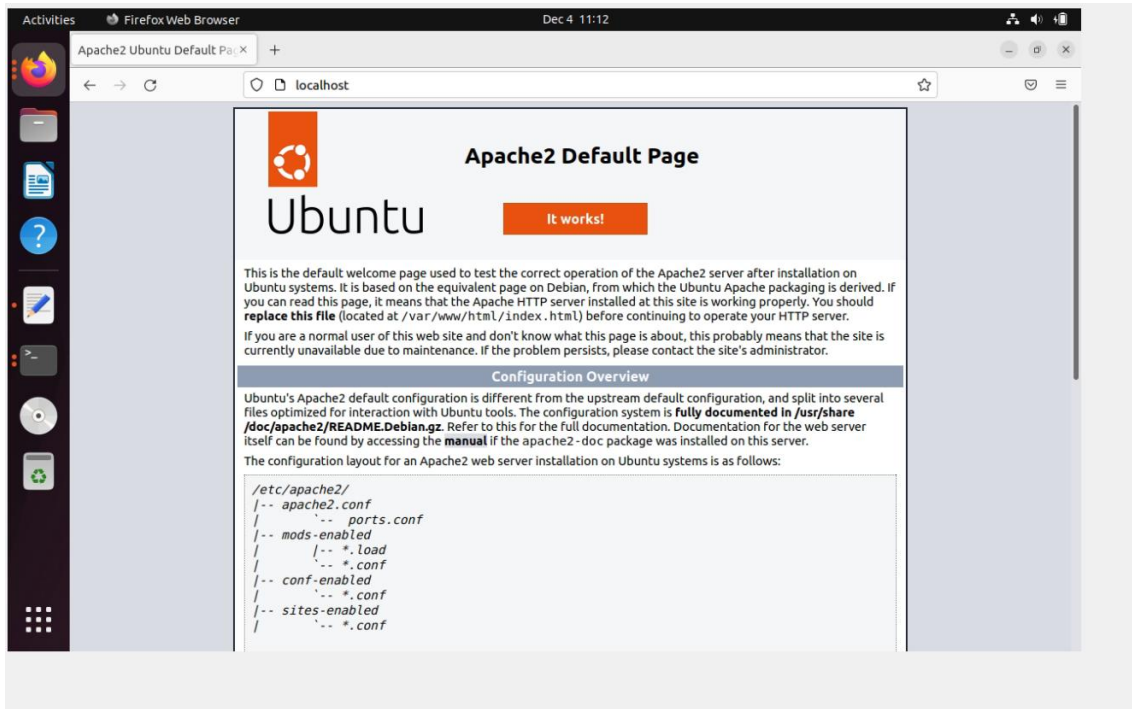


## 1º Instalación de apache2

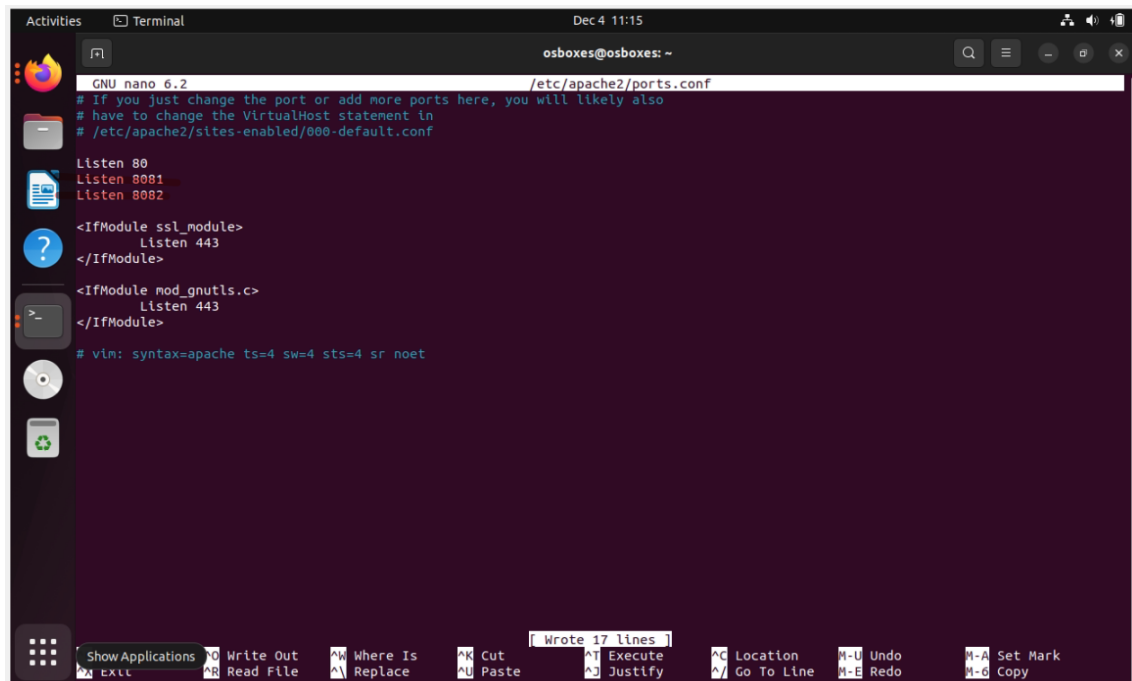
Actualizamos sistema

```
osboxes@osboxes:~$ sudo apt update
```

```
osboxes@osboxes:~$ sudo apt install apache2 -y
```



