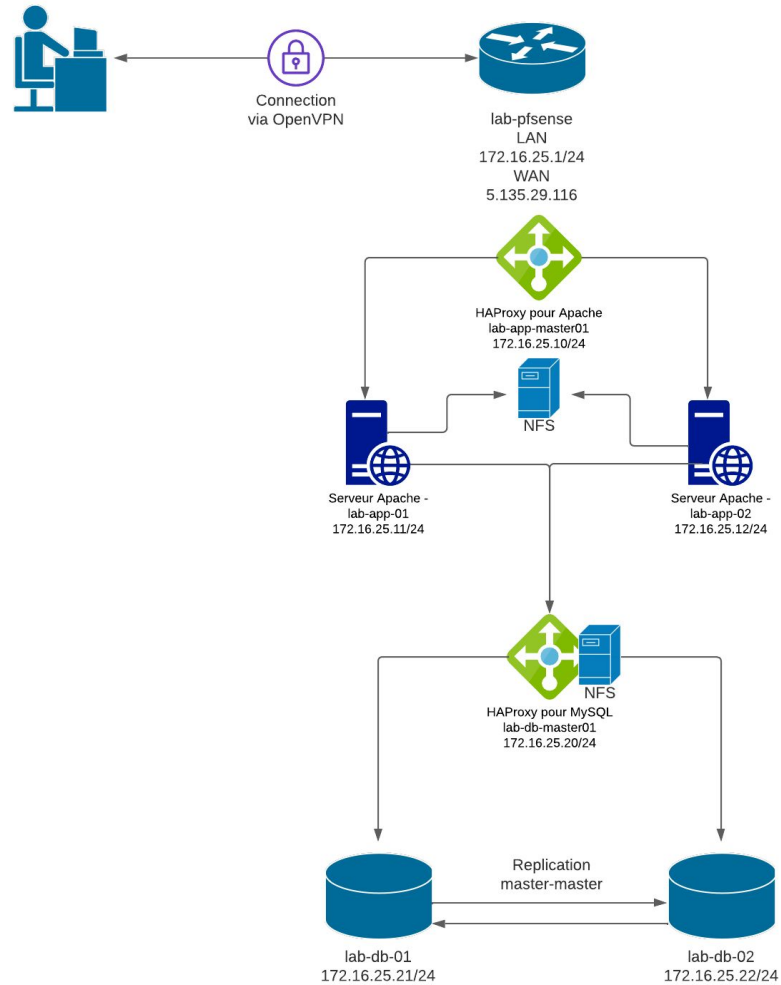


# Document 3LPIC





Anthony NGUYEN

# Diagramme



ESXI

# Liste des machines utilisées

<input type="checkbox"/>	 lab_pfsense	✓ Normale	8,6 Go	Autre Linux (64 bits)	Inconnu	44 MHz	400 Mo
<input type="checkbox"/>	 lab_app_01	✓ Normale	17,22 Go	Autre Linux (64 bits)	Inconnu	3 MHz	47 Mo
<input type="checkbox"/>	 lab_app_02	✓ Normale	1,22 Go	Autre Linux (64 bits)	Inconnu	2 MHz	47 Mo
<input type="checkbox"/>	 lab_db_01	✓ Normale	1,22 Go	Autre Linux (64 bits)	Inconnu	1 MHz	48 Mo
<input type="checkbox"/>	 lab_db_02	✓ Normale	1,22 Go	Autre Linux (64 bits)	Inconnu	2 MHz	48 Mo
<input type="checkbox"/>	 lab_db_master_01	✓ Normale	1,22 Go	Autre Linux (64 bits)	Inconnu	2 MHz	47 Mo
<input type="checkbox"/>	 lab_app_master_01	✓ Normale	1,22 Go	Autre Linux (64 bits)	Inconnu	3 MHz	47 Mo

Filtres rapides...

12 éléments

# Paramètres sur toutes les machines

Modifier les paramètres - lab\_app\_01 (Machine virtuelle ESXi 6.0)

Matériel virtuel

Matériel virtuelOptions VM

Ajouter un disque dur

Ajouter un adaptateur réseau



Ajouter un autre périphérique

CPU	4	
Mémoire	1024	Mo
Disque dur 1	16	Go
Contrôleur SCSI 0	LSI Logic Parallel	
Contrôleur USB 1	USB 2.0	
Adaptateur réseau 1	Lab Network	<input checked="" type="checkbox"/> Connecter
Lecteur de CD/DVD 1	Fichier ISO banque de données	<input checked="" type="checkbox"/> Connecter
Carte vidéo	Paramètres par défaut	

Enregistrer

Annuler

# Sélectionner l'ISO de Debian

▼  Lecteur de CD/DVD 1	Fichier ISO banque de données ▼	<input checked="" type="checkbox"/> Connecter 
État	<input checked="" type="checkbox"/> Connecter lors de la mise sous tension	
Support CD/DVD	[datastore1] isos/debian-11.2.0-amd64-netinst.iso	Parcourir...
Emplacement du contrôleur	Contrôleur IDE 0 ▼	Maître ▼

# Évaluer le nombre de vCPUs

(procLog x cores ) x sockets = vcpus

(8 x 4) x 1 = 32 vCPUs

▼  CPU	
Processeurs logiques	8
Type de processeur	Intel(R) Xeon(R) CPU E3-1245 V2 @ 3.40GHz
Sockets	1
Cœurs par socket	4
Hyperthreading	Oui, activé
 Mémoire	31,91 Go



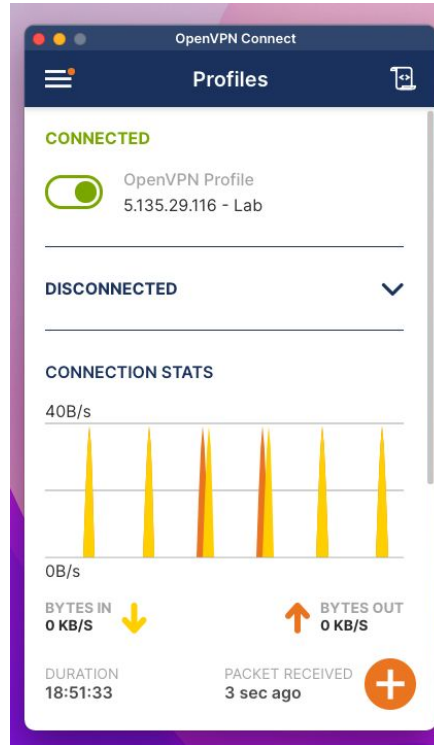
# pfSense

```
VMware Virtual Machine - Netgate Device ID: 41d097d179356cfebb1e
```

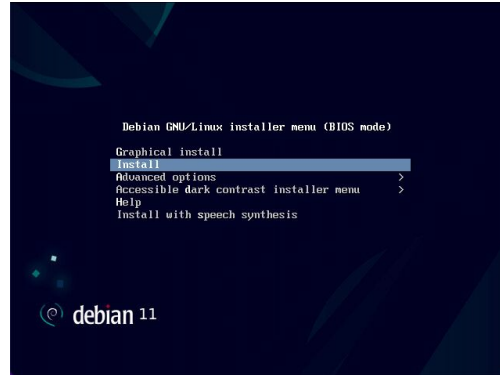
```
*** Welcome to pfSense 2.5.1-RELEASE (amd64) on pfSense ***
```

```
WAN (wan)      -> em0          -> v4: 5.135.29.116/24  
LAN (lan)      -> em1          -> v4: 172.16.25.1/24
```

