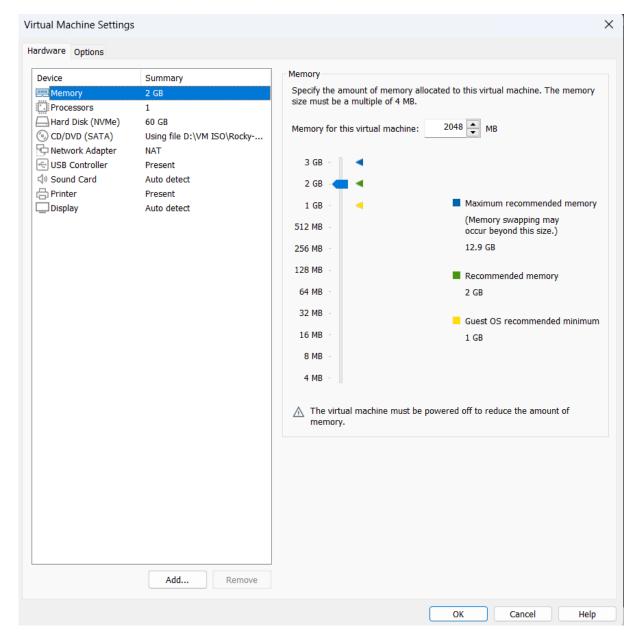
# **Tp documentation**

## Création d'une machine Rocky linux :



La 1ère chose est de créé un groupe et un utilisateur pour notre serveur wiki :

[root@localhost ~]# sudo groupadd --system wiki

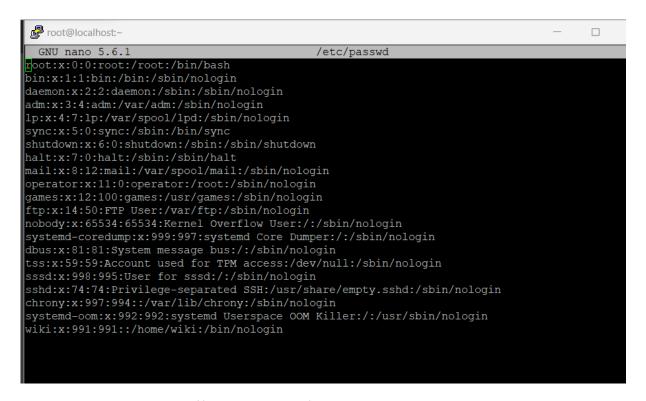
On regarde si notre groupe a bien été créer :

```
[root@localhost ~]# getent group
root:x:0:
bin:x:1:
daemon:x:2:
sys:x:3:
adm:x:4:
tty:x:5:
disk:x:6:
lp:x:7:
mem:x:8:
kmem:x:9:
wheel:x:10:
cdrom:x:11:
mail:x:12:
man:x:15:
dialout:x:18:
floppy:x:19:
games:x:20:
tape:x:33:
video:x:39:
ftp:x:50:
lock:x:54:
audio:x:63:
users:x:100:
nobody:x:65534:
utmp:x:22:
utempter:x:35:
input:x:999:
kvm:x:36:
render:x:998:
systemd-journal:x:190:
systemd-coredump:x:997:
dbus:x:81:
ssh keys:x:996:
tss:x:59:
sssd:x:995:
sshd:x:74:
chrony:x:994:
sgx:x:993:
systemd-oom:x:992:
wiki:x:991:
```

On créer notre utilisateur :

```
[root@localhost ~]# sudo useradd -s /sbin/nologin --system -g wiki wiki
```

On vérifie si il a bien été créer :



#### On active et on installe les différents packages nécessaires :

```
root@localhost ~]# yum install epel-release
Last metadata expiration check: 0:16:59 ago on Thu Oct 5 08:53:00 2023.
Dependencies resolved.
Package
                                                                    Repository
Installing:
epel-release
                         noarch
                                                                    extras
Transaction Summary
Install 1 Package
Total download size: 19 k
Is this ok [y/N]: y
Downloading Packages:
epel-release-9-7.el9.noarch.rpm
                                                             240 kB/s | 19 kB
Total
                                                              34 kB/s | 19 kB
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
 Preparing
              : epel-release-9-7.el9.noarch
  Installing
 Running scriptlet: epel-release-9-7.el9.noarch
Many EPEL packages require the CodeReady Builder (CRB) repository.
It is recommended that you run /usr/bin/crb enable to enable the CRB repository.
  Verifying
                  : epel-release-9-7.el9.noarch
Installed:
 epel-release-9-7.el9.noarch
root@localhost ~1#
```

[root@localhost ~]# yum install -y git vim wget curl unzip socat mariadb-server Last metadata expiration check: 0:02:27 ago on Thu Oct 5 09:10:17 2023. Package curl-7.76.1-19.el9.x86\_64 is already installed. Dependencies resolved.

Package	Arch	Version	Repository	Size		
Installing:						
git	x86_64	2.39.3-1.el9_2	appstream	61 k		
mariadb-server	x86 64	3:10.5.16-2.el9 0	appstream	9.4 M		
socat	x86 64	1.7.4.1-5.el9	appstream	300 k		
unzip	x86 64	6.0-56.el9	baseos	180 k		
vim-enhanced	x86 64	2:8.2.2637-20.el9 1	appstream	1.8 M		
wget	x86 64	1.21.1-7.el9	appstream	769 k		
Upgrading:						
curl	x86 64	7.76.1-23.el9 2.2	baseos	294 k		
libcurl	x86 64	7.76.1-23.e19 <sup>2</sup> .2	baseos	284 k		
libselinux	x86 64	3.5-1.el9	baseos	85 k		
libselinux-utils	x86 64	3.5-1.el9	baseos	159 k		
libsemanage	x86 64	3.5-1.el9	baseos	117 k		
libsepol	x86 64	3.5-1.el9	baseos	314 k		
libssh	x86 64	0.10.4-8.el9	baseos	212 k		
libssh-config	noarch	0.10.4-8.el9	baseos	9.7 k		
openssl	x86 64	1:3.0.7-17.el9 2	baseos	1.2 M		
openssl-libs	x86 64	1:3.0.7-17.e19 <sup>2</sup>	baseos	2.1 M		
policycoreutils	x86 64	3.5-1.el9	baseos	204 k		
python3-libselinux	x86 64	3.5-1.el9	appstream	187 k		
Installing dependencies:						
checkpolicy	x86 64	3.5-1.el9	appstream	345 k		
emacs-filesystem	noarch	1:27.2-8.el9_2.1	appstream	7.9 k		
git-core	x86 64	2.39.3-1.el9 <sup>2</sup>	appstream	4.2 M		
git-core-doc	noarch	2.39.3-1.el9 <sup>2</sup>	appstream	2.6 M		
gpm-libs	x86_64	$1.20.7 - 29.e1\overline{9}$	appstream	20 k		
mariadb	x86_64	3:10.5.16-2.el9_0	appstream	1.6 M		
mariadb-common	x86_64	3:10.5.16-2.el9_0	appstream	31 k		
mariadb-connector-c	x86_64	3.2.6-1.el9_0	appstream	195 k		
mariadb-connector-c-config	noarch	3.2.6-1.el9 0	appstream	9.8 k		

[root@localhost ~] # curl -sL https://rpm.nodesource.com/setup\_18.x | sudo bash -

SCRIPT DEPRECATION WARNING

This script, located at https://rpm.nodesource.com/setup\_X, used to install Node.js is deprecated now and will eventually be made inactive.

Please visit the NodeSource distributions Github and follow the instructions to migrate your repo.

