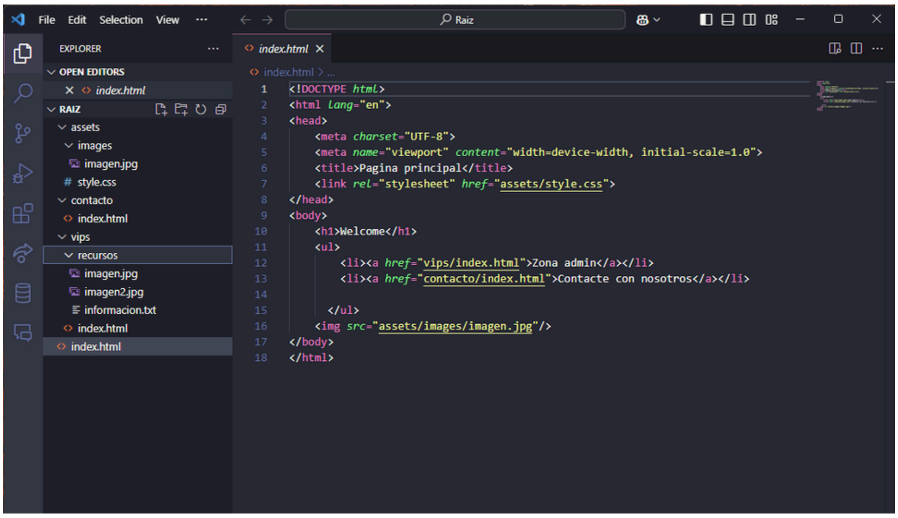
Despliegue aplicaciones web - Anton Blagodarnyy

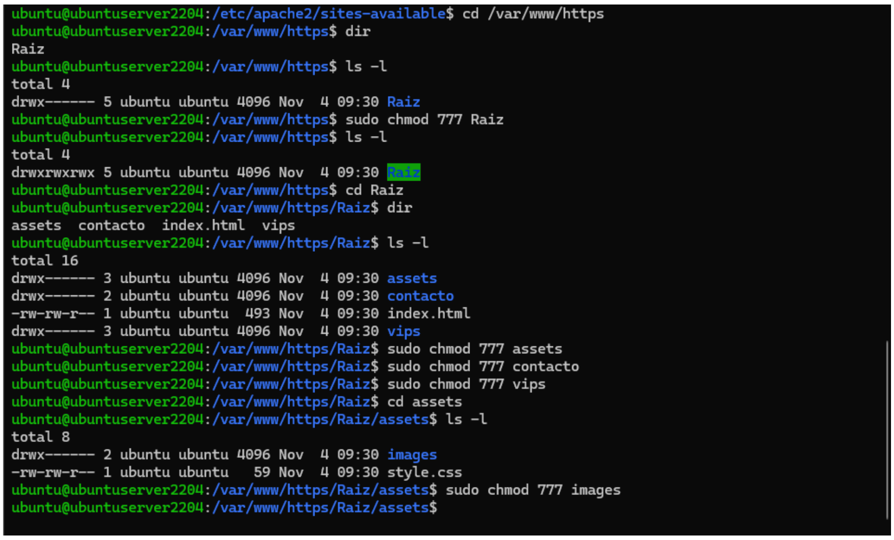
Tarea 3

1.-Creamos la pagina web con su estructura.



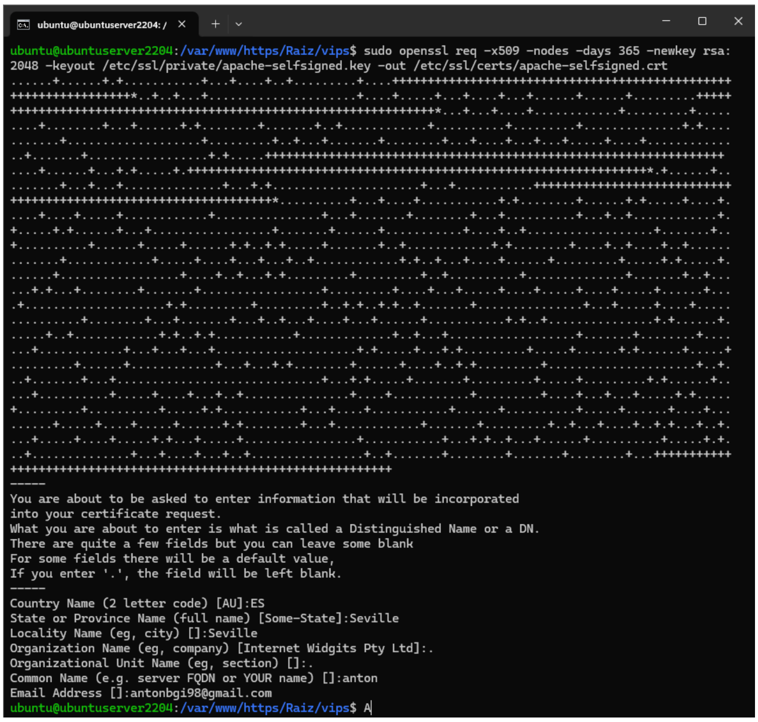
```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Pagina principal</title>
    <link rel="stylesheet" href="assets/style.css">
</head>
<body>
    <h1>Welcome</h1>
    <ul>
        <li><a href="vips/index.html">Zona admin</a></li>
        <li><a href="contacto/index.html">Contacte con nosotros</a></li>

      </ul>
    <img src="assets/images/imagen.jpg"/>
</body>
</html>
```

2.-Habilitamos permisos en todas las carpetas.



```
ubuntu@ubuntuserver2204:/etc/apache2/sites-available$ cd /var/www/https
ubuntu@ubuntuserver2204:/var/www/https$ dir
Raiz
ubuntu@ubuntuserver2204:/var/www/https$ ls -l
total 4
drwx------ 5 ubuntu ubuntu 4096 Nov  4 09:30 Raiz
ubuntu@ubuntuserver2204:/var/www/https$ sudo chmod 777 Raiz
ubuntu@ubuntuserver2204:/var/www/https$ ls -l
total 4
drwxrwxrwx 5 ubuntu ubuntu 4096 Nov  4 09:30 Raiz
ubuntu@ubuntuserver2204:/var/www/https$ cd Raiz
ubuntu@ubuntuserver2204:/var/www/https/Raiz$ dir
assets  contacto  index.html  vips
ubuntu@ubuntuserver2204:/var/www/https/Raiz$ ls -l
total 16
drwx------ 3 ubuntu ubuntu 4096 Nov  4 09:30 assets
drwx------ 2 ubuntu ubuntu 4096 Nov  4 09:30 contacto
-rw-rw-r-- 1 ubuntu ubuntu  493 Nov  4 09:30 index.html
drwx------ 3 ubuntu ubuntu 4096 Nov  4 09:30 vips
ubuntu@ubuntuserver2204:/var/www/https/Raiz$ sudo chmod 777 assets
ubuntu@ubuntuserver2204:/var/www/https/Raiz$ sudo chmod 777 contacto
ubuntu@ubuntuserver2204:/var/www/https/Raiz$ sudo chmod 777 vips
ubuntu@ubuntuserver2204:/var/www/https/Raiz$ cd assets
ubuntu@ubuntuserver2204:/var/www/https/Raiz/assets$ ls -l
total 8
drwx------ 2 ubuntu ubuntu 4096 Nov  4 09:30 images
-rw-rw-r-- 1 ubuntu ubuntu   59 Nov  4 09:30 style.css
ubuntu@ubuntuserver2204:/var/www/https/Raiz/assets$ sudo chmod 777 images
ubuntu@ubuntuserver2204:/var/www/https/Raiz/assets$
```