## 2º Creación de dos virtualhost diferenciados por ip y/o puerto.



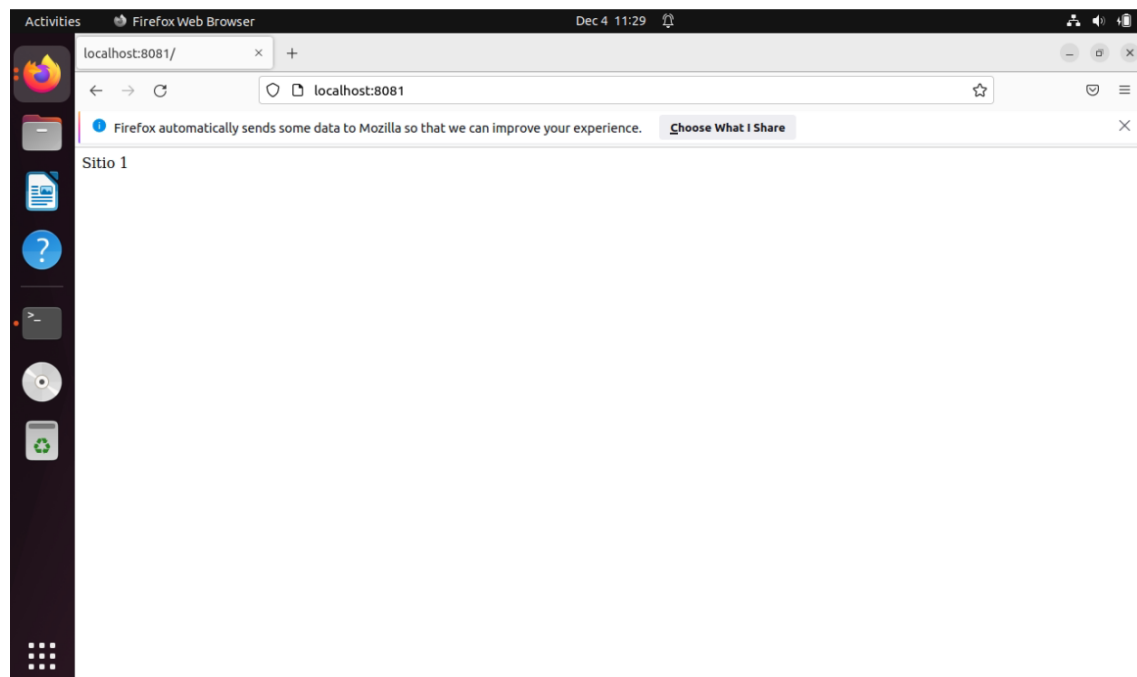
Creamos la configuración

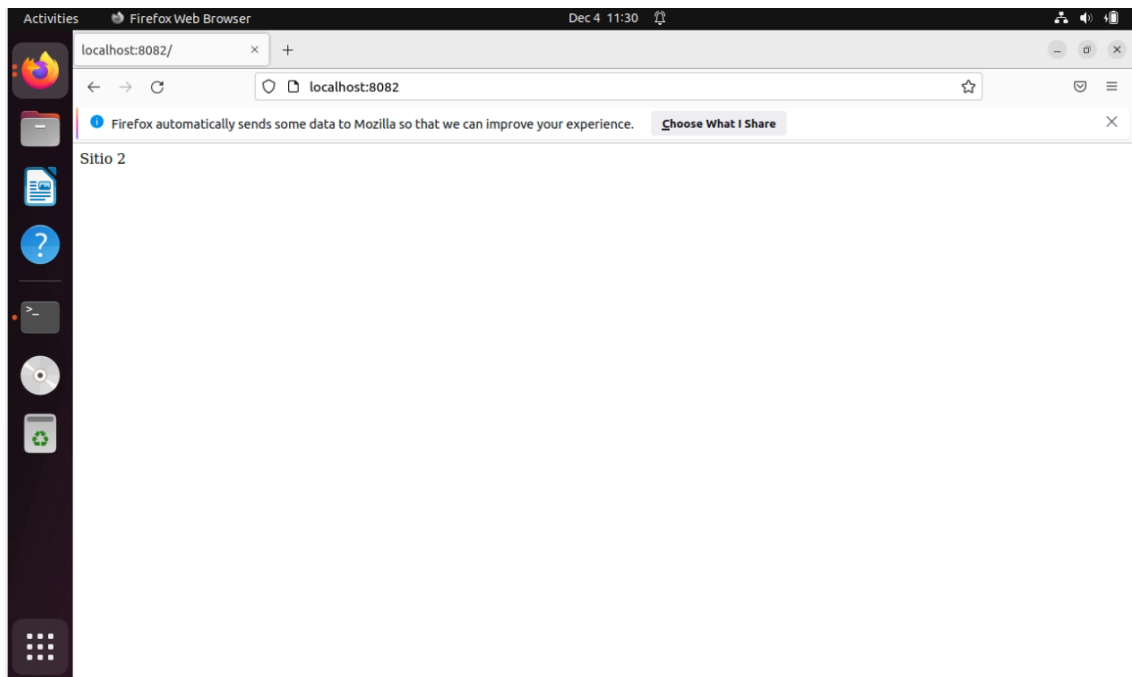
```
GNU nano 6.2 /etc/apache2/sites-available/puertos.conf
<VirtualHost *:8081>
  ServerAdmin admin@localhost
  DocumentRoot /var/www/html/sitio1
</VirtualHost>

<VirtualHost *:8082>
  ServerAdmin admin@localhost
  DocumentRoot /var/www/html/sitio2
</VirtualHost>

[ Read 9 lines ]
^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste      ^J Justify    ^_ Go To Line
```

```
osboxes@osboxes:~$ sudo nano /etc/apache2/sites-available/puertos.conf
osboxes@osboxes:~$ sudo nano /etc/apache2/sites-available/puertos.conf
osboxes@osboxes:~$ sudo mkdir -p /var/www/html/sitio1 /var/www/html/sitio2
osboxes@osboxes:~$ echo "Sitio 1" | sudo tee /var/www/html/sitio1/index.html
Sitio 1
osboxes@osboxes:~$ echo "Sitio 2" | sudo tee /var/www/html/sitio2/index.html
Sitio 2
osboxes@osboxes:~$
```