 $\underline{\texttt{https://github.com/nodesource/distributions}}$ 

The NodeSource Node.js Linux distributions GitHub repository contains information about which versions of Node.js and which Linux distributions are supported and how to install it. https://github.com/nodesource/distributions

SCRIPT DEPRECATION WARNING

TO AVOID THIS WAIT MIGRATE THE SCRIPT

Continuing in 60 seconds (press Ctrl-C to abort) ...

```
root@localhost:~
                                                                                     TO AVOID THIS WAIT MIGRATE THE SCRIPT
Continuing in 60 seconds (press Ctrl-C to abort) ...
## Installing the NodeSource Node.js 18.x repo...
## Inspecting system...
uname -m
rocky-release-9.1-1.10.el9.noarch
exec redhat-release
Release package: rocky-release-9.1-1.10.el9.noarch
## Confirming "el9-x86_64" is supported...
curl -sLf -o /dev/null 'https://rpm.nodesource.com/pub_18.x/el/9/x86_64/nodesource-release-
el9-1.noarch.rpm'
## Downloading release setup RPM...
+ curl -sL -o '/tmp/tmp.UcFjQSxnde' 'https://rpm.nodesource.com/pub 18.x/el/9/x86 64/nodesour
ce-release-e19-1.noarch.rpm'
## Installing release setup RPM...
  rpm -i --nosignature --force '/tmp/tmp.UcFjQSxnde'
## Cleaning up...
  rm -f '/tmp/tmp.UcFjQSxnde'
## Checking for existing installations...
 rpm -qa 'node|npm' | grep -v nodesource
## Run `sudo yum install -y nodejs` to install Node.js 18.x and npm.
## You may run dnf if yum is not available:
    sudo dnf install -y nodejs
## You may also need development tools to build native addons:
    sudo yum install gcc-c++ make
sudo yum install yarn
[root@localhost ~]#
```

				_
[root@localhost ~]# su Node.js Packages for E			1.3 MB/s   653 kB	00:00
Dependencies resolved.	ncerprise Linux	9 - 800_04	1.3 PD/5   033 KD	00.00
Package	Architecture	Version	Repository	Size
 Installing:				
nginx	x86_64	1:1.20.1-14.el9	appstream	38 1
nodejs	x86_64	2:18.17.1-1nodesour	ce nodesource	34 1
Installing dependencie				
nginx-core	x86_64	1:1.20.1-14.el9	appstream	567
nginx-filesystem	noarch	1:1.20.1-14.el9	appstream	10
rocky-logos-httpd	noarch	90.14-1.el9	appstream	24
ransaction Summary				
======================================				=======
Total download size: 3	E M			
nstalled size: 102 M	J M			
ownloading Packages:				
(1/5): nginx-filesystem	m-1 20 1-14 e19 i	noarch rpm	118 kB/s   10 kB	00:00
2/5): rocky-logos-httpd-90.14-1.el9.noarch.rpm		266 kB/s   24 kB	00:00	
3/5): nginx-1.20.1-14.el9.x86 64.rpm			709 kB/s   38 kB	00:00
4/5): nginx-core-1.20		.rpm	2.7 MB/s   567 kB	00:00
(5/5): nodejs-18.17.1-			27 MB/s   34 MB	00:01
 'otal			20 MB/s   35 MB	00:01
Node.js Packages for E	nterprise Linux	9 - x86 64	1.6 MB/s   1.6 kB	00:00
importing GPG key 0x34			110 122, 5   110 122	33133
Userid : "NodeSou		esource.com>"		
Fingerprint: 2E55 207	A 95D9 944B 0CC9	3261 5DDB E8D4 34FA	74DD	
From : /etc/pki	/rpm-gpg/NODESOU	RCE-GPG-SIGNING-KEY-E	L	
Key imported successfu	lly			
Running transaction ch				
ransaction check succ				
unning transaction te				
ransaction test succe	eded.			
unning transaction				
Preparing :				1/
	_	1:1.20.1-14.el9.noarc		1/
	ginx-filesystem-	1:1.20.1-14.el9.noarc	:h	1/ 2/
Installing : no	ginx-core-1:1.20			
Installing : no Installing : re	ocky-logos-httpd	-90.14-1.el9.noarch		3/
Installing : no Installing : re	ocky-logos-httpd ginx-1:1.20.1-14	-90.14-1.el9.noarch .el9.x86_64		

On démarre & configure mysql par défaut en exécutant le script :

```
root@localhost:~
                                                                                          \Box
                                                                                                X
[root@localhost ~]# systemctl start mariadb
[root@localhost ~] # mysql_secure_installation
NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MariaDB
      SERVERS IN PRODUCTION USE! PLEASE READ EACH STEP CAREFULLY!
In order to log into MariaDB to secure it, we'll need the current
password for the root user. If you've just installed MariaDB, and
haven't set the root password yet, you should just press enter here.
Enter current password for root (enter for none):
OK, successfully used password, moving on...
Setting the root password or using the unix socket ensures that nobody
can log into the MariaDB root user without the proper authorisation.
You already have your root account protected, so you can safely answer 'n'.
Switch to unix socket authentication [Y/n] y
Enabled successfully!
Reloading privilege tables..
... Success!
You already have your root account protected, so you can safely answer 'n'.
Change the root password? [Y/n] n
... skipping.
By default, a MariaDB installation has an anonymous user, allowing anyone
to log into MariaDB without having to have a user account created for
them. This is intended only for testing, and to make the installation go a bit smoother. You should remove them before moving into a
production environment.
Remove anonymous users? [Y/n] y
Normally, root should only be allowed to connect from 'localhost'. This
ensures that someone cannot guess at the root password from the network.
Disallow root login remotely? [Y/n] n
... skipping.
By default, MariaDB comes with a database named 'test' that anyone can
access. This is also intended only for testing, and should be removed
before moving into a production environment.
```

On se connecte à mysql avec le mot de passe précédemment définit :

```
[root@localhost ~]# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 10
Server version: 10.5.16-MariaDB MariaDB Server

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]>
```

On créé l'utilisateur wiki avec son mot de passe :

```
MariaDB [(none)]> CREATE USER 'wiki'@'localhost' IDENTIFIED BY 'Def@ultP@ssword';
Query OK, 0 rows affected (0.001 sec)
```

On créé notre database pour le wiki :

```
MariaDB [(none)]> CREATE DATABASE
-> database_name;
Query OK, 1 row affected (0.000 sec)
```

On donne les privilèges à notre utilisateur et on applique les droits :

```
MariaDB [(none)]> GRANT ALL PRIVILEGES ON
-> database_name.* TO
-> 'wiki'@'localhost';
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.000 sec)
```

Nous verrons notre BDD:

Nous verrons nos droits:

#### On quitte le service mariadb :

```
MariaDB [(none)]> exit
Bye
```

On installe maintenant redis:

```
[root@localhost ~]# sudo yum -y install redis
ast metadata expiration check: 0:16:21 ago on Thu Oct 5 09:16:59 2023.
Dependencies resolved.
                Architecture Version
Package
installing:
redis
                 x86 64
                                                               appstream
                                                                                     1.3 M
ransaction Summary
Install 1 Package
Total download size: 1.3 M
Installed size: 4.7 M
ownloading Packages:
redis-6.2.7-1.el9.x86 64.rpm
                                                           2.9 MB/s | 1.3 MB
                                                           787 kB/s | 1.3 MB
Running transaction check
ransaction check succeeded.
Running transaction test
ransaction test succeeded.
Running transaction
 Preparing
 Running scriptlet: redis-6.2.7-1.el9.x86 64
 Installing : redis-6.2.7-1.el9.x86 64
 Running scriptlet: redis-6.2.7-1.el9.x86_64
 Verifying
              : redis-6.2.7-1.el9.x86 64
nstalled:
 redis-6.2.7-1.el9.x86_64
Complete!
```

Created symlink /etc/systemd/system/multi-user.target.wants/redis.service  $\rightarrow$  /usr/lib/systemd/system/redis.service.

### On peut vérifier l'état du service :

```
Proot@localhost ~] # systemctl status redis
Iterative redis.service - Redis persistent key-value database
Loaded: loaded (/usr/lib/systemd/system/redis.service; enabled; vendor preset: disabled)
Drop-In: /etc/systemd/system/redis.service.d
Limit.conf
Active: active (running) since Thu 2023-10-05 09:34:18 CEST; lmin 46s ago
Main PID: 19416 (redis-server)
Status: "Ready to accept connections"
Tasks: 5 (limit: 10892)
Memory: 7.3M
CPU: 187ms
CGroup: /system.slice/redis.service
L19416 "/usr/bin/redis-server 127.0.0.1:6379"
Oct 05 09:34:18 srvwiki.js systemd[1]: Starting Redis persistent key-value database...
Oct 05 09:34:18 srvwiki.js systemd[1]: Started Redis persistent key-value database.
[root@localhost ~]# ||
```

#### On récupère les sources de la solution Wiki JS :

```
[root@localhost ~]# curl -s https://api.github.com/repos/Requarks/wiki/releases/latest | grep
browser_download_url | grep -v windows | cut -d '"' -f 4 | wget -qi -
```

#### On créé un répertoire :

```
[root@localhost ~]# sudo mkdir /srv/wiki
[root@localhost ~]# cd /srv/wiki
[root@localhost wiki]# ls
[root@localhost wiki]# cd
[root@localhost ~]# ls
anaconda-ks.cfg wiki-js.tar.gz
[root@localhost ~]# cd /srv/
[root@localhost srv]# ls
wiki
[root@localhost srv]#
```

