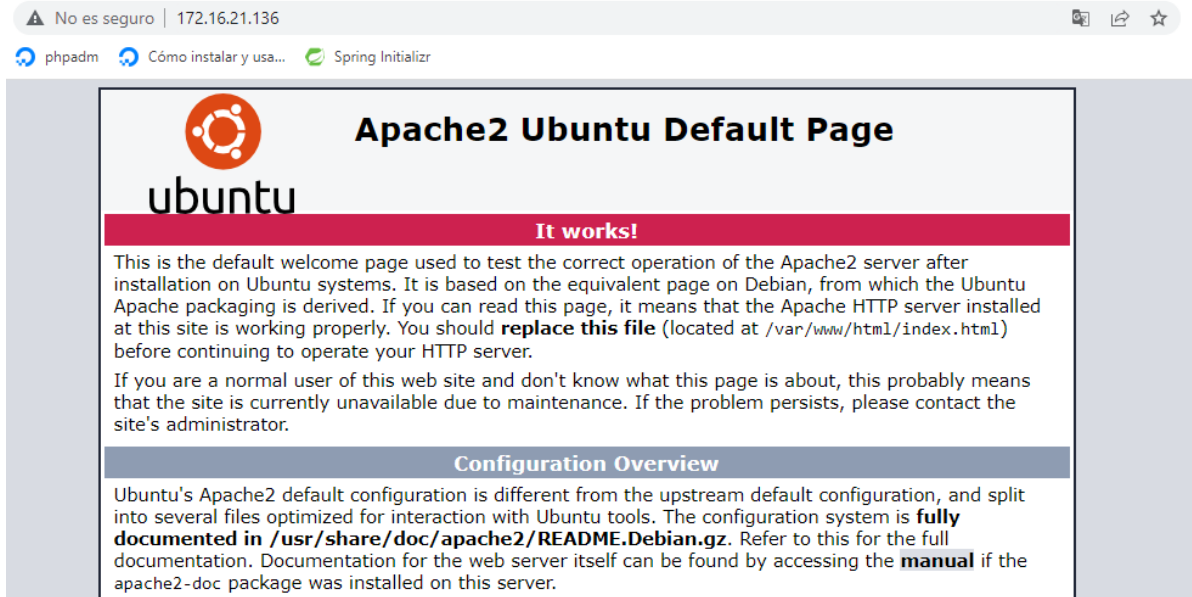


```
sudo nano /var/www/html/index.html
```

```
master@daw-136:~$ sudo nano /var/www/html/index.html
```
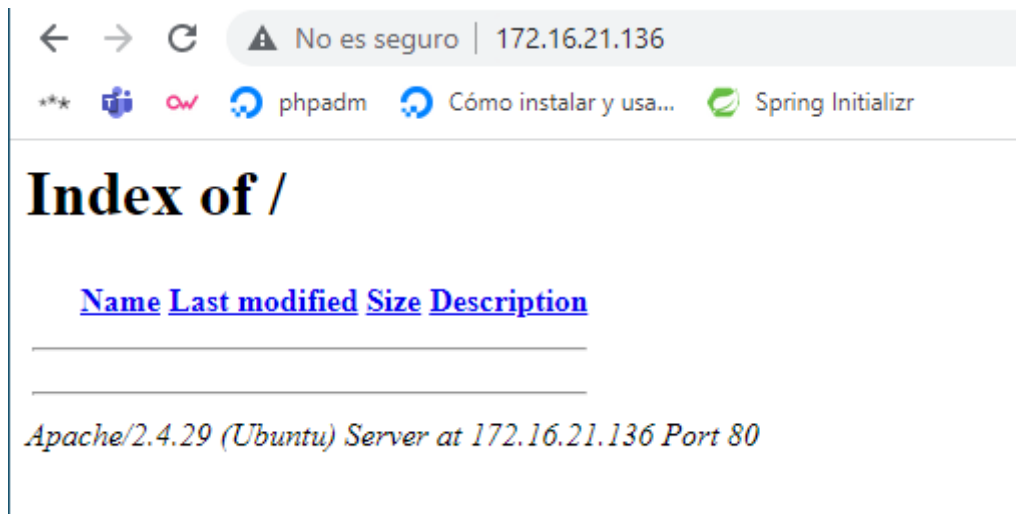
Modificamos el documento html
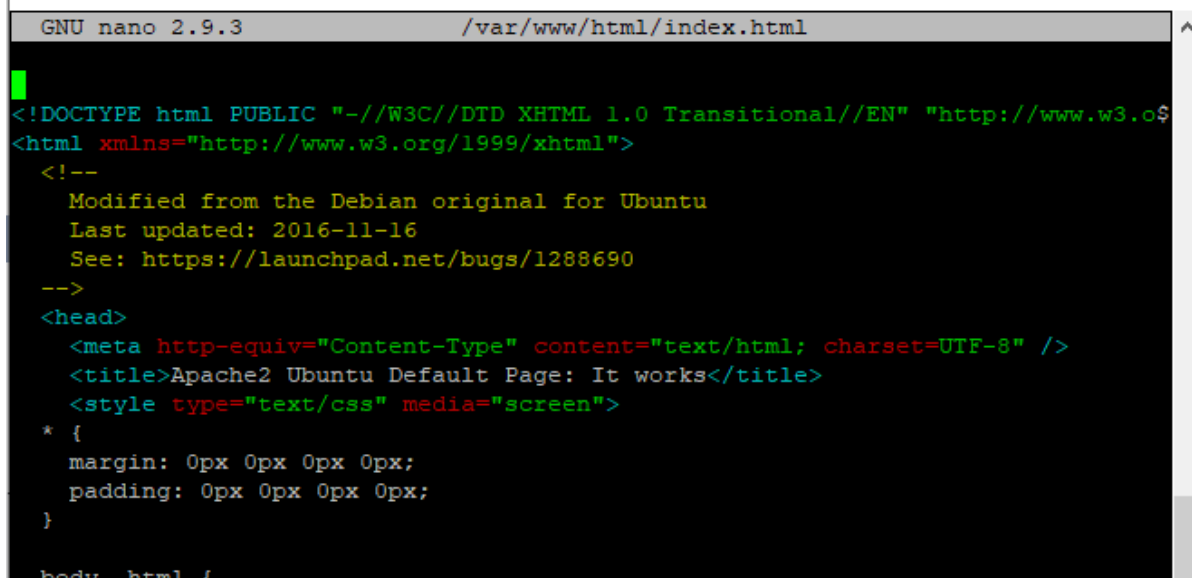

```
sudo mv /var/www/html/index.html home/master
