Titre – Installer un environnement de BIG DATA SUR AWS

Table des matières

Étape 1/6 – Créer un compte sur koho.ca et vous faire un transfert Interac de 10$. 2
Étape 2/6 – Créer un compte sur AWS management console en utilisant votre carte de crédit KOHO 3
Étape 3/6 – Créer une instance UBUNTU sur AWS 4
Étape 4/6 – Installer DOCKER sur votre machine virtuelle. 8
Étape 5/6 – Exécutez les scripts d'installation de HADOOP 11
Étape 6/6 – Testez 12

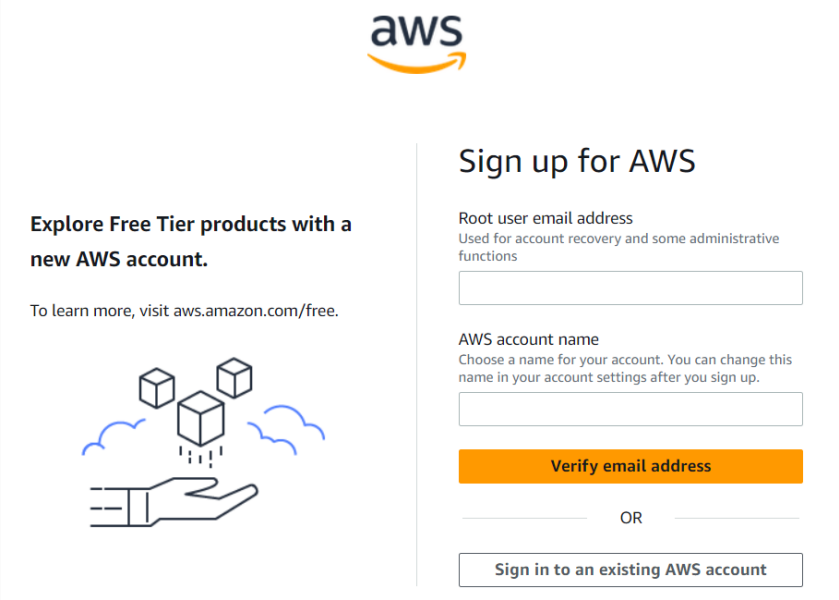
Étape 1/6 – Créer un compte sur koho.ca et vous faire un transfert Interac de 10$.

1) Créez un compte de carte de crédit prépayée. Pour la confirmation, vérifiez vos spams. https://www.koho.ca/

2) Envoyez-vous 10$ en mode Interac à l'adresse finissant par @kohotransfers.ca.

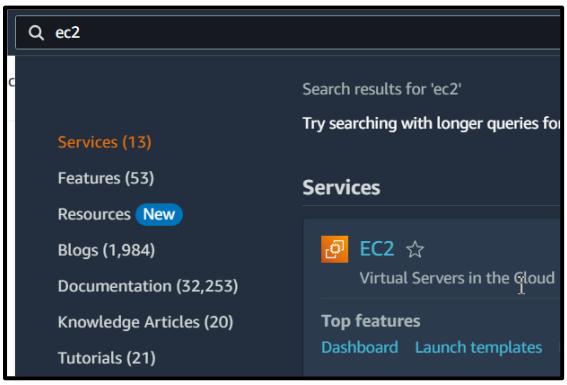
Il suffit de cliquer sur le bouton ajouter de l'argent pour voir cette adresse. Pour voir les informations de votre carte, cliquez à droite sur l'œil en dessus du cadenas.