#### On décompresse notre archive :

```
root@localhost:~
                                                                                            \Box
[root@localhost wiki]# sudo yum install tar -y
Last metadata expiration check: 0:28:38 ago on Thu Oct 5 09:16:59 2023.
Dependencies resolved.
Package
                   Architecture
                                        Version
                                                                       Repository
                                                                                              Size
Installing:
                                                                       baseos
                                                                                             876 k
Transaction Summary
Install 1 Package
Total download size: 876 k
Installed size: 3.0 M
Downloading Packages:
tar-1.34-6.el9 1.x86 64.rpm
                                                                 3.1 MB/s | 876 kB
                                                                 1.2 MB/s | 876 kB
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
               :
: tar-2:1.34-6.el9 1.x86 64
 Installing
 Running scriptlet: tar-2:1.34-6.el9_1.x86_64
Verifying : tar-2:1.34-6.el9_1.x86_64
Complete!
[root@localhost wiki]# sudo tar zxf wikijs.tar.gz -C /srv/wiki
tar (child): wikijs.tar.gz: Cannot open: No such file or directory
tar (child): Error is not recoverable: exiting now
tar: Child returned status 2
tar: Error is not recoverable: exiting now
[root@localhost ~]# ls
anaconda-ks.cfg wiki-js.tar.gz
[root@localhost ~] # sudo tar zxf wikijs.tar.gz -C /srv/wiki
tar (child): wikijs.tar.gz: Cannot open: No such file or directory
tar (child): Error is not recoverable: exiting now
tar: Child returned status 2
tar: Error is not recoverable: exiting now
```

#### On se déplace dans notre répertoire :

```
[root@localhost ~]# cd /srv/wiki
[root@localhost wiki]# ls
LICENSE assets config_sample.yml data node_modules package.json server
```

On fait une configuration au préalable :

```
[root@localhost wiki]# sudo cp config.sample.yml config.yml
[root@localhost wiki]# ls
LICENSE assets config.sample.yml config.yml data node_modules package.json server
```

Nous modifions maintenant le fichier de configuration (d'où la sauvegarde de celui-ci):

```
root@localhost:/srv/wiki
                                                                                \times
 GNU nano 5.6.1
                                                                        Modified
                                      config.yml
 ###############################
 Supported Database Engines:
 - postgres = PostgreSQL 9.5 or later
 - mssql = MS SQL Server 2012 or later
db:
 type: mariadb
 # PostgreSQL / MySQL / MariaDB / MS SQL Server only:
 host: localhost
 pass: Def@ultP@ssword
 db: database name
 ssl: false
```

On peut tester la configuration en faisant :

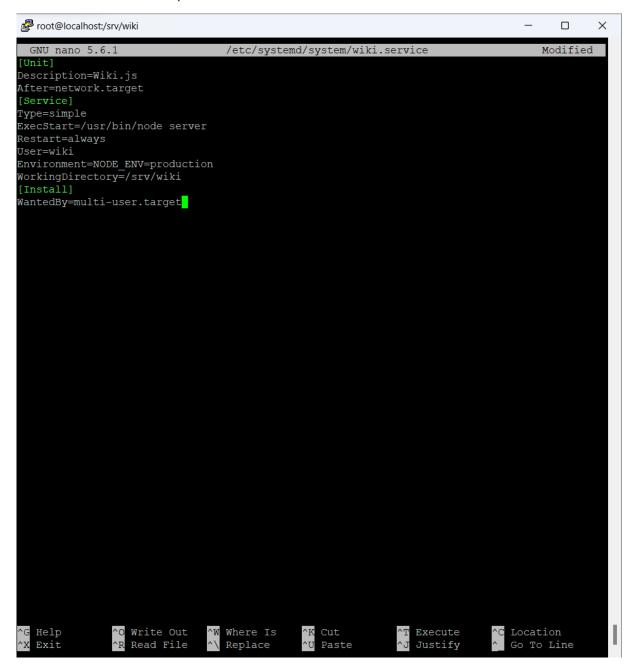
```
[root@localhost wiki]# sudo node server
                                                OK
2023-10-05T07:58:45.370Z [MASTER]
2023-10-05T07:58:45.372Z [MASTER] info: = Wiki.js 2.5.300 =======
2023-10-05T07:58:45.372Z [MASTER] info: ===
2023-10-05T07:58:45.372Z [MASTER] info: Initializing...
2023-10-05T07:58:45.957Z [MASTER] info: Using database driver mysql2 for mariadb [ OK ]
2023-10-05T07:58:45.976Z [MASTER]
                                info: Connecting to database...
2023-10-05T07:58:46.019Z [MASTER] info: Database Connection Successful [ OK ]
2023-10-05T07:58:46.786Z [MASTER] warn: DB Configuration is empty or incomplete. Switching to
Setup mode...
2023-10-05T07:58:46.787Z [MASTER] info: Starting setup wizard...
2023-10-05T07:58:46.916Z [MASTER] info: Starting HTTP server on port 3000...
2023-10-05T07:58:46.916Z [MASTER]
                                info: HTTP Server on port: [ 3000 ]
2023-10-05T07:58:46.919Z [MASTER] info: HTTP Server: [ RUNNING ]
2023-10-05T07:58:46.920Z [MASTER] info: ♡♡♡♡♡♡♡♡♡♡♡♡♡♡♡♡♡♡♡♡♡♡
2023-10-05T07:58:46.920Z [MASTER] info:
2023-10-05T07:58:46.920Z [MASTER] info: Browse to http://YOUR-SERVER-IP:3000/ to complete set
2023-10-05T07:58:46.921Z [MASTER] info:
Δ Δ Δ
```

Vous pouvez depuis votre navigateur internet, vous rendre sur la page d'installation de la solution ...... Mais cela ne va pas fonctionner! Le firewall activé par défaut sur Red Hat nécessite une ouverture :

```
[root@localhost ~]# firewall-cmd --add-port=3000/tcp --permanent success
[root@localhost ~]# firewall-cmd --reload
```

Maintenant nous allons le faire tourner en tant que service pour que cela fonctionne tout le temps :

On créer un fichier dans lequel on va écrire ceci :



On donne les droits :

```
[root@localhost wiki]# sudo chown -R wiki:wiki /srv/wiki
```

#### On relance:

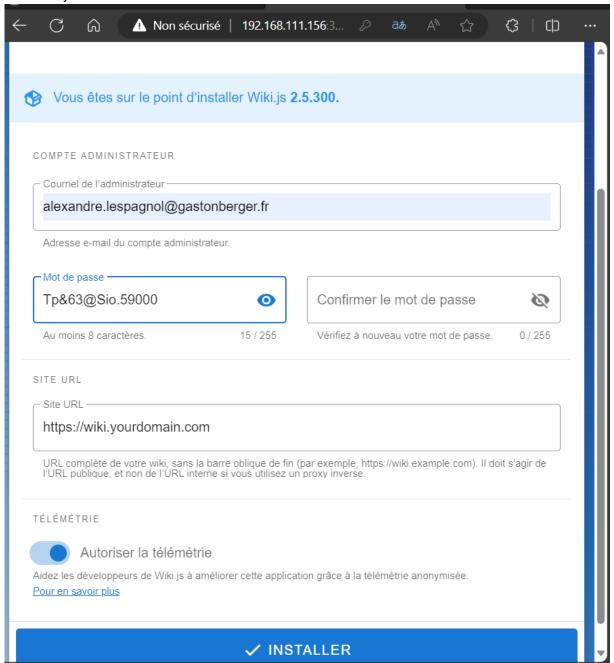
```
[root@localhost wiki]# sudo systemctl daemon-reload [root@localhost wiki]# sudo systemctl enable --now wiki.service Created symlink /etc/systemd/system/multi-user.target.wants/wiki.service → /etc/systemd/system/wiki.service.
```