cd ..
ls
cd master
ls
```
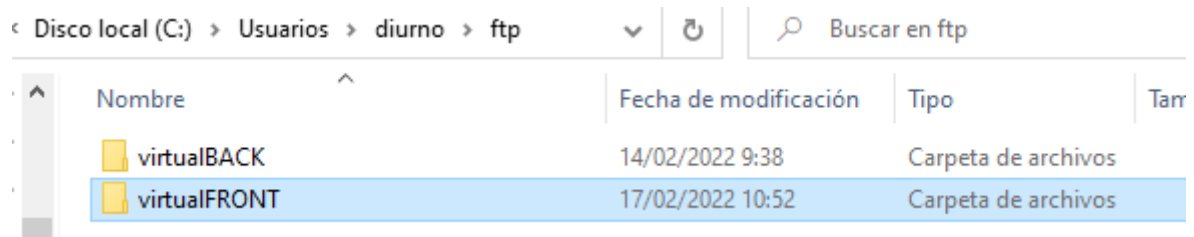
```
master@daw-136:~$ sudo mv /var/www/html/index.html /home/master/
master@daw-136:~$ cd ..
master@daw-136:/home$ ls
master   ruben
master@daw-136:/home$ cd master
master@daw-136:~$ ls
index.html   virtualBACK
```