Étape 2/6 – Créer un compte sur AWS management console en utilisant votre carte de crédit KOHO

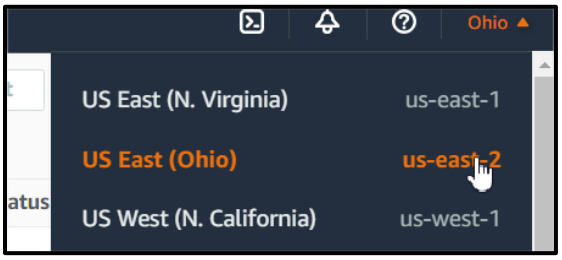


Étape 3/6 – Créer une instance UBUNTU sur AWS

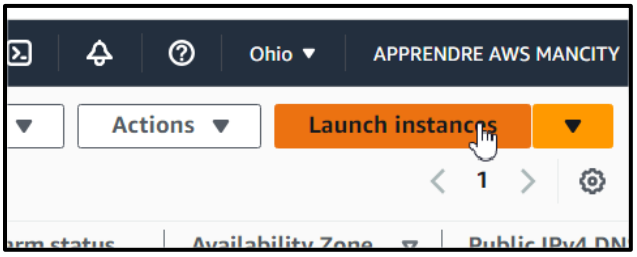
1- Connectez vous à AWS management console.
2- Cherchez EC2



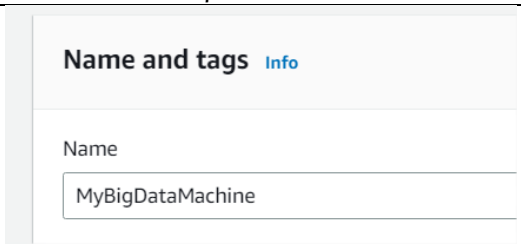
3- Choisir la région

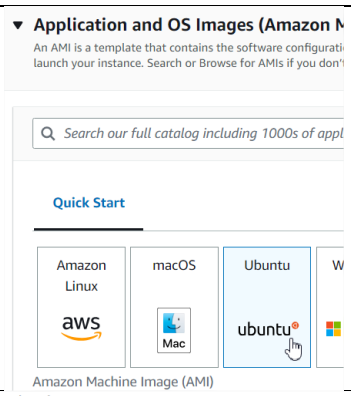
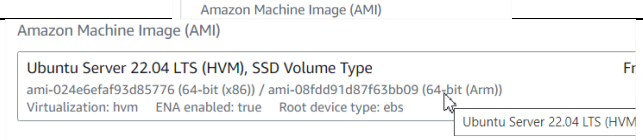
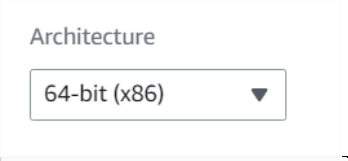
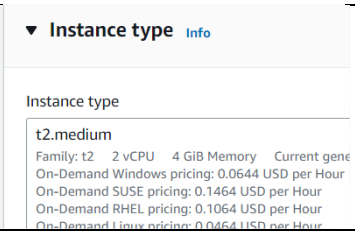
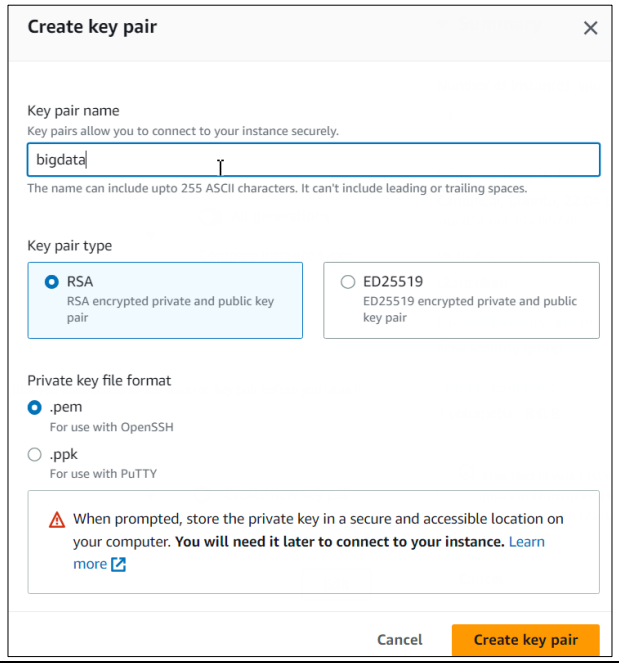


