Ubuntu Server

M8-UF2 Judith Gutiérrez

Index

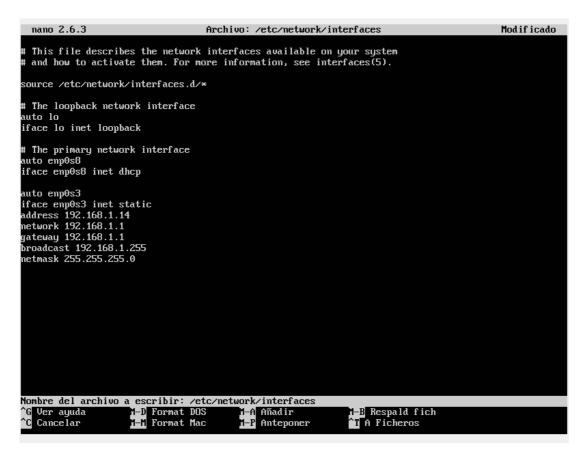
1.Configuració bàsica	
1.1 Configuració de Xarxa	
1.2 Instal·lació Webmin.	
1.3 Instal·lació Apache	
1.4 Instal·lació Bind.	
2. Creació de llocs i directives d'apache	
3. Configuració SSL	
4.FTP	
4.1 Filezilla	

1.Configuració bàsica

1.1 Configuració de Xarxa

Hem de tenir dues xarxes; una interna i una externa. La externa serà NAT i la interna la que configurarem nosaltres.

Ens anem al fitxer /etc/network/interfaces per a configurar la nostra xarxa.



També configurarem el arxiu /etc/resolv.conf

```
mano 2.6.3 Archivo: /etc/resolv.comf Modificado

# Dynamic resolv.comf(5) file for glibc resolver(3) generated by resolvcomf(8)

# DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN

mameserver 192.168.1.14

mameserver 87.216.1.65

mameserver 87.216.1.66

mameserver 127.0.0.53

search Home
```

Pings entre maquines

```
Símbolo del sistema
Microsoft Windows [Versión 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. Reservados todos los derechos.
C:\Users\admin>ping 192.168.1.14
Haciendo ping a 192.168.1.14 con 32 bytes de datos:
Respuesta desde 192.168.1.14: bytes=32 tiempo=3ms TTL=64
Respuesta desde 192.168.1.14: bytes=32 tiempo=6ms TTL=64
Respuesta desde 192.168.1.14: bytes=32 tiempo=1ms TTL=64
Respuesta desde 192.168.1.14: bytes=32 tiempo=2ms TTL=64
Estadísticas de ping para 192.168.1.14:
Paquetes: enviados = 4, recibidos = 4, perdidos = 0
(0% perdidos),
Tiempos aproximados de ida y vuelta en milisegundos:
Mínimo = 1ms, Máximo = 6ms, Media = 3ms
C:\Users\admin>
           root@Servidor:/var/www/html/lloc2# ping 192.168.1.20
 4
           PING 192.168.1.20 (192.168.1.20) 56(84) bytes of data.
           64 bytes from 192.168.1.20: icmp_seq=1 ttl=128 time=1.31 ms
64 bytes from 192.168.1.20: icmp_seq=2 ttl=128 time=3.19 ms
           64 bytes from 192.168.1.20: icmp_seq=3 ttl=128 time=1.05 ms
           64 bytes from 192.168.1.20: icmp_seq=4 ttl=128 time=0.853 ms
           64 bytes from 192.168.1.20: icmp_seq=5 ttl=128 time=1.07 ms
           64 bytes from 192.168.1.20: icmp_seq=6 ttl=128 time=1.20 ms
          64 bytes from 192.168.1.20: icmp_seq=7 ttl=128 time=1.93 ms
64 bytes from 192.168.1.20: icmp_seq=8 ttl=128 time=1.15 ms
           64 bytes from 192.168.1.20: icmp_seq=9 ttl=128 time=1.66 ms
           ^X^Z
           [1]+
                    Detenido
                                                        ping 192.168.1.20
           root@Servidor:/var/www/html/lloc2#
```

1.2 Instal·lació Webmin

Es pot instal·lar des de la seva pagina web,pero com no tinc entorn gràfic al servidor ho instal·larem des de comandes.