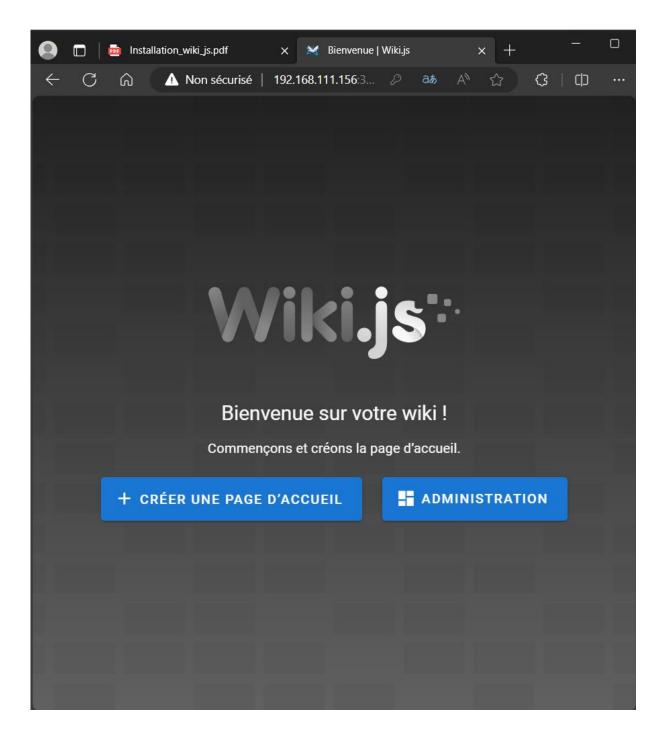
On peut vérifier si notre service est bien opérationnel :

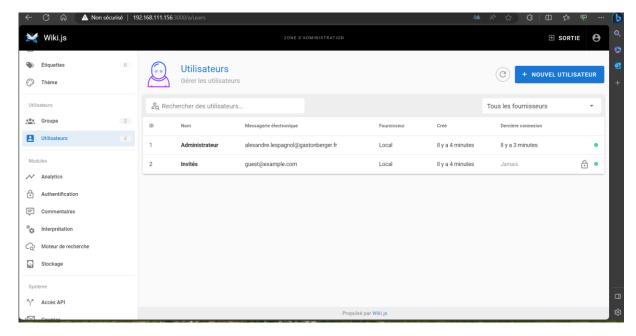
Nous devons ajouter des entrées pour SeLinux :

```
[root@localhost wiki]# sudo semanage port -a -t http_port_t -p tcp 3000
[root@localhost wiki]# sudo setsebool -P httpd_can_network_connect 1
```

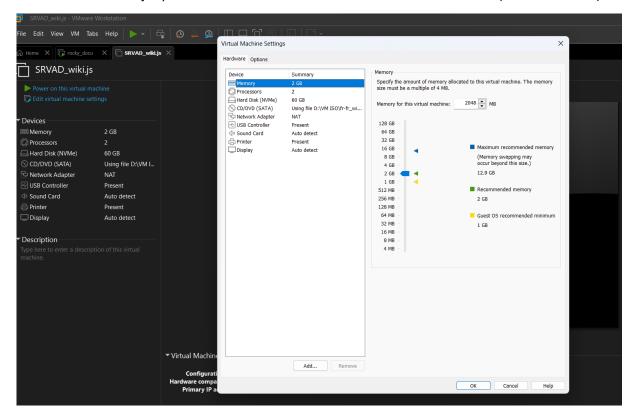
-Ensuite on rentre notre adresse Ip dans notre navigateur suivis de :3000 et on arrive bien à rentré dans wiki.js :



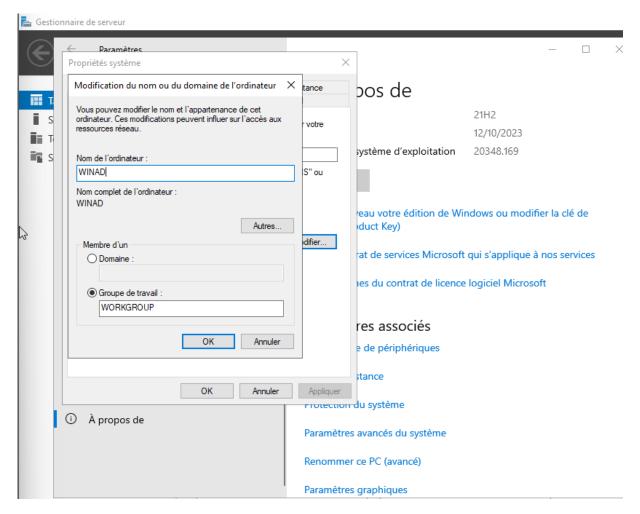




Nous avons bien wikijs opérationnel maintenant nous allons créer un serveur AD (windows server) :

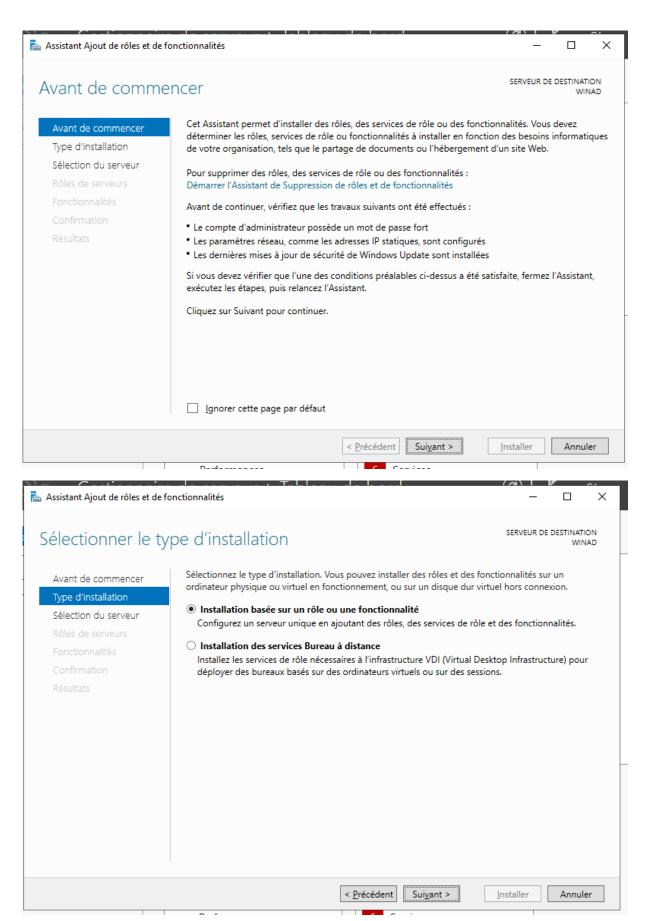


Changer le nom d'ordinateur par WINAD et faire un redémarrage :

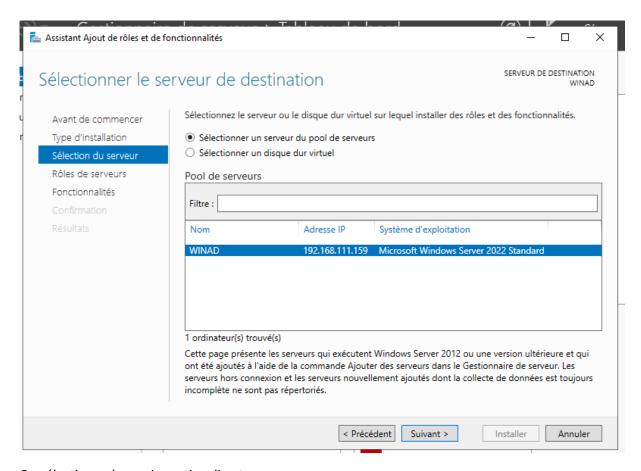


On redémarre le serveur pour que la modification soit bien prise en compte.

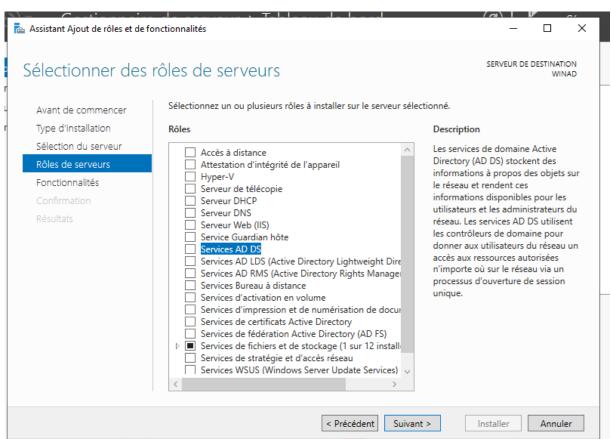
On ajoute des rôles et des fonctionnalités :