Nos queda la lista vacía:

Creamos carpeta VirtualFRONT con el contenido de los archivos de `github.`

- En VScode

```
ftp
cd virtualFRONT
code .
```



```
git clone https://github.com/cavanosa/virtualFRONT.git
cd virtualFRONT
code .
```

```
C:\Users\diurno>git clone https://github.com/cavanosa/virtualFRONT.git
Cloning into 'virtualFRONT'...
remote: Enumerating objects: 110, done.
remote: Counting objects: 100% (110/110), done.
remote: Compressing objects: 100% (98/98), done.
remote: Total 110 (delta 42), reused 58 (delta 9), pack-reused 0
Receiving objects: 100% (110/110), 129.32 KiB | 355.00 KiB/s, done.
Resolving deltas: 100% (42/42), done.

C:\Users\diurno>cd virtualFRONT

C:\Users\diurno\virtualFRONT>code .
```

Abrimos el documento en VScode:
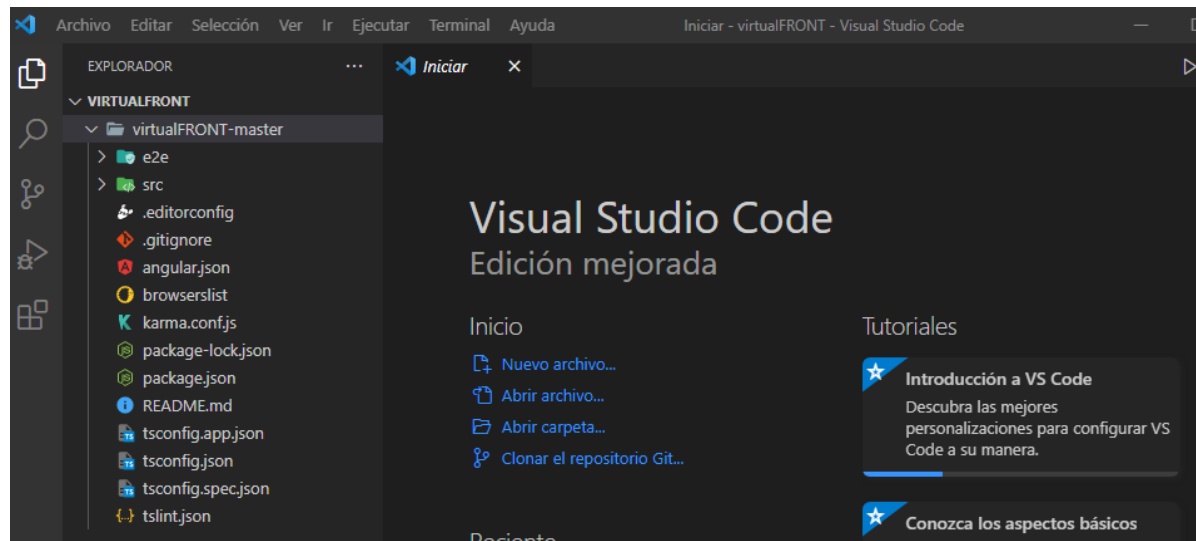
Desde su terminal ejecutamos el comando `npm update`:

```
PS C:\Users\diurno\ftp\virtualFRONT> npm update
PS C:\Users\diurno\ftp\virtualFRONT>
```

```
PS C:\Users\diurno\virtualFRONT> npm update

> core-js@2.6.11 postinstall C:\Users\diurno\virtualFRONT\node_modules\babel-runtime\node_modules\core-js
> node -e "try{require('./postinstall')}catch(e){}"

Thank you for using core-js ( https://github.com/zloirock/core-js ) for polyfilling JavaScript standard library!
```

```
+ @angular/core@8.0.3
+ @angular/compiler@8.0.3
+ @angular/common@8.0.3
added 1028 packages from 1049 contributors and audited 1101 packages in 143.359s

16 packages are looking for funding
  run `npm fund` for details
```

```
npm install -g @angular/cli
```

```
PS C:\Users\diurno\virtualFRONT> npm install -g @angular/cli
[       ........] - extract:rxjs: sill extract rxjs@^7.2.0 e
```

- Abrimos powershell, damos permisos a angular.

```
Set-ExecutionPolicy Unrestricted
```

```
ng serve -o
```


Comprobamos los cambios en la página:
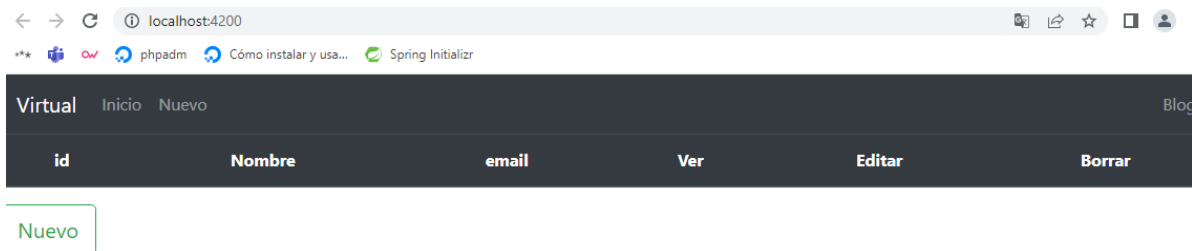
Modificamos el documento `tio.service.ts`

Añadimos un usuario nuevo desde la página:

Se guardan los cambios.


```
ng build --prod
```



```
whoami
sudo chown -R master /var/www/html
sudo chmod -R 755 /var/www/html/
```

Servidor: 172.16.21.136   Nombre de usuario: master   Contraseña: ••••••••   Puerto: Conexión rápida ▾

Estado: Conectando a 172.16.21.136:21...
Estado: Conexión establecida, esperando el mensaje de bienvenida...
Estado: Servidor no seguro, no soporta FTP sobre TLS.