3º Creación de dos virtualhost diferenciados por nombre de máquina por ejemplo(www.midominio.org y www2.midominio.org)

```
osboxes@osboxes:~$ sudo mkdir -p /var/www/midominio /var/www/midominio2
```

```
osboxes@osboxes:~$ echo "<h1>Web Dominio 1</h1>" | sudo tee /var/www/midominio/index.html
<h1>Web Dominio 1</h1>
osboxes@osboxes:~$ echo "<h1>Web Dominio 2</h1>" | sudo tee /var/www/midominio2/index.html
<h1>Web Dominio 2</h1>
```

```
<VirtualHost *:80>
    ServerName www.midominio.org
    DocumentRoot /var/www/midominio
</VirtualHost>

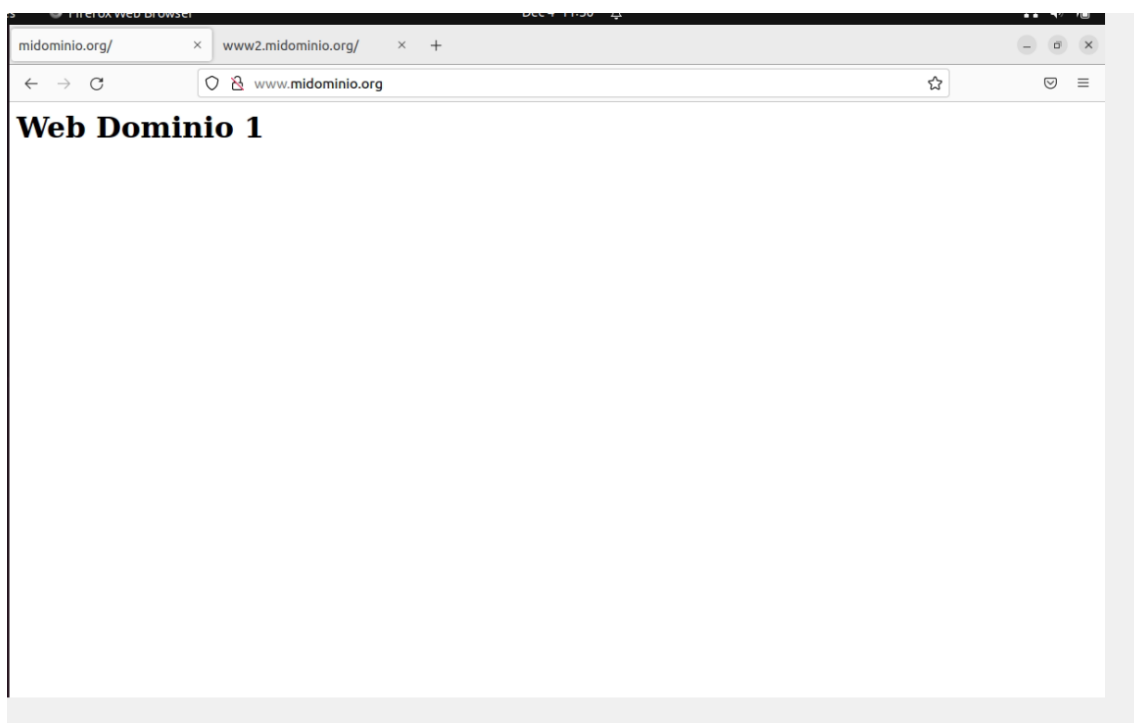
<VirtualHost *:80>
    ServerName www2.midominio.org
    DocumentRoot /var/www/midominio2
</VirtualHost>
```

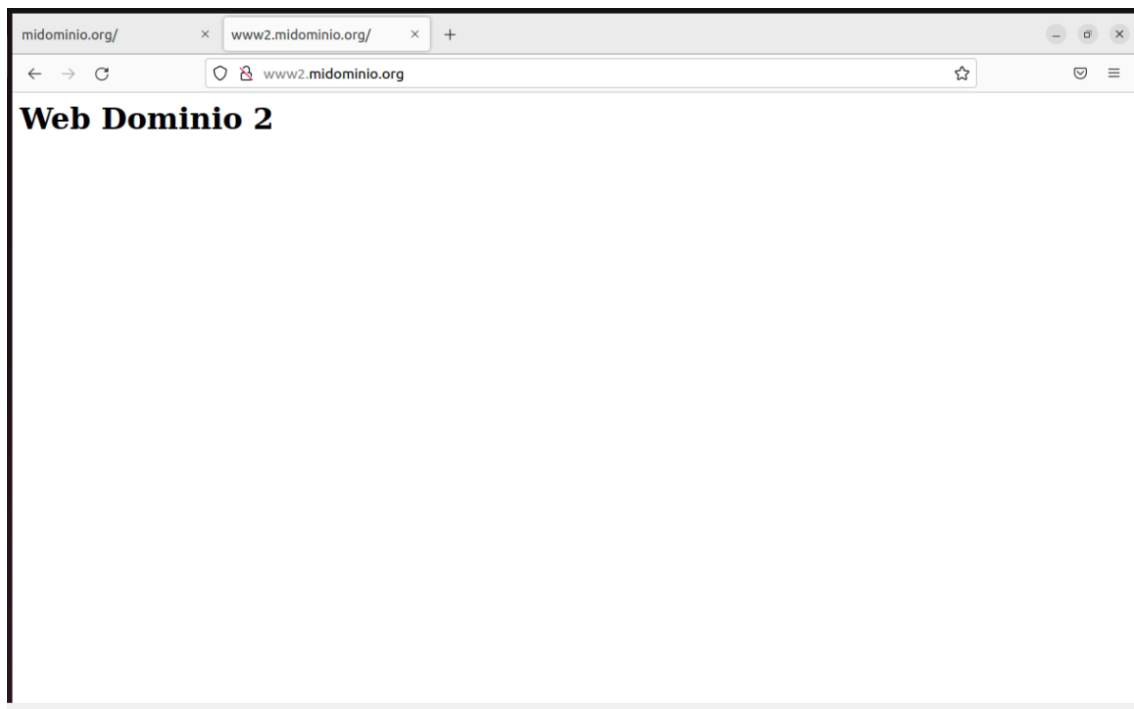
```
sudo a2ensite midominio.conf
```

```
GNU nano 6.2 /etc/hosts
127.0.0.1    localhost
127.0.0.1    www.midominio.org
127.0.0.1    www2.midominio.org

# The following lines are desirable for IPv6 capable hosts
::1         ip6-localhost ip6-loopback
fe00::0     ip6-localnet
ff00::0     ip6-mcastprefix
ff02::1     ip6-allnodes
ff02::2     ip6-allrouters

