Some notes to install mongodb and Node.js on my Ubuntu 18.04 Raspberry Pi

Une image contenant texte, signe

Description générée automatiquement



Table des matières

[Initial tasks 3](#_Toc35274098)

[Console work 3](#_Toc35274099)

[Ubuntu post install French setup 3](#_Toc35274100)

[Network and host name 4](#_Toc35274101)

[SSH client work 4](#_Toc35274102)

[mongodb install 4](#_Toc35274103)

[Node.js install 6](#_Toc35274104)

# Initial tasks

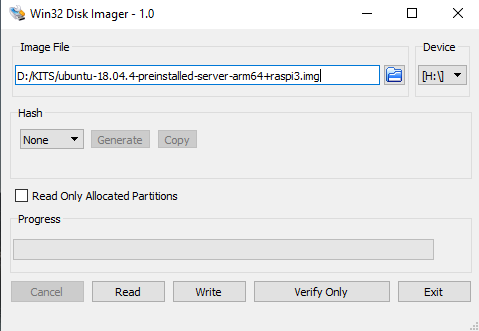
Download ubuntu 64 bits. At the time of this paper, I got it from : <https://wiki.ubuntu.com/ARM/RaspberryPi>

But you will easily find many other sites.

I chose 18.04 LTS 64 bits:



Unzip and copy on a 32 or 64 GB SD card. A 16 GB is enough but plan for future. I use Win32 Disk Manager.



# Console work

## Ubuntu post install French setup

Boot the raspberry on this card. No need to plug your pi 4 on ethernet. The Wi-Fi interface will be enough.

Change password when requested. French users, beware, at this point you’re on a qwerty keyboard. So, choose a simple password easy to enter for example, azertyui, which is in fact qwertyui. You’ll change it later.

Log in and switch the keyboard to French with this command:

***$ sudo loadkeys fr***

Edit this file: /etc/default/keyboard and change XKBLAYOUT from “us” to “fr”.

With ubuntu 18.04 LTS, we’re going to use netplan to manage the network.

Disable the wpa\_supplcant service:

***$ sudo systemctl stop wpa\_supplicant***

***$ sudo systemctl disable wpa\_supplicant***

Change root password and log in as root. This is not a recommended practice, but we’ll do that to facilitate commands usage. Optionally you can even allow remote root user access. This further raise your system exposition to security attacks! Think about that twice before proceeding.

Check system date.

***$ date***

If wrong set time, date and location with standard Linux commands. I’m working in Paris.

***root@zerasp:~# timedatectl set-timezone Europe/Paris***

## Network and host name

Set the hostname you want by editing /etc/hostname

Create /etc/wpa\_supplicant.conf with this command:

***$ wpa\_passphrase yourSSID youPASS > /etc/wpa\_supplicant.conf***

Open /etc/netplan/50-cloud-init.yaml (maybe the file name could change)

Put this into the file for the pi4 WIFI interface wlan0 ( or any name it has)

*wifis:*

*wlan0:*

*dhcp4: no*

*optional: true*

*addresses: [192.168.47.168/24]*

*gateway4: 192.168.47.254*

*access-points:*

*"network\_ssid\_name":*

*password: "\*\*\*\*\*\*\*\*\*\*"*

Then generate the netplan files:

***$ netplan –debug generate***

***$ netplan –debug apply***

Check with systemctl the netplan service has been installed.

***$ systemctl status***

**$ reboot**

You should now have access remotely to the pi 4 through its wifi interface.

You can then set parameters for the ethernet interface in case you plan to use it.

Add this to your /etc/netplan/ yaml file in the eth0 section.

Next step is mongodb installation.

1st add a mongo group. And then a mongo user. (of course, you can use any group and user name you prefer).

***$ mkdir /home/mongo***

***$ mkdir /home/node***

***$ chown node.node /home/node***

***$ chown mongo.mongo /home/mongo***

***$ groupadd mongo***

***$ useradd mongo -g mongo -G sudo -d /home/mongo -p yourmongopass -s /bin/bash***

Also create a node group and a node account to host our nodejs environment.

***$ groupadd node***

***$ useradd node -g node -G sudo -d /home/node -p yournodepass -s /bin/bash***

Check you can access these accounts with the desired passwords.

At this point, you can install mongodb. Log in remotely with a ssh client like putty or MobaXterm, to take advantage of copy / paste capabilities, as some commands are boring to enter manually.

# SSH client work

## mongodb install

Go to this site. <https://docs.mongodb.com/manual/tutorial/install-mongodb-on-ubuntu/>

Just follow the described procedure. It should run fine.

***$ wget -qO - https://www.mongodb.org/static/pgp/server-4.2.asc | sudo apt-key add -***

***$ echo "deb [ arch=amd64,arm64 ] https://repo.mongodb.org/apt/ubuntu bionic/mongodb-org/4.2 multiverse" | sudo tee /etc/apt/sources.list.d/mongodb-org-4.2.list***

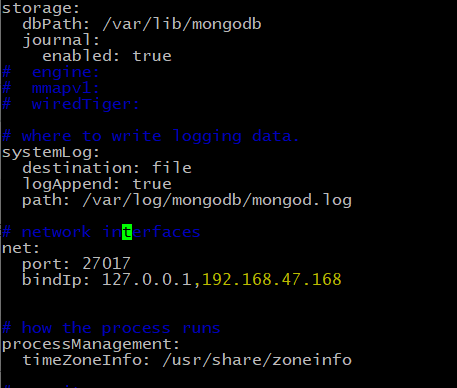
***$ sudo apt-get update***

Finally, install mongodb.

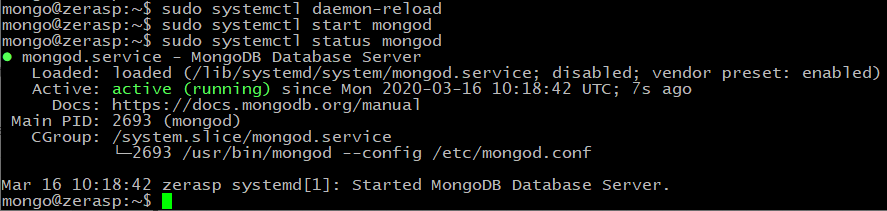
***$ sudo apt-get install -y mongodb-org***

At the time of this paper, this is the 4.2 version.

After the install edit **/etc/mongod.conf**. Add an address for your mongodb listener.



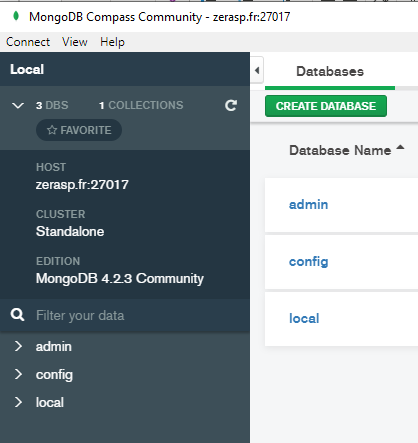
This is not mandatory. But in case you want to remotely access your mongodb with a client like compass, it will be helpful. To start the mongodb server, use these commands:



You can see the service is disabled. Enable the mongod service:

***$ sudo systemctl enable mongod***

Next reboot will bring the service up automatically. Just simply run mongo after reboot from the mongo account. You can also check with a client tool if you listen on a public address. Here we use Compass free tool.