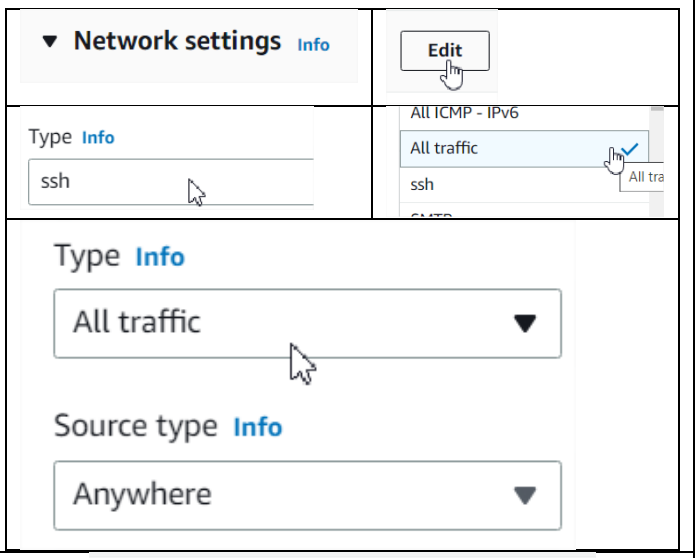
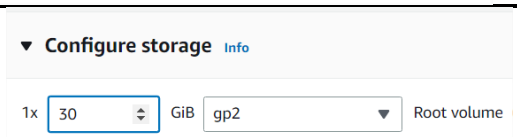
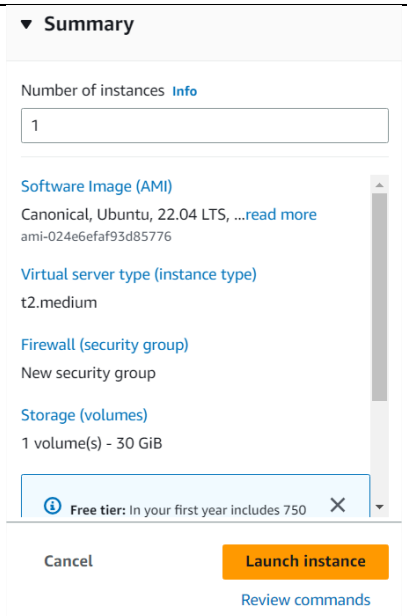
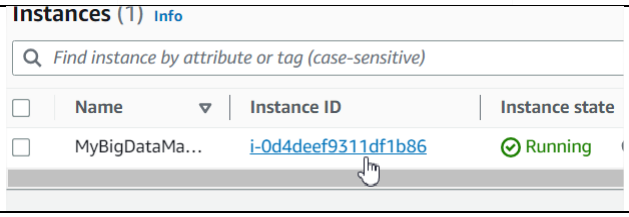
4- Choisir Launch instance