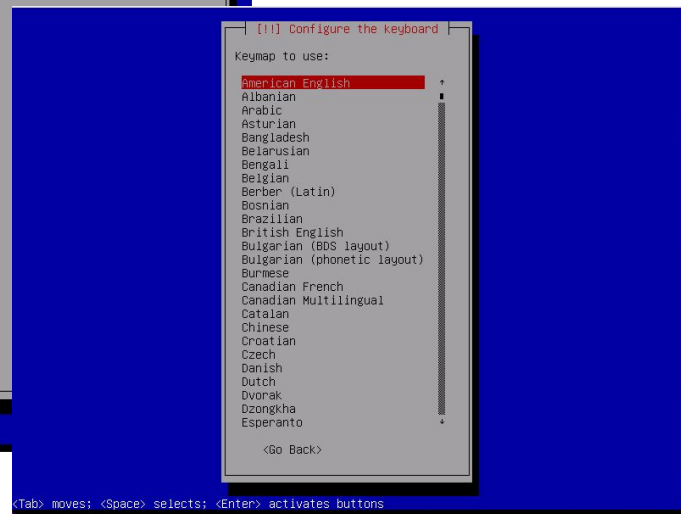
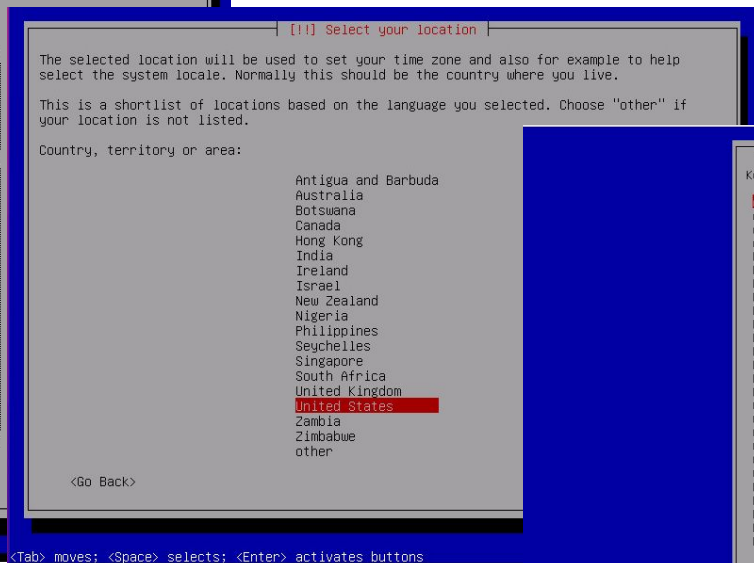
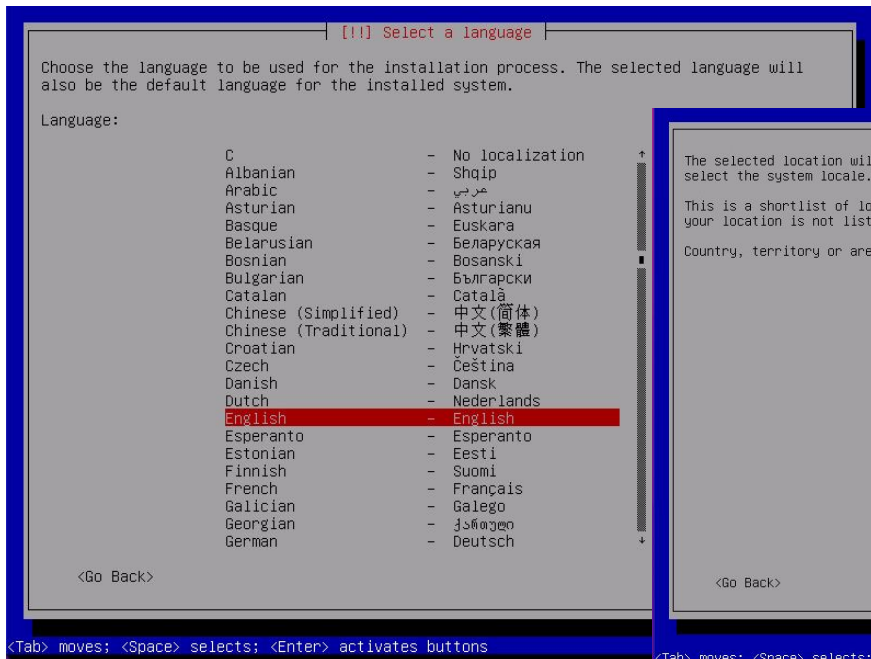
# OpenVPN



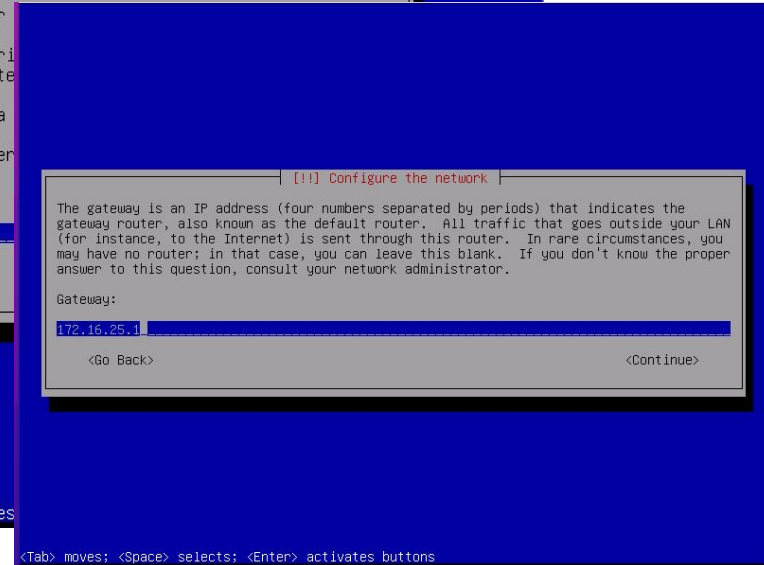
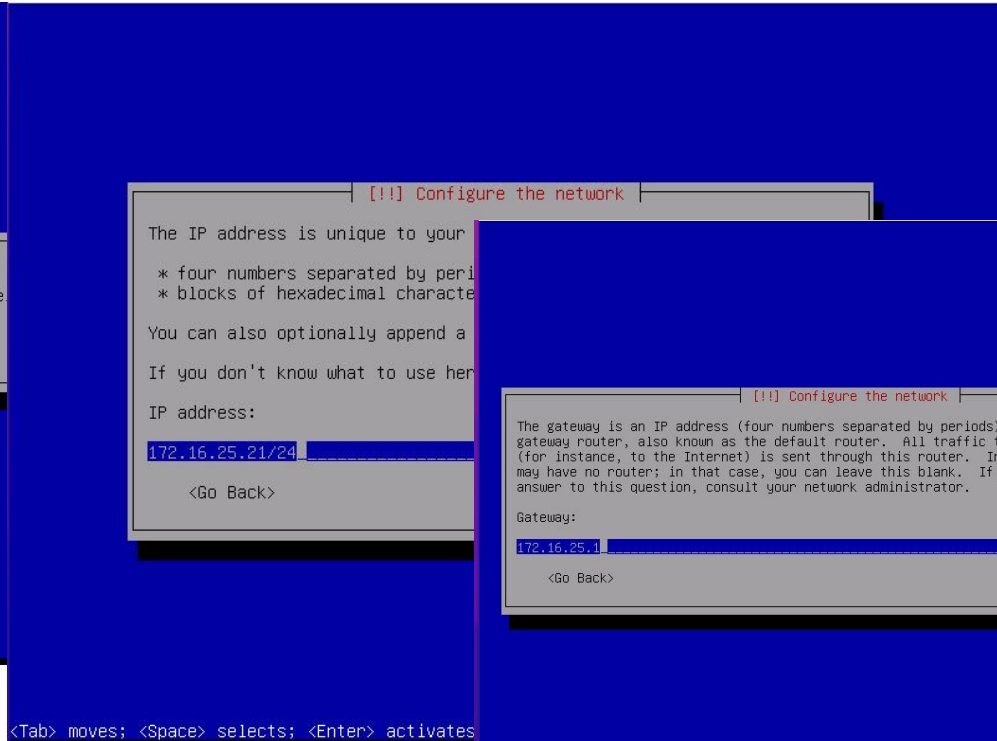
# Installation Debian (sur 6 VMs)



