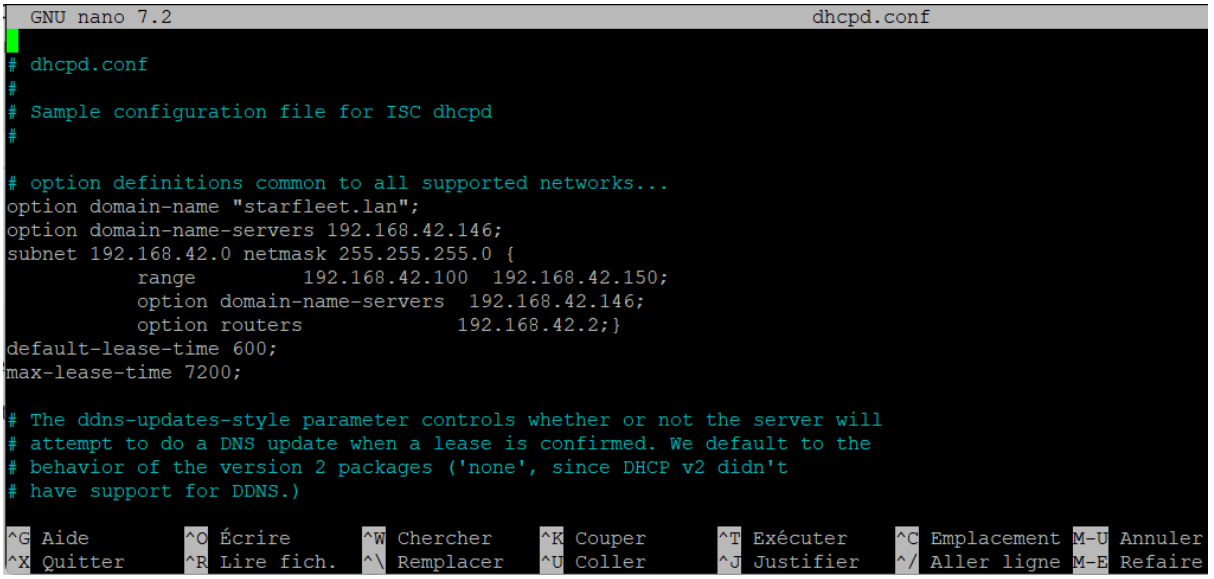
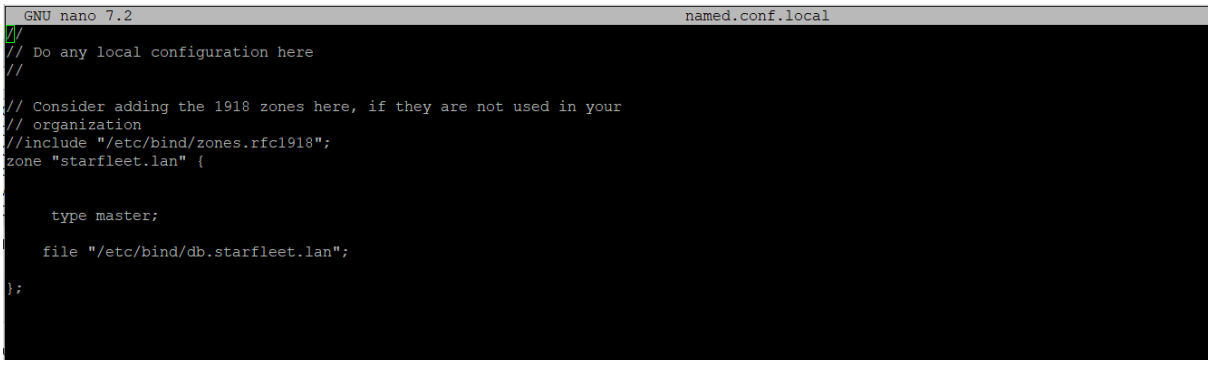
DHCP :

- installer isc-dhcp-server
- apt install isc-dhcp-server
- aller dans etc/dhcp/ et editer dhcpd.conf
- 