3.-Creamos el certificado de seguridad.



```
ubuntu@ubuntuserver2204:/var/www/https/Raiz/vips$ sudo openssl req -x509 -nodes -days 365 -newkey rsa:
2048 -keyout /etc/ssl/private/apache-selfsigned.key -out /etc/ssl/certs/apache-selfsigned.crt
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-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:ES
State or Province Name (full name) [Some-State]:Seville
Locality Name (eg, city) []:Seville
Organization Name (eg, company) [Internet Widgits Pty Ltd]:.
Organizational Unit Name (eg, section) []:.
Common Name (e.g. server FQDN or YOUR name) []:anton
Email Address []:antonbgi98@gmail.com
ubuntu@ubuntuserver2204:/var/www/https/Raiz/vips$ A
```
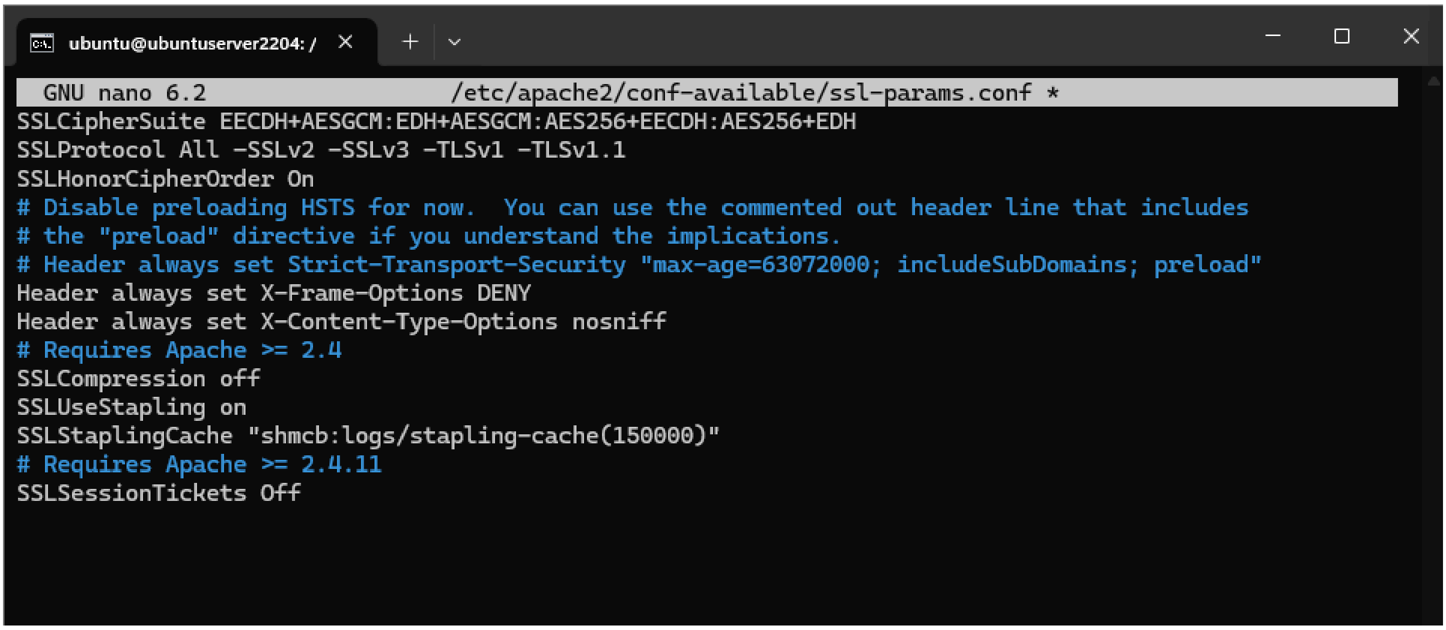
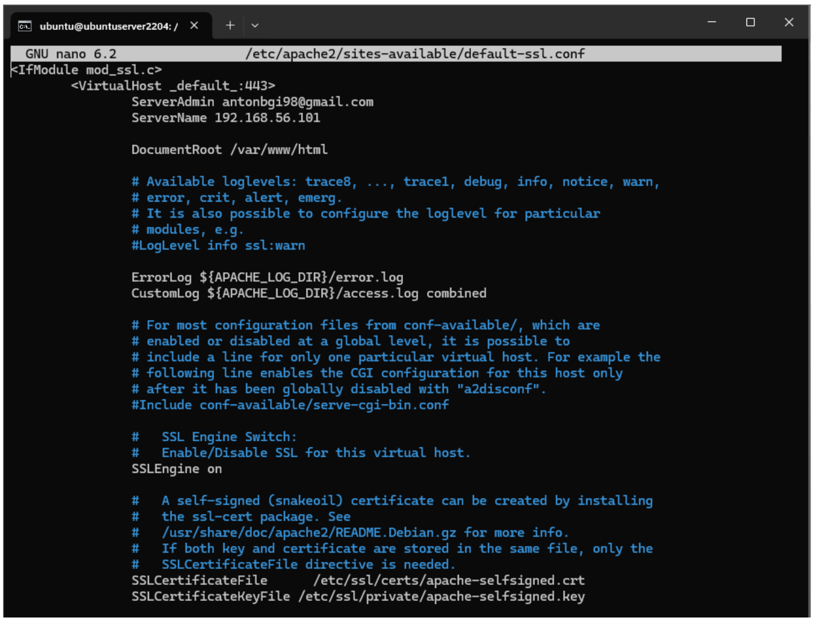

4.-Habilitamos la configuracion del certificado en ssl-params.conf.