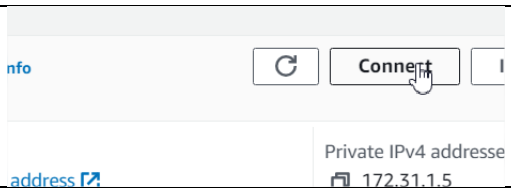


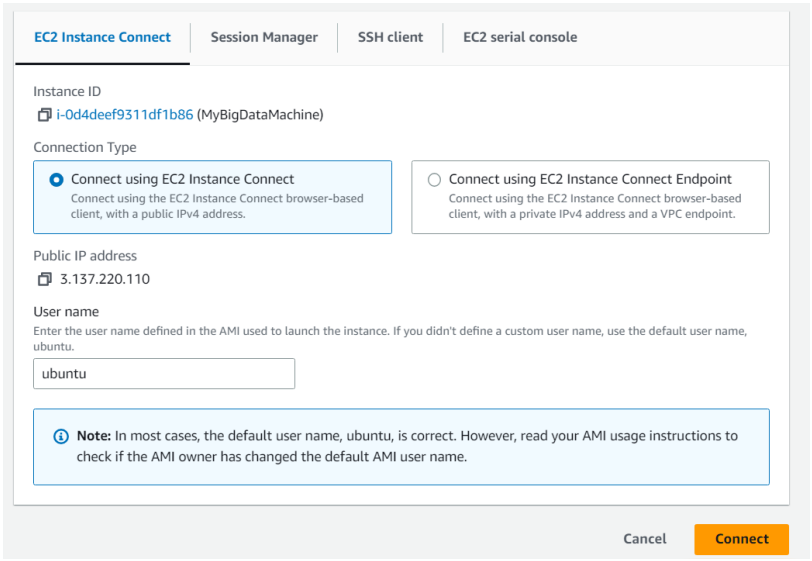
5- Configurer votre instance comme illustré dans la table ci-bas :

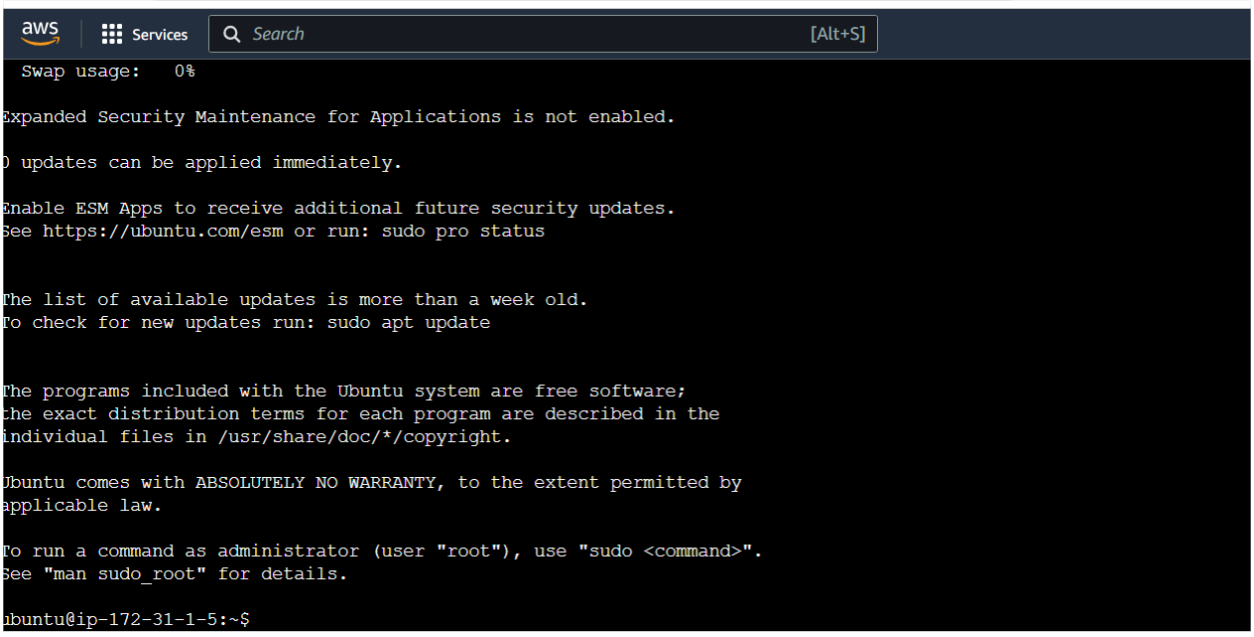
Description	*Imprime écran*
5-1 - Nom : MyBigDataMachine	

5-2 - Application and OS Images : Ubuntu	
5-3- Choisir Ubuntu Server 22.04 LTS (HVM) , SSD Volume type	
5-4- Architecture : 64 bits	
5-5- Instance type : t2.medium	
5-6- Créez une paire de clé	 

5-7- Modifier les network settings	
5-8- Pour le stockage choisir 30 Go	
5-9- Lancer l'instance	
5-10 – attendre que le paramètre instance state change à Running	

5-11- Cliquez sur connect	



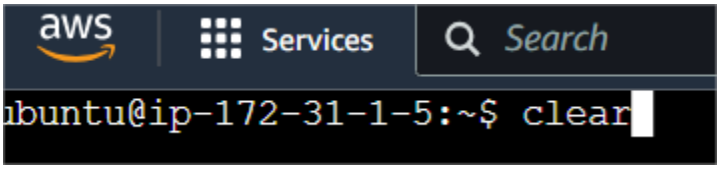


Étape 4/6 – Installer DOCKER sur votre machine virtuelle.