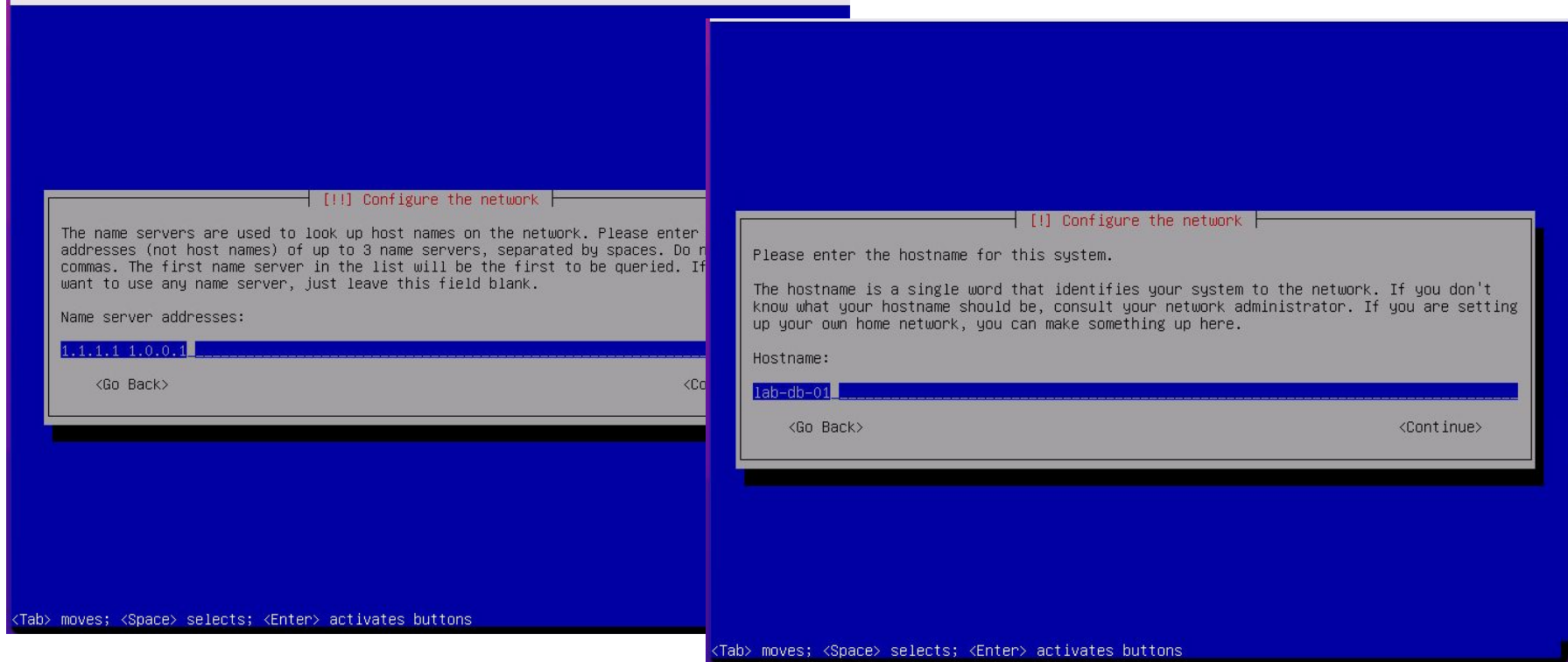
# Language/Lieu/Keyboard par défaut



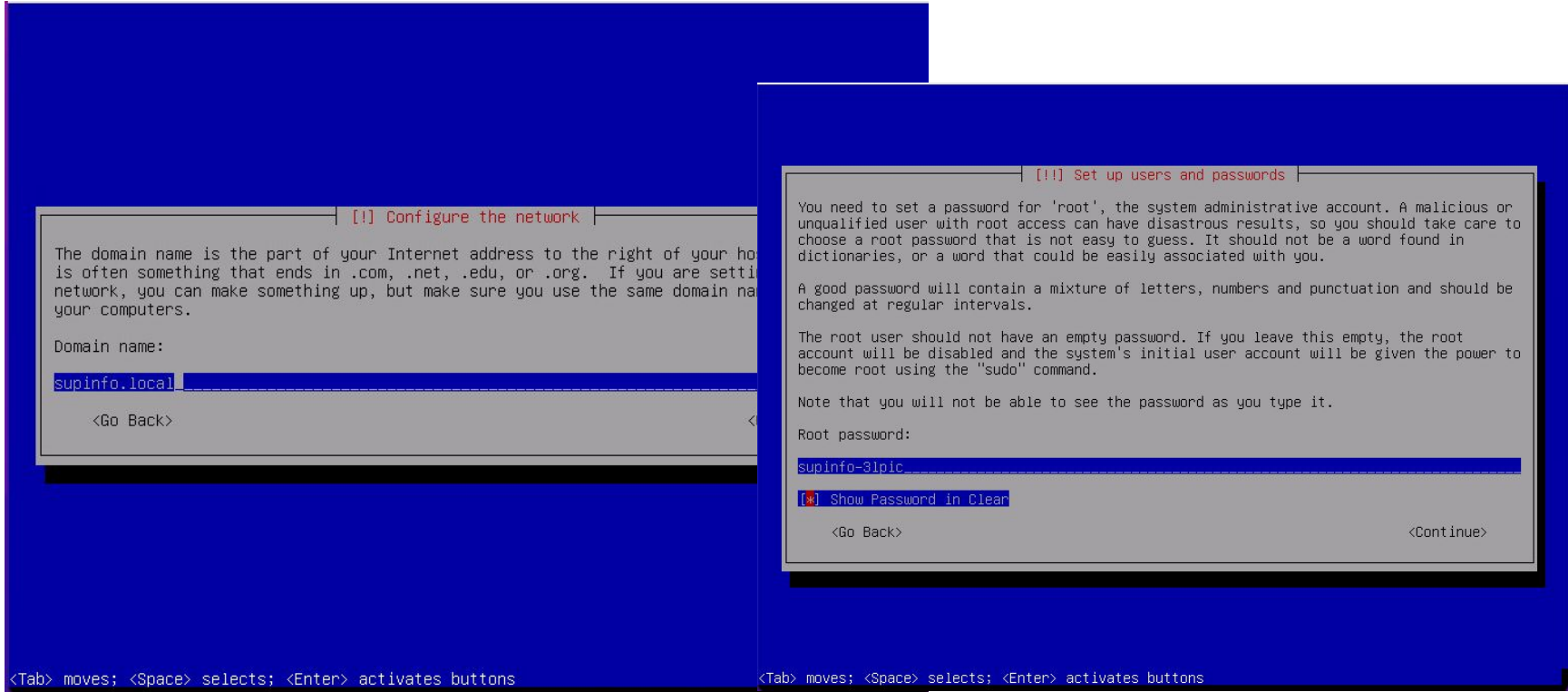
# Configuration de l'IP statique



# Setup DNS et Hostname



# Domain name et mdp



# Horloge et disques

## [!] Configure the clock

If the desired time zone is not listed, then please go back to the step "Choose language" and select a country that uses the desired time zone (the country where you live or are located).

Select your time zone:

Eastern  
Central  
Mountain  
Pacific  
Alaska  
Hawaii  
Arizona  
East Indiana  
Samoa

<Go Back>

<Tab> moves; <Space> selects; <Enter> activates buttons

## [!] Partition disks

The installer can guide you through partitioning a disk (using different standard schemes) or, if you prefer, you can do it manually. With guided partitioning you will still have a chance later to review and customise the results.