- configurer l'adresse réseaux
- installer bind9
- apt install bind9
- aller dans etc/bind
- nano named.conf.local
- 

- creer une zone dns
- cree un fichier db.nomdudomaine

-

```
 GNU nano 7.2                                                    db.starfleet.lan
$TTL 604800
@       IN      SOA     ns.starfleet.lan. root.starfleet.lan. (
                              2024090502 ; Serial
                              604800 ; Refresh
                              86400 ; Retry
                              2419200 ; Expire
                              604800
                    ) ; Negative Cache TTL

@       IN      NS      ns.starfleet.lan.
@       IN      A       192.168.42.146
ns      IN      A       192.168.42.146
www7    IN      A       192.168.42.146
www8    IN      A       192.168.42.146
admin   IN      A       192.168.42.146
php     IN      A       192.168.42.146
ftp     IN      A       192.168.42.146
```

- mettre l’adresse dhcp

-

```
 GNU nano 7.2                                                  named.conf.options
options {
        #directory "/var/cache/bind";

        // If there is a firewall between you and nameservers you want
        // to talk to, you may need to fix the firewall to allow multiple
        // ports to talk.  See http://www.kb.cert.org/vuls/id/800113

        // If your ISP provided one or more IP addresses for stable
        // nameservers, you probably want to use them as forwarders.
        // Uncomment the following block, and insert the addresses replacing
        // the all-0's placeholder.

        // forwarders {
        //      0.0.0.0;
        // };

        //========================================================================
        // If BIND logs error messages about the root key being expired,
        // you will need to update your keys.  See https://www.isc.org/bind-keys
        //========================================================================


options {
        directory "/var/cache/bind";
        dnssec-validation auto;
        listen-on port 53 {localhost; 192.168.42.146;127.0.0.1; };
        allow-recursion { 127.0.0.1; 192.168.42.146;};
        listen-on-v6 { none; };
        auth-nxdomain no;
};
```

- installer php 7.4 et 8.4 et aussi version fpm
- apt install php7.4 ,
- installer mariadb

- 

rentrer dans mariadb mysql
use mysql;
et taper CREATE USER 'phpmyadmin'@'localhost' IDENTIFIED BY 'admin';
GRANT ALL PRIVILEGES ON * TO 'phpmyadmin'@localhost IDENTIFIED BY 'admin';
flush privileges;

- installation phpmyadmin
- https://files.phpmyadmin.net/phpMyAdmin/5.2.1/phpMyAdmin-5.2.1-all-languages.tar.gz
- commande wget suivie de l'url

```
root@debian:/opt# ls
phpMyAdmin-5.2.1-all-languages         phpMyAdmin-5.2.1-all-languages.zip
phpMyAdmin-5.2.1-all-languages.tar.gz
root@debian:/opt# cd phpMyAdmin-5.2.1-all-languages/
root@debian:/opt/phpMyAdmin-5.2.1-all-languages# ls
babel.config.json      examples     package.json            templates
ChangeLog              favicon.ico  README                  themes
composer.json          index.php    RELEASE-DATE-5.2.1      url.php
composer.lock          js           robots.txt              vendor
config.sample.inc.php  libraries    setup                   yarn.lock
CONTRIBUTING.md        LICENSE      show_config_errors.php
doc                    locale       sql
root@debian:/opt/phpMyAdmin-5.2.1-all-languages#
```

