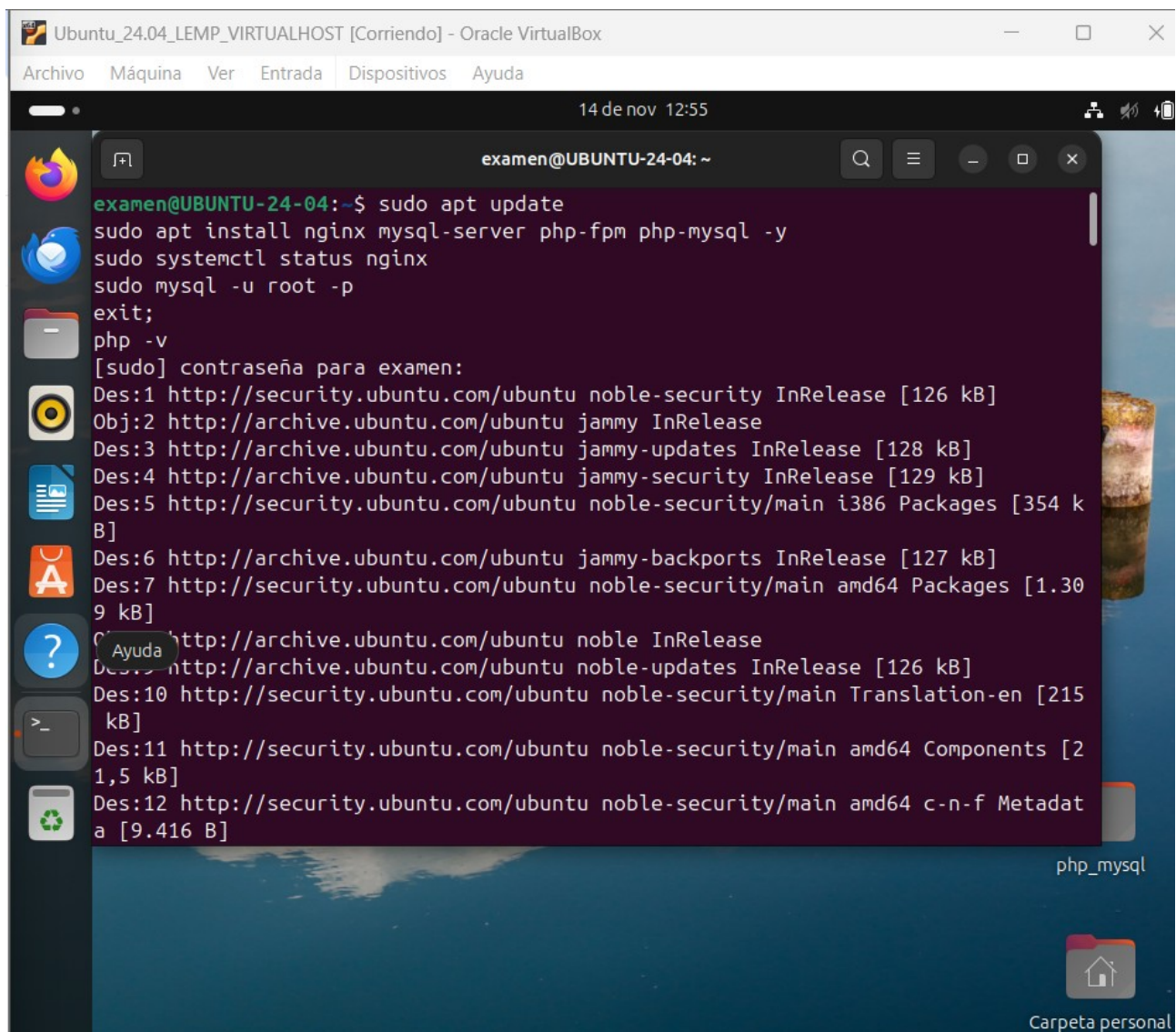


# Instalar Nginx, MySQL y PHP juntos



```
examen@UBUNTU-24-04:~$ sudo apt update
sudo apt install nginx mysql-server php-fpm php-mysql -y
sudo systemctl status nginx
sudo mysql -u root -p
exit;
php -v
[sudo] contraseña para examen:
Des:1 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Obj:2 http://archive.ubuntu.com/ubuntu jammy InRelease
Des:3 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Des:4 http://archive.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Des:5 http://security.ubuntu.com/ubuntu noble-security/main i386 Packages [354 k
B]
Des:6 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]
Des:7 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [1.30
9 kB]
Des:8 http://archive.ubuntu.com/ubuntu noble InRelease
Des:9 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Des:10 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [215
kB]
Des:11 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [2
1,5 kB]
Des:12 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadat
a [9.416 B]
```