If you choose guided partitioning for an entire disk, you will next be asked which disk should be used.

Partitioning method:

Guided - use entire disk  
Guided - use entire disk and set up LVM  
Guided - use entire disk and set up encrypted LVM  
Manual

<Go Back>

<Tab> moves; <Space> selects

## [!] Partition disks

Note that all data on the disk you select will be erased, but not before you have confirmed that you really want to make the changes.

Select disk to partition:

SCSI3 (0,0,0) (sda) - 17.2 GB VMware Virtual disk

<Go Back>

<Tab> moves; <Space> selects; <Enter> activates buttons



# Package Manager

[!] Configure the package manager

Please select a Debian archive mirror. You should use a mirror in your country or region if you do not know which mirror has the best Internet connection to you.

Usually, deb.debian.org is a good choice.

Debian archive mirror:

ftp.us.debian.org ↑  
debian.csail.mit.edu  
debian.osuosl.org  
debian.cc.lehigh.edu  
debian.gtisc.gatech.edu  
mirror.cc.columbia.edu  
**deb.debian.org**  
debian-archive.trafficmanager.net  
mirrors.lug.mtu.edu  
mirror.us.oneandone.net  
mirrors.bloomu.edu  
mirrors.namecheap.com  
mirrors.ocf.berkeley.edu  
debian.mirror.constant.com  
mirrors.advancedhosters.com  
mirror.cogentco.com  
mirrors.syringanetworks.net  
mirrors.gigenet.com  
mirror.us.leaseweb.net  
debian.ec.as6453.net  
mirrors.accretive-networks.net ↓

<Go Back>

# Services

## [!] Software selection

At the moment, only the core of the system is installed. To tune the system to your needs, you can choose to install one or more of the following predefined collections of software.

Choose software to install:

- ☐ Debian desktop environment
- ☐ ... GNOME
- ☐ ... Xfce
- ☐ ... GNOME Flashback
- ☐ ... KDE Plasma
- ☐ ... Cinnamon
- ☐ ... MATE
- ☐ ... LXDE
- ☐ ... LXQt
- ☒ web server
- ☒ SSH server
- ☒ standard system utilities

<Continue>

# Config SSH Client

```
config
1 Host lab-app-master-01
2   User root
3   Hostname 172.16.25.10
4
5 Host lab-app-01
6   User root
7   Hostname 172.16.25.11
8
9 Host lab-app-02
10  User root
11  Hostname 172.16.25.12
12
13 Host lab-db-master-01
14  User root
15  Hostname 172.16.25.20
16
17 Host lab-db-01
18  User root
19  Hostname 172.16.25.21
20
21 Host lab-db-02
22  User root
23  Hostname 172.16.25.22
24
```

# Config SSH Serveur

## Autoriser le login SSH en root

```
root@lab-db-01:~# nano /etc/ssh/sshd_config
```

```
# Authentication:  
  
#LoginGraceTime 2m  
PermitRootLogin yes_
```

```
root@lab-db-01:~# systemctl restart sshd
```

# SSH Client

```
Comp 1001251 - Command Line Tutorial - Computer  
[(base) ngyanthony@MacBook-Pro-de-Anthony ~ % ssh lab-db-01  
The authenticity of host '172.16.25.21 (172.16.25.21)' can't be established.  
ED25519 key fingerprint is SHA256:mUvCWAleWY0ql6Z+A0VRR7e1tUTj8Bfe+sgCIahNmGA.  
This key is not known by any other names  
Are you sure you want to continue connecting (yes/no/[fingerprint])? █
```

```
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  
Warning: Permanently added '172.16.25.21' (ED25519) to the list of known hosts.  
root@172.16.25.21's password:  
Linux lab-db-01 5.10.0-11-amd64 #1 SMP Debian 5.10.92-1 (2022-01-18) x86_64  
  
The programs included with the Debian GNU/Linux system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*/copyright.  
  
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent  
permitted by applicable law.  
Last login: Sun Feb 13 10:02:18 2022  
root@lab-db-01:~# █
```

HTTPS

# Trousseau MacOS - Root CA



# OpenSSL

Cryptography and SSL/TLS Toolkit



```


-----BEGIN CERTIFICATE-----
MIIDqjCCApKgAwIBAgIBATANBgkqhkiG9w0BAQFADBBMRAdGwYDVQQKQAdTVVBj
TkZPMQowCwYDVQQHDARMMWU09MRQwEgYDVQQIDATSSSE90RS1BTfBFUzELMAkGA1UE
BHMCRlxiFATBgNVBAMMDCoY3TmtbGFiLmRldjAeFw0yMjY1MTkxNjExNDZaFw0y
NDAYMTkxNjExNDZaZmEoxCzAJBGNVBAITAKZSMRQwEgYDVQQIDATSSSE90RS1BTfBF
UzEQMA4GA1UECgWU1VSU56TGtEMTBGA1UEAwwKM3Y3bGFiLmRldjCCASiWdQYj
KozThvcNAQEbbQdGgPPADCCAQcggEBA16Fyfl6dM71UyJHxUEH763X3ZT6PqQ2
JpD7A8cRurbh/4jzevdA2z16btPjgh45MT1wrK7ygeDSuQrDpfAKIPg1HR0wDkvZ
3eImVg0jVoL46JlQz9qElkdGz/wVXduCavfkZw3u3xQJCmREib6tViWxQQC7DgWw
neJmUyW2UKnk2AEQVYhZ2E8GHubUm0D6pc5imr3uAypwkp2JlFAyoDTovdRfNBtrC
74WxK00QwVFXARR5NLWPv3lFuXh/iNTs+a6SKkt1jCPEioPT4fSw44jufxxn11
uL5xm8BLdMxETE72D7oAcrX/TMBjZf1tcBbCS3dsLCQdMR4L+HrsCAWEAA0B
iTCBhJagNVHRMBAf8E4A1AA8BgGAA1UDQgWBBSQYi7mw01/bR/BSnL7mq0o2JgU
LjAlBgNVHQ8EBAMCBPAAIAyDVR0LAQH/BBYwFAYIKwYBBQUHAEGCCSGAQUFBWMC
McG6A1UdEQEB/wQeMByCmZnLWxhY5kZXAcdnd3dy5jcy1sYWIUzGV2WMA06CSqG
StB3DQEBAQUAA4IBAQQ0aXidCpG/mXn0PbKBBk1wbWfWqGmhsJdZ5/5f+eDEBn
7H4CGD1ZLWXCjPS+NM3Dk6i0pKGE/4KevK2+KNSA0Hd0GIGjgK7u8DT5DxdQgic
b5i9C2w1sBbhn/0TQX7ee7C/3KS5LWd0Xk0ITWK50coF/1ibhWCYTcZ3NTGT
NU/KLf0cKnlLn0CJfFq0aC3QsIG6g+ngzjLmAnA6PwPawuYAUXF2xx0p6aYtQAadU3
BJdD6rpPfAJ0X9bX0iAkk1JrxYyhbz83T1cq+DV9jgPJVMQMHEvWj60EWXIUYPJ
yMNFtJ7nvW3Ev8PuqA8U10V6Tmt4JSiH5TldtLvH
-----END CERTIFICATE-----

-----BEGIN CERTIFICATE REQUEST-----
MIIDOTCCAIECAQWTEQMA4GA1UECgWU1VSU56TGtENMAsGA1UEBwwETfLPTJEU
MBIGA1UECAwLUkhPTkUtQXUqRVNMcGZAJBgNVBAITAKZSMRQwEgYDVQQDADpjc1s
YWIUzGV2MIIBiJANBgkqhkiG9w0BAQEFAAQCAQ8AMIIBCgKQAQEAvOxJ8vp8zvT
Idcm4Qf5bdfdlMY/pDYk93Sdxx66tuH/iPN690dbPUZu0+PKhhIy3XB6rvKB4NK5
Cs0t8Aog+UdDgZ259nd6WZWA6WNgvYjokjRND16WR2Bn/Bvd24Jg9+rLbe7FFAkK
ZESJSA1WJbF8AL50Bcd4mZRjDQcYqYARBvBkMFY+evY7Etf+I02zmKave4C/CMt
aHt8dKgN0i925W6G5FXW6XnPGbWesObERFHKtYpU4B4ytf9MwG10kXW1fZpYUz0W0I8
SKg9P9lD9105/HG6FXW6XnPGbWesObERFHKtYpU4B4ytf9MwG10kXW1fZpYUz0W0I8