```





4º En el primer virtualhost del punto anterior, crear dos directorios uno público y otro privado que e acceda por usuario y contraseña

Se crea la estructura Pública y privada.

```
osboxes@osboxes:~$ sudo mkdir -p /var/www/midominio/publico /var/www/midominio/privado
osboxes@osboxes:~$ echo "Area Publica" | sudo tee /var/www/midominio/publico/index.html
Area Publica
osboxes@osboxes:~$ echo "Area Privada" | sudo tee /var/www/midominio/privado/index.html
Area Privada
```

```
osboxes@osboxes:~$ sudo apt install apache2-utils -y
```

Poder utilizar htpasswd para credenciales

Activities Terminal Dec 4 11:53

osboxes@osboxes: ~

```
osboxes@osboxes:~$ sudo apt install apache2-utils -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
apache2-utils is already the newest version (2.4.52-1ubuntu4.16).
apache2-utils set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 648 not upgraded.
osboxes@osboxes:~$ sudo htpasswd -c /etc/apache2/.htpasswd alumno
New password:
Re-type new password:
Adding password for user alumno
osboxes@osboxes:~$
```

Activities Terminal Dec 4 11:58

osboxes@osboxes: ~

GNU nano 6.2 /etc/apache2/sites-available/midominio.conf

```
<VirtualHost *:80>
  ServerName www.midominio.org
  DocumentRoot /var/www/midominio

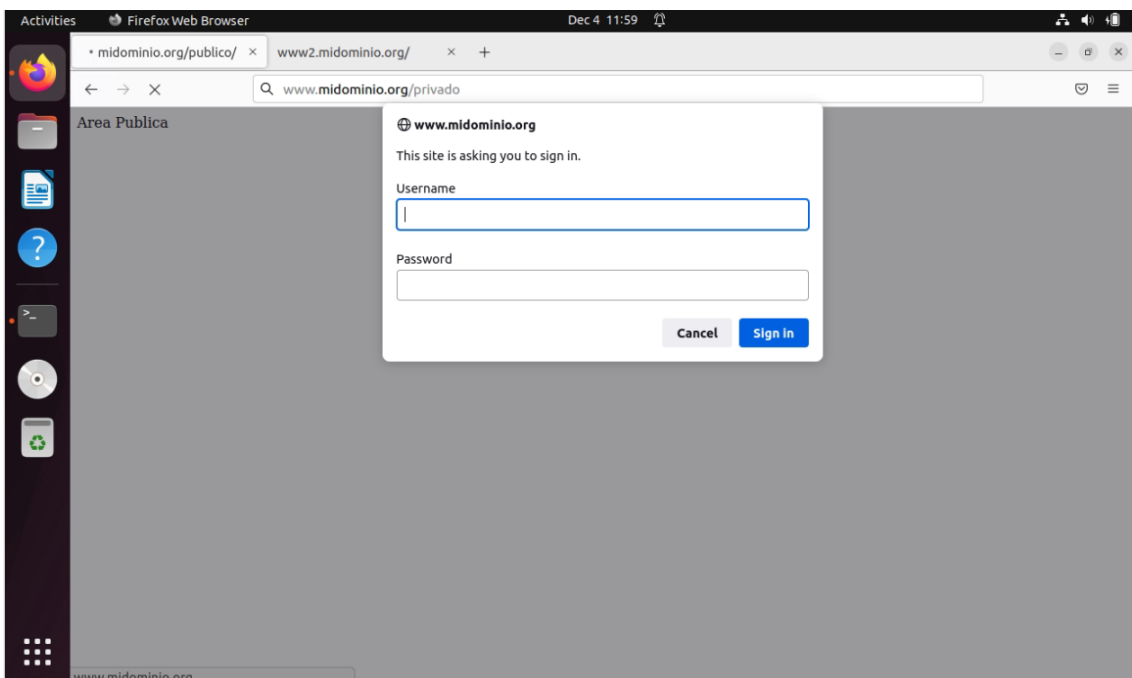
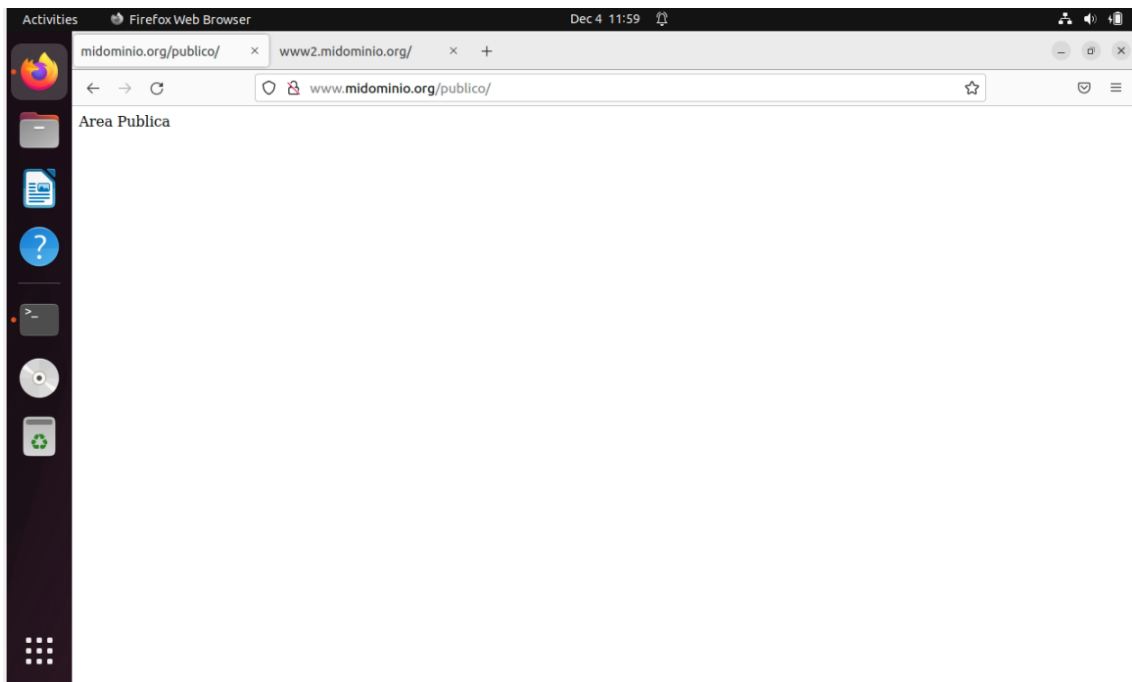
  <Directory /var/www/midominio/privado>
    AuthType Basic
    AuthName "Acceso Restringido"
    AuthUserFile /etc/apache2/.htpasswd
    Require valid-user
  </Directory>

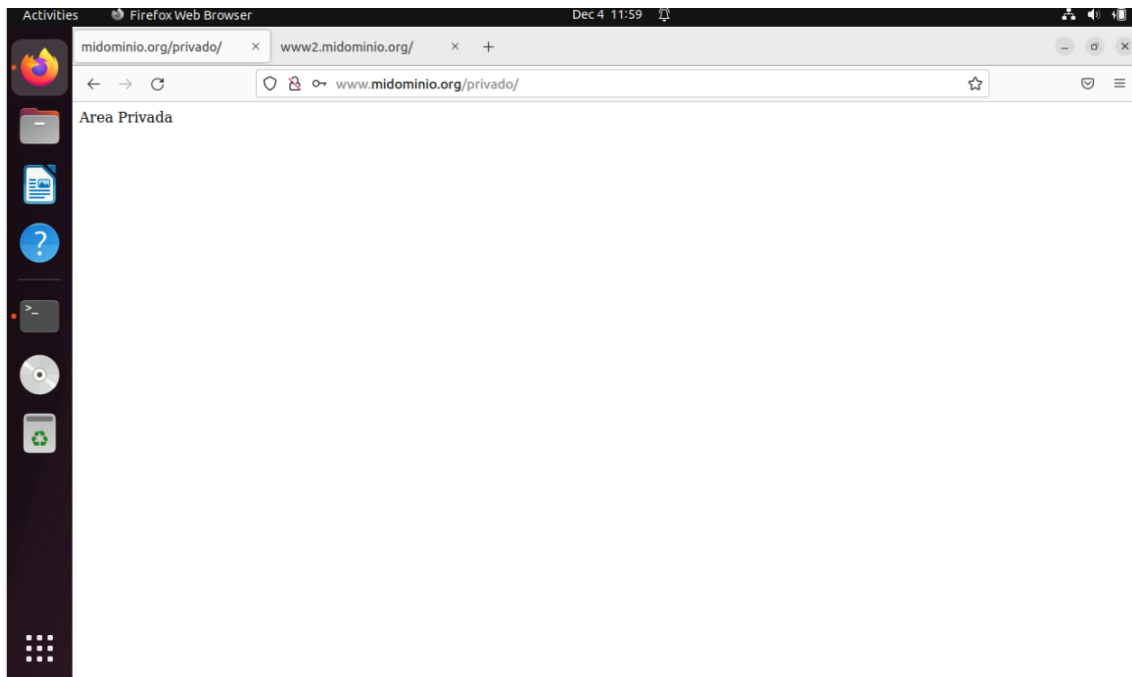
  <Directory /var/www/midominio/publico>
    Options Indexes FollowSymLinks
    AllowOverride All
    Require all granted
  </Directory>
</VirtualHost>

<VirtualHost *:80>
  ServerName www2.midominio.org
  DocumentRoot /var/www/midominio2
</VirtualHost>
```