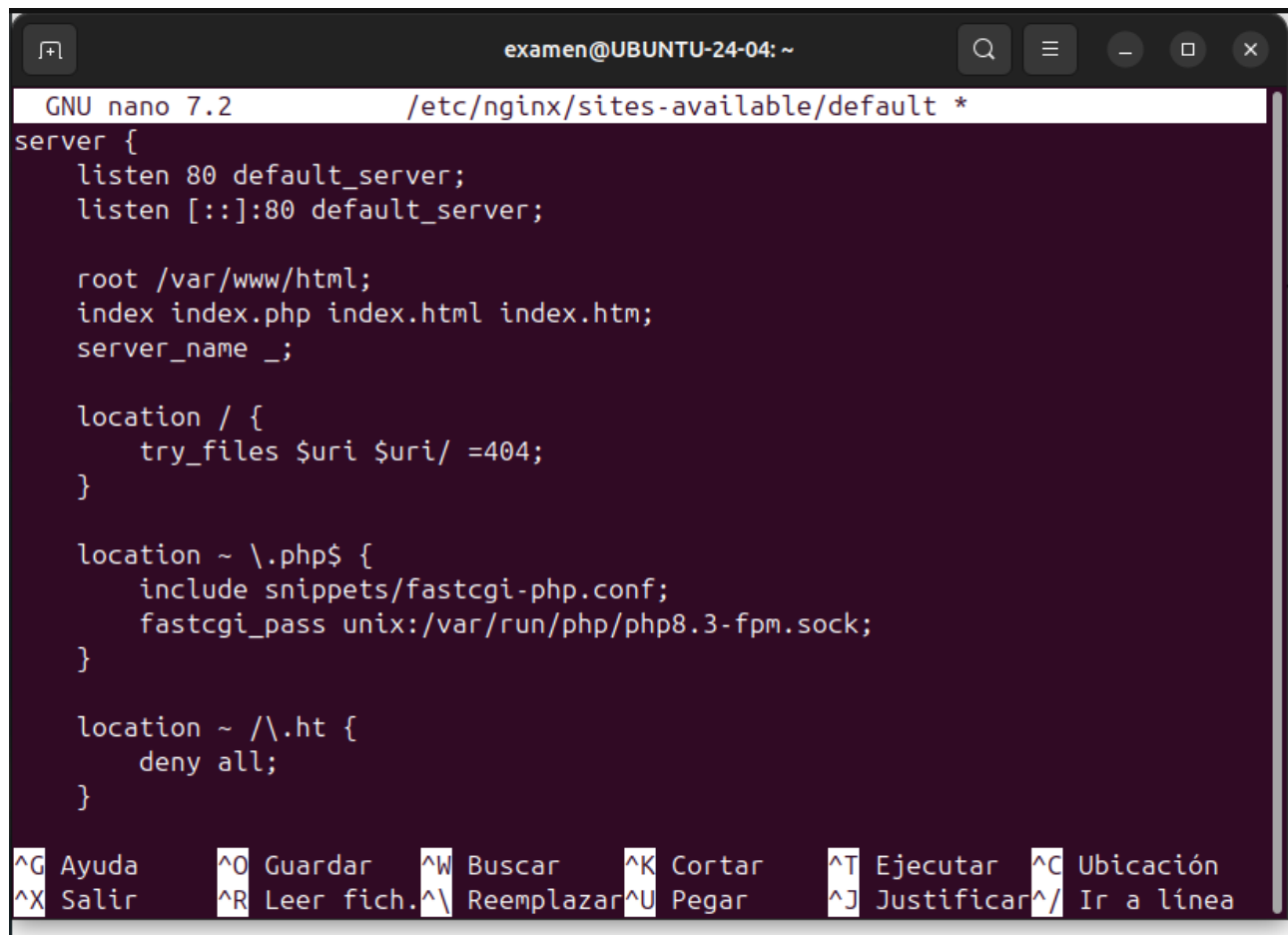
```
mysql> CREATE USER 'phpuser'@'localhost' IDENTIFIED BY 'contraseña123';
Query OK, 0 rows affected (4,71 sec)

mysql> GRANT ALL PRIVILEGES ON *.* TO 'phpuser'@'localhost';
Query OK, 0 rows affected (0,35 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0,23 sec)

mysql> EXIT;
Bye
examen@UBUNTU-24-04:~$ sudo nano /var/www/html/testdb.php
examen@UBUNTU-24-04:~$ soy daniel
```