```



# HAProxy - Redirection HTTPS + Cert

```
frontend main
  bind *:80
   bind *:443 ssl crt /etc/haproxy/certs/ssl-certs.pem
  redirect scheme https if !{ ssl_fc }
  mode http
  default_backend app
```

# HAProxy - Redirection HTTPS + Cert

```
# utilize system-wide crypto-policies  
# ssl-default-bind-ciphers PROFILE=SYSTEM  
# ssl-default-server-ciphers PROFILE=SYSTEM
```

# MySQL HA

# MySQL Process

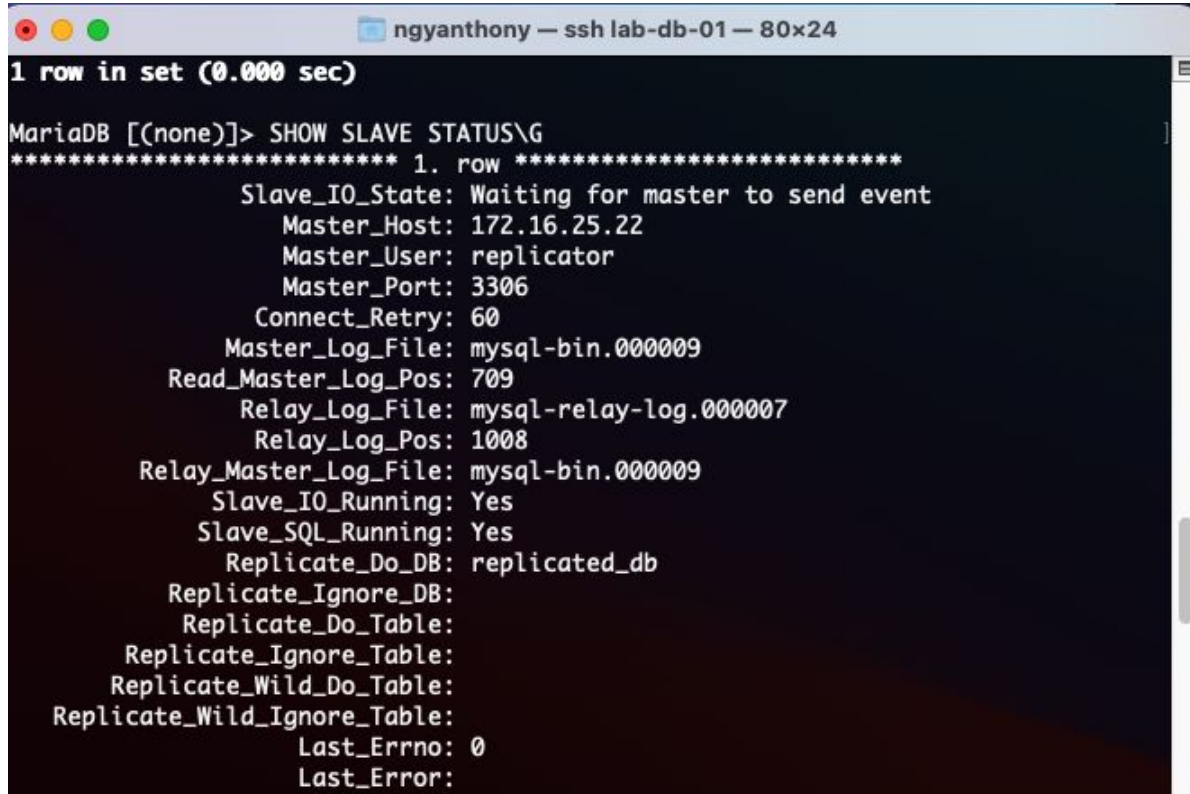
```
Terminal: lab-app-01 lab-app-02 lab-db-01 lab-db-02 lab-db-master-01 lab-app-master-01 + v
● mariadb.service - MariaDB 10.5.12 database server
   Loaded: loaded (/lib/systemd/system/mariadb.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2022-02-14 15:41:52 EST; 5 days ago
     Docs: man:mariadb(8)
           https://mariadb.com/kb/en/library/systemd/
   Process: 3595 ExecStartPre=/usr/bin/install -m 755 -o mysql -g root -d /var/run/mysqld (code=exited, s
   Process: 3596 ExecStartPre=/bin/sh -c systemctl unset-environment _WSREP_START_POSITION (code=exited,
   Process: 3598 ExecStartPre=/bin/sh -c [ ! -e /usr/bin/galera_recovery ] && VAR= || VAR=`cd /usr/bin/
   Process: 3747 ExecStartPost=/bin/sh -c systemctl unset-environment _WSREP_START_POSITION (code=exited,
   Process: 3749 ExecStartPost=/etc/mysql/debian-start (code=exited, status=0/SUCCESS)
 Main PID: 3730 (mariabdb)
   Status: "Taking your SQL requests now..."
    Tasks: 15 (limit: 1132)
  Memory: 149.8M
     CPU: 4min 12.220s
   CGroup: /system.slice/mariadb.service

lines 1-16
```

# HAProxy - Load balancing MySQL

```
listen mysql-cluster
    bind *:3306
    mode tcp
    balance roundrobin
    option mysql-check
    default-server fastinter 1000
    server mysql-1 172.16.25.21:3306 check
    server mysql-2 172.16.25.22:3306 check
```