Exécutez les 13 commandes suivantes une par une :

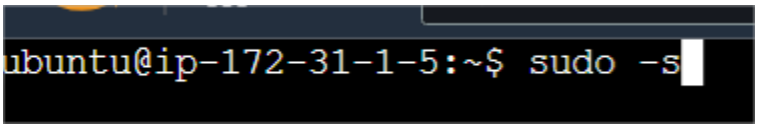
Commande 1 –

Clear



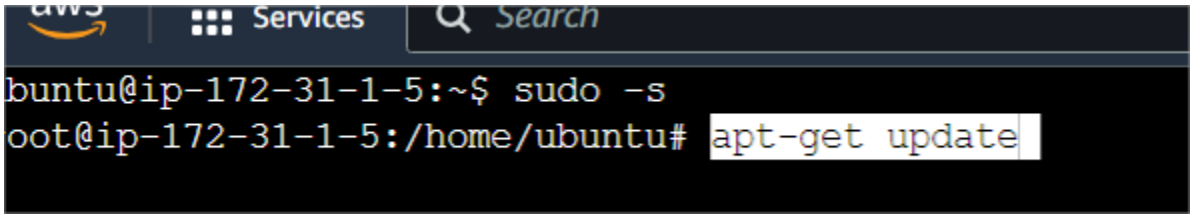
Commande 2 –

sudo -s



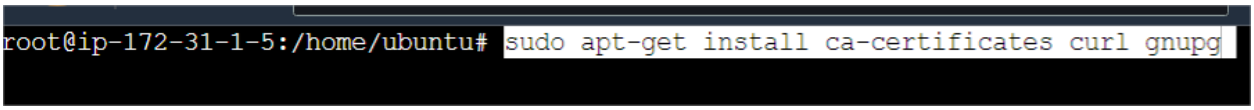
Commande 3 –

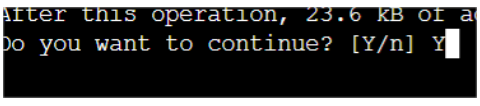
apt-get update



Commande 4 –

sudo apt-get install ca-certificates curl gnupg





Commande 5 –

sudo install -m 0755 -d /etc/apt/keyrings

```
root@ip-172-31-1-5:/home/ubuntu# sudo install -m 0755 -d /etc/apt/keyrings
root@ip-172-31-1-5:/home/ubuntu#
```

Commande 6 –

curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /etc/apt/keyrings/docker.gpg

```
root@ip-172-31-1-5:/home/ubuntu# curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /etc/apt/keyrings/docker.gpg
```

Commande 7 –

sudo chmod a+r /etc/apt/keyrings/docker.gpg

```
root@ip-172-31-1-5:/home/ubuntu# sudo chmod a+r /etc/apt/keyrings/docker.gpg
```

Commande 8 – (copier la commade en totalité et coller la)

*echo *

*"deb [arch="$(dpkg --print-architecture)" signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/ubuntu *

*"$(. /etc/os-release && echo "$VERSION_CODENAME")" stable" | *

sudo tee /etc/apt/sources.list.d/docker.list > /dev/null

```
root@ip-172-31-1-5:/home/ubuntu# echo \
  "deb [arch="$(dpkg --print-architecture)" signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/ubuntu \
  "$(. /etc/os-release && echo "$VERSION_CODENAME")" stable" | \
  sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
```

Commande 9 –

sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin

```
root@ip-172-31-1-5:/home/ubuntu# sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
```