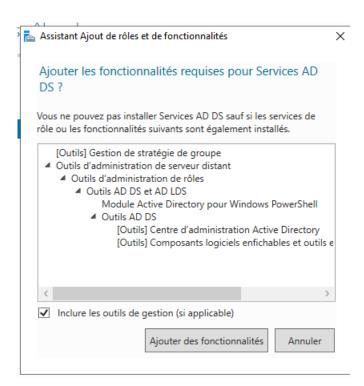


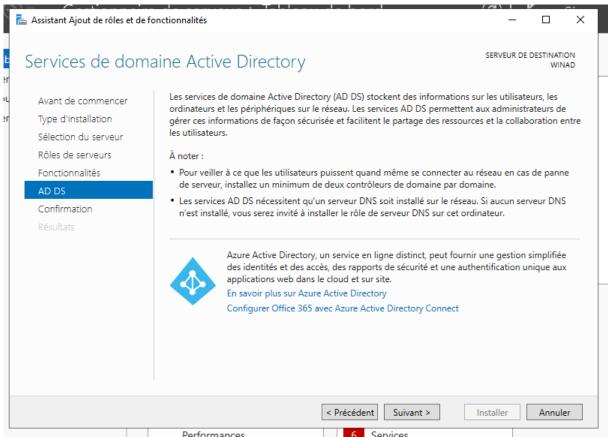
On sélectionne notre serveur :



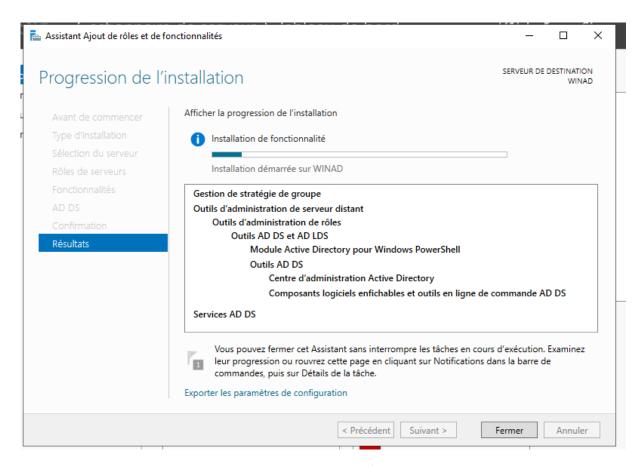
#### On sélectionne le service active directory :



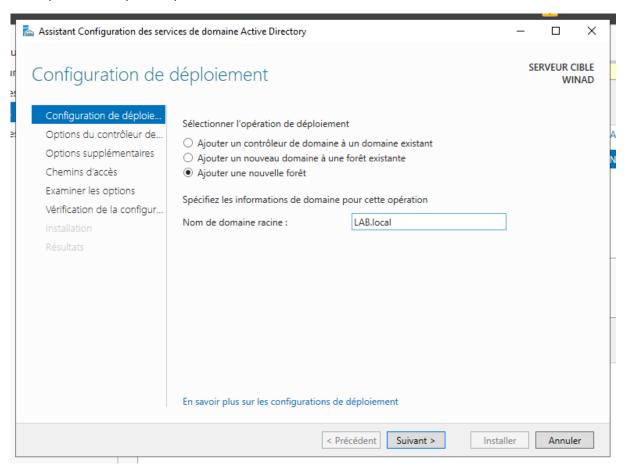




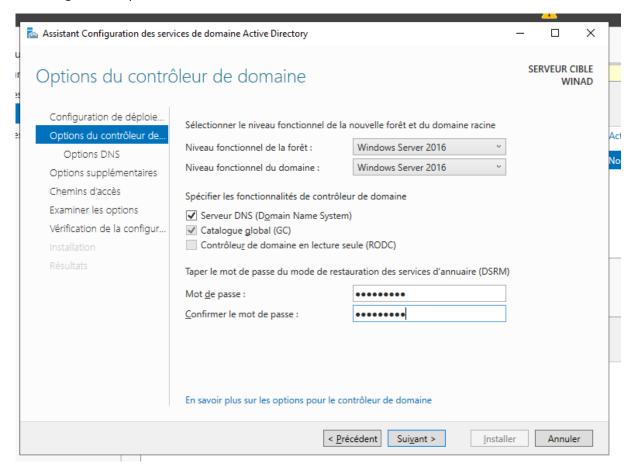
On installe le service AD:

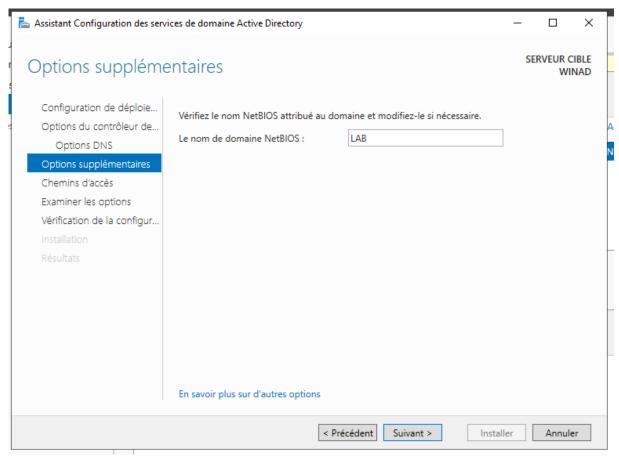


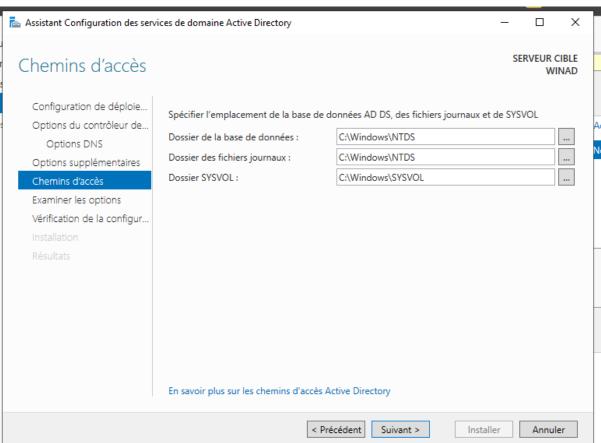
On clique sur le drapeau et promouvoir ce service en contrôleur de domain.

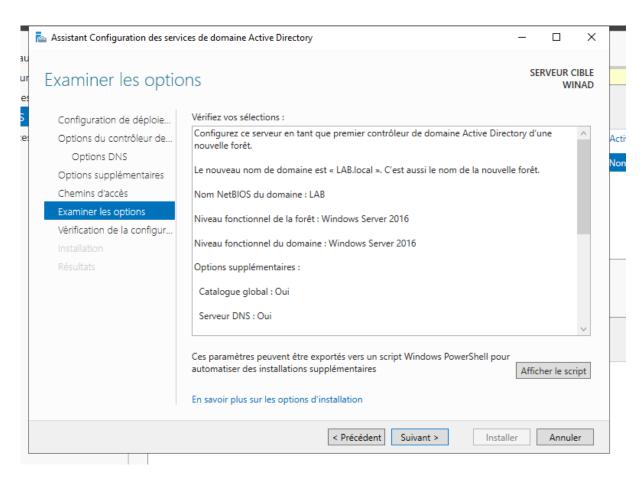


### On configure le mdp DSRM:

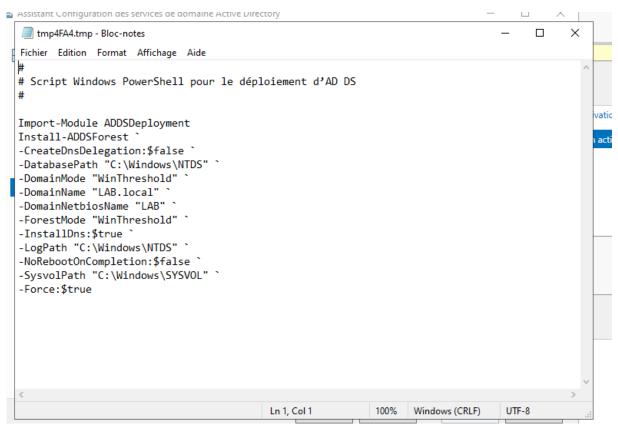




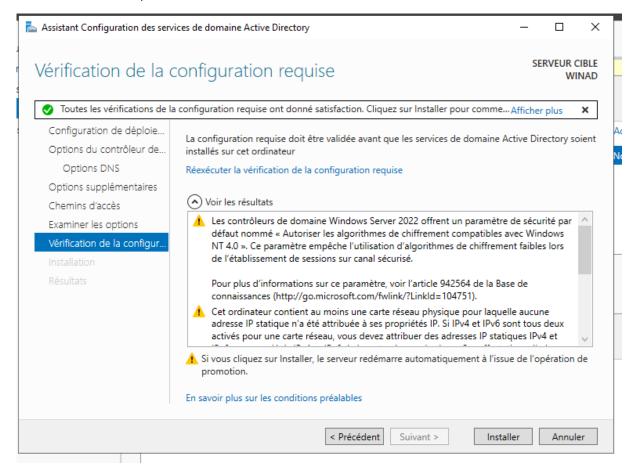




tips : En cliquant sur View Script, cela génère le script permettant de faire ces actions via powershell pour une installation par exemple sur un serveur sans interface graphique :



