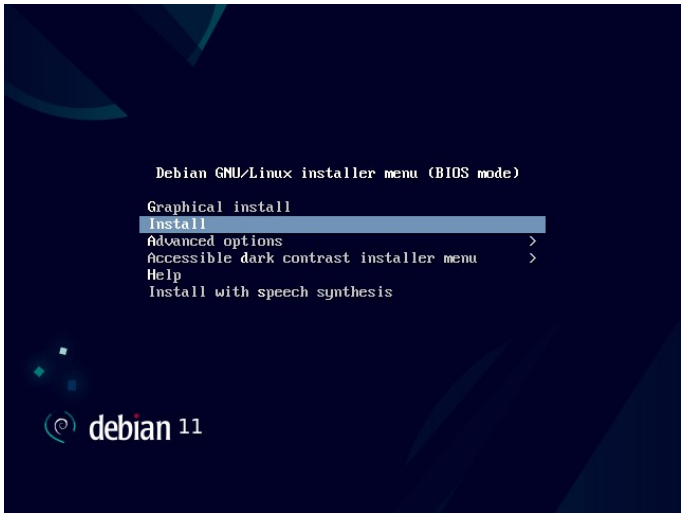
English communication

Mission 1 : Install Git and Docker on a linux environment

Step 1 : Install Linux Debian 11 with LVM partionment




```
root@master:/test/A2SR/Course_1/app# df -Th
Sys. de fichiers            Type     Taille Utilisé Dispo Uti% Monté sur
udev                        devtmpfs   2,9G       0  2,9G   0% /dev
tmpfs                       tmpfs      595M    1,3M  593M   1% /run
/dev/mapper/master--vg-root ext4        20G    6,1G   13G  34% /
tmpfs                       tmpfs      3,0G    3,9M  2,9G   1% /dev/shm
tmpfs                       tmpfs      5,0M    4,0K  5,0M   1% /run/lock
/dev/sda1                   ext2       470M    113M  333M  26% /boot
/dev/mapper/master--vg-var  ext4       6,8G    2,1G  4,3G  33% /var
/dev/mapper/master--vg-home ext4        76G     97M   72G   1% /home
/dev/mapper/master--vg-tmp  ext4       1,2G    3,0M  1,2G   1% /tmp
tmpfs                       tmpfs      595M    9,1M  586M   2% /run/user/1000
```

Step 2 : Install Git

apt install git

we will need git to pull the following repository from github :

https://github.com/mperochon/A2SR.git

Step 3 : Install Docker Desktop

To install Docker Desktop, we need Docker Engine. Because it comes bundled with Docker Desktop for Linux. This is the easiest and quickest way to get started.

```
apt install gnome-terminal
apt install \
ca-certificates \
curl \
gnupg \
```

```
    lsb-release
mkdir -p /etc/apt/keyrings
curl -fsSL https://download.docker.com/linux/debian/gpg | gpg --dearmor -o /etc/apt/keyrings/docker.gpg
echo \
  "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/debian \
  $(lsb_release -cs) stable" | tee /etc/apt/sources.list.d/docker.list > /dev/null
chmod a+r /etc/apt/keyrings/docker.gpg
apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
docker run hello-world
```