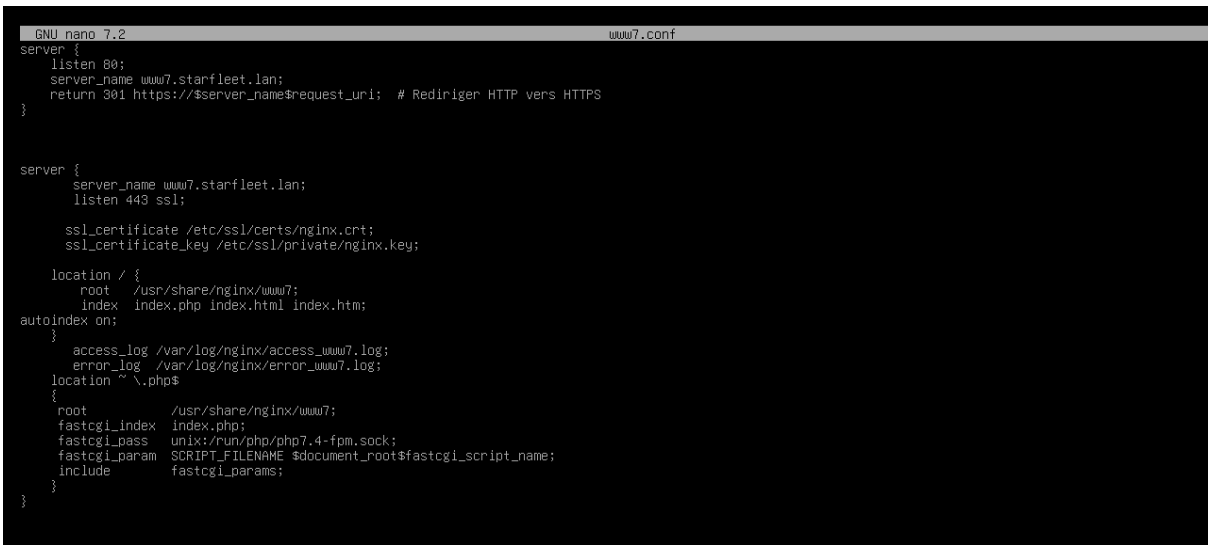
- faire copier coller du fichier config.sample et le transformer en nouveau fichier config.inc
- en faisant cp config.sample.inc.php config.inc.php

```
root@debian:/opt# cd phpMyAdmin/
root@debian:/opt/phpMyAdmin# ls
babel.config.json      doc          locale                  sql
ChangeLog              examples     package.json            templates
composer.json          favicon.ico  README                  themes
composer.lock          index.php    RELEASE-DATE-5.2.1      url.php
config.inc.php         js           robots.txt              vendor
config.sample.inc.php  libraries    setup                   yarn.lock
CONTRIBUTING.md        LICENSE      show_config_errors.php
root@debian:/opt/phpMyAdmin# nano config.inc.php
root@debian:/opt/phpMyAdmin#
```

- et editer config.inc.php
- et mettre 32 caractere

```
GNU nano 7.2                                  config.inc.php
<?php
/**
 * phpMyAdmin sample configuration, you can use it as base for
 * manual configuration. For easier setup you can use setup/
 *
 * All directives are explained in documentation in the doc/ folder
 * or at <https://docs.phpmyadmin.net/>.
 */

declare(strict_types=1);

/**
 * This is needed for cookie based authentication to encrypt the cookie.
 * Needed to be a 32-bytes long string of random bytes. See FAQ 2.10.
 */
$cfg['blowfish_secret'] = 'sldjfezâlgfsdûmerûkerûmfkzfmkezz'; /* YOU MUST FILL IN THIS FOR COOKIE AUTH! */

/**
 * Servers configuration
 */
$i = 0;

/**
 * First server
 */
$i++;
/* Authentication type */
$cfg['Servers'][$i]['auth_type'] = 'cookie';
/* Server parameters */
$cfg['Servers'][$i]['host'] = 'localhost';
$cfg['Servers'][$i]['compress'] = false;
$cfg['Servers'][$i]['AllowNoPassword'] = false;

/**
```

- installer cockpit
- apt install cockpit
- aller dans /etc/cockpit
- creer un fichier cockpit.conf
- et mettre le dns approprier (admin.starfleet.lan)
- [WebService]
- Origins = https://cockpit.domain.tld wss://cockpit.domain.tld
- ProtocolHeader = X-Forwarded-Proto
- installer nginx