Editem el fitxer /etc/apt/sources.list i fiquem al final del document les lines que veus a la imatge.

```
GNU nano 2.5.3

Archivo: /etc/apt/sources.list

Modificado

MI N.B. software from this repository may not have been tested as

MI extensively as that contained in the main release, although it includes

MI never versions of some applications which may provide useful features.

MI Also, please note that software in backports WILL NOT receive any review

MI or updates from the Ubuntu security team.

Ach http://es.archive.ubuntu.com/ubuntu/xenial-backports main restricted universe multiverse

MI deb-src http://es.archive.ubuntu.com/ubuntu/xenial-backports main restricted universe multiverse

MI 'partner' repository.

MI 'partner' repository.

MI 'partner' repository.

MI 'partner' respective vendors as a service to Ubuntu users:

MI deb http://archive.canonical.com/ubuntu xenial partner

MI deb-src http://security.ubuntu.com/ubuntu xenial partner

MI deb-src http://security.ubuntu.com/ubuntu xenial-security main restricted

MI deb-src http://security.ubuntu.com/ubuntu xenial-security universe

MI deb-src http://security.ubuntu.com/ubuntu xenial-security universe

MI deb-src http://security.ubuntu.com/ubuntu xenial-security universe

MI deb-src http://security.ubuntu.com/ubuntu xenial-security multiverse

MI deb-src http://secu
```

Desprès fem a cd /root i posem la comanda que hi ha a la imatge.

```
root@servidor:/home/servidor# cd /root
root@servidor:~# wget http://www.webmin.com/jcameron-key.asc
--2017-02-06 16:01:56--- http://www.webmin.com/jcameron-key.asc
Resolviendo www.webmin.com (www.webmin.com)... 216.34.181.97
Conectando con www.webmin.com (www.webmin.com)[216.34.181.97]:80... conectado.
Petición HTTP enviada, esperando respuesta... 200 OK
Longitud: 1320 (1,3K) [text/plain]
Grabando a: #jcameron-key.asc#

jcameron-key.asc 100%[==============]] 1,29K --.-KB/s in 0s
2017-02-06 16:01:57 (38,3 MB/s) - #jcameron-key.asc# guardado [1320/1320]
```

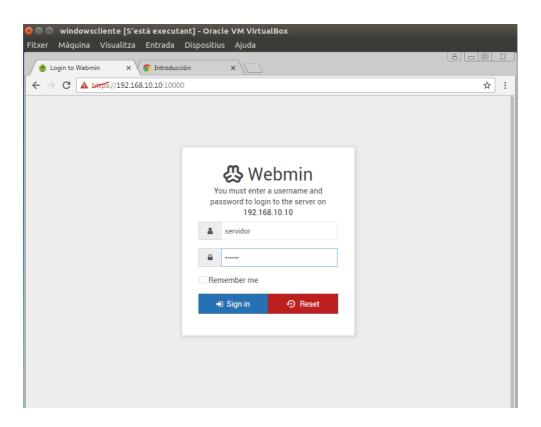
A continuació posem apt-key add jcameron-key.asc i desprès actualitzem el servidor amb apt-get update.

```
root@servidor:~# apt-key add jcameron-key.asc
OK
```

```
root@servidor:~# apt-get update
Obj:1 http://es.archive.ubuntu.com/ubuntu xenial InRelease
Obj:2 http://es.archive.ubuntu.com/ubuntu xenial-updates InRelease
Obj:3 http://es.archive.ubuntu.com/ubuntu xenial-backports InRelease
Obj:4 http://security.ubuntu.com/ubuntu xenial-security InRelease
Ign:5 http://download.webmin.com/download/repository sarge InRelease
Des:6 http://download.webmin.com/download/repository sarge Release [14,9 kB]
Des:7 http://download.webmin.com/download/repository sarge Release.gpg [173 B]
Des:8 http://download.webmin.com/download/repository sarge/contrib amd64 Packages [1.331 B]
Des:9 http://download.webmin.com/download/repository sarge/contrib i386 Packages [1.331 B]
Descargados 17,8 kB en 1s (9.804 B/s)
Leyendo lista de paquetes... Hecho
root@servidor:~# apt-get install apt-transport-https
Leyendo lista de paquetes... Hecho
Créando árbol de dependencias
Leyendo la información de estado... Hecho
Se actualizarán los siguientes paquetes:
  apt-transport-https
1 actualizados, O nuevos se instalarán, O para eliminar y 158 no actualizados.
Se necesita descargar 26,0 kB de archivos.
Se utilizarán 2.048 B de espacio de disco adicional después de esta operación.
Des:1 http://es.archive.ubuntu.com/ubuntu xenial-updates/main amd64 apt-transport-https amd64 1.2.19
 [26,0 kB]
Descargados 26,0 kB en 0s (179 kB/s)
(Leyendo la base de datos ... 63261 ficheros o directorios instalados actualmente.)
Preparando para desempaquetar .../apt-transport-https_1.2.19_amd64.deb ...
Desempaquetando apt-transport-https (1.2.19) sobre (1.2.12~ubuntu16.04.1) ...
Configurando apt-transport-https (1.2.19) ...
 root@servidor:
                                                                                     🔯 💿 🗗 🥟 🗀 🖳 🖫 🔘 🚳 💽 Control dreta
```