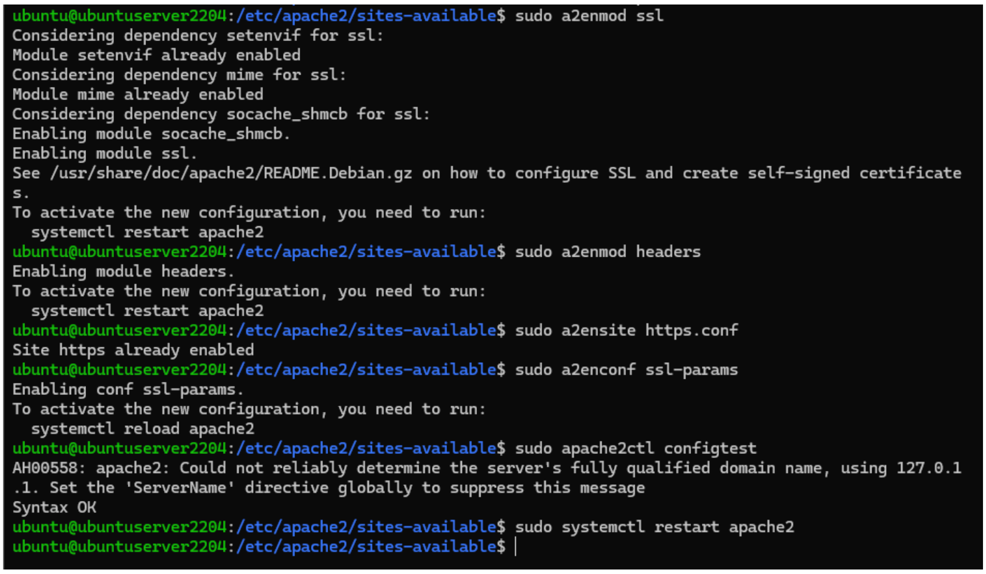
```
  GNU nano 6.2                /etc/apache2/conf-available/ssl-params.conf *
SSLCipherSuite EECDH+AESGCM:EDH+AESGCM:AES256+EECDH:AES256+EDH
SSLProtocol All -SSLv2 -SSLv3 -TLSv1 -TLSv1.1
SSLHonorCipherOrder On
# Disable preloading HSTS for now.  You can use the commented out header line that includes
# the "preload" directive if you understand the implications.
# Header always set Strict-Transport-Security "max-age=63072000; includeSubDomains; preload"
Header always set X-Frame-Options DENY
Header always set X-Content-Type-Options nosniff
# Requires Apache >= 2.4
SSLCompression off
SSLUseStapling on
SSLStaplingCache "shmcb:logs/stapling-cache(150000)"
# Requires Apache >= 2.4.11
SSLSessionTickets Off
```

5.-Habilitamos la configuracion de default.ssl.conf



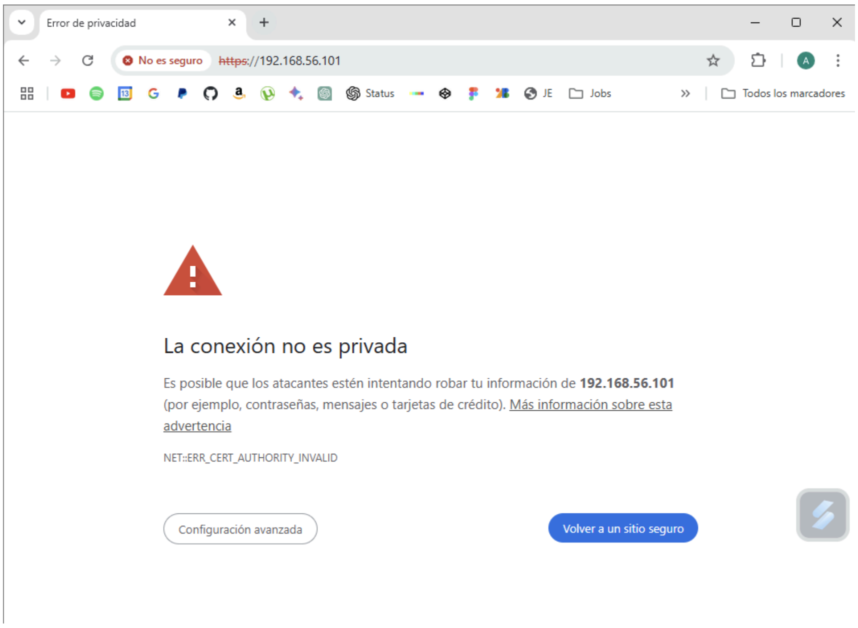
```
  GNU nano 6.2                /etc/apache2/sites-available/default-ssl.conf
<IfModule mod_ssl.c>
        <VirtualHost _default_:443>
                ServerAdmin antonbgi98@gmail.com
                ServerName 192.168.56.101

                DocumentRoot /var/www/html

                # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
                # error, crit, alert, emerg.
                # It is also possible to configure the loglevel for particular
                # modules, e.g.
                #LogLevel info ssl:warn

                ErrorLog ${APACHE_LOG_DIR}/error.log
                CustomLog ${APACHE_LOG_DIR}/access.log combined

                # For most configuration files from conf-available/, which are
                # enabled or disabled at a global level, it is possible to
                # include a line for only one particular virtual host. For example the
                # following line enables the CGI configuration for this host only
                # after it has been globally disabled with "a2disconf".
                #Include conf-available/serve-cgi-bin.conf

                #   SSL Engine Switch:
                #   Enable/Disable SSL for this virtual host.
                SSLEngine on

                #   A self-signed (snakeoil) certificate can be created by installing
                #   the ssl-cert package. See
                #   /usr/share/doc/apache2/README.Debian.gz for more info.
                #   If both key and certificate are stored in the same file, only the
                #   SSLCertificateFile directive is needed.
                SSLCertificateFile      /etc/ssl/certs/apache-selfsigned.crt
                SSLCertificateKeyFile /etc/ssl/private/apache-selfsigned.key
```

6.-Habilitamos los distintos modulos.



```
ubuntu@ubuntuserver2204:/etc/apache2/sites-available$ sudo a2enmod ssl
Considering dependency setenvif for ssl:
Module setenvif already enabled
Considering dependency mime for ssl:
Module mime already enabled
Considering dependency socache_shmcb for ssl:
Enabling module socache_shmcb.
Enabling module ssl.
See /usr/share/doc/apache2/README.Debian.gz on how to configure SSL and create self-signed certificate
s.
To activate the new configuration, you need to run:
  systemctl restart apache2
ubuntu@ubuntuserver2204:/etc/apache2/sites-available$ sudo a2enmod headers
Enabling module headers.
To activate the new configuration, you need to run:
  systemctl restart apache2
ubuntu@ubuntuserver2204:/etc/apache2/sites-available$ sudo a2ensite https.conf
Site https already enabled
ubuntu@ubuntuserver2204:/etc/apache2/sites-available$ sudo a2enconf ssl-params
Enabling conf ssl-params.
To activate the new configuration, you need to run:
  systemctl reload apache2
ubuntu@ubuntuserver2204:/etc/apache2/sites-available$ sudo apache2ctl configtest
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.1
.1. Set the 'ServerName' directive globally to suppress this message
Syntax OK
ubuntu@ubuntuserver2204:/etc/apache2/sites-available$ sudo systemctl restart apache2
ubuntu@ubuntuserver2204:/etc/apache2/sites-available$ 
```

7.-Podemos ver que al acceder a la pagina el certificado al ser creado de forma local no se reconoce por el navegador.