- suivre linstallation sur https://nginx.org/en/linux_packages.html
- configurer nginx
- aller dans /usr/share/nginx
- creer des dossier au nom de domaine (www7) (www8)
- et dans ses dossier creer un fichier et mettre script php_info
- exemple fichier index.php :
- <?php
- phpinfo();
- ?>
- ceci sert de lien symbolique
- ensuite aller dans /etc/nginx/conf.d
- creer des fichier pour chaque domaine
- 

```
 GNU nano 7.2                                                    www7.conf
server {
    listen 80;
    server_name www7.starfleet.lan;
    return 301 https://$server_name$request_uri;  # Rediriger HTTP vers HTTPS
}



server {
       server_name www7.starfleet.lan;
       listen 443 ssl;

      ssl_certificate /etc/ssl/certs/nginx.crt;
      ssl_certificate_key /etc/ssl/private/nginx.key;

    location / {
        root   /usr/share/nginx/www7;
        index  index.php index.html index.htm;
autoindex on;
    }
       access_log /var/log/nginx/access_www7.log;
       error_log  /var/log/nginx/error_www7.log;
    location ~ \.php$
    {
     root           /usr/share/nginx/www7;
     fastcgi_index  index.php;
     fastcgi_pass   unix:/run/php/php7.4-fpm.sock;
     fastcgi_param  SCRIPT_FILENAME $document_root$fastcgi_script_name;
     include        fastcgi_params;
    }
}
```

pour cockpit / admin.conf

```
# location ~ \.php$ {
    #root /usr/share/nginx/admin;
    #fastcgi_pass unix:/var/run/php/php7.4-fpm.sock;
    #fastcgi_index index.php;
    #fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
    #include fastcgi_params;
# }

 location / {

    # Required to proxy the connection to Cockpit
    proxy_pass https://127.0.0.1:9090;
    proxy_set_header Host $host;
    proxy_set_header X-Forwarded-Proto $scheme;

    # Required for web sockets to function
    proxy_http_version 1.1;
    proxy_buffering off;
```

apt install proftpd et proftpd-mod-crypto
cd /etc/proftpd nano proftpd.conf

-

```
# Activer l'accès pour Amandine
<Directory /usr/share/nginx>
    # Interdire l'écriture dans ce répertoire
    <Limit WRITE>
        AllowAll
    </Limit>

    # Autoriser la lecture dans ce répertoire
    <Limit READ>
        AllowAll
    </Limit>
 # Autoriser la lecture dans ce répertoire
    <Limit RETR>
        DenyAll
    </Limit>

</Directory>

# Restreindre Amandine à son répertoire (chroot)
DefaultRoot /usr/share/nginx
# Configurer les ports passifs pour les connexions FTP
PassivePorts 60000 65535
```