Wrote 24 lines

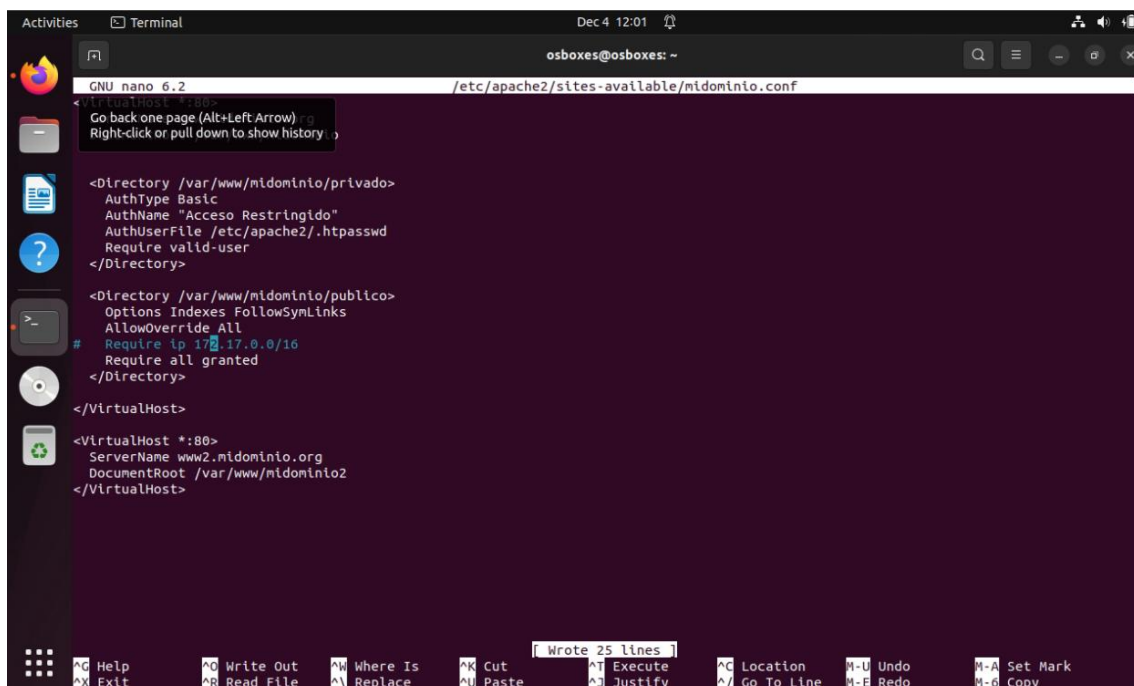
Help	Write Out	Where Is	Cut	Execute	Location	Undo	Set Mark
Exit	Read File	Replace	Paste	Justify	Go To Line	Redo	Copy



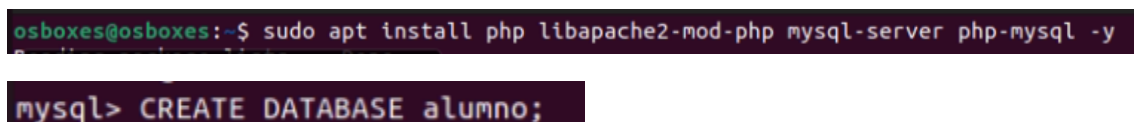


5º Transforma el primer directorio del ejercicio anterior para que sólo se pueda acceder desde la red

172.17.0.0/16(Coméntalo con #)