Commande 10 –

sudo apt-get update

```
oot@ip-172-31-1-5:/home/ubuntu# sudo apt-get update
```

Commande 11 –

docker version

```
root@ip-172-31-1-5:/home/ubuntu# docker version
```

Commande 12 –

sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin

```
# sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
After this operation, 402 MB of ad
Do you want to continue? [Y/n] Y
```

Commande 13 –

docker version

```
root@ip-172-31-1-5:/home/ubuntu# docker version
```

RÉSULTAT FINAL

```
root@ip-172-31-1-5:/home/ubuntu# docker version
Client: Docker Engine - Community
 Version:           24.0.2
 API version:       1.43
 Go version:        go1.20.4
 Git commit:        cb74dfc
 Built:             Thu May 25 21:51:00 2023
 OS/Arch:           linux/amd64
 Context:           default

Server: Docker Engine - Community
 Engine:
  Version:          24.0.2
  API version:      1.43 (minimum version 1.12)
  Go version:       go1.20.4
  Git commit:       659604f
  Built:            Thu May 25 21:51:00 2023
  OS/Arch:          linux/amd64
  Experimental:     false
 containerd:
  Version:          1.6.21
  GitCommit:        3dce8eb055cbb6872793272b4f20ed16117344f8
 runc:
  Version:          1.1.7
  GitCommit:        v1.1.7-0-g860f061
```

Étape 5/6 – Exécutez les scripts d'installation de HADOOP

Exécutez les 9 commandes suivantes une par une :