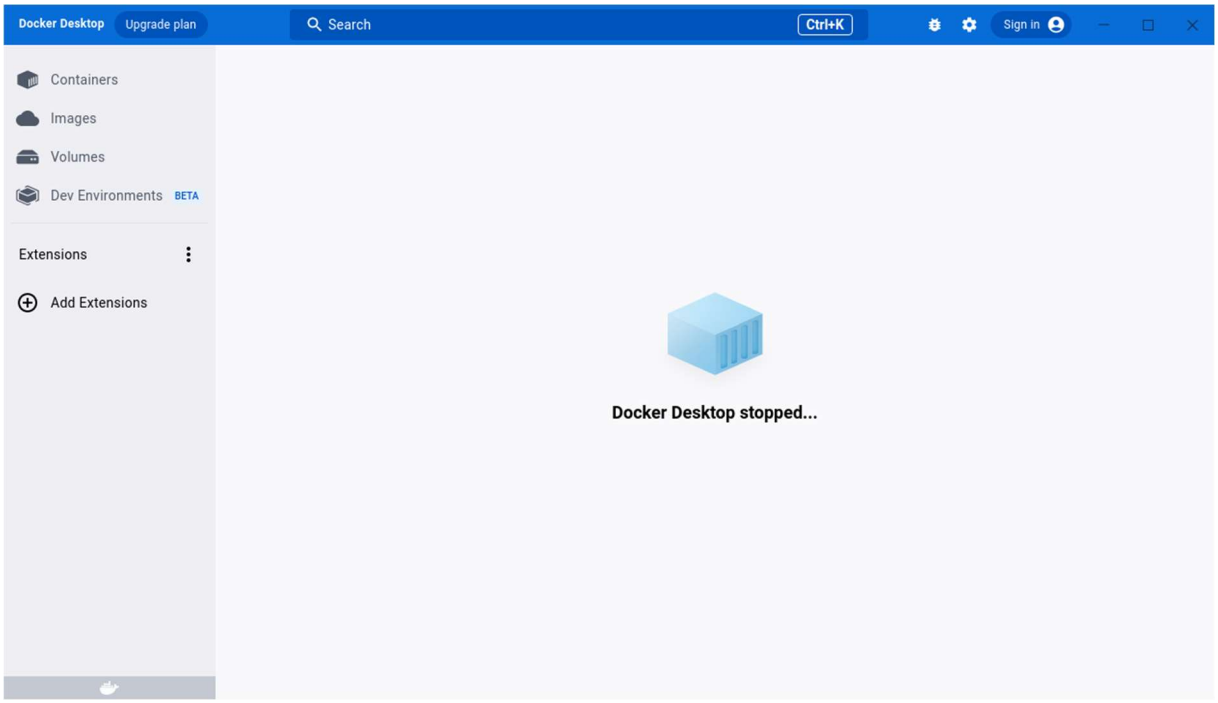
Now we must install the latest DEB package for Docker Desktop :

https://desktop.docker.com/linux/main/amd64/docker-desktop-4.16.2-amd64.deb?utm_source=docker&utm_medium=webreferral&utm_campaign=docs-driven-download-linux-amd64

I downloaded the package with this link in my windows. I installed openssh-server and i transfered this package with Winscp. I was able to install it :

```
apt-get install ./docker-desktop-<version>-<arch>.deb
```

So we can run Docker Desktop :



Step 4 : Clone the repository github

git clone https://github.com/mperochon/A2SR.git

Step 5 : Complete the Dockerfile

```
 GNU nano 5.4                                  Dockerfile *
# Complete the file :)

# Description : From used to create a base image
FROM node:latest

# Explain : it's an instruction who used to execute shell command in the new image
#RUN apk add --no-cache python2 g++ make

# Explain : identifies the working directory
WORKDIR /app

# Description : copy files and directories to the container
COPY . .

# Explain : This command install dependencies for the project
RUN yarn install --production

# Explain : this command run the node from index.js
CMD ["node", "src/index.js"]
```

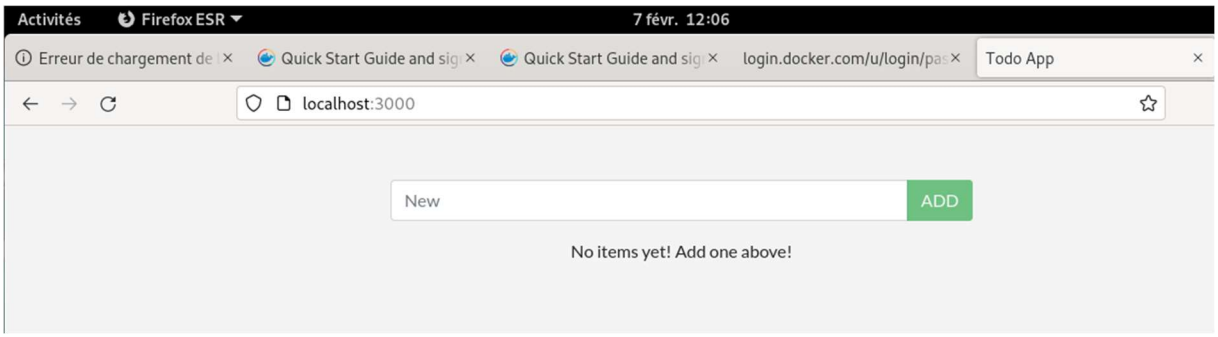
Step 5 :

In the repertory /A2SR/Course_1/app

Docker build -t nodesimonjacquot .

. To specify to execute the command where you are

docker run -p 127.0.0.1 :3000:3000 nodesimonjacquot



Mission 2 :

Step 1 : Make a modification in : src/static/js/app.js

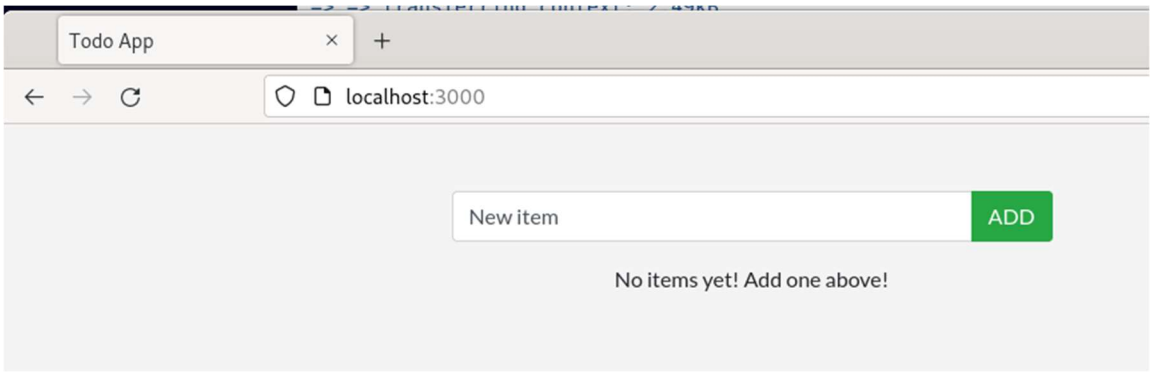
```
return (
    <Form onSubmit={submitNewItem}>
        <InputGroup className="mb-3">
            <Form.Control
                value={newItem}
                onChange={e => setNewItem(e.target.value)}
                type="text"
                placeholder="New item"
                aria-describedby="basic-addon1"
            />
            <InputGroup.Append>
                <Button
                    type="submit"
                    variant="success"
                    disabled={!newItem.length}
                    className={submitting ? 'disabled' : ''}
                >
                    {submitting ? 'Adding...' : 'ADD a new item'}
                </Button>
            </InputGroup.Append>
        </InputGroup>
```

Step 2 : Build and update the container

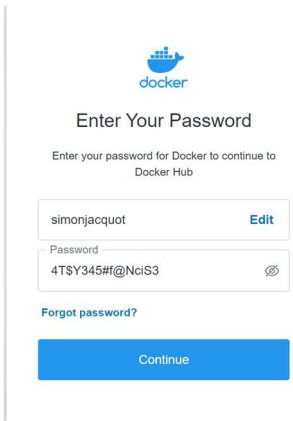
I Builded again my image.

Docker build -t nodesimonjacquotv2 .

docker run -p 127.0.0.1 :3000:3000 nodesimonjacquotv2



Step 3 : Create an account and a public registry



gnp –generate-key

pass init CBC69578943CCCD8F8265C972015F3A137BE43C6

choose a pass phrase : 1234567890