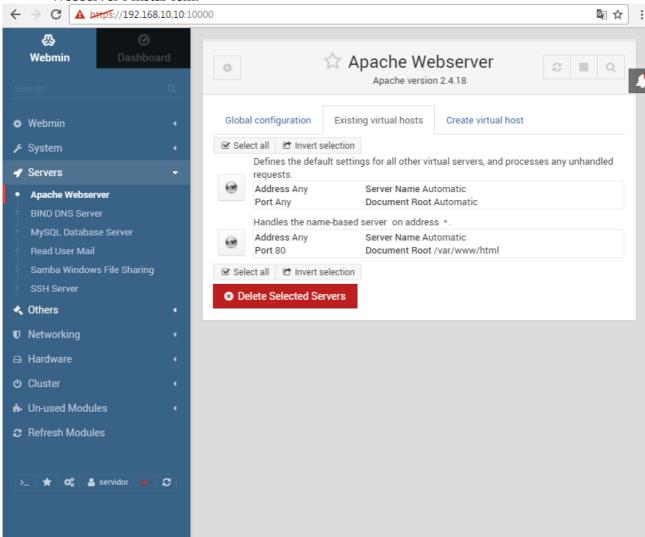
Ara ja podem instal·lar el webmin.





1.3 Instal·lació Apache

Un cop instal·lat webmin, ens anem a l'apartat "Un-used Modules" i busquem Apache Webserver i instal·lem.





Apache2 Ubuntu Default Page

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.