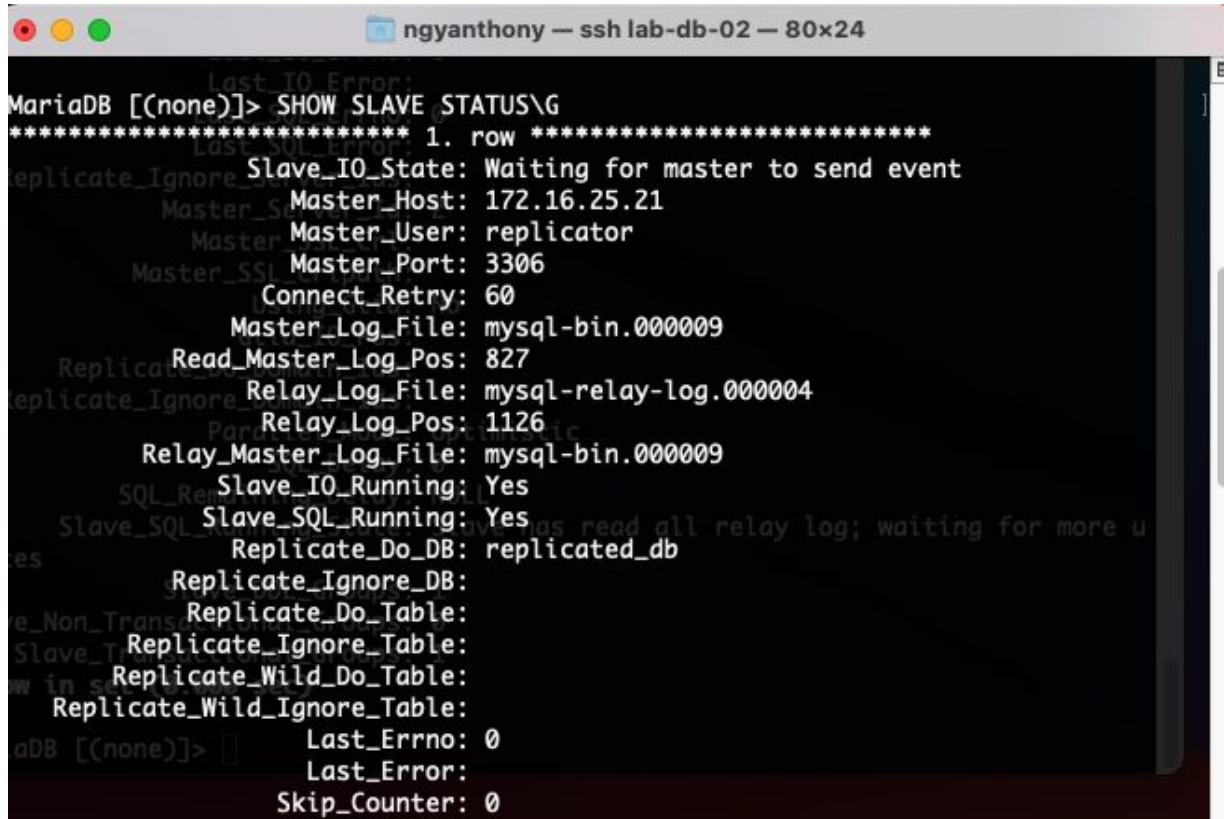
# HAProxy - Load balancing MySQL

A terminal window with a dark background and light text. The window title bar shows 'ngyanthony — ssh lab-db-01 — 80x24'. The terminal output shows the command 'SHOW SLAVE STATUS\G' and its results. The status is 'Slave\_IO\_State: Waiting for master to send event'. The master host is '172.16.25.22' and the master user is 'replicator'. The master port is '3306'. The connect retry is '60'. The master log file is 'mysql-bin.000009'. The read master log position is '709'. The relay log file is 'mysql-relay-log.000007'. The relay log position is '1008'. The relay master log file is 'mysql-bin.000009'. The slave IO is running, the slave SQL is running, and the replicate do database is 'replicated\_db'. The replicate ignore database is empty. The replicate do table is empty. The replicate ignore table is empty. The replicate wild do table is empty. The replicate wild ignore table is empty. The last errno is '0' and the last error is empty.

```
ngyanthony — ssh lab-db-01 — 80x24
1 row in set (0.000 sec)

MariaDB [(none)]> SHOW SLAVE STATUS\G
***** 1. row *****
      Slave_IO_State: Waiting for master to send event
        Master_Host: 172.16.25.22
        Master_User: replicator
        Master_Port: 3306
        Connect_Retry: 60
        Master_Log_File: mysql-bin.000009
    Read_Master_Log_Pos: 709
        Relay_Log_File: mysql-relay-log.000007
        Relay_Log_Pos: 1008
    Relay_Master_Log_File: mysql-bin.000009
      Slave_IO_Running: Yes
      Slave_SQL_Running: Yes
        Replicate_Do_DB: replicated_db
        Replicate_Ignore_DB:
        Replicate_Do_Table:
    Replicate_Ignore_Table:
    Replicate_Wild_Do_Table:
    Replicate_Wild_Ignore_Table:
          Last_Errno: 0
          Last_Error:
```

# HAProxy - Load balancing MySQL

A terminal window titled 'ngyanthony — ssh lab-db-02 — 80x24' displays the output of the 'SHOW SLAVE STATUS\G' command in MariaDB. The output shows the slave is in a 'Waiting for master to send event' state. The master host is 172.16.25.21, and the master user is 'replicator'. The master port is 3306. The connect retry is 60. The master log file is 'mysql-bin.000009', and the read master log position is 827. The relay log file is 'mysql-relay-log.000004', and the relay log position is 1126. The relay master log file is 'mysql-bin.000009'. The slave IO running is 'Yes', and the slave SQL running is 'Yes'. The replicate do DB is 'replicated\_db'. The replicate ignore DB is empty. The replicate do table is empty. The replicate ignore table is empty. The replicate wild do table is empty. The replicate wild ignore table is empty. The last errno is 0, the last error is empty, and the skip counter is 0.

```
MariaDB [(none)]> SHOW SLAVE STATUS\G
***** 1. row *****
Slave_IO_State: Waiting for master to send event
Master_Host: 172.16.25.21
Master_User: replicator
Master_Port: 3306
Connect_Retry: 60
Master_Log_File: mysql-bin.000009
Read_Master_Log_Pos: 827
Relay_Log_File: mysql-relay-log.000004
Relay_Log_Pos: 1126
Relay_Master_Log_File: mysql-bin.000009
Slave_IO_Running: Yes
Slave_SQL_Running: Yes
Replicate_Do_DB: replicated_db
Replicate_Ignore_DB:
Replicate_Do_Table:
Replicate_Ignore_Table:
Replicate_Wild_Do_Table:
Replicate_Wild_Ignore_Table:
Last_Errno: 0
Last_Error:
Skip_Counter: 0
```

# Apache HA



# HAProxy - Redirection HTTPS + Cert

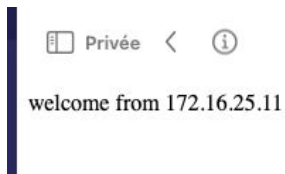
```
#-----  
# main frontend which proxys to the backends  
#-----  
frontend main  
    bind *:80  
    bind *:443 ssl crt /etc/haproxy/certs/ssl-certs.pem  
    redirect scheme https if !{ ssl_fc }  
    mode http  
    default_backend          app  
  
#-----  
# round robin balancing between the various backends  
#-----  
backend app  
    balance roundrobin  
    server app1 172.16.25.11:80 check  
    server app2 172.16.25.12:80 check
```

# HAProxy - Redirection HTTPS + Cert

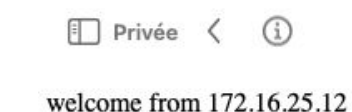
```
Terminal: lab-app-01 lab-app-02 lab-db-01 lab-db-02 lab-db-master-01 lab-app-master-01 + v
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Sat 2022-02-19 17:10:58 EST; 14min ago
     Docs: https://httpd.apache.org/docs/2.4/
  Process: 33988 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
 Main PID: 33992 (apache2)
    Tasks: 7 (limit: 1132)
   Memory: 19.9M
      CPU: 248ms
   CGroup: /system.slice/apache2.service
           └─33992 /usr/sbin/apache2 -k start
           └─33993 /usr/sbin/apache2 -k start
           └─33994 /usr/sbin/apache2 -k start
           └─33995 /usr/sbin/apache2 -k start
           └─33996 /usr/sbin/apache2 -k start
           └─33997 /usr/sbin/apache2 -k start
```

lines 1-16

# Ça fonctionne !



```
Last login: Sat Feb 15 11:20:05 EET from 10.10.10.10  
[root@lab-app-01:~# systemctl stop apache2
```



NFS

# Serveurs NFS sur DB-Master et App-Master

```
root@lab-db-master-01:~# showmount -e
Export list for lab-db-master-01:
/data/nfs 172.16.25.0/255.255.255.0
```

```
root@lab-app-master-01:/data/nfs/www/filegator# showmount -e
Export list for lab-app-master-01:
/data/nfs 172.16.25.0/255.255.255.0
```

```
root@lab-app-02:~# mount | grep nfs
172.16.25.10:/data/nfs on /data/nfs_mounted type nfs4 (rw,relatime,vers=4.2,rsize=131072,wsiz=131072,namlen=255,hard,proto=tcp,timeo=600,retrans=2,sec=sys,clientaddr=172.16.25.12,local_lock=none,addr=172.16.25.10)
172.16.25.10:/data/nfs on /mnt/shared_data type nfs4 (rw,relatime,vers=4.2,rsize=131072,wsiz=131072,namlen=255,hard,proto=tcp,timeo=600,retrans=2,sec=sys,clientaddr=172.16.25.12,local_lock=none,addr=172.16.25.10)
```