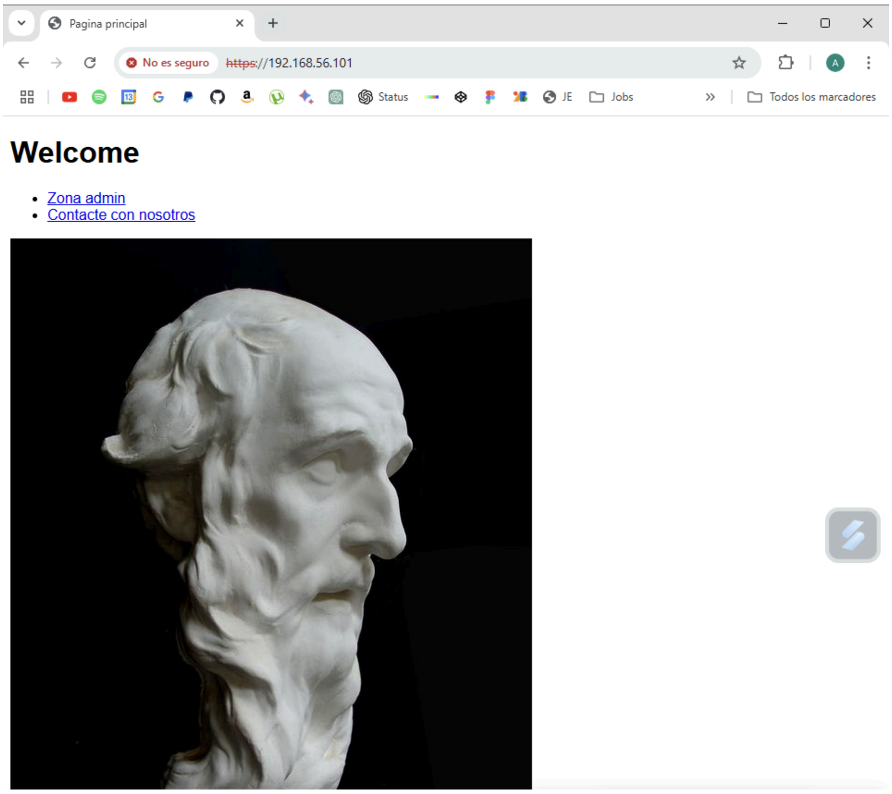


La conexión no es privada

Es posible que los atacantes estén intentando robar tu información de **192.168.56.101** (por ejemplo, contraseñas, mensajes o tarjetas de crédito). Más información sobre esta advertencia

NET::ERR_CERT_AUTHORITY_INVALID

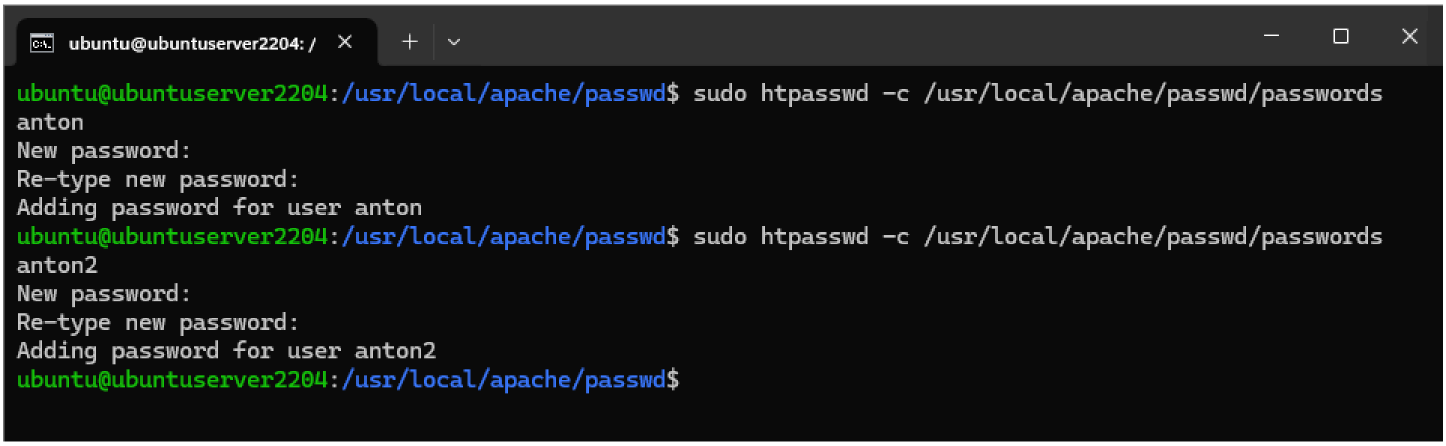
8.-Al aceptar la entrada en el sitio web nos permite el acceso.



Welcome

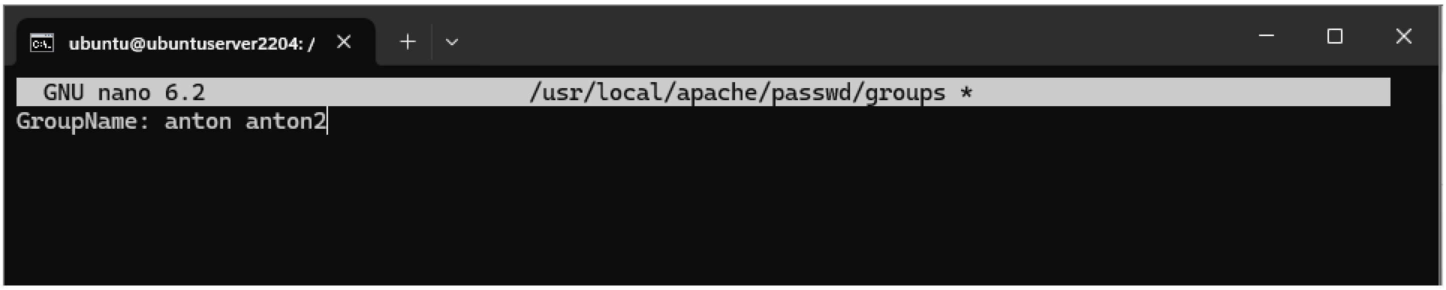
- Zona admin
- Contacte con nosotros

9.-Creamos 2 nuevos usuarios.