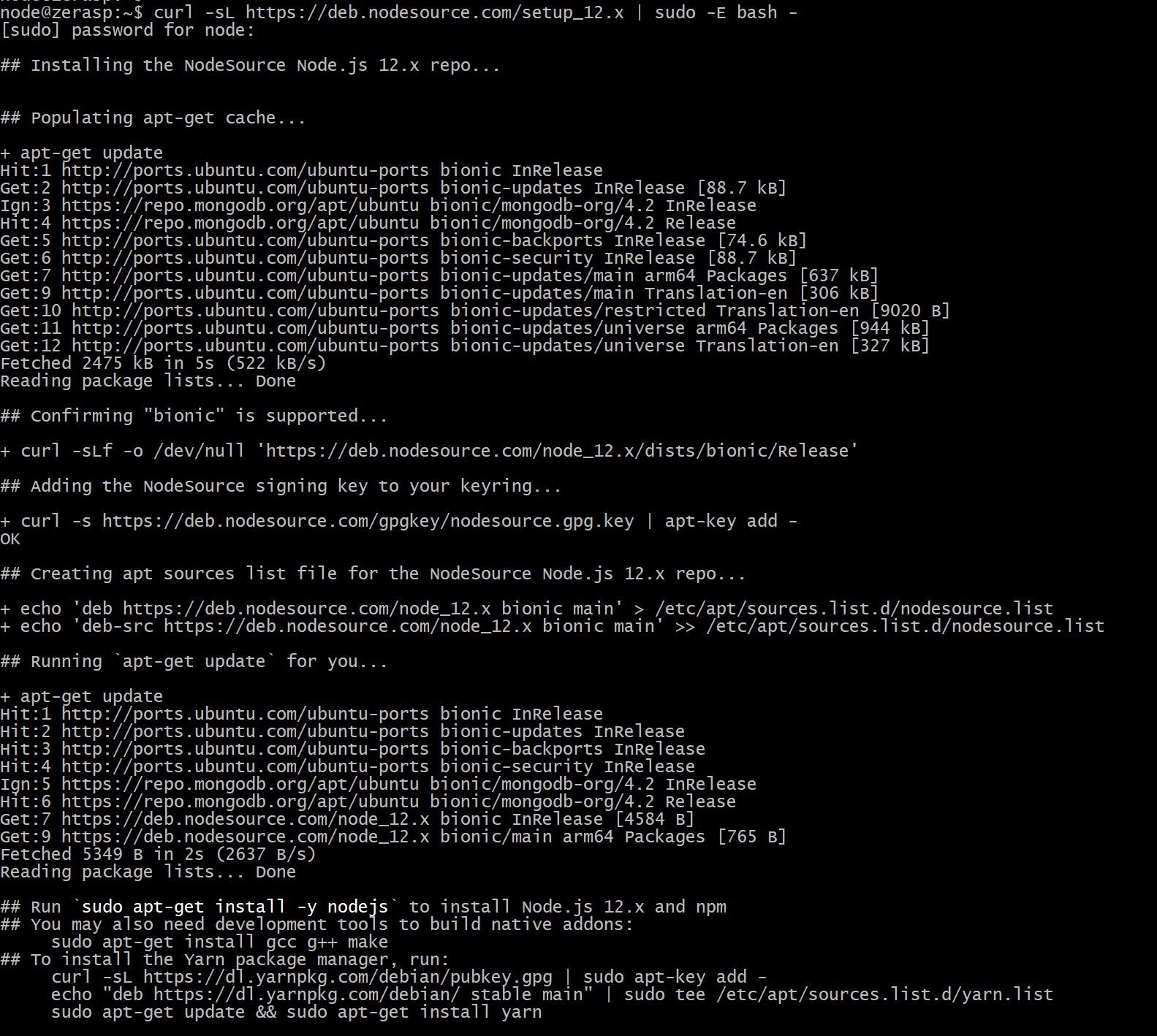
## Node.js install

Follow the procedure described here : <https://linuxize.com/post/how-to-install-node-js-on-ubuntu-18.04/>

This is one of the guides you can find on internet. Log into the node account and execute:

**$ curl -sL https://deb.nodesource.com/setup\_12.x | sudo -E bash -**

At the time of this paper we use version 12. If you need to install another version, for example 10.x, just change setup\_10.x with setup\_10.x. A lot of thing are happening here:



Next step is just to execute this command:

**$ sudo apt install nodejs**

After install check versions:

**node@zerasp:~$ node --version**

**v12.16.1**

**node@zerasp:~$ npm --version**

**6.13.4**

You’re now ready to deploy your apps on this Mongodb Express Vue Node.js platform, known as MEVN.