# Filegator

# Filegator - Interface



[Files](#) [Users](#) [Admin](#) [Log out](#)

[Home](#)



[Add files](#) [+ New](#)

No pagination

<input type="checkbox"/>	Name	Size	Time
<input type="checkbox"/>	test	0 Bytes	22/02/19 11:24:02

Selected: 0 of 1

# Filegator - Path utilisés

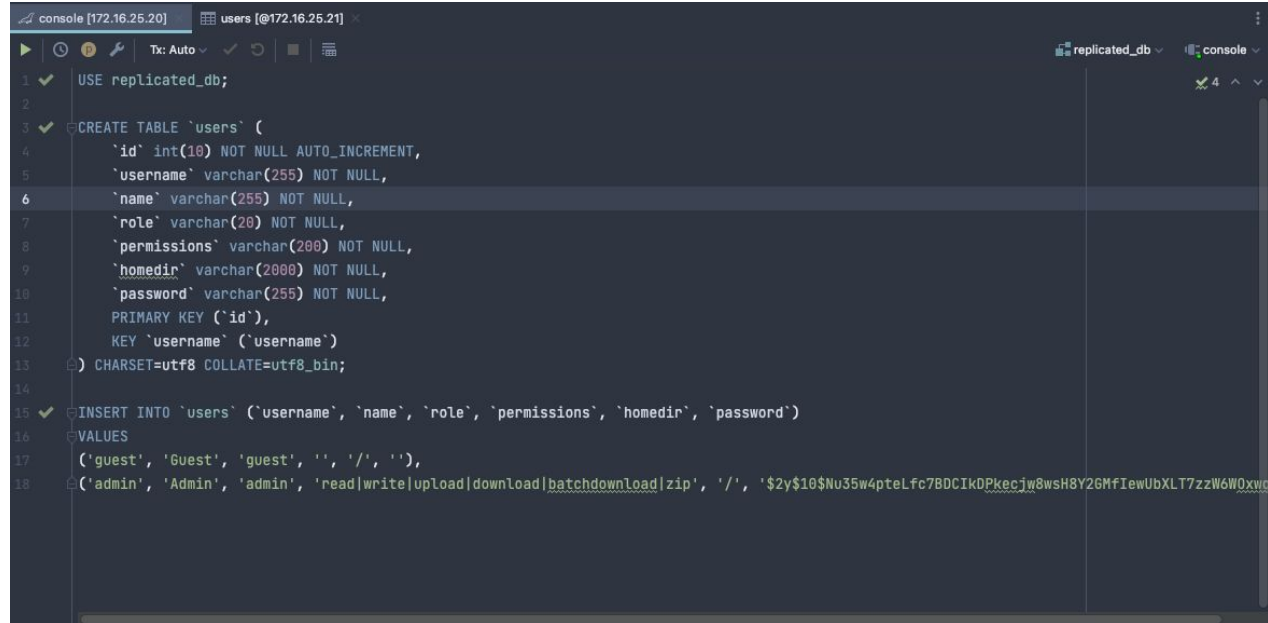
```
root@lab-app-02:/mnt/shared_data/www/filegator# ls
backend  CHANGELOG.md  composer.json  configuration.php  CONTRIBUTING.md  docker  LICENSE  package-lock.json  repository  SECURITY.md
BACKERS.md  CODE_OF_CONDUCT.md  composer.lock  configuration_sample.php  dist  index.php  package.json  private  robots.txt  vendor
```

```
root@lab-app-master-01:/data/nfs/www/filegator# ls
BACKERS.md  CODE_OF_CONDUCT.md  LICENSE  backend  composer.lock  configuration_sample.php  docker  package-lock.json  private  robots.txt
CHANGELOG.md  CONTRIBUTING.md  SECURITY.md  composer.json  configuration.php  dist  index.php  package.json  repository  vendor
```

```
root@lab-app-02:/mnt/shared_data/www/filegator/repository# ls
test
```



# Filegator - Utilisation de la DB

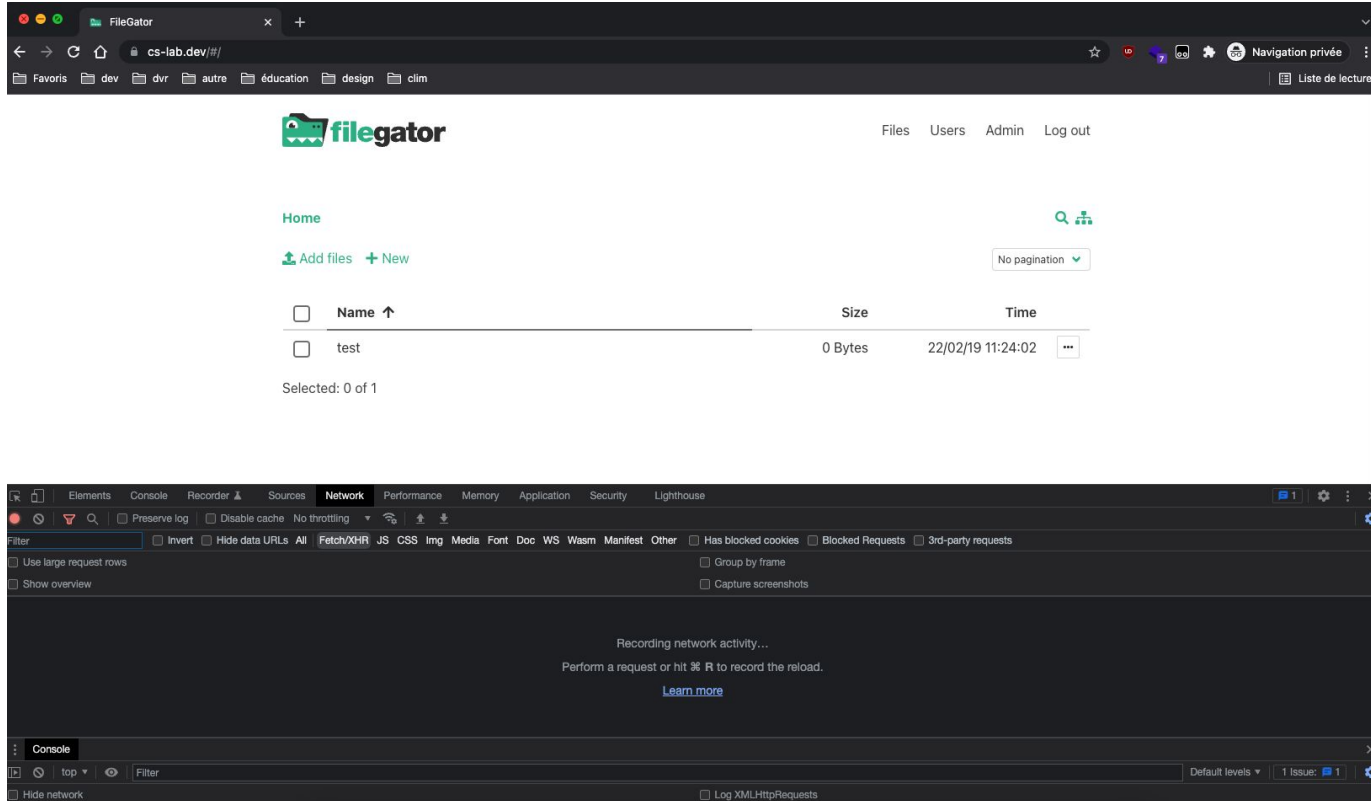


# Filegator - Configuration PHP

```
'Filegator\Services\Auth\AuthInterface' => [  
    'handler' => '\Filegator\Services\Auth\Adapters\Database',  
    'config' => [  
        'driver' => 'mysqli',  
        'host' => '172.16.25.20',  
        'username' => 'supinfo',  
        'password' => 'supinfo-3lpic',  
        'database' => 'replicated_db',  
    ],  
],
```

```
apt install php-fpm  
a2enmod proxy_fcgi setenvif  
a2enconf php7.4-fpm  
  
apt-get install php-mysql
```

# Accès via HAProxy... ça marche !



The screenshot displays a web browser window with the FileGator interface. The address bar shows the URL `cs-lab.dev/#!/`. The FileGator logo is visible, along with navigation links for Files, Users, Admin, and Log out. The main content area shows a "Home" section with a search icon and a "No pagination" dropdown. Below this is a table with columns for Name, Size, and Time. The table contains one entry: "test" with a size of "0 Bytes" and a timestamp of "22/02/19 11:24:02". The status "Selected: 0 of 1" is shown at the bottom of the table.