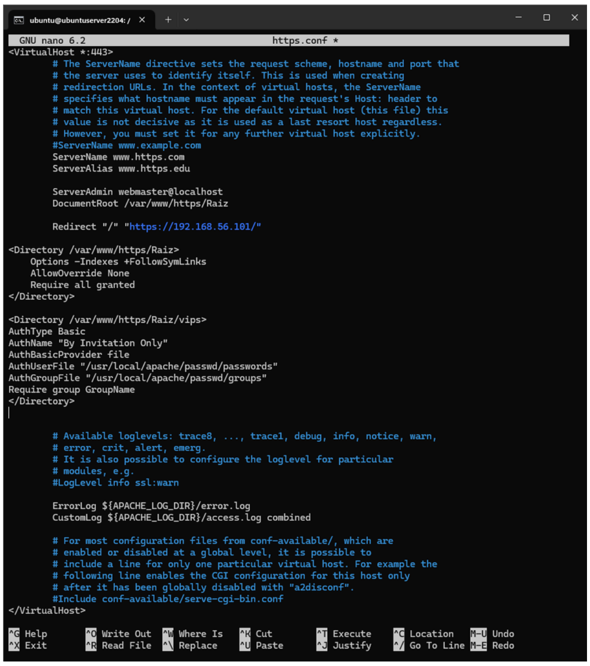
```
ubuntu@ubuntuserver2204:/usr/local/apache/passwd$ sudo htpasswd -c /usr/local/apache/passwd/passwords
anton
New password:
Re-type new password:
Adding password for user anton
ubuntu@ubuntuserver2204:/usr/local/apache/passwd$ sudo htpasswd -c /usr/local/apache/passwd/passwords
anton2
New password:
Re-type new password:
Adding password for user anton2
ubuntu@ubuntuserver2204:/usr/local/apache/passwd$
```

10.-Los agregamos al grupo GroupName.



```
  GNU nano 6.2                        /usr/local/apache/passwd/groups *
GroupName: anton anton2
```

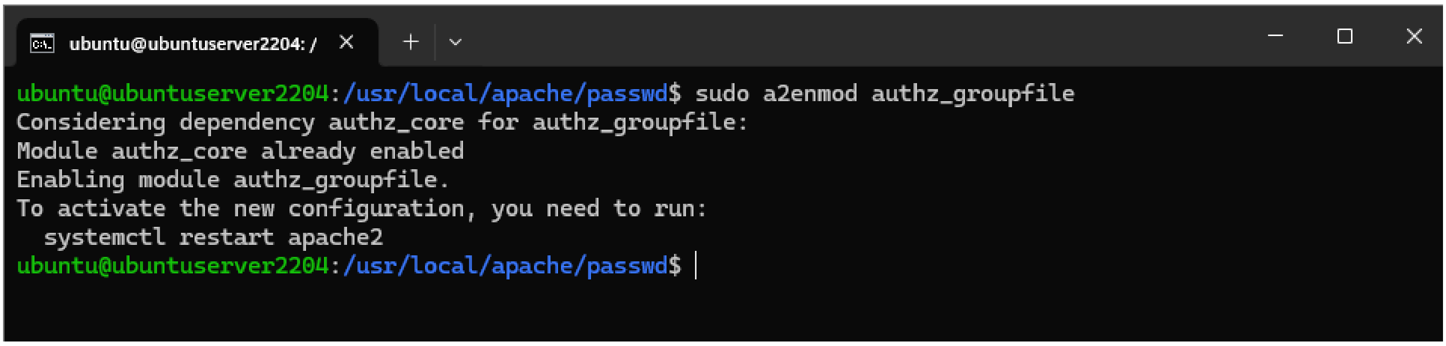
11.-Configuramos la pagina web con el indexado de contenidos y la solicitud de la contraseña.



```
<VirtualHost *:443>
        # The ServerName directive sets the request scheme, hostname and port that
        # the server uses to identify itself. This is used when creating
        # redirection URLs. In the context of virtual hosts, the ServerName
        # specifies what hostname must appear in the request's Host: header to
        # match this virtual host. For the default virtual host (this file) this
        # value is not decisive as it is used as a last resort host regardless.
        # However, you must set it for any further virtual host explicitly.
        #ServerName www.example.com
        ServerName www.https.com
        ServerAlias www.https.edu

        ServerAdmin webmaster@localhost
        DocumentRoot /var/www/https/Raiz

        Redirect "/" "https://192.168.56.101/"

<Directory /var/www/https/Raiz>
    Options -Indexes +FollowSymLinks
    AllowOverride None
    Require all granted
</Directory>

<Directory /var/www/https/Raiz/vips>
AuthType Basic
AuthName "By Invitation Only"
AuthBasicProvider file
AuthUserFile "/usr/local/apache/passwd/passwords"
AuthGroupFile "/usr/local/apache/passwd/groups"
Require group GroupName
</Directory>


        # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
        # error, crit, alert, emerg.
        # It is also possible to configure the loglevel for particular
        # modules, e.g.
        #LogLevel info ssl:warn

        ErrorLog ${APACHE_LOG_DIR}/error.log
        CustomLog ${APACHE_LOG_DIR}/access.log combined

        # For most configuration files from conf-available/, which are
        # enabled or disabled at a global level, it is possible to
        # include a line for only one particular virtual host. For example the
        # following line enables the CGI configuration for this host only
        # after it has been globally disabled with "a2disconf".
        #Include conf-available/serve-cgi-bin.conf
</VirtualHost>
```