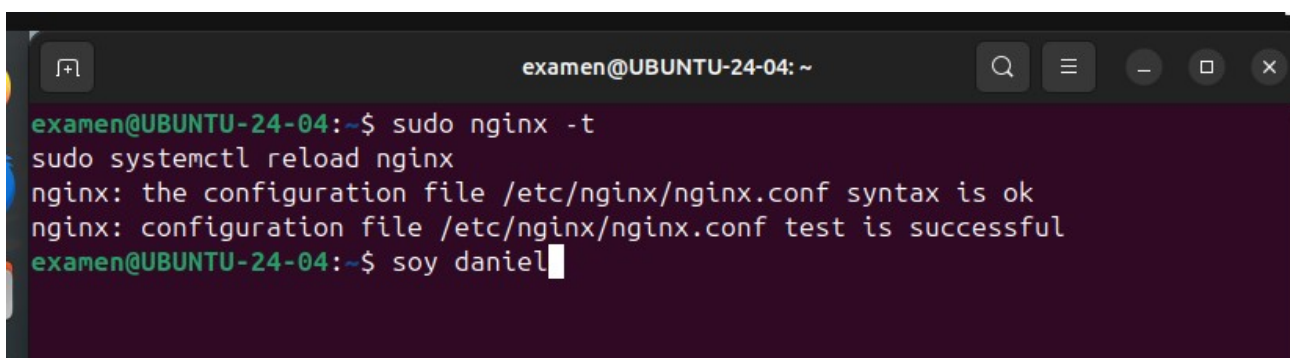
# Configurar Nginx para PHP y recargar



The screenshot shows a terminal window with the nano text editor open at the file `/etc/nginx/sites-available/default`. The configuration file contains the following content:

```
server {  
    listen 80 default_server;  
    listen [::]:80 default_server;  
  
    root /var/www/html;  
    index index.php index.html index.htm;  
    server_name _;  
  
    location / {  
        try_files $uri $uri/ =404;  
    }  
  
    location ~ \.php$ {  
        include snippets/fastcgi-php.conf;  
        fastcgi_pass unix:/var/run/php/php8.3-fpm.sock;  
    }  
  
    location ~ /\.ht {  
        deny all;  
    }  
}
```

At the bottom of the terminal, a nano editor help menu is visible, listing various keyboard shortcuts for navigation and editing.

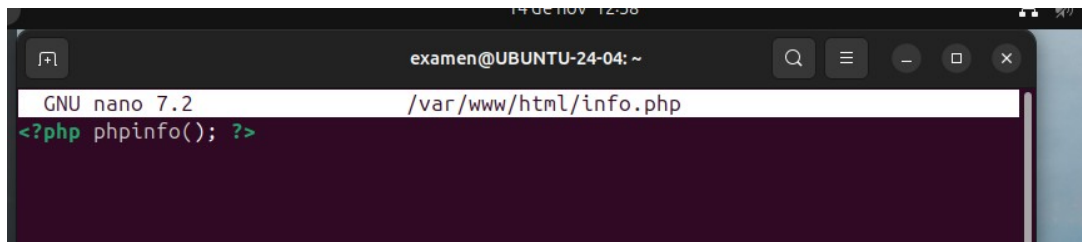


The screenshot shows a terminal window where the following commands have been executed:

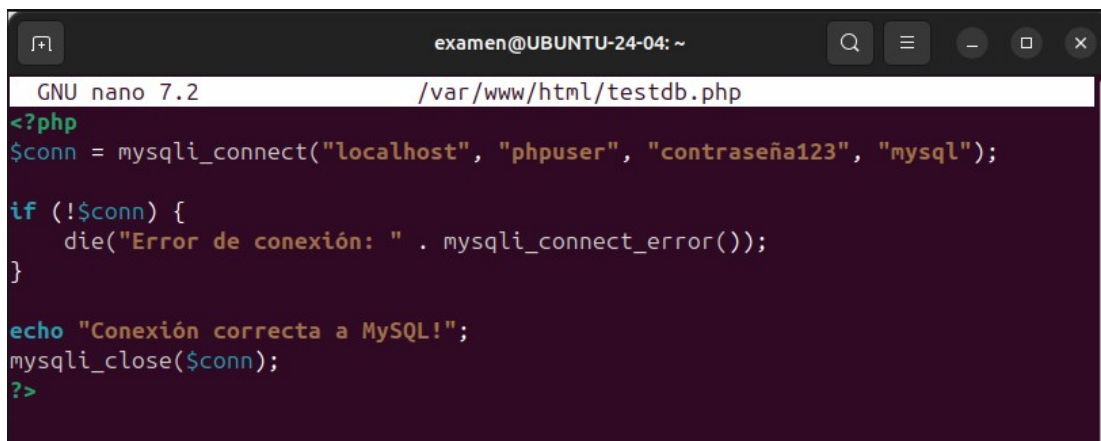
```
examen@UBUNTU-24-04:~$ sudo nginx -t  
sudo systemctl reload nginx  
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok  
nginx: configuration file /etc/nginx/nginx.conf test is successful  
examen@UBUNTU-24-04:~$ soy daniel
```

The output of the `nginx -t` command confirms that the configuration is valid and successful.