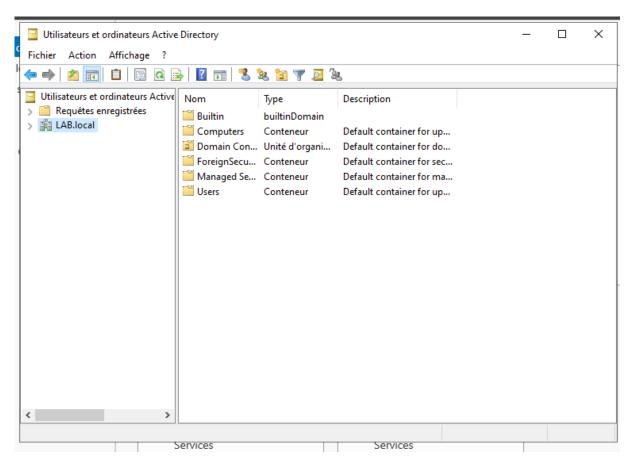
On installe l'AD et la promotion du serveur en contrôleur de domaine :



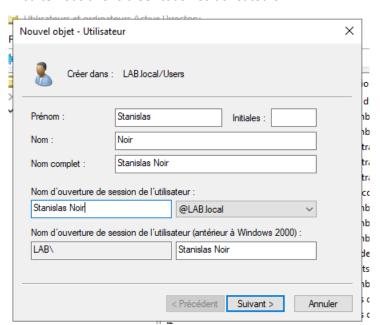
On voit bien que notre compte appartient bien au contrôleur de domaine :

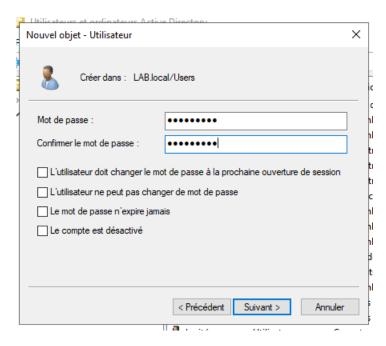


On voit bien que notre AD est opérationnel :



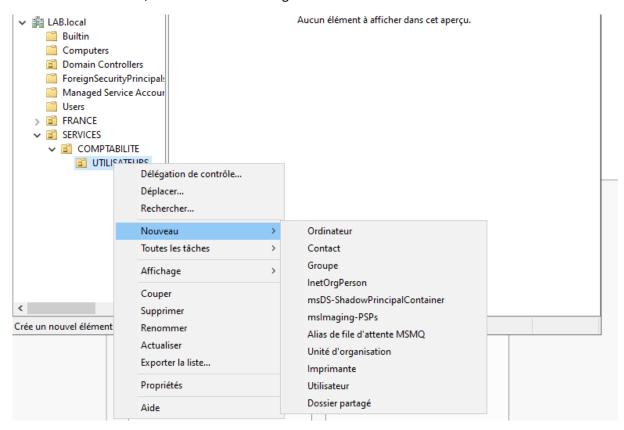
#### Ensuite nous allons créer tous nos utilisateurs :



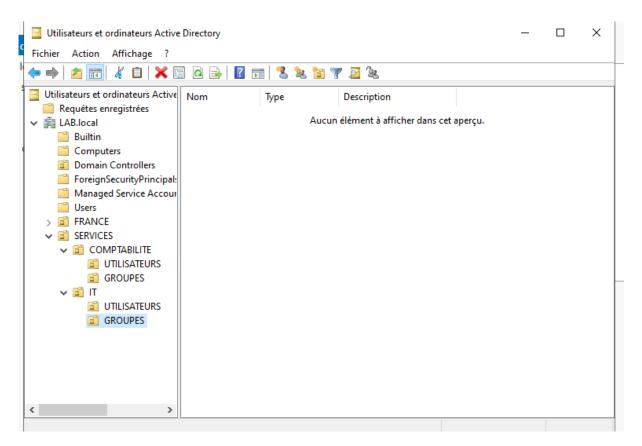


Ensuite nous allons organiser cela en créant des unités d'organisations :

Clik droit sur LAB.local, nouveau et Unité d'organisation

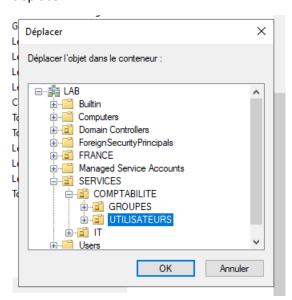


Une fois ceci réalisé on a bien une arborescence organisée :

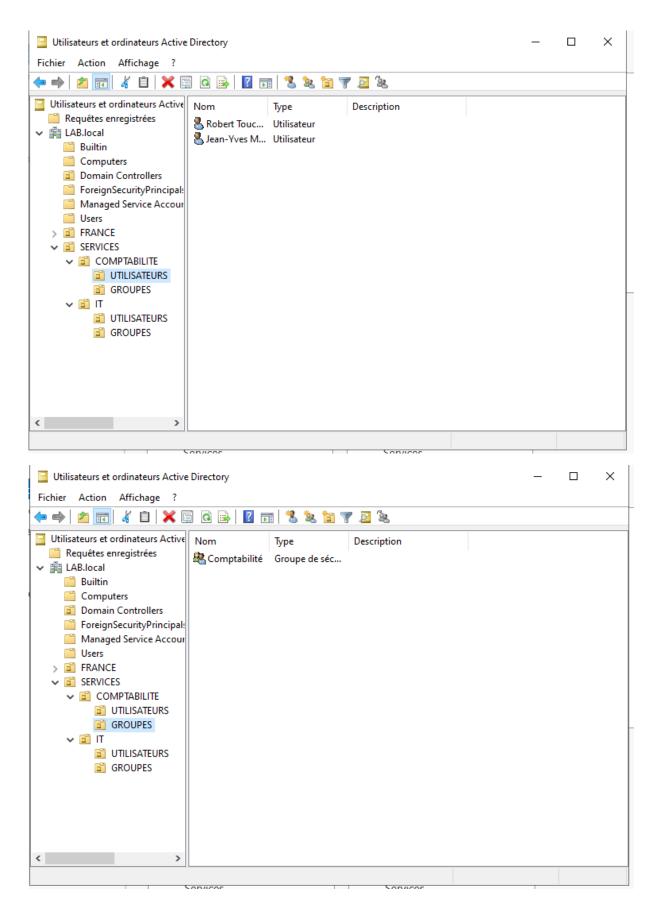


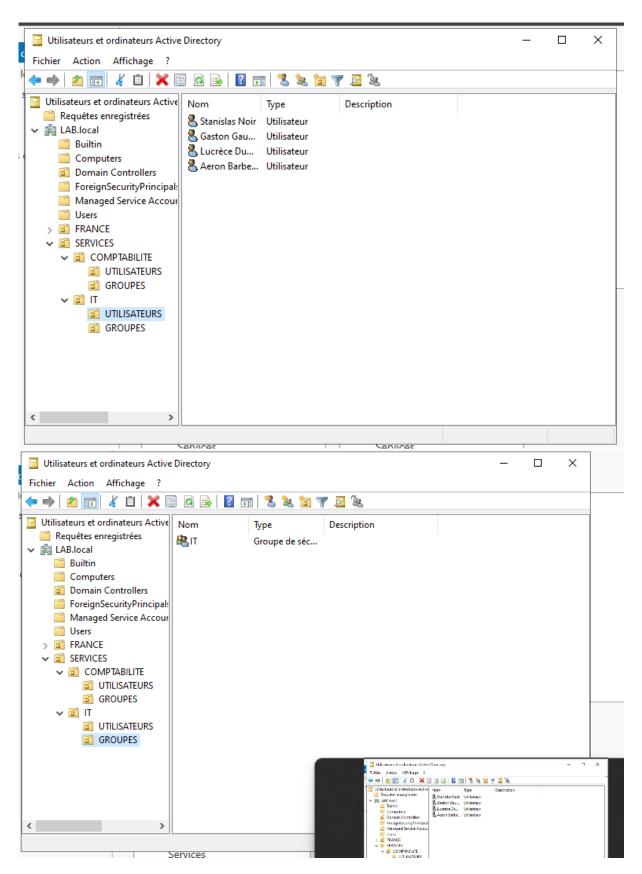
Ensuite on va dans Users et on déplace nos utilisateurs et nos groupes dans leur arborescence respectifs :