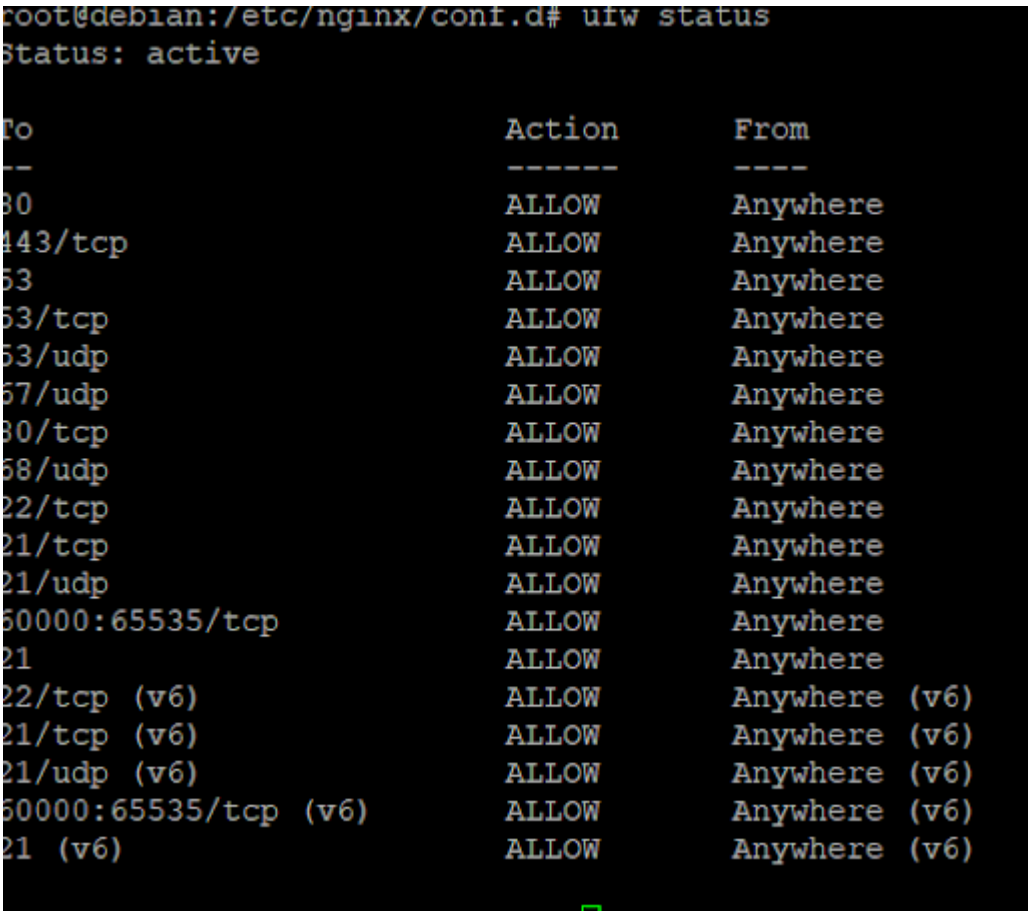
```
322  usermod -aG www.data amandine
323  usermod -aG www-data amandine
324  id amandine
325  chown -R amandine:www-data /usr/share/nginx
326  chown -R 750  /usr/share/nginx
327  ufw status numbered
328  ufw allow 21/ud
329  ufw allow 21/udp
330  chown -R 760  /usr/share/nginx
331  chown -R 766  /usr/share/nginx
332  chown -R 750  /usr/share/nginx
333  chmod  -R 766  /usr/share/nginx
334  chown -R amandine:www-data /usr/share/nginx
335  chmod  -R 766  /usr/share/nginx
336  ls -ld /usr/share/nginx
337  sudo chmod 755 /usr/share/nginx
338  ls -ld /usr/share/nginx
339  sudo find /usr/share/nginx -type d -exec chmod 755 {} \;
340  sudo tail -f /var/log/proftpd/proftpd.log
341  sudo ls -ld /
342  sudo ls -ld /usr/share/nginx
343  sudo ls -l /usr/share/nginx
344  cd /etc/proftpd
345  nano proftpd.conf
346  sudo systemctl restart proftpd
347  ftp 192.168.42.146
348  sudo iptables -A INPUT -p tcp --dport 54642 -j ACCEPT
349  nano proftpd.conf
350  sudo systemctl restart proftpd
351  ftp 192.168.42.146
```

```
sudo useradd -d /usr/share/nginx -s /sbin/nologin amandine
sudo passwd amandine
sudo chown -R amandine:amandine /usr/share/nginx
sudo chmod -R 755 /usr/share/nginx
```

```
root@debian:/etc# sudo systemctl restart proftpd
root@debian:/etc# ftp 192.168.42.146
Connected to 192.168.42.146.
220 ProFTPD Server (starfleet) [192.168.42.146]
Name (192.168.42.146:x): amandine
331 Mot de passe requis pour amandine
Password:
230 Utilisateur amandine authentifié
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> pwd
Remote directory: /
ftp> ls
229 Entering Extended Passive Mode (|||27729|)
150 Ouverture d'une connexion de données en mode ASCII pour file list
drwxr-xr-x   2 amandine amandine     4096 Sep  5 09:47 admin
drwxr-xr-x   2 amandine amandine     4096 Sep  4 11:46 html
drwxr-xr-x   2 amandine amandine     4096 Sep  6 08:55 php
drwxr-xr-x   2 amandine amandine     4096 Sep 10 08:48 www7
drwxr-xr-x   2 amandine amandine     4096 Sep  5 09:47 www8
226 Téléchargement terminé
ftp>
```