Commande 1 : *docker --version*

Commande 2 : *docker-compose --version (sinon apt install docker-compose)*

Commande 3 : *git --version*

Commande 4 : *mkdir hadoop_docker*

Commande 5 : *cd hadoop_docker/*

Commande 6 : *git clone https://github.com/hrhouma/bd-infra.git*

Commande 7 : *cd bd-infra/*

Commande 8 : docker-compose up -d

Commande 9 : docker-compose up

Étape 6/6 – Testez

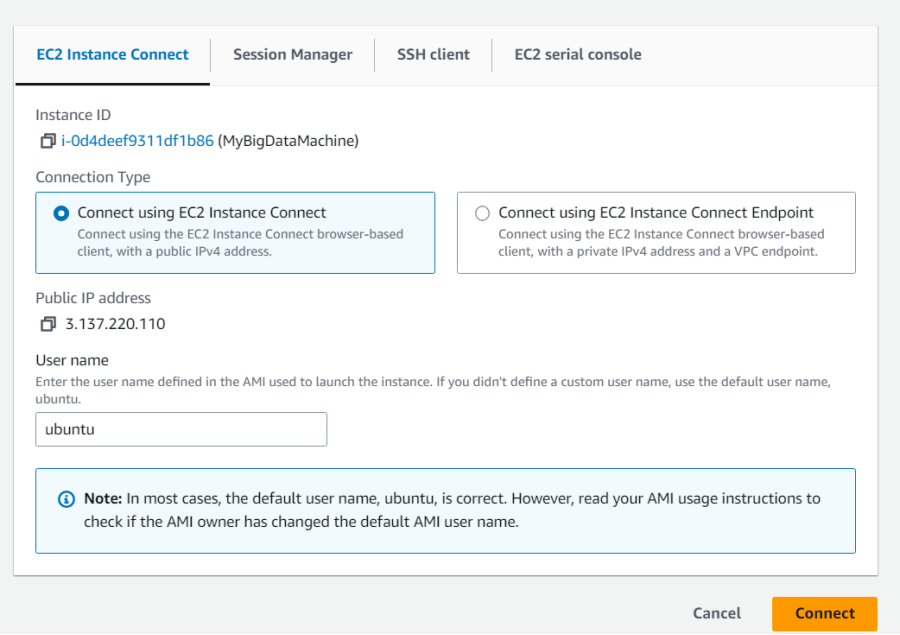
Essayez sur votre navigateur

http://<ip of remote server>:50070

http://<ip of remote server>:8888

http://<ip of remote server>:8080