Click droit sur notre utilisateurs ou notre groupe, ensuite déplacer et sélectionner où on veut le déplacer :



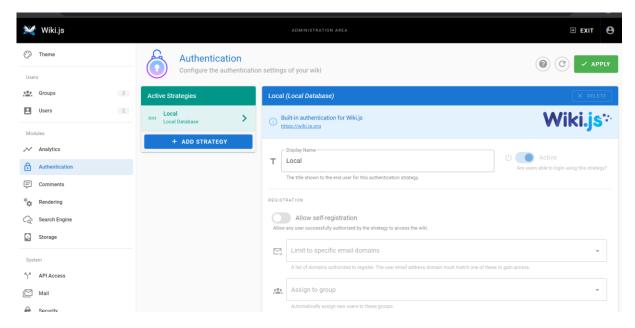
On remarque que tous nos groupes et nos utilisateurs sont bien au bon endroit :



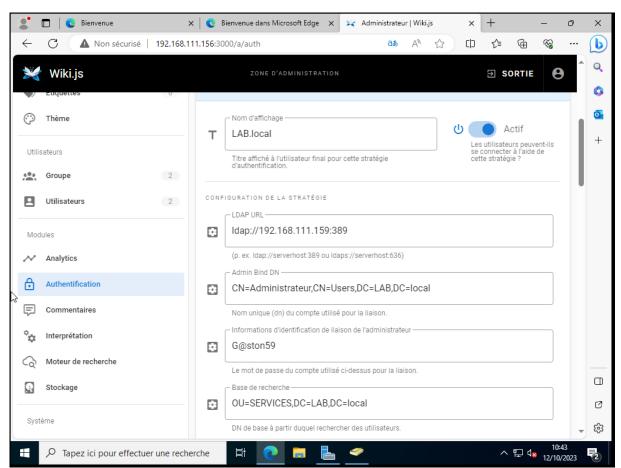


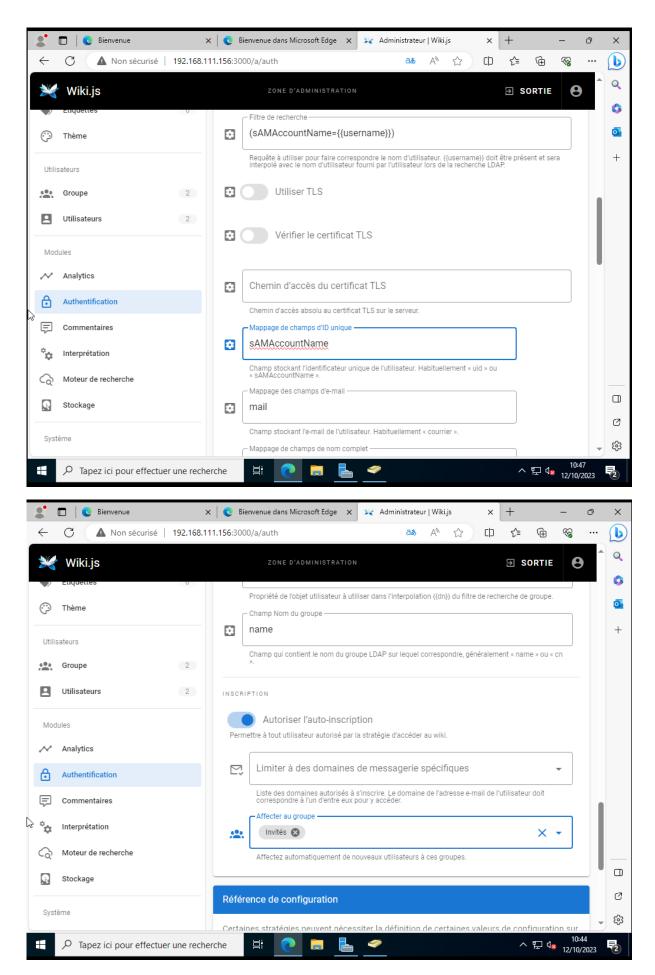
Nous allons maintenant mettre en place une authentification sur le wiki avec l'active directory :

RDV dans le portail administration



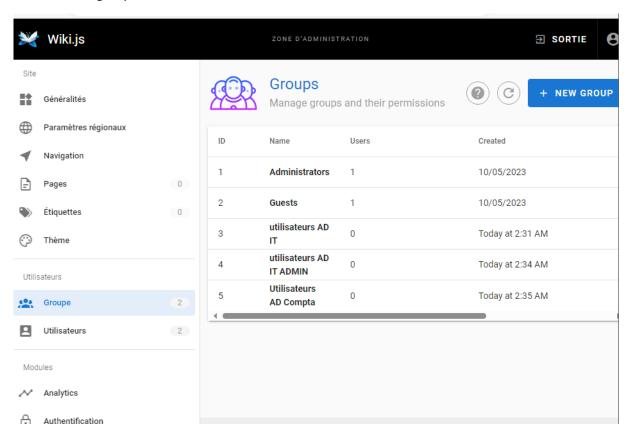
### On ajoute une stratégie de type « Active Directory » :





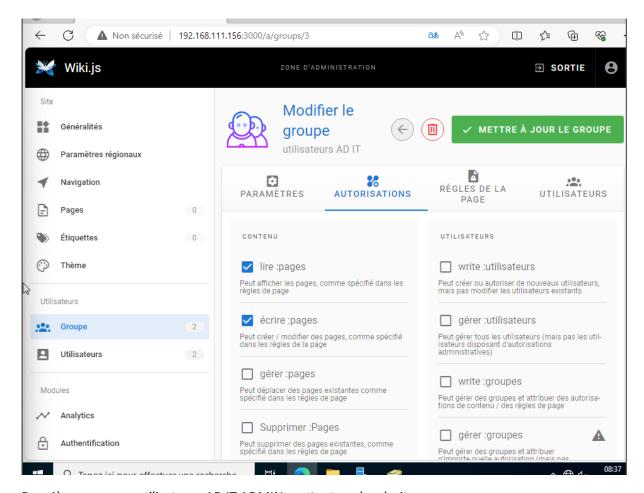
Une fois c'est paramètre mis on applique.

Création de 3 groupes :

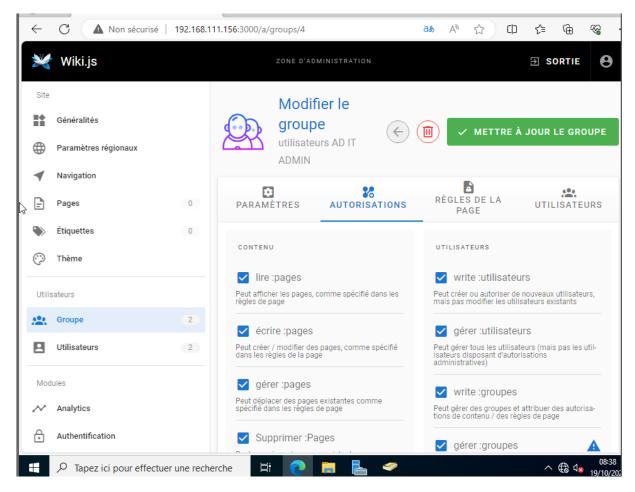


Configuration des différents droits sur chaque groupe :

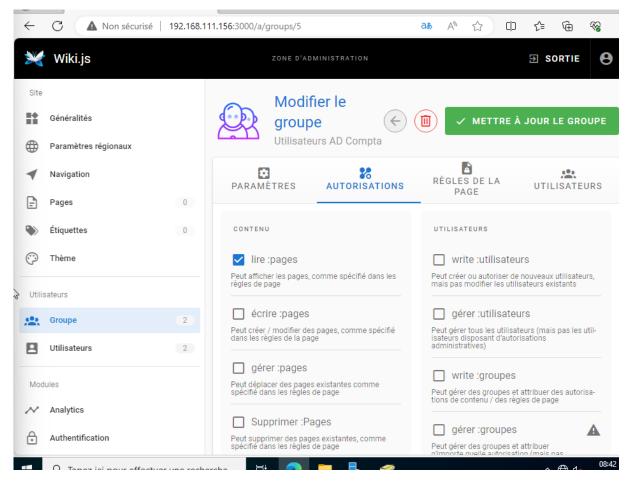
Premier groupe utilisateurs AD IT mettre juste le droit d'écriture et de lecture :