Below the browser window, the Chrome DevTools Network tab is open. It shows a list of network requests with filters for "Fetch/XHR", "JS", "CSS", "Img", "Media", "Font", "Doo", "WS", "Wasm", "Manifest", and "Other". The "Network" tab is selected, and the "Recording network activity..." message is displayed. The "Console" tab is also visible at the bottom, showing a "Log XMLHttpRequests" option.

... ou pas.

The screenshot shows a web browser window with the FileGator application running at `cs-lab.dev/#/users`. The browser's address bar shows the URL and navigation controls. The FileGator interface includes a logo, navigation links (Files, Users, Admin, Log out), and a '+ New' button. Below the main content area, the browser's developer tools are open to the Network tab. The Network tab shows a list of requests, with the 'Fetch/XHR' filter selected. Two requests are visible: `?ra/listusers` (Status: 404, Type: xhr, Initiator: `xhr.js:177`, Size: 358 B, Time: 77 ms) and `?ra/getuser` (Status: 200, Type: xhr, Initiator: `xhr.js:177`, Size: 483 B, Time: 30 ms). The Waterfall view shows the timing of these requests. The bottom of the developer tools shows the Console tab.

FileGator

cs-lab.dev/#/users

Files Users Admin Log out

+ New

No pagination

Network

Filter: ☐ Invert ☐ Hide data URLs ☒ Fetch/XHR ☐ JS ☐ CSS ☐ img ☐ Media ☐ Font ☐ Doc ☐ WS ☐ Wasm ☐ Manifest ☐ Other ☐ Has blocked cookies ☐ Blocked Requests ☐ 3rd-party requests

☐ Use large request rows ☐ Group by frame

☐ Show overview ☐ Capture screenshots

Name	Status	Type	Initiator	Size	Time	Waterfall
<code>?ra/listusers</code>	404	xhr	<code>xhr.js:177</code>	358 B	77 ms	
<code>?ra/getuser</code>	200	xhr	<code>xhr.js:177</code>	483 B	30 ms	

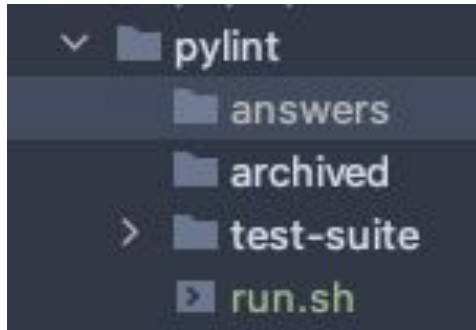
2 / 3 requests | 841 B / 841 B transferred | 156 B / 1.2 kB resources

Console

# Script/Watch

# Lint Python

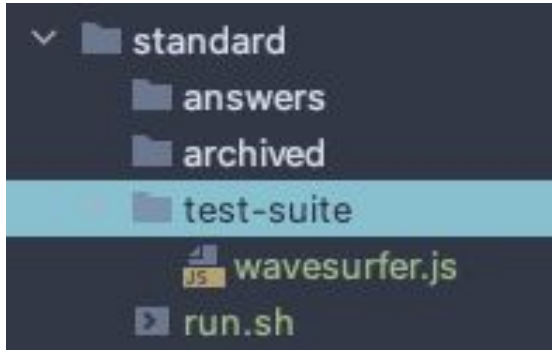
<https://github.com/PyCQA/pylint>



```
standard/run.sh x pylint/run.sh x
1  ▶ echo "RUNNING SCRIPT"
2
3  # CURRENT_DIR=$(pwd)
4  CURRENT_DIR="/data/nfs/www/filegator/repository/pylint"
5  TEST_DIR="${CURRENT_DIR}/test-suite"
6  ARCHIVE_DIR="${CURRENT_DIR}/archived"
7  ANSWERS_DIR="${CURRENT_DIR}/answers"
8
9  cd "$TEST_DIR"
10 # Get all files with python extension
11 FILES=$(ls | egrep '\.py$')
12
13 for f in $FILES
14 do
15     echo "Processing $f"
16     now=$(date +%FT%T")
17
18     # get results
19     result_path="${ANSWERS_DIR}/${now}-${f}-results.txt"
20     pylint "$f" > "$result_path"
21
22     # archive script files
23     archive_path="${ARCHIVE_DIR}/${f}"
24     mv "$f" "$archive_path"
25 done
26
27 echo "END OF SCRIPT"
28
```

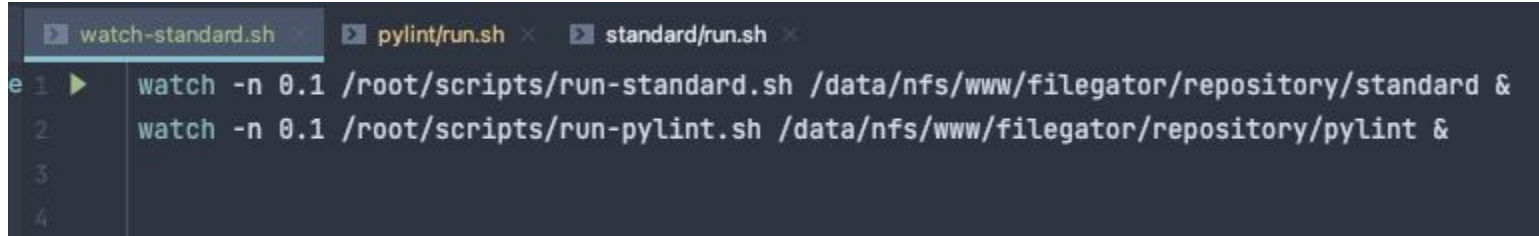
# Lint Javascript

<https://github.com/standard/standard>



```
run.sh x
1  ► echo "RUNNING SCRIPT"
2
3  #CURRENT_DIR=$(pwd)
4  CURRENT_DIR="/data/nfs/www/filegator/repository/standard"
5  TEST_DIR="${CURRENT_DIR}/test-suite"
6  ARCHIVE_DIR="${CURRENT_DIR}/archived"
7  ANSWERS_DIR="${CURRENT_DIR}/answers"
8
9  cd "$TEST_DIR"
10 # Get all files with javascript extension
11 FILES=$(ls | egrep '\.js$')
12
13 for f in $FILES
14 do
15     echo "Processing $f"
16     now=$(date +%FT%T)
17
18     # get results
19     result_path="${ANSWERS_DIR}/${now}-${f}-results.txt"
20     standard "$f" > "$result_path"
21     # npx standard "$f" > "$result_path"
22
23     # archive script files
24     archive_path="${ARCHIVE_DIR}/${f}"
25     mv "$f" "$archive_path"
26 done
27
28 echo "END OF SCRIPT"
29
```

# Watch



```
watch-standard.sh x pylint/run.sh x standard/run.sh x
e 1 ▶ watch -n 0.1 /root/scripts/run-standard.sh /data/nfs/www/filegator/repository/standard &
  2 watch -n 0.1 /root/scripts/run-pylint.sh /data/nfs/www/filegator/repository/pylint &
  3
  4
```



FIN.