6º En el virtualhost público tendrás que subir una aplicación php con acceso a base de datos





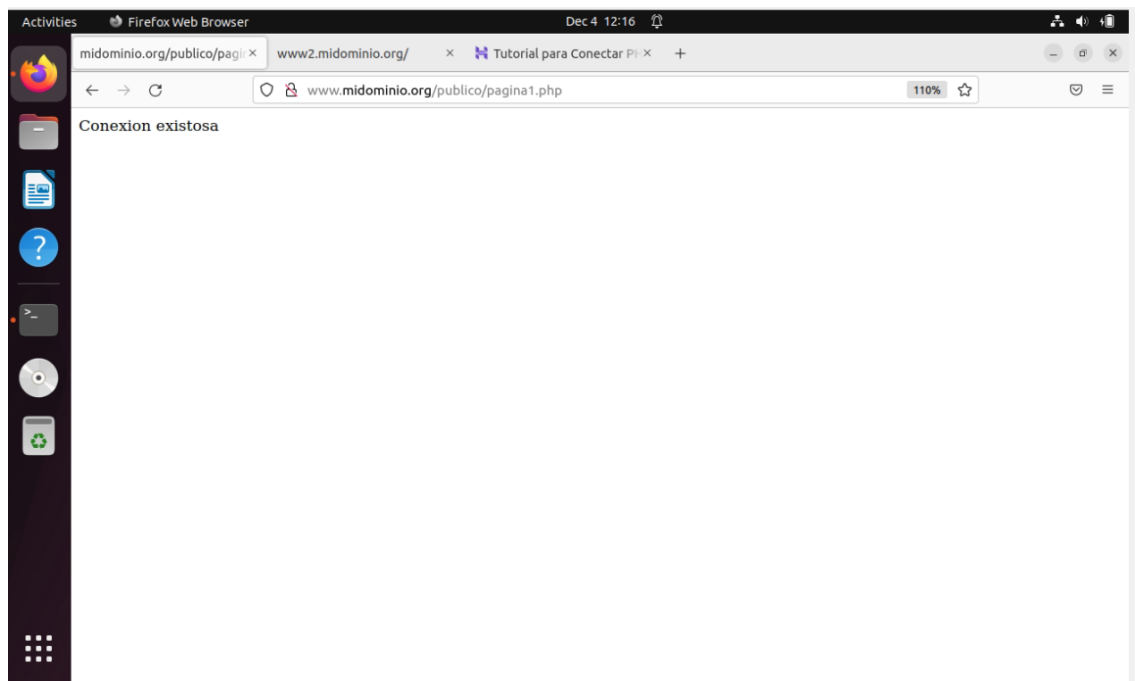
```
mysql> CREATE USER 'usuario'@'localhost' IDENTIFIED BY 'usuario';
Query OK, 0 rows affected (0.05 sec)
```

```
mysql> GRANT ALL PRIVILEGES ON alumno.* TO 'usuario'@'localhost';
Query OK, 0 rows affected (0.01 sec)
```



```
GNU nano 6.2 /var/www/midominio/publico/pagina1.php
<?php
$servername = "localhost";
$dbname = "alumno";
$username = "usuario";
$password = "usuario";
// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}
echo "Conexion existosa";
mysqli_close($conn);
?>
```

Wrote 14 lines



7º Transforma en virtualhost del punto anterior para que sea accesible sólo con el protocolo protegido https



Activities Terminal Dec 4 12:28 root@osboxes: /etc/ssl/private

```
GNU nano 6.2 /etc/apache2/sites-available/midominio.conf
<VirtualHost *:443>
  ServerName www.midominio.org
  DocumentRoot /var/www/midominio

  # SSL Configuración
  SSLEngine on
  SSLCertificateFile /etc/ssl/certs/apache-selfsigned.crt
  SSLCertificateKeyFile /etc/ssl/private/apache-selfsigned.key

  <Directory /var/www/midominio/privado>
    AuthType Basic
    AuthName "Acceso Restringido"
    AuthUserFile /etc/apache2/.htpasswd
    Require valid-user
  </Directory>

  <Directory /var/www/midominio/publico>
    Options Indexes FollowSymLinks
    AllowOverride All
    # Require ip 172.17.0.0/16
    Require all granted
  </Directory>
</VirtualHost>

<VirtualHost *:80>
  ServerName www2.midominio.org
  DocumentRoot /var/www/midominio2
</VirtualHost>
```

Help Exit Write Out Read File Where Is Replace Cut Paste Execute Justify Location Go To Line Undo Redo Set Mark Copy