Conexión FTP insegura   ✕

Este servidor no es compatible con FTP sobre TLS.

Si continúa, su contraseña y archivos se enviarán de forma clara a través de Internet.

Sitio: 172.16.21.136

Puerto: 21

☐ Always allow insecure plain FTP for this server.

Aceptar   Cancelar

Sitio local: C:\Users\diurno\Desktop\

Tamaño d... Tipo de a

⊞ 🔵 Desktop
⊞ 📄 Documents
⊞ ⬇ Downloads
⊞ 📁 eclipse
⊞ 📁 eclipse-workspace

No está conect

← → C ⚠ No es seguro | 172.16.21.136   🔲 ☆ □ R ⋮

⁎⁎ 🔧 ɔⱳ 🔵 phpadm 🔵 Cómo instalar y usa... 🔵 Spring Initializr

Virtual   Inicio Nuevo   Blog

id	Nombre	email	Ver	Editar	Borrar
1	tio	tio@ty	Ver	Editar	Borrar
2	tio2	tio2@ty	Ver	Editar	Borrar

Nuevo

Servidor: 172.16.21.136   Nombre de usuario: master   Contraseña: ••••••••   Puerto: Conexión rápida ▾

Estado: Recuperando el listado del directorio "/var"...
Estado: Directorio "/var" listado correctamente
Estado: Recuperando el listado del directorio "/var/www"...
Estado: Directorio "/var/www" listado correctamente
Estado: Recuperando el listado del directorio "/var/www/html"...
Estado: Directorio "/var/www/html" listado correctamente

Sitio local: C:\Users\diurno\virtualFRONT\dist\virtualFRONT\   Sitio remoto: /var/www/html

Nombre de archivo   Tamaño d... Tipo de arc... Últim

📁 ..
Listado del directorio v

📁 SendTo
⊞ 📹 Videos
📁 VirtualBox VMs
⊟ 📁 virtualFRONT
  ⊞ 📁 .git
  ⊟ 📁 dist
    📁 virtualFRONT
  ⊞ 📁 e2e
  ⊞ 📁 node_modules
  ⊞ 📁 src
📁 profesor

Nombre de archivo	Tamaño de...	Tipo de archivo	Última modificación
..			
3rdpartylicenses.txt	12.284	Documento de tex...	24/02/2022 10:31:44
favicon.ico	5.430	Icono	24/02/2022 10:31:44
index.html	1.615	Chrome HTML Do...	24/02/2022 10:31:44
main-es2015.858f8bbd96...	287.287	Archivo de origen ...	24/02/2022 10:31:44
main-es5.f84a9793c74ffab...	335.908	Archivo de origen ...	24/02/2022 10:31:21
polyfills-es2015.27661dfa9...	37.304	Archivo de origen ...	24/02/2022 10:31:44
polyfills-es5.4e06eb653a3...	113.605	Archivo de origen ...	24/02/2022 10:31:21
runtime-es2015.858f8dd8...	1.440	Archivo de origen ...	24/02/2022 10:31:44
runtime-es5.741402d1d47...	1.440	Archivo de origen ...	24/02/2022 10:31:21
styles.280e991c5992f8630...	0	Documento de hoj...	24/02/2022 10:31:44

Por último, modificamos el archivo `app-routing.module.ts`:

```typescript
import { NgModule } from '@angular/core';
import { Routes, RouterModule } from '@angular/router';
import { ListaTioComponent } from './tio/lista-tio.component';
import { DetalleTioComponent } from './tio/detalle-tio.component';
import { NuevoTioComponent } from './tio/nuevo-tio.component';
import { ActualizarTioComponent } from './tio/actualizar-tio.component';

const routes: Routes = [
  {path: '', component: ListaTioComponent},
  {path: 'lista', component: ListaTioComponent},
  {path: 'detalle/:id', component: DetalleTioComponent},
  {path: 'nuevo', component: NuevoTioComponent},
  {path: 'actualizar/:id', component: ActualizarTioComponent},
  {path: '**', redirectTo: 'lista', pathMatch: 'full'}
];

@NgModule({
  imports: [RouterModule.forRoot(routes, {useHash: true})],
  exports: [RouterModule]
})
export class AppRoutingModule { }
```