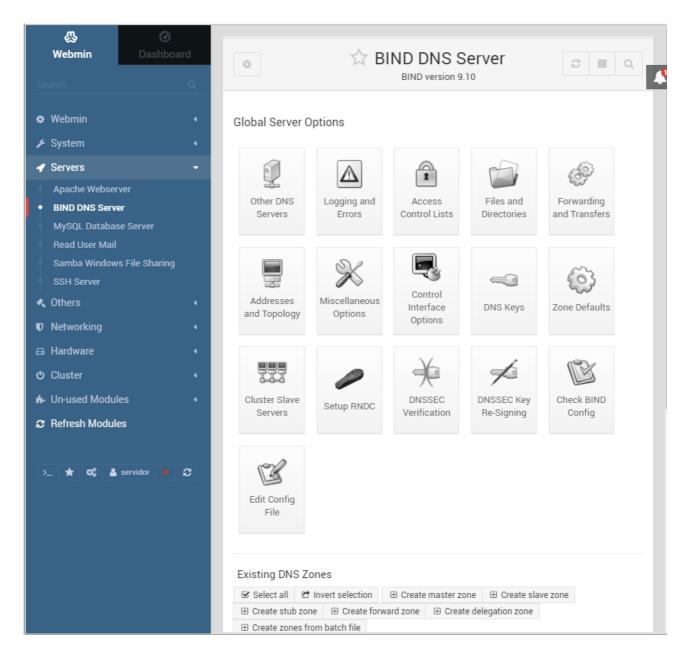
The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/
|-- apache2.conf
| `-- ports.conf
|-- mods-enabled
| | -- *.load
| `-- *.conf
|-- conf-enabled
| `-- *.conf
|-- sites-enabled
| `-- *.conf
```

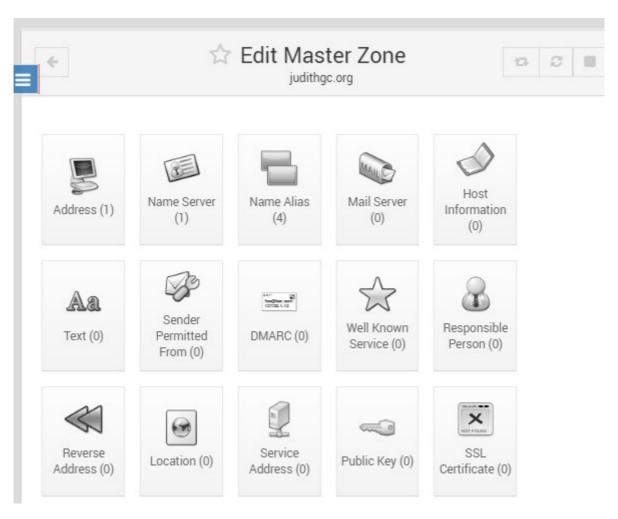
- apache2.conf is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- ports.conf is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the mods-enabled/, conf-enabled/ and sites-enabled/ directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective *-available/counterparts. These should be managed by using our helpers a2enmod, a2dismod, a2ensite, a2dissite, and a2enconf, a2disconf. See their respective man pages for detailed

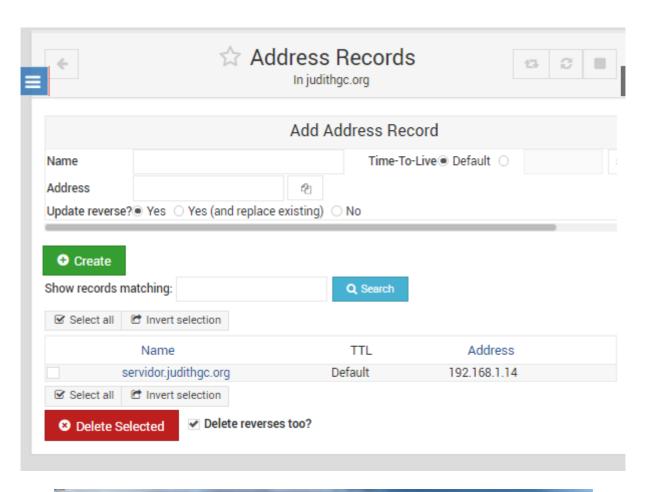
1.4 Instal·lació Bind

També podem instal·lar el Bind des de el Webmin. Anem a "Un-used Modules" i busquem "Bind Dns Server" i l'instal·lem.



• **Prova de funcionament en el propi servidor. (sense usar "localhost" ni IP)**Per fer-ho s'ha de tenir configurat en DNS .Creem una 'zona maestra' amb judithgc.org i així 'enllaçem' la direcció Ip al domini .







Examen Judith GC

Menu

Exercici 2

Exercici 3

Exercici 4

Exercici 7

2. Creació de llocs i directives d'apache

Per crear les carpetes utilitzem la comanda mkdir + nomfitxer i per crear els fitxers podem fer-ho amb touch o amb nano + nomfitxer.

Demostració de la creació de les carpetes i els arxius

```
servidor@Servidor:~$ sudo su
[sudo] password for servidor:
root@Servidor:/home/servidor# ls

root@Servidor:/home/servidor# cd lloc1/
root@Servidor:/home/servidor/lloc1# ls
index.html pep
root@Servidor:/home/servidor/lloc1# _
```

```
root@Servidor:/home/servidor/lloc1# cd /var/www/html
root@Servidor:/var/www/html# ls
dawtorello index.html index.html.save lloc2 tartera
root@Servidor:/var/www/html# cd lloc2/
root@Servidor:/var/www/html/lloc2# ls
index.html
root@Servidor:/var/www/html/lloc2#
```

```
■ ubuntum8 [S'està executant] - Oracle VM VirtualBox

Fitxer Màquina Visualitza Entrada Dispositius Ajuda

GNU nano 2.5.3 Archivo: index.html

(h1> Lloc 1-JudithGC</h1>

■ ubuntum8 [S'està executant] - Oracle VM VirtualBox

Fitxer Màquina Visualitza Entrada Dispositius Ajuda

GNU nano 2.5.3 Archivo: index.html

(h1>Lloc 1 d'en Pep</h1>
```

```
■ □ ubuntum8 [S'està executant] - Oracle VM VirtualBox
Fitxer Màquina Visualitza Entrada Dispositius Ajuda
GNU nano 2.5.3 Archivo: index.html
<h1>LLoc 2</h1>
```

Create

Show records matching:

☑ Select all
☑ Invert selection

Name	TTL	Real Name
www.judithgc.org	Default	servidor.judithgc.org.
www.lloc2.judithgc.org	Default	servidor.judithgc.org.
www.lloc1.judithgc.org	Default	servidor.judithgc.org.
www.pep.judithgc.org	Default	servidor.judithgc.org.
☑ Select all		

Delete Selected



Address www.judithgc.org

Server Name Automatic

Document Root /var/www/html

Port 443

Handles the name-based server www.dawtorello.org on address www.dawtorello.org.

Server Name www.dawtorello.org

Address

www.dawtorello.org

Document Root /var/www/html/dawtorello

Q Search

Port Any

Handles the name-based server www.judith.dawtorello.org on address www.judith.dawtorello.org.

Address

Server Name www.judith.dawtorello.org www.judith.dawtorello.org Document Root /var/www/html/dawtorello/judith

Handles the name-based server www.lloc1.judithgc.org on address www.lloc1.judithgc.org.



Address

www.lloc1.judithgc.org

Server Name www.lloc1.judithqc.org Document Root /home/servidor/lloc1

Port Any

Handles the name-based server www.lloc2.judithgc.org on address www.lloc2.judithgc.org.



Address

www.lloc2.judithgc.org

Server Name www.lloc2.judithqc.org Document Root /var/www/html/lloc2

Port Any

Handles the name-based server www.pep.judithgc.org on address www.pep.judithgc.org.



Address

www.pep.judithgc.org

Port Any

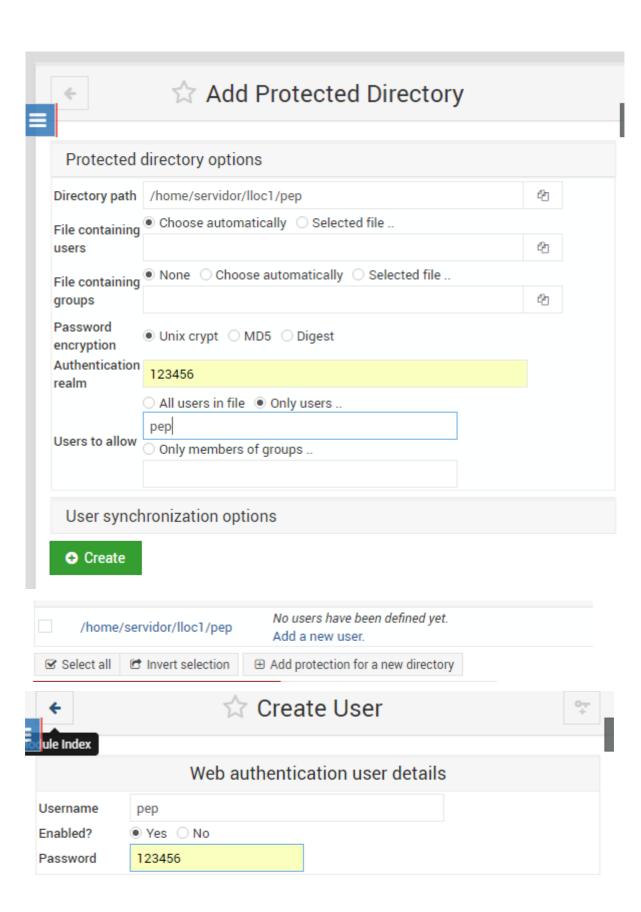
Server Name www.pep.judithgc.org Document Root /home/servidor/lloc1/pep



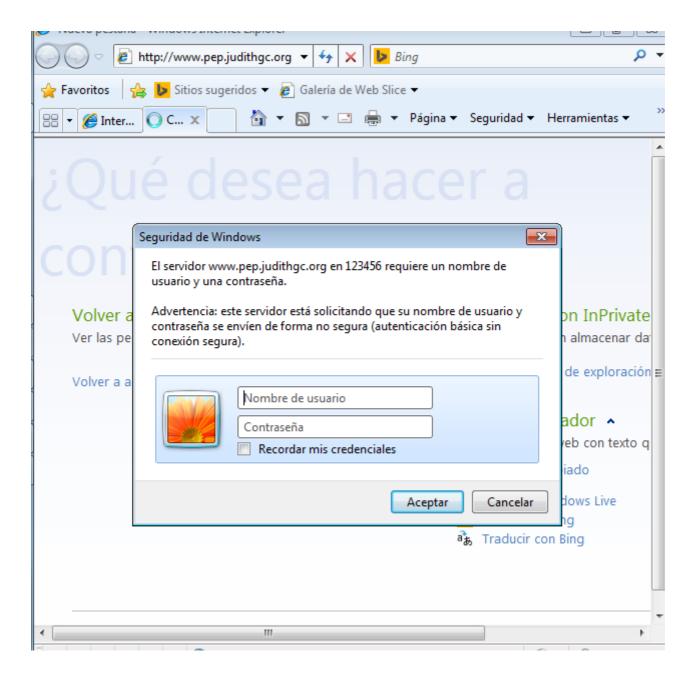
Lloc 1

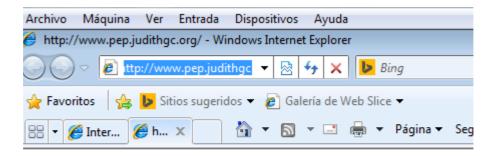


Per configurar el lloc web d'en pep per a que només ell tingui accés, anem a 'Others'» 'OtheProtected Web Directories'. Creem un 'Add protection for a directory'. I un cop creat s'afegeix al usuari que volem que tingui accés.



Es modifica el següent arxiu





Lloc 1. Lloc d'en Pep.

3. Configuració SSL

Per configurar SSL des de terminal s'ha de seguir el següents passos:

```
root@servidor:/home/servidor# apt-get install openssl
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias
Leyendo la información de estado... Hecho
Se actualizarán los siguientes paquetes:
    openssl
1 actualizados, 0 nuevos se instalarán, 0 para eliminar y 85 no actualizados.
Se necesita descargar 492 kB de archivos.
Se utilizarán 0 B de espacio de disco adicional después de esta operación.
Des:1 http://es.archive.ubuntu.com/ubuntu yakkety-updates/main amd64 openssl amd64 1.0.2g-1ubuntu9.1
[492 kB]
Descargados 492 kB en 0s (1.225 kB/s)
(Leyendo la base de datos ... 86817 ficheros o directorios instalados actualmente.)
Preparando para desempaquetar .../openssl_1.0.2g-1ubuntu9.1_amd64.deb ...
Desempaquetando openssl (1.0.2g-1ubuntu9.1) sobre (1.0.2g-1ubuntu9) ...
Configurando openssl (1.0.2g-1ubuntu9.1) ...
Procesando disparadores para man-db (2.7.5-1) ...
```

```
Descargados 6.317 kB en 2s (2.146 kB/s)
Seleccionando el paquete openssl-blacklist-extra previamente no seleccionado.
(Leyendo la base de datos ... 86848 ficheros o directorios instalados actualmente.)
Preparando para desempaquetar .../openssl-blacklist-extra_0.5-3_all.deb ...
Desempaquetando openssl-blacklist-extra (0.5-3) ...
Configurando openssl-blacklist-extra (0.5-3) ...
root@servidor:/home/servidor# cd /etc/apache2
 root@servidor:/etc/apache2# ls
apache2.conf
                           -enabled magic
                                             s-available ports.conf
       available envvars
 root@servidor:/etc/apache2# openssl genrsa -des3 -out
usage: genrsa [args] [numbits]
                      encrypt the generated key with DES in cbc mode encrypt the generated key with DES in ede cbc mode (168 bit key)
 -des
 -des3
 -seed
                      encrypt PEM output with cbc seed
 -aes128, -aes192, -aes256
                      encrypt PEM output with cbc aes
 -camellia128, -camellia192, -camellia256
encrypt PEM output with cbc camellia
                      output the key to 'file
 -out file
                      output file pass phrase source use F4 (0x10001) for the E value
  -passout arg
 −f 4
 -3
                      use 3 for the E value
 -engine e
                       use engine e, possibly a hardware device.
 -rand file:file:..
                       load the file (or the files in the directory) into
                       the random number generator
root@servidor:/etc/apache2# openss1 genrsa -des3 -out clauSSL.key
 Generating RSA private key, 2048 bit long modulus
e is 65537 (0x10001)
Enter pass phrase for clauSSL.key:
Verifying – Enter pass phrase for clauSSL.key:
root@servidor:/etc/apache2#
```

```
root@servidor:/etc/apache2# openssl req -new -key clauSSL.key -out meucertificat.csr
Enter pass phrase for clauSSL.key:
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]:Ju
State or Province Name (full name) [Some-State]:Judith
Locality Name (eg, city) []:Judith C
Organization Name (eg, company) [Internet Widgits Pty Ltd]:Ju
Organizational Unit Name (eg, section) []:Ju
Common Name (e.g. server FQDN or YOUR name) []:192.168.1.14
Email Address []:juu@gmail.com

Please enter the following 'extra' attributes
to be sent with your certificate request
A challenge password []:123456
An optional company name []:judith
root@servidor:/etc/apache2# __
```

```
root@servidor:/etc/apache2# openssl x509 -req -days 365 -in meucertificat.csr -signkey clauSSL.key -
out certificatfirma.crt
Signature ok
subject=/C=Ju/ST=Judith/L=Judith C/O=Ju/OU=Ju/CN=192.168.1.14/emailAddress=juu@gmail.com
Getting Private key
Enter pass phrase for clauSSL.key:
root@servidor:/etc/apache2# _
```

```
root@servidor:/etc/apache2# 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 certifica
tes.
To activate the new configuration, you need to run:
root@servidor:/etc/apache2# service apache2 restart
root@servidor:/etc/apache2# service apache2 restart
root@servidor:/etc/apache2# cp certificatfirmat.crt /etc/ssl/certs/
cp: no se puede efectuar 'stat' sobre 'certificatfirmat.crt': No existe el archivo o el directorio
root@servidor:/etc/apache2# ls
apache2.comf
apache2.conf conf-available magic certificatfirma.crt conf-enabled meucer
apache2.conf
                                                 meucertificat.csr ports.conf
clauSSL.key
                           envvars
root@servidor:/etc/apache2# cp certificatfirma.crt /etc/ssl/certs/
root@servidor:/etc/apache2# cp clauSSL.key /etc/ssl/private
root@servidor:/etc/apache2# cd /etc/apache2/sites-available/
root@servidor:/etc/apache2/sites-available# ls
000-default.conf default-ssl.conf www.lloc1.judith.org.conf www.pep.judith.org.conf
root@servidor:/etc/apache2/sites-available#
```

certificates for client authentication or alternatively one

^O Guardar ^R Leer fich.

^G Ver ayuda ^X Salir W Buscar K Cortar Text J Justificar C Posición Y Pág. ant.
Reemplazar W Pegar txt T Ortografía L Ir a línea W Pág. sig.

```
root@servidor:/etc/apache2/sites-available# aZensite default-ssl

Enabling site default-ssl.

To activate the new configuration, you need to run:
    service apache2 reload
    root@servidor:/etc/apache2/sites-available# service apache2 reload
    root@servidor:/etc/apache2/sites-available#

Broadcast message from root@servidor (Tue 2017-02-07 18:43:37 CET):

Password entry required for 'Enter passphrase for SSL/TLS keys for 127.0.1.1:443 (RSA):' (PID 25010)

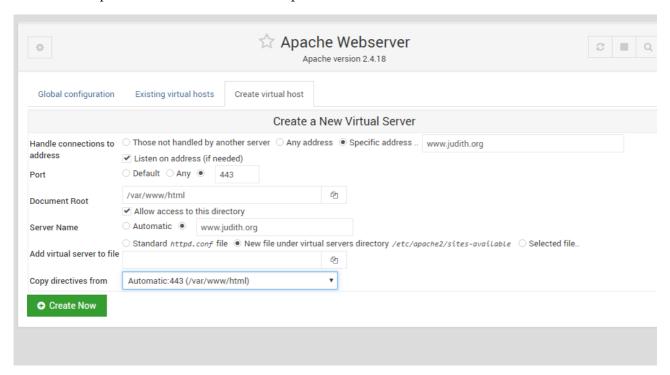
Please enter password with the systemd-tty-ask-password-agent tool!

123456

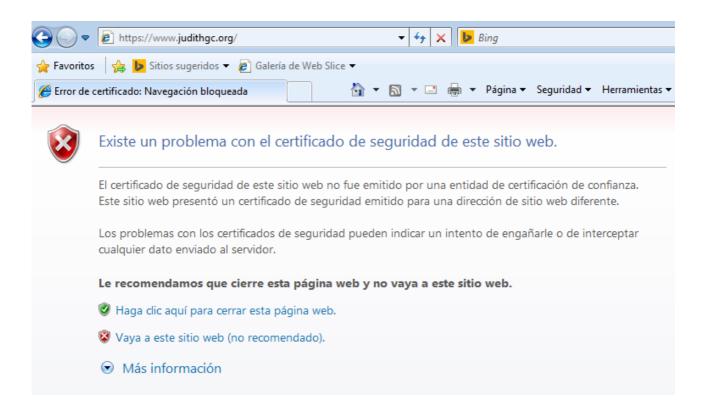
123456: no se encontró la orden
    root@servidor:/etc/apache2/sites-available# service apache2 reload
Enter passphrase for SSL/TLS keys for 127.0.1.1:443 (RSA): **********

root@servidor:/etc/apache2/sites-available#
```

Ara tindrem que crear un virtual host en l'apache.



I comprovem que funciona correctament.





Examen Judith GC

Menu

Exercici 2

Exercici 3

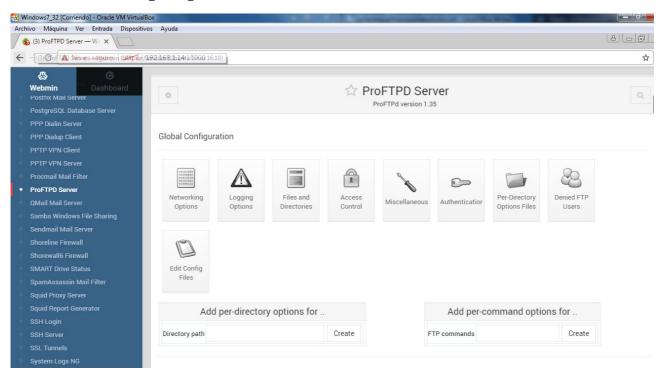
Exercici 4

Exercici 7

4.FTP

Busquem des de el webmin , que en la nova actualització es diu 'ProFtpD Server' l'instal·lem.

Després anem al terminal de la nostre maquina virtual client i ens connectem al nostre servidor,tal com es veu a les imatges següents.



4.1 Filezilla

Anem a la pagina web de Filezilla i el descarreguem. Després l'instal·lem i connectem amb el nostre servidor per ip.

Seleccionem la carpeta del servidor on volem passar els arxius, seleccionem els arxius que volem passar i els passem, depèn de quant pesin trigarà més o menys.