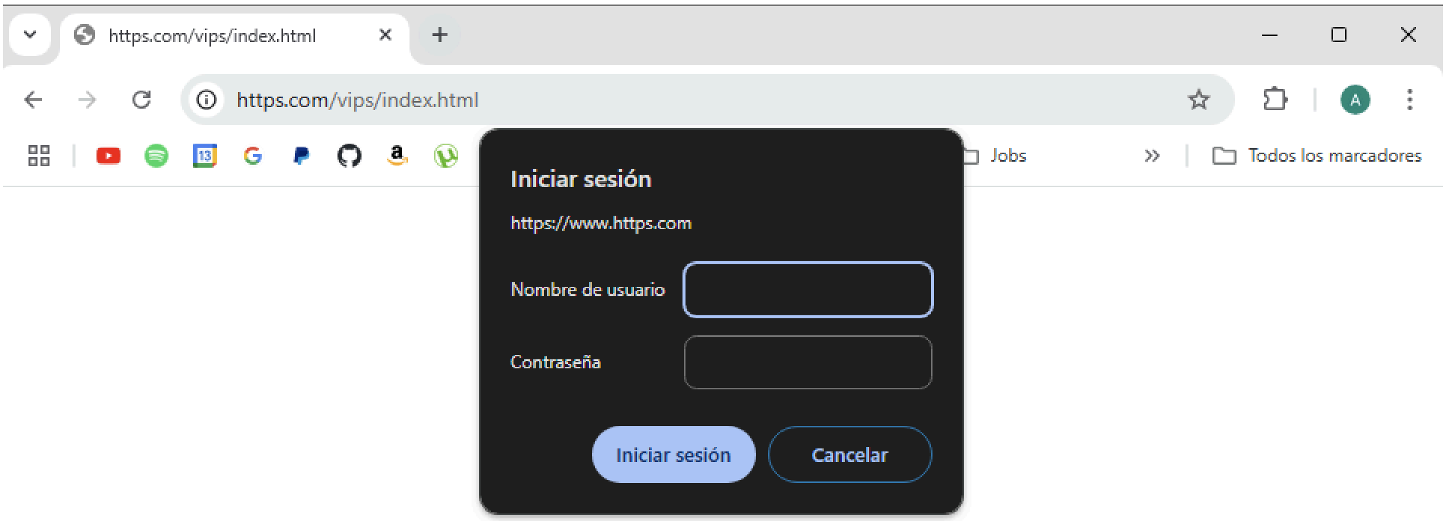
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo

12.-Habilitamos el modulo para poder usar el grupo.



```
ubuntu@ubuntuserver2204:/usr/local/apache/passwd$ sudo a2enmod authz_groupfile
Considering dependency authz_core for authz_groupfile:
Module authz_core already enabled
Enabling module authz_groupfile.
To activate the new configuration, you need to run:
  systemctl restart apache2
ubuntu@ubuntuserver2204:/usr/local/apache/passwd$
```

13.-Podemos ver que pide usuario y contraseña.



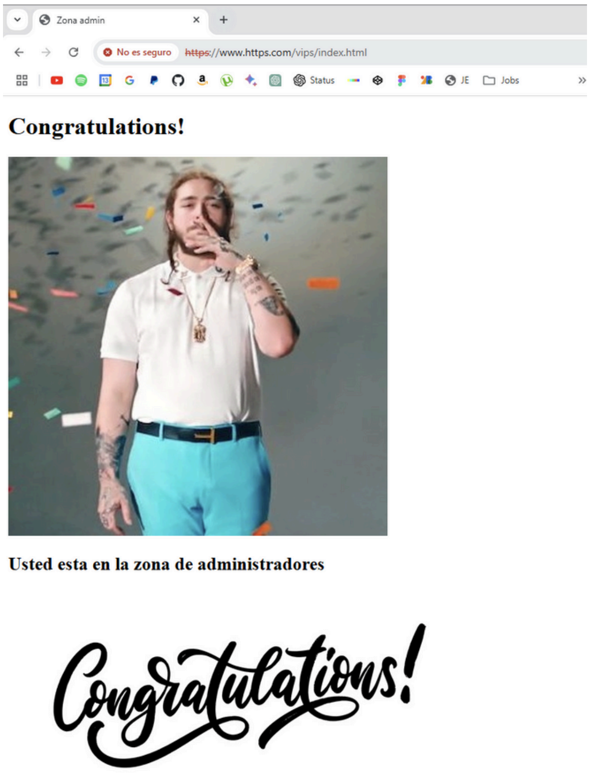
Iniciar sesión

https://www.https.com

Nombre de usuario

Contraseña

14.-Podemos ver que la pagina se abre.

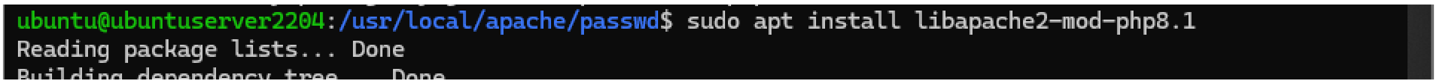


Congratulations!

Usted esta en la zona de administradores

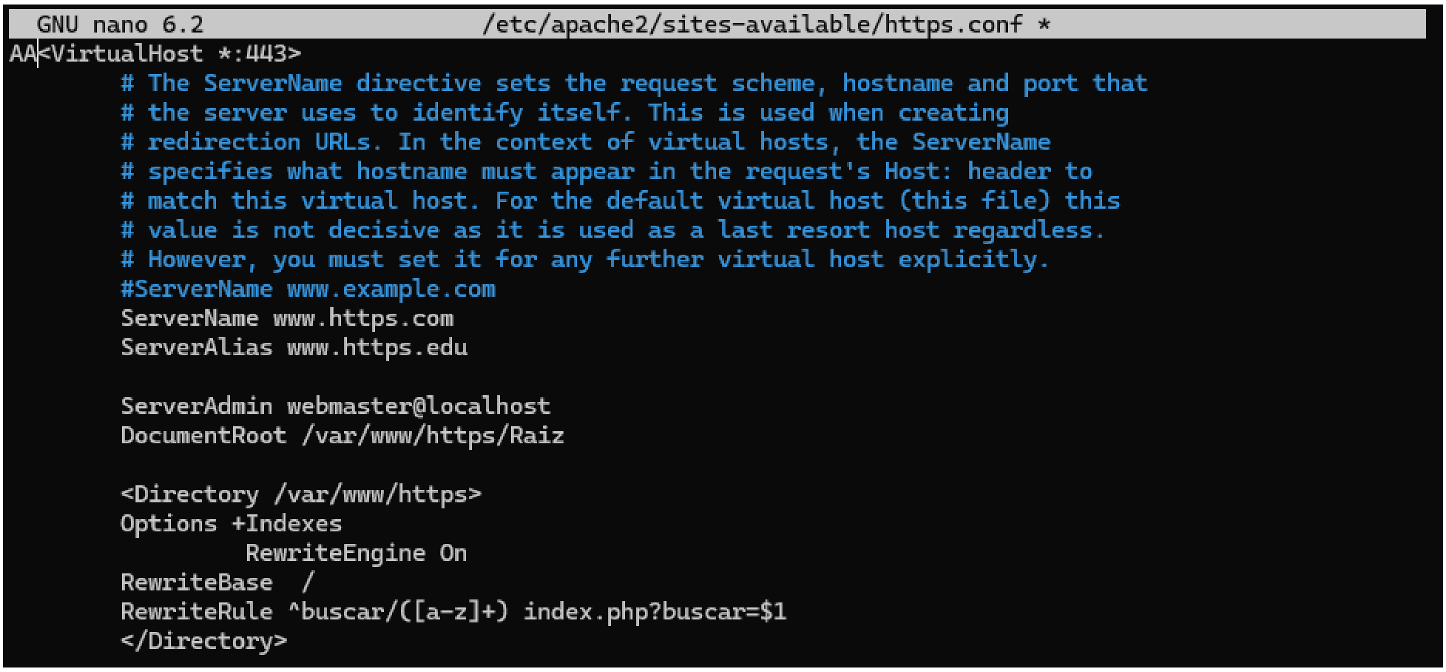
Congratulations!

15.-Instalamos la libreria para manejar php.



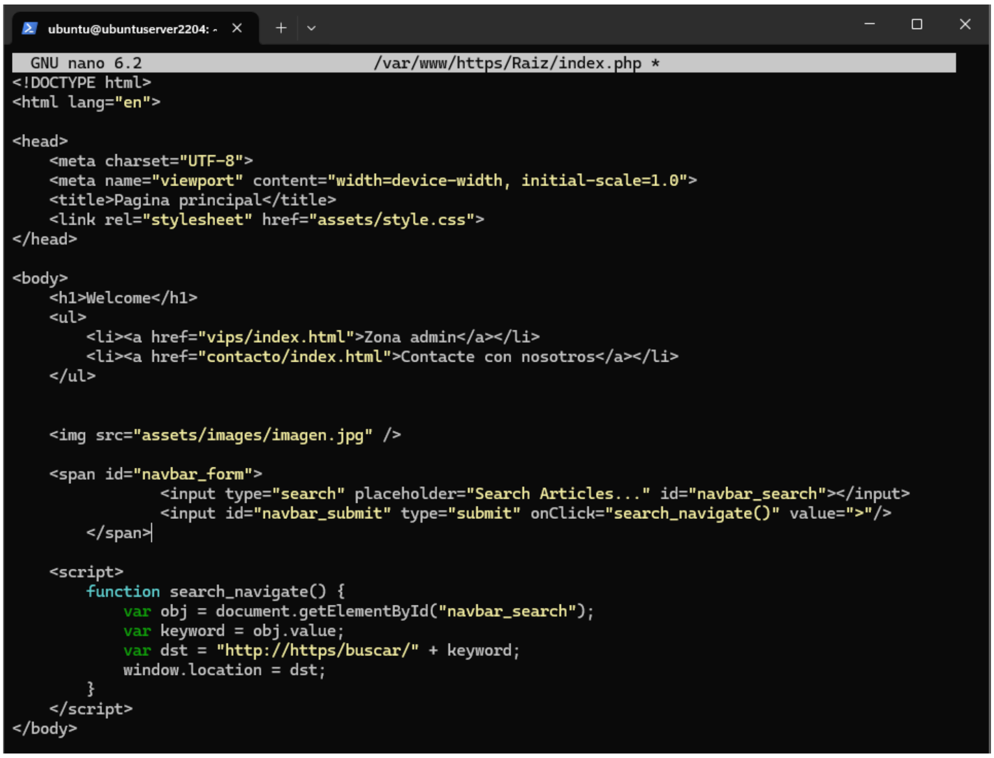
```
ubuntu@ubuntuserver2204:/usr/local/apache/passwd$ sudo apt install libapache2-mod-php8.1
Reading package lists... Done
Building dependency tree... Done
```

16.-Agregamos las directivas Rewrite Engine On y habilitamos el modulo.



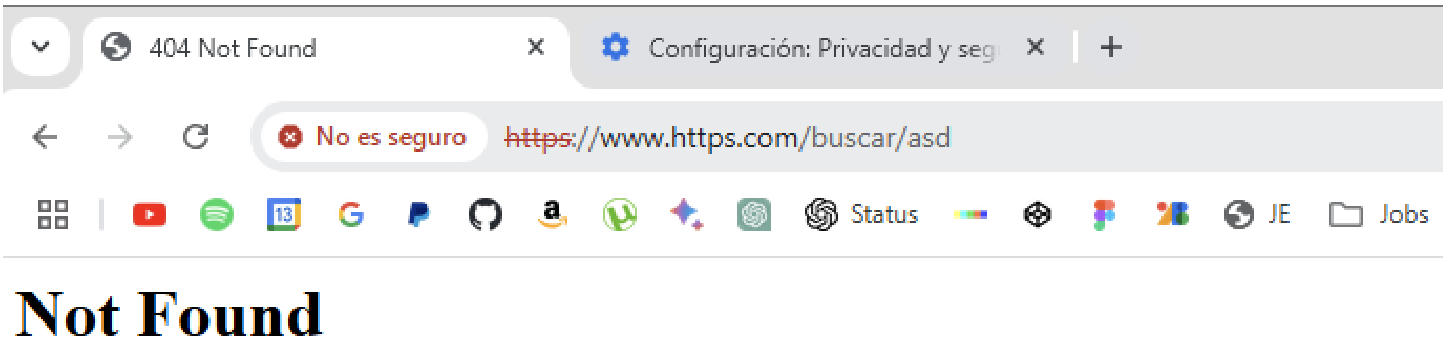
```
  GNU nano 6.2                       /etc/apache2/sites-available/https.conf *
AA<VirtualHost *:443>
        # The ServerName directive sets the request scheme, hostname and port that
        # the server uses to identify itself. This is used when creating
        # redirection URLs. In the context of virtual hosts, the ServerName
        # specifies what hostname must appear in the request's Host: header to
        # match this virtual host. For the default virtual host (this file) this
        # value is not decisive as it is used as a last resort host regardless.
        # However, you must set it for any further virtual host explicitly.
        #ServerName www.example.com
        ServerName www.https.com
        ServerAlias www.https.edu

        ServerAdmin webmaster@localhost
        DocumentRoot /var/www/https/Raiz

        <Directory /var/www/https>
        Options +Indexes
                 RewriteEngine On
        RewriteBase  /
        RewriteRule ^buscar/([a-z]+) index.php?buscar=$1
        </Directory>
```

17.-Agregamos el codigo js.



```
  GNU nano 6.2                        /var/www/https/Raiz/index.php *
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Pagina principal</title>
    <link rel="stylesheet" href="assets/style.css">
</head>

<body>
    <h1>Welcome</h1>
    <ul>
        <li><a href="vips/index.html">Zona admin</a></li>
        <li><a href="contacto/index.html">Contacte con nosotros</a></li>
    </ul>


    <img src="assets/images/imagen.jpg" />

    <span id="navbar_form">
                <input type="search" placeholder="Search Articles..." id="navbar_search"></input>
                <input id="navbar_submit" type="submit" onClick="search_navigate()" value=">"/>
        </span>

    <script>
        function search_navigate() {
            var obj = document.getElementById("navbar_search");
            var keyword = obj.value;
            var dst = "http://https/buscar/" + keyword;
            window.location = dst;
        }
    </script>
</body>
```

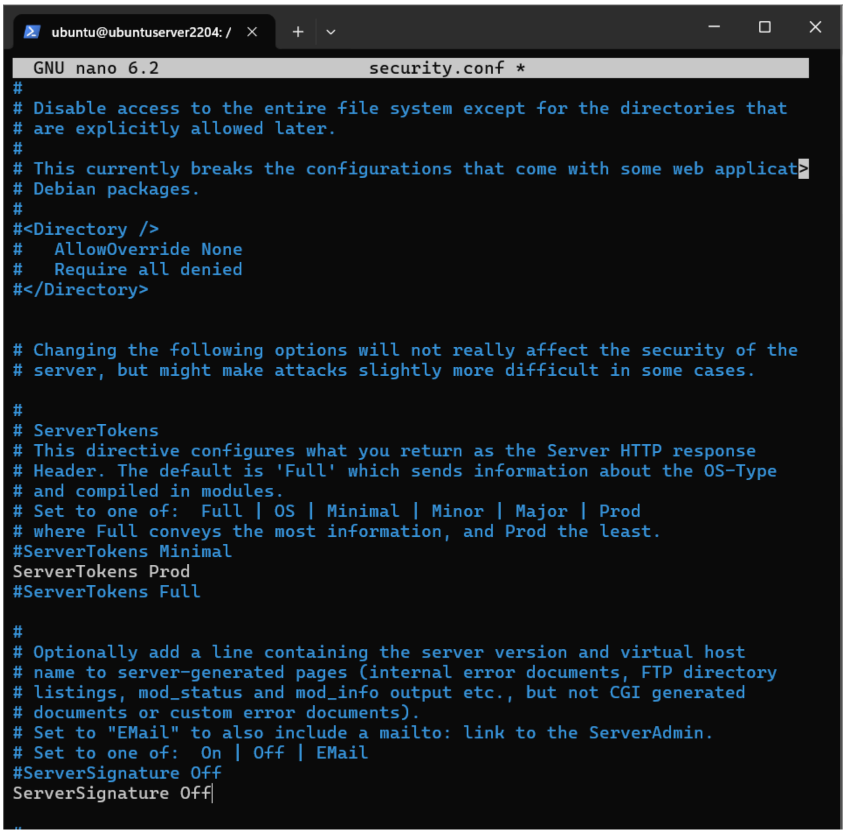
18.-Podemos ver la palabra buscada en el navegador.



~~https~~://www.https.com/buscar/asd

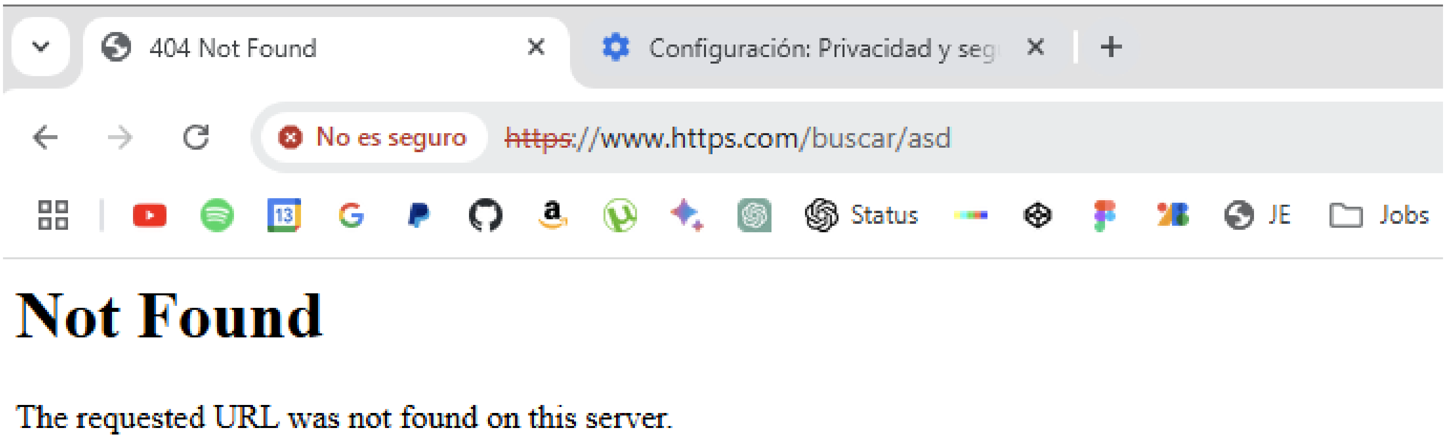
Not Found

19.-En security.conf cambiamos las directivas para mostrar el mensaje de error correspondiente.



```
  GNU nano 6.2                        security.conf *
#
# Disable access to the entire file system except for the directories that
# are explicitly allowed later.
#
# This currently breaks the configurations that come with some web applicat>
# Debian packages.
#
#<Directory />
#   AllowOverride None
#   Require all denied
#</Directory>


# Changing the following options will not really affect the security of the
# server, but might make attacks slightly more difficult in some cases.

#
# ServerTokens
# This directive configures what you return as the Server HTTP response
# Header. The default is 'Full' which sends information about the OS-Type
# and compiled in modules.
# Set to one of:  Full | OS | Minimal | Minor | Major | Prod
# where Full conveys the most information, and Prod the least.
#ServerTokens Minimal
ServerTokens Prod
#ServerTokens Full

#
# Optionally add a line containing the server version and virtual host
# name to server-generated pages (internal error documents, FTP directory
# listings, mod_status and mod_info output etc., but not CGI generated
# documents or custom error documents).
# Set to "EMail" to also include a mailto: link to the ServerAdmin.
# Set to one of:  On | Off | EMail
#ServerSignature Off
ServerSignature Off
```

20.-Podemos ver que cambia.



404 Not Found
Configuración: Privacidad y seg
No es seguro
~~https~~://www.https.com/buscar/asd
Status
JE
Jobs

Not Found

The requested URL was not found on this server.