Exemple , dans mon cas, l'adresse IP est ***à***

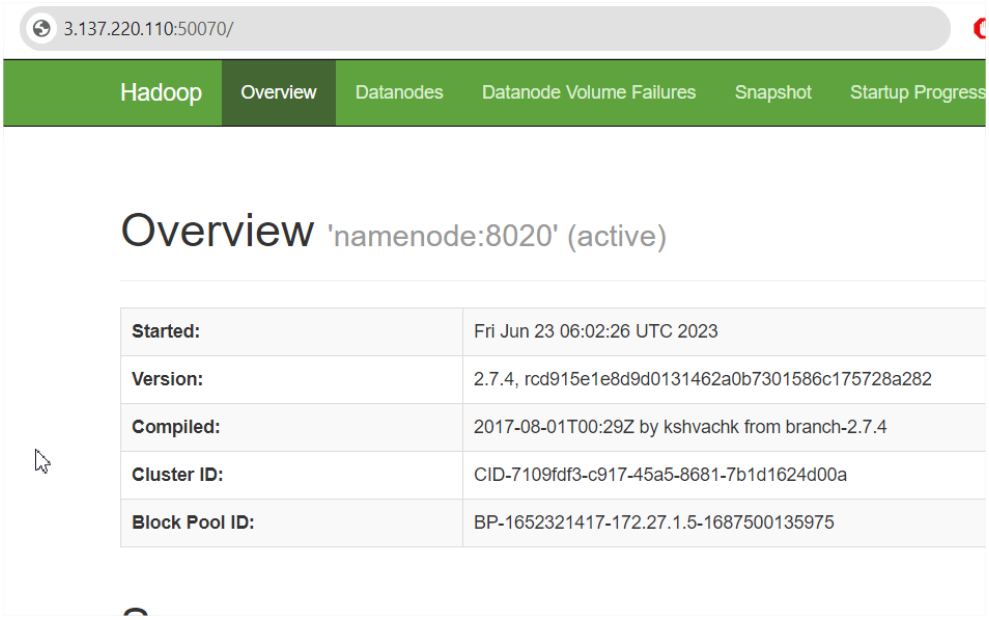


3.138.220.110*:50070*

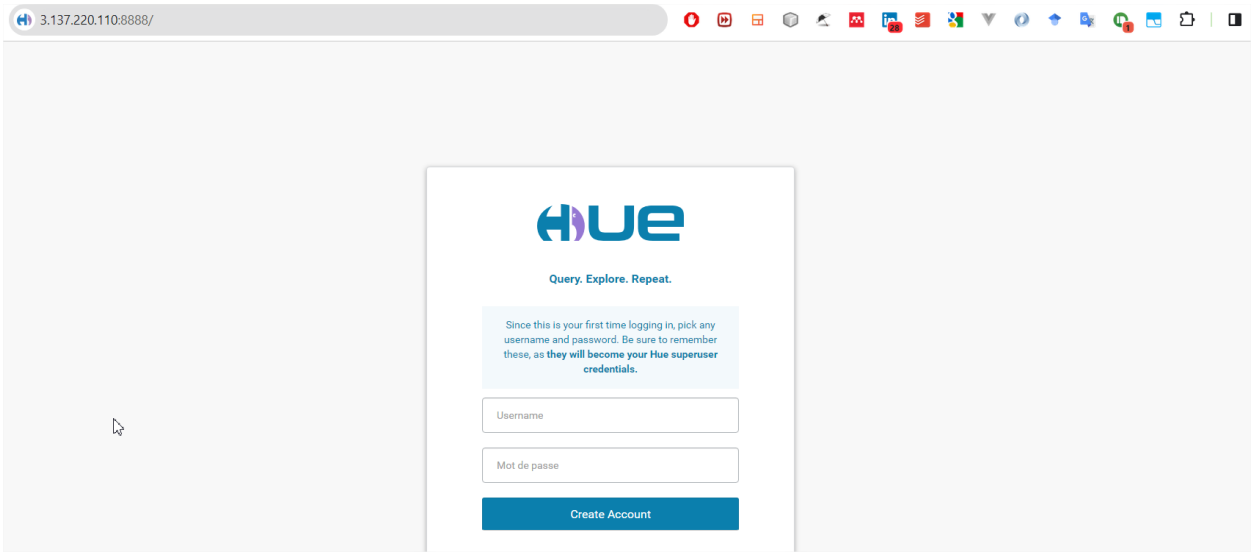
3.138.220.110*:8888*

3.138.220.110*:8080*

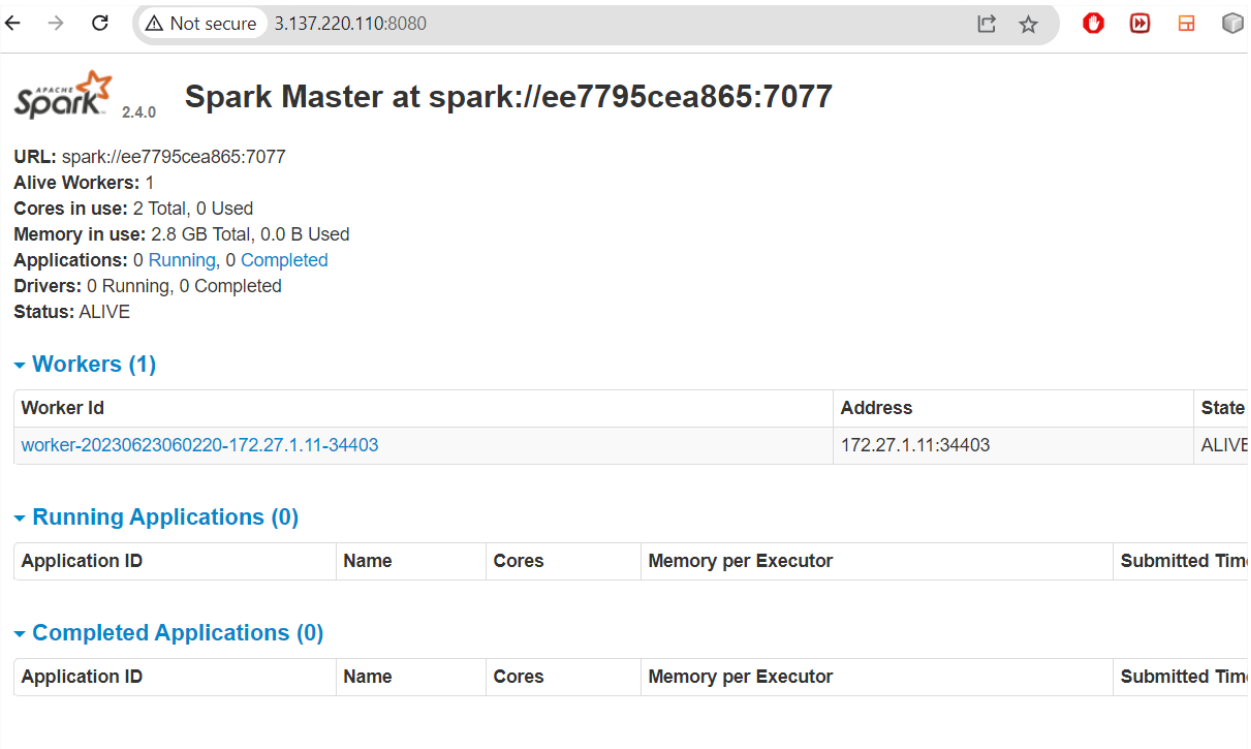
3.138.220.110:50070



3.138.220.110:8888



3.138.220.110:8080



N'oubliez pas d'arrêter votre instance (et non pas de la résilier , chaque fois, à la fin de vos manipulations !). La prochaine fois, l'adresse IP changera . Il faut toujours vérifier votre adresse IP quand vous vous connectez !