pare feu
apt install ufw

```
284  ufw enable
285  ip a
286  ufw allow 80
287  ufw status
288  ufw allow 443/tcp
289  ufw status
290  ufw allow 53
291  ufw status
292  ufw allow 53/tcp
293  ufw status
294  ufw allow 53/udp
295  ufw status
296  ufw allow 67/udp
297  ufw allow 80/tcp
298  ufw status
299  ufw allow 68/udp
300  ss -tulnp | grep named
301  ufw status numbered
302  ufw delet 10
303  ufw status numbered
304  ufw delete 10
305  ufw status numbered
306  ufw delete 11
307  ufw status numbered
308  ufw delete 11
309  ufw status numbered
310  ufw delete 9
311  ufw status numbered
312  ufw delete 9
313  ufw status numbered
314  ufw delete 9
315  ufw status numbered
316  ufw delete 9
317  ufw status numbered
318  ufw delete 9
319  ufw status numbered
320  ufw allow 22/tcp
```


root@debian:/etc/nginx/conf.d# ufw status
Status: active
To Action From
-- ------ ----
80 ALLOW Anywhere
443/tcp ALLOW Anywhere
53 ALLOW Anywhere
53/tcp ALLOW Anywhere
53/udp ALLOW Anywhere
67/udp ALLOW Anywhere
80/tcp ALLOW Anywhere
68/udp ALLOW Anywhere
22/tcp ALLOW Anywhere
21/tcp ALLOW Anywhere
21/udp ALLOW Anywhere
60000:65535/tcp ALLOW Anywhere
21 ALLOW Anywhere
22/tcp (v6) ALLOW Anywhere (v6)
21/tcp (v6) ALLOW Anywhere (v6)
21/udp (v6) ALLOW Anywhere (v6)
60000:65535/tcp (v6) ALLOW Anywhere (v6)
21 (v6) ALLOW Anywhere (v6)

pour le tls
installer proftpd-mod-crypto
activer le modul mod_tls.c dans modul.conf
et rajouter les cles ssl dans tls.conf

```
</IfModule>

<IfModule mod_tls.c>
  TLSEngine                  on
  TLSLog                     /var/log/proftpd/tls.log

  # Chemin vers les fichiers de certificat SSL
  TLSRSACertificateFile      /etc/ssl/certs/nginx.crt
  TLSRSACertificateKeyFile   /etc/ssl/private/nginx.key

  # Activer TLS v1.2 et versions supérieures
  TLSProtocol                TLSv1.2 TLSv1.3

  # Exiger l'utilisation de TLS pour toutes les connexions
  TLSRequired                on

  # Ne pas autoriser les connexions anonymes en TLS
  TLSVerifyClient            off

  # Activer les sessions TLS réutilisables
  TLSRenegotiate             none
  TLSOptions                 NoSessionReuseRequired

  # Activer le chiffrement pour les canaux de contrôle et de données
  TLSCipherSuite             HIGH
  TLSCertificateChainFile    /etc/ssl/certs/nginx.crt


  # Activer l'authentification et les connexions FTP/TLS explicites (FTPS)
 # TLSOptions                  NoCertRequest
  TLSRSACertificateFile      /etc/ssl/certs/nginx.crt
  TLSRSACertificateKeyFile   /etc/ssl/private/nginx.key
  TLSVerifyClient            off

  # Forcer la protection des données avec encryption
  TLSRequired                on

  # Paramètres pour la compatibilité avec FileZilla et autres clients FTP
  TLSOptions                 NoSessionReuseRequired
</IfModule>
```

et mettre le liens symbolique dans proftpd.conf

```
LoadModule mod_tls.c
# Includes DSO modules
Include /etc/proftpd/modules.conf
Include /etc/proftpd/tls.conf
# Set off to disable IPv6 support which is annoying on IPv4 only boxes.
UseIPv6 off
# If set on you can experience a longer connection delay in many cases.
<IfModule mod_ident.c>
```

et restart le proftpd