

- Instalar el paquete "easy-rsa"

```
nacho@DESKTOP-51F08KG:~/Proyecto-Integrados-Bases-de-datos-DIEGOCERDAS-C21988$ sudo apt install easy-rsa
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
easy-rsa is already the newest version (3.0.8-1ubuntu1).
The following packages were automatically installed and are no longer required:
  http libnl-genl-3-200
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 32 not upgraded.
nacho@DESKTOP-51F08KG:~/Proyecto-Integrados-Bases-de-datos-DIEGOCERDAS-C21988$
```

- **Iniciar PKI**

```
nacho@DESKTOP-51F08KG:~/Proyecto-Integrados-Bases-de-datos-DIEGOCERDAS-C21988$ mkdir -p ~/easy-rsa
cp -r /usr/share/easy-rsa/* ~/easy-rsa/
cd ~/easy-rsa
nacho@DESKTOP-51F08KG:~/easy-rsa$ ./easysrsa init-pki

init-pki complete; you may now create a CA or requests.
Your newly created PKI dir is: /home/nacho/easy-rsa/pki
```

- **Crear la autoridad certificadora [CA]**

```
nacho@DESKTOP-51F08KG:~/easy-rsa$ ./easyrsa build-ca
Using SSL: openssl OpenSSL 3.0.2 15 Mar 2022 (Library: OpenSSL 3.0.2 15 Mar 2022)

Enter New CA Key Passphrase:
Re-Enter New CA Key Passphrase:
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.
-----
Common Name (eg: your user, host, or server name) [Easy-RSA CA]:CI0123

CA creation complete and you may now import and sign cert requests.
Your new CA certificate file for publishing is at:
/home/nacho/easy-rsa/pki/ca.crt
```

- **Generar la llave de encriptación [DS]**

[illegible]

- **Generar la llave para el servidor**

[illegible]

```
Common Name (eg: your user, host, or server name) [server1]:Nacho
Keypair and certificate request completed. Your files are:
req: /home/nacho/easy-rsa/pki/reqs/server1.req
key: /home/nacho/easy-rsa/pki/private/server1.key
```

- **Generar la llave para el cliente**

```
nacho@DESKTOP-51F08KG:~/easy-rsa$ ./easyrsa sign-req client cliente1
Using SSL: openssl OpenSSL 3.0.2 15 Mar 2022 (Library: OpenSSL 3.0.2 15 Mar 2022)

You are about to sign the following certificate.
Please check over the details shown below for accuracy. Note that this request
has not been cryptographically verified. Please be sure it came from a trusted
source or that you have verified the request checksum with the sender.

Request subject, to be signed as a client certificate for 825 days:

subject=
  commonName           = Nacho2


Type the word 'yes' to continue, or any other input to abort.
  Confirm request details: yes
Using configuration from /home/nacho/easy-rsa/pki/easy-rsa-13117.5rK5DT/tmp.TU9G74
Enter pass phrase for /home/nacho/easy-rsa/pki/private/ca.key:
8048117E2D7F0000:error:0700006c:configuration file routines:NCONF_get_string:no value:../crypto/conf/conf_lib.c:315:group=<NULL> name=unique_subject
Check that the request matches the signature
Signature ok
The Subject's Distinguished Name is as follows
commonName             :ASN.1 12:'Nacho2'
Certificate is to be certified until Jul  6 00:47:54 2027 GMT (825 days)

Write out database with 1 new entries
Data Base Updated

Certificate created at: /home/nacho/easy-rsa/pki/issued/cliente1.crt

nacho@DESKTOP-51F08KG:~/easy-rsa$
```

- Instalar el apache



## Apache2 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/  
|-- apache2.conf
```

Activar Windows  
Vé al Configuración para a