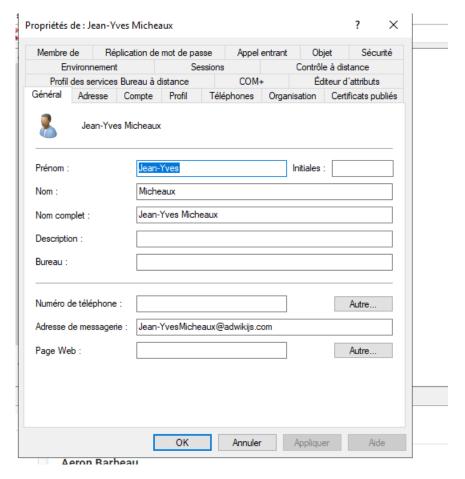
Deuxième groupes utilisateurs AD IT ADMIN mettre tous les droits :



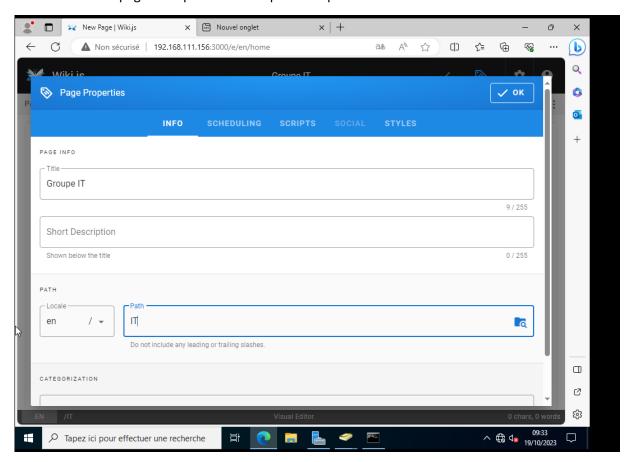
Dernier groupe utilisateurs AD Compta mettre droits de lecture des articles :

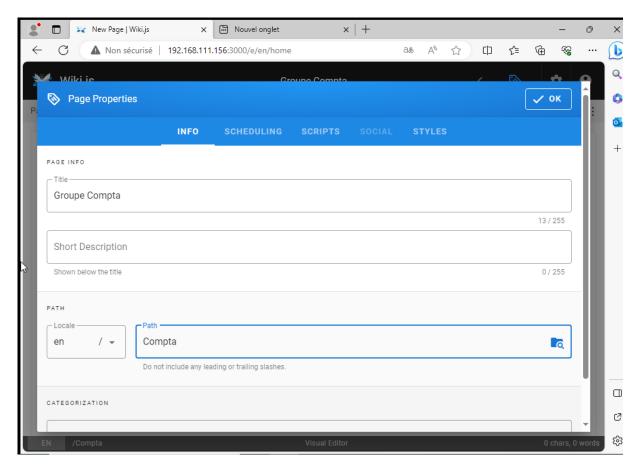


Après un essaie ils nous demandent de mettre une adresse mail pour chaque utilisateur :

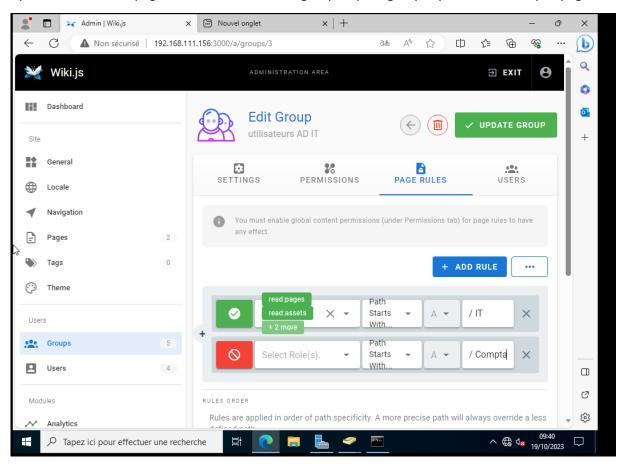


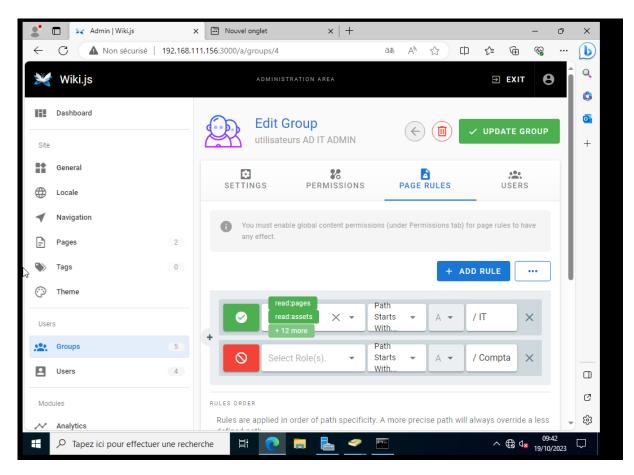
#### Création de deux pages une pour IT et une pour compta :



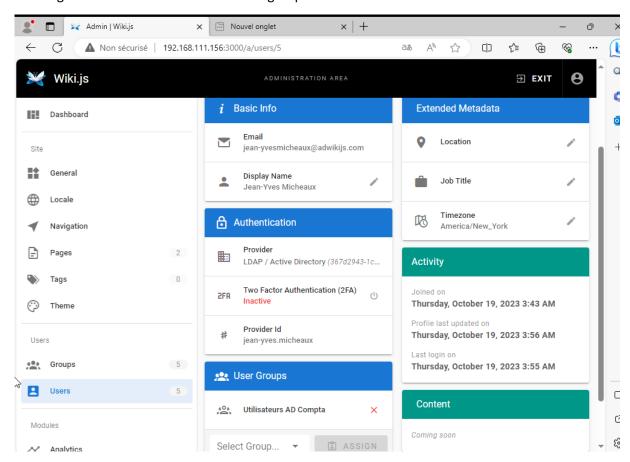


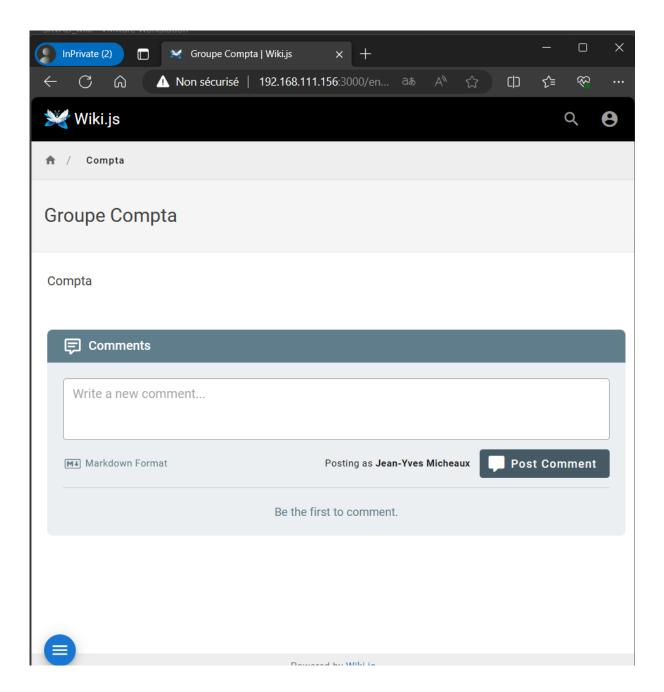
Après avoir créer les pages ont modifie dans nos groupes quels groupes peux accéder à quel pages :



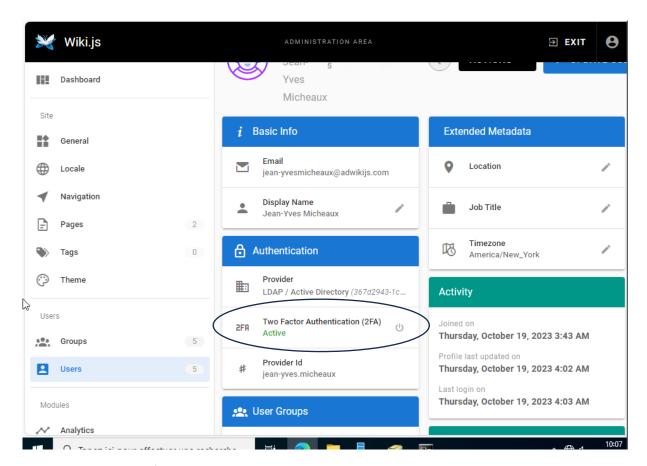


#### On assigne maintenant les utilisateurs aux groupes :





Activation de l'A2F sur l'utilisateur JEAN-YVES.MICHEAUX :



Ensuite ce re authentifie avec notre compte JEAN-YVES.MICHEAUX:

