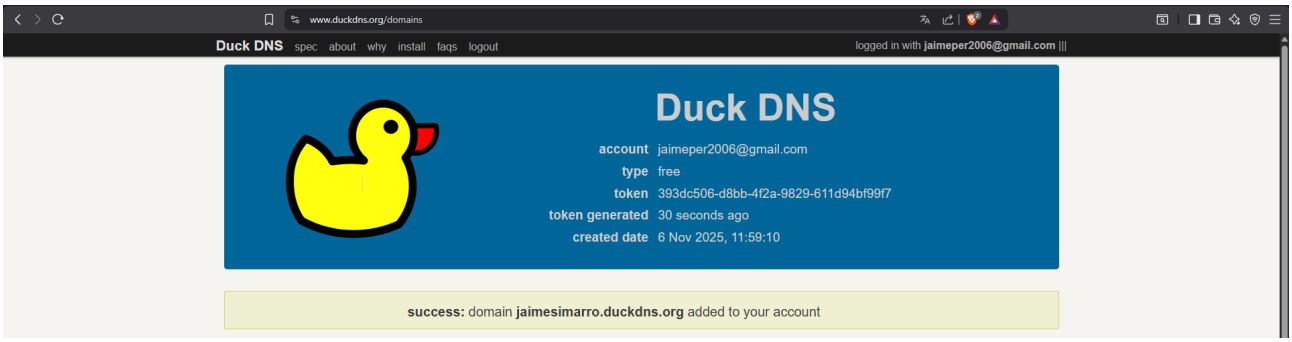
Configuración de HTTPS en Apache2

Creamos un dominio en duckdns



Configuramos las variables de entorno

```
export DOMAIN="jaimesimarro.duckdns.org"
export WEBROOT="/var/www/miweb"
```

Instalamos apache

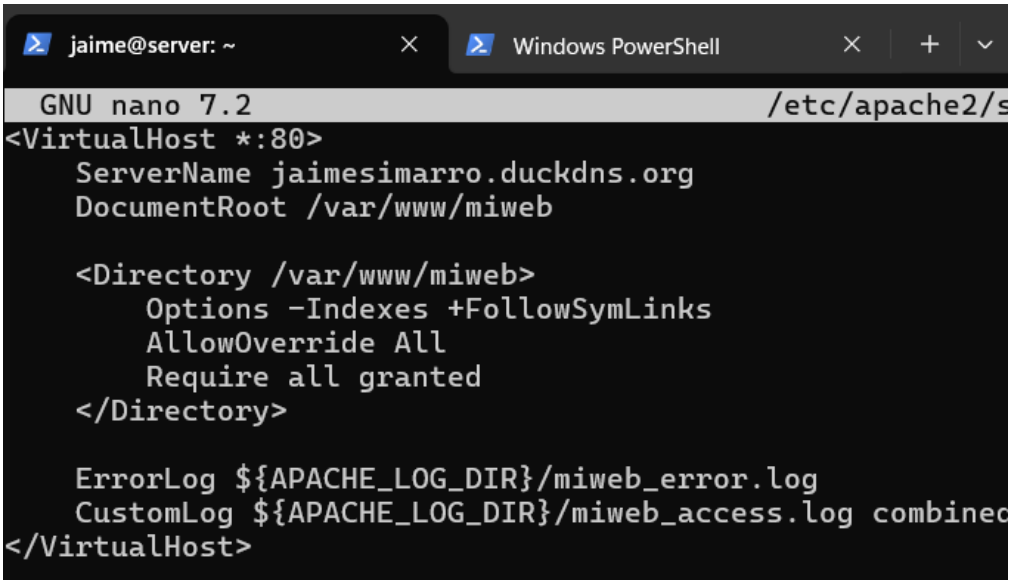
```
sudo apt update
sudo apt install -y apache2
```

Creamos el directorio web y una pagina basica

```
jaime@server:~$ sudo mkdir -p $WEBROOT
jaime@server:~$ echo "<h1>HTTPS con Let's Encrypt (DNS-01) - Jaime Simarro</h1>" | sudo tee $WEBROOT/index.html
<h1>HTTPS con Let's Encrypt (DNS-01) - Jaime Simarro</h1>
jaime@server:~$ cat $WEBROOT/index.html
<h1>HTTPS con Let's Encrypt (DNS-01) - Jaime Simarro</h1>
jaime@server:~$
```

Creamos el virtualhost HTTP de Apache

```
sudo nano /etc/apache2/sites-available/miweb.conf
```



Activamos el sitio web con apache

sudo a2ensite miweb.conf
sudo systemctl reload apache2

Instalamos Certbot

sudo apt install -y certbot
certbot –version

Emitimos un certifícado DNS

sudo certbot -d jaimesimarro.duckdns.org --manual --preferred-challenges dns certonly

(Haciendolo con los pasos de la practica no me funcionaba y he realizadoo otros que llegan al mismo punto)

Instalamos los plugins de DuckDNS

sudo apt install -y python3-pip
sudo pip3 install certbot-dns-duckdns –break-system-packages

Creamos el archivo con el token y le damos permisos

sudo mkdir -p /etc/letsencrypt
echo "dns_duckdns_token=393dc506-d8bb-4f2a-9829-611d94bf99f7" | sudo tee /etc/letsencrypt/duckdns.ini
sudo chmod 600 /etc/letsencrypt/duckdns.ini

Solicitamos el certificado de manera automatica

sudo certbot certonly --authenticator dns-duckdns --dns-duckdns-credentials /etc/letsencrypt/duckdns.ini -d jaimesimarro.duckdns.org

```
jaime@server:~$ sudo certbot certonly --authenticator dns-duckdns --dns-duckdns-credentials /etc/letsencrypt/duckdns.ini --dns-duckdns-propagation-seconds 6
0 -d jaimesimarro.duckdns.org
Saving debug log to /var/log/letsencrypt/letsencrypt.log
Requesting a certificate for jaimesimarro.duckdns.org
Waiting 60 seconds for DNS changes to propagate

Successfully received certificate.
Certificate is saved at: /etc/letsencrypt/live/jaimesimarro.duckdns.org/fullchain.pem
Key is saved at:         /etc/letsencrypt/live/jaimesimarro.duckdns.org/privkey.pem
This certificate expires on 2026-02-11.
These files will be updated when the certificate renews.
Certbot has set up a scheduled task to automatically renew this certificate in the background.

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
If you like Certbot, please consider supporting our work by:
 * Donating to ISRG / Let's Encrypt:   https://letsencrypt.org/donate
 * Donating to EFF:                    https://eff.org/donate-le
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
jaime@server:~$
```

Habilitamos el modulo SSL

sudo a2enmod ssl

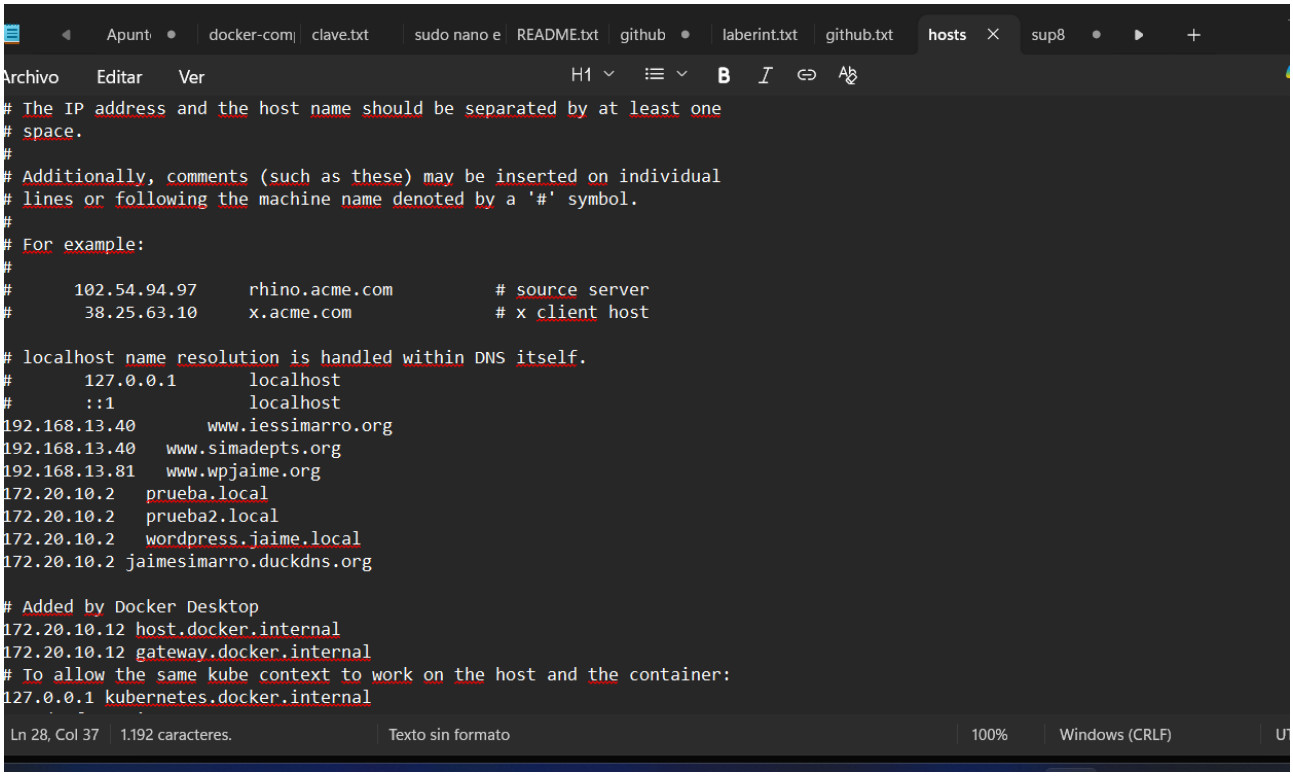
Creamos el virtualhost de HTTPS

```
 GNU nano 7.2                                        /etc/apache2/sites-enabled/miweb-ssl.conf
<VirtualHost *:443>
    ServerName jaimesimarro.duckdns.org
    DocumentRoot /var/www/miweb

    SSLEngine on
    SSLCertificateFile /etc/letsencrypt/live/jaimesimarro.duckdns.org/fullchain.pem
    SSLCertificateKeyFile /etc/letsencrypt/live/jaimesimarro.duckdns.org/privkey.pem

    <Directory /var/www/miweb>
        Options -Indexes +FollowSymLinks
        AllowOverride All
        Require all granted
    </Directory>

    ErrorLog ${APACHE_LOG_DIR}/miweb_ssl_error.log
    CustomLog ${APACHE_LOG_DIR}/miweb_ssl_access.log combined
</VirtualHost>
```

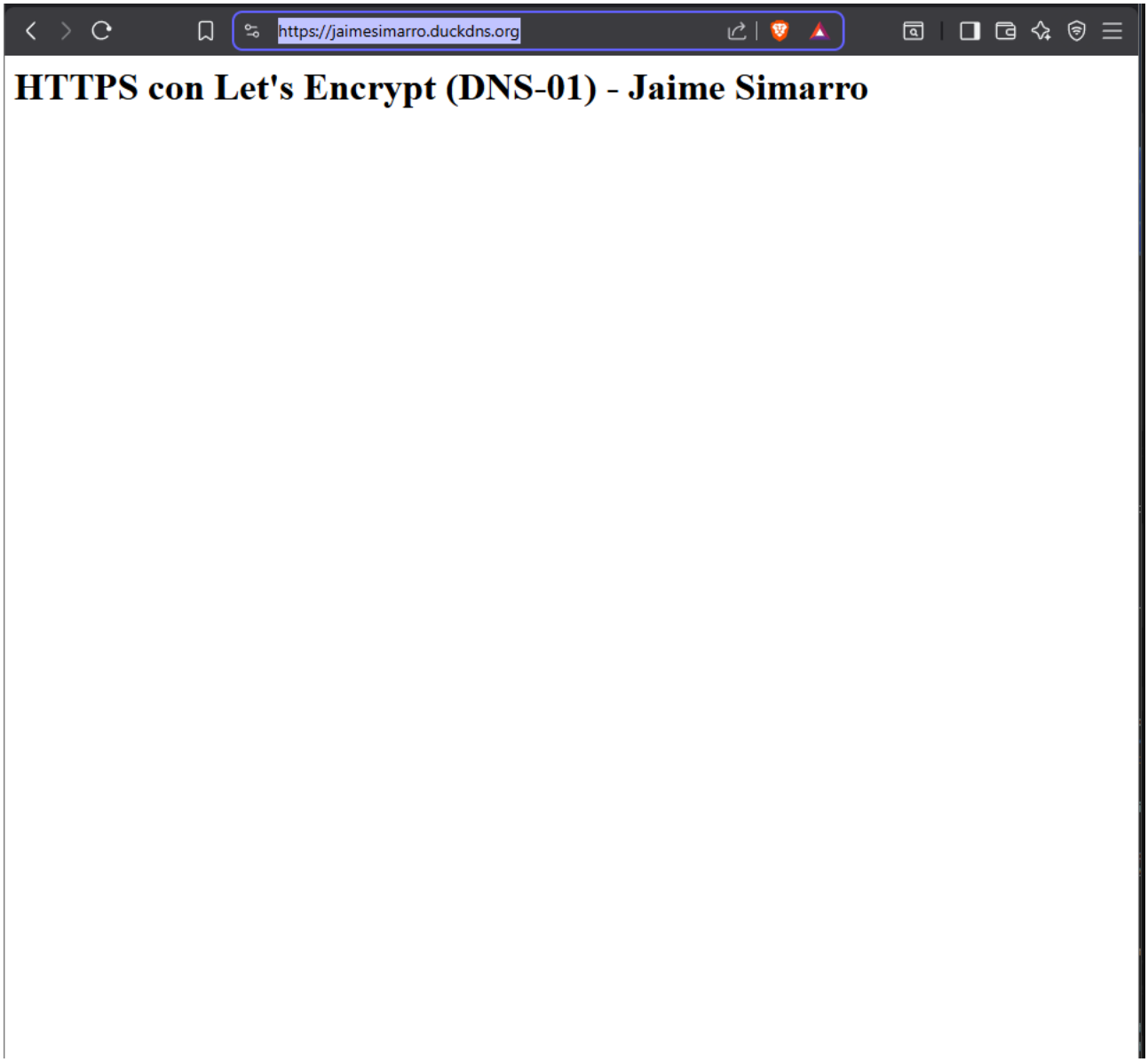
Activamos el sitio y reiniciamos

sudo apache2ctl configtest
sudo systemctl reload apache2

Añadimos el archivo al /etc/hosts



Y realizamos la prueba




```
jaime@server:~$ sudo certbot certificates
Saving debug log to /var/log/letsencrypt/letsencrypt.log

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Found the following certs:
  Certificate Name: jaimesimarro.duckdns.org
    Serial Number: 6c1fd2549979dc65274c0ff34512d3d6e00
    Key Type: ECDSA
    Domains: jaimesimarro.duckdns.org
    Expiry Date: 2026-02-11 06:54:07+00:00 (VALID: 89 days)
    Certificate Path: /etc/letsencrypt/live/jaimesimarro.duckdns.org/fullchain.pem
    Private Key Path: /etc/letsencrypt/live/jaimesimarro.duckdns.org/privkey.pem
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
jaime@server:~$
```