## Crear archivos de prueba (PHP y MySQL) y probar



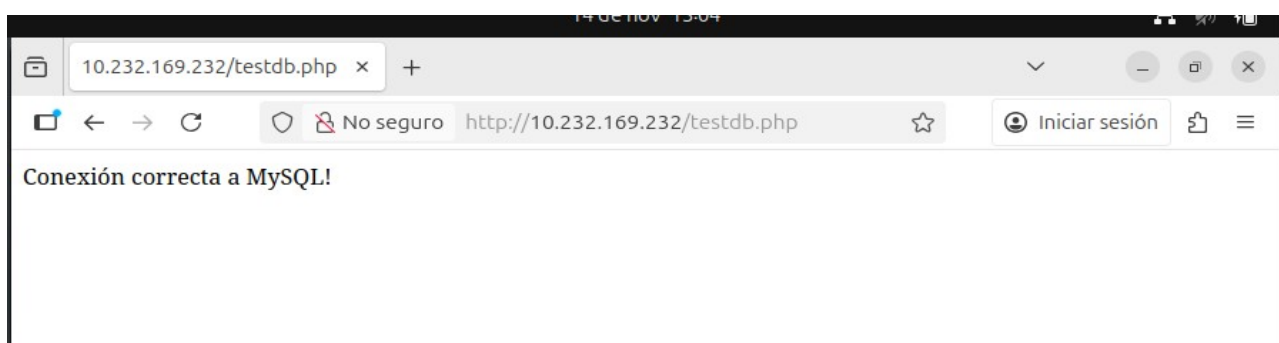
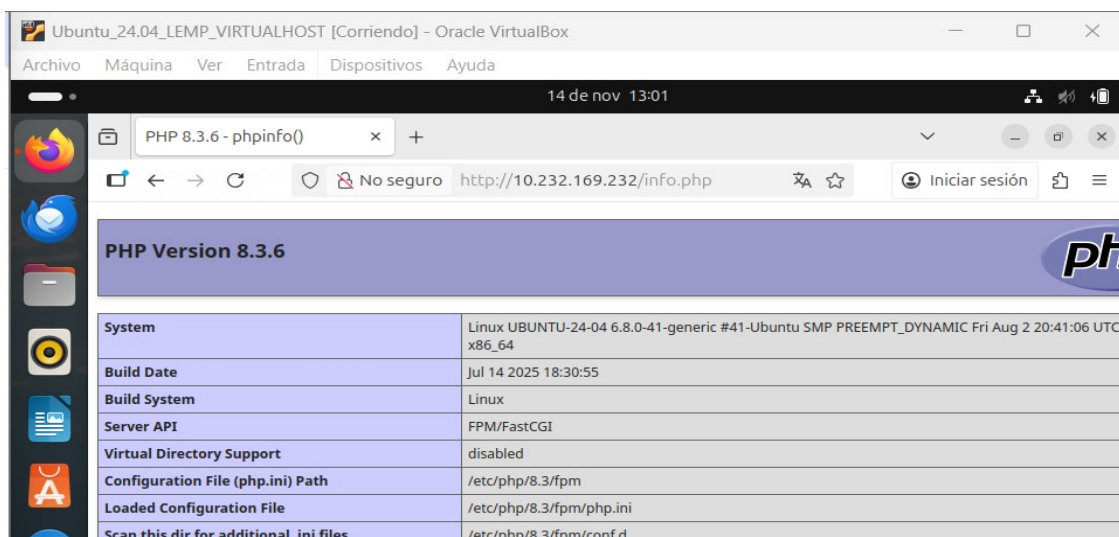
```
GNU nano 7.2 /var/www/html/info.php
<?php phpinfo(); ?>
```



```
GNU nano 7.2 /var/www/html/testdb.php
<?php
$conn = mysqli_connect("localhost", "phpuser", "contraseña123", "mysql");

if (!$conn) {
    die("Error de conexión: " . mysqli_connect_error());
}

echo "Conexión correcta a MySQL!";
mysqli_close($conn);
?>
```



# VIRTUALHSOT EN NGINX

## Crear directorio y archivo de prueba

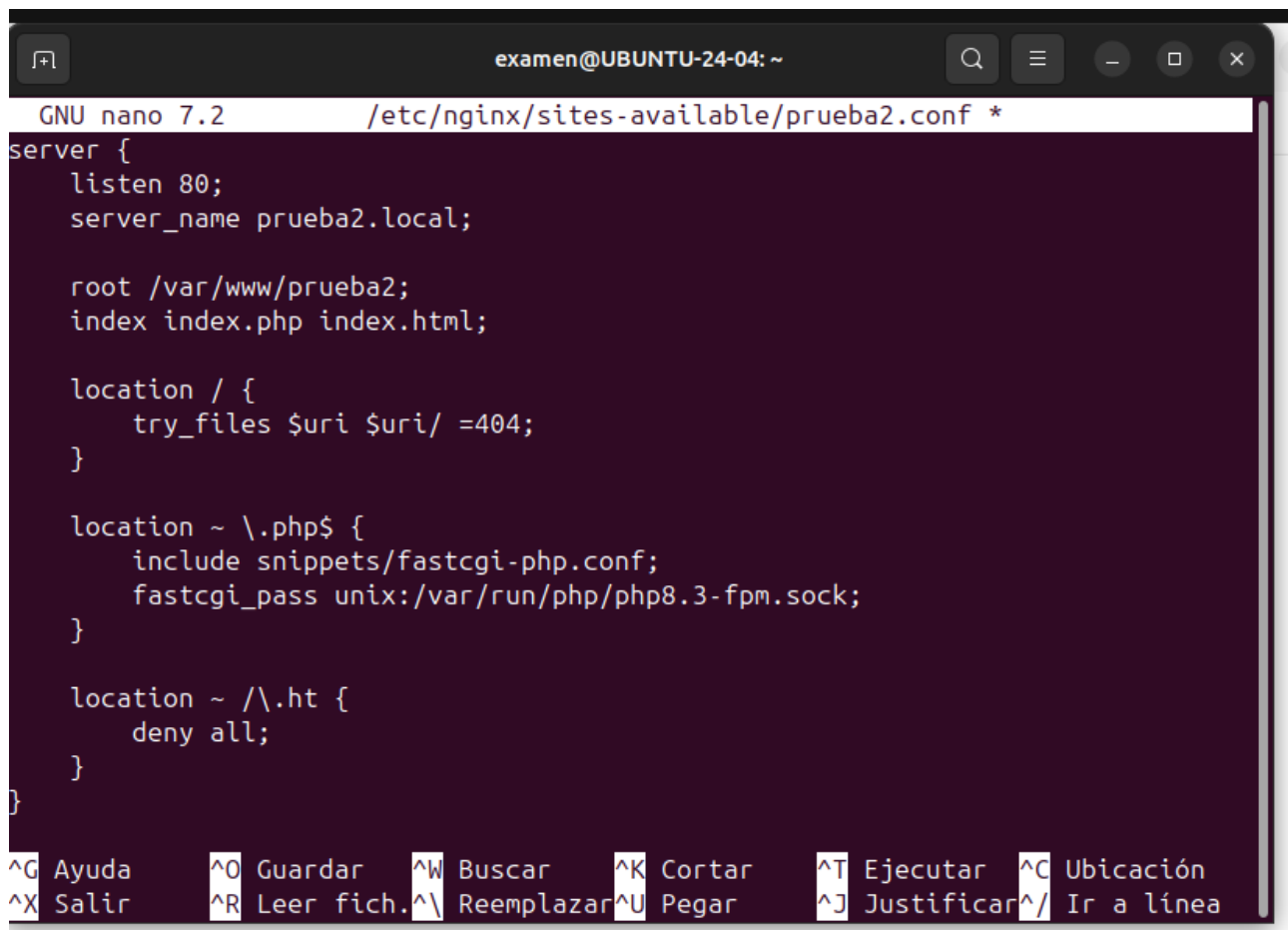
```
examen@UBUNTU-24-04: ~  
examen@UBUNTU-24-04:~$ sudo mkdir -p /var/www/prueba2  
sudo nano /var/www/prueba2/test.php  
examen@UBUNTU-24-04:~$
```

```
GNU nano 7.2 /var/www/prueba2/test.php  
<?php  
echo "<h2>Prueba avanzada de ejecución PHP-FPM</h2>";  
  
$php_version = phpversion();  
echo "<p>Versión de PHP: <strong>$php_version</strong></p>";  
  
if (function_exists('mysqli_connect')) {  
    echo "<p>Extensión MySQLi: disponible ✓</p>";  
} else {  
    echo "<p>Extensión MySQLi: no disponible ✗</p>";  
}  
  
echo "<p>Usuario actual del proceso PHP: <strong>" . get_current_user() . "</strong></p>";  
  
echo "<hr><h3>Variables del entorno:</h3>";  
foreach ($_SERVER as $key => $value) {  
    echo "<strong>$key</strong>: $value<br>";  
}  
?>  
[ 19 líneas leídas ]  
^G Ayuda      ^O Guardar    ^W Buscar     ^K Cortar     ^T Ejecutar   ^C Ubicación  
^X Salir      ^R Leer fich. ^\ Reemplazar  ^U Pegar      ^J Justificar ^_ Ir a línea
```

```
examen@UBUNTU-24-04:~$ sudo chown -R www-data:www-data /var/www/prueba2  
examen@UBUNTU-24-04:~$
```



# Crear archivo de configuración del VirtualHost



```
GNU nano 7.2 /etc/nginx/sites-available/prueba2.conf *
server {
    listen 80;
    server_name prueba2.local;

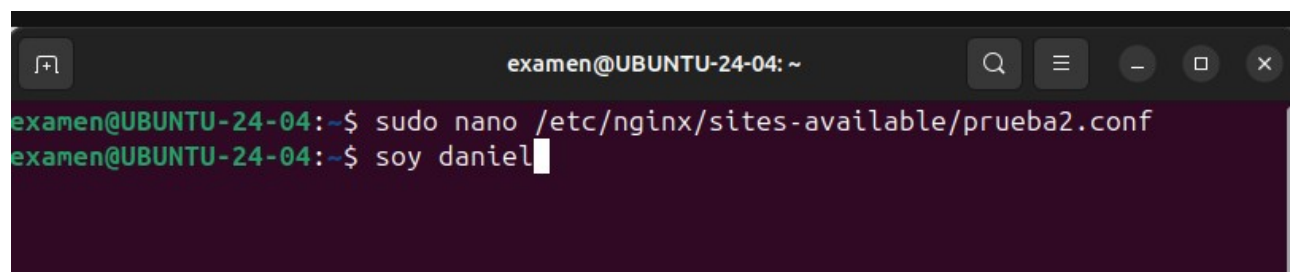
    root /var/www/prueba2;
    index index.php index.html;

    location / {
        try_files $uri $uri/ =404;
    }

    location ~ \.php$ {
        include snippets/fastcgi-php.conf;
        fastcgi_pass unix:/var/run/php/php8.3-fpm.sock;
    }

    location ~ /\.ht {
        deny all;
    }
}
```

^G Ayuda ^O Guardar ^W Buscar ^K Cortar ^T Ejecutar ^C Ubicación  
^X Salir ^R Leer fich. ^\ Reemplazar ^U Pegar ^J Justificar ^/ Ir a línea

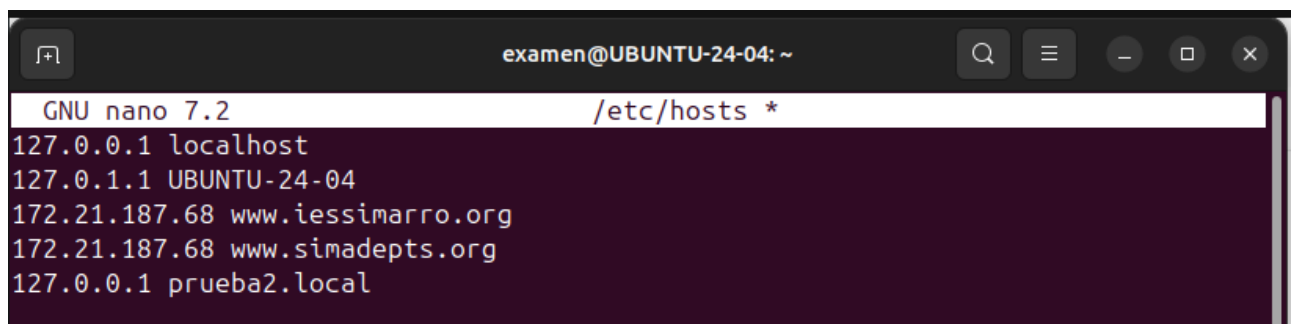


```
examen@UBUNTU-24-04:~$ sudo nano /etc/nginx/sites-available/prueba2.conf
examen@UBUNTU-24-04:~$ soy daniel
```

## Habilitar el VirtualHost y recargar Nginx

```
examen@UBUNTU-24-04:~$ sudo ln -s /etc/nginx/sites-available/prueba2.conf /etc/nginx/sites-enabled/  
sudo nginx -t  
sudo systemctl reload nginx  
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok  
nginx: configuration file /etc/nginx/nginx.conf test is successful  
examen@UBUNTU-24-04:~$ sudo nano /etc/hosts  
examen@UBUNTU-24-04:~$ sudo nano /etc/hosts  
examen@UBUNTU-24-04:~$ soy daniel
```

## Configurar /etc/hosts para probar localmente



The screenshot shows a terminal window with the title 'examen@UBUNTU-24-04: ~'. The nano editor is open to the file '/etc/hosts'. The content of the file is as follows:

```
GNU nano 7.2 /etc/hosts *  
127.0.0.1 localhost  
127.0.1.1 UBUNTU-24-04  
172.21.187.68 www.iessimarro.org  
172.21.187.68 www.simadepts.org  
127.0.0.1 prueba2.local
```



The screenshot shows a web browser window with the address bar displaying 'prueba2.local/test.php'. The page content is as follows:

### Prueba avanzada de ejecución PHP-FPM

Versión de PHP: 8.3.6

Extensión MySQLi: disponible ✓

Usuario actual del proceso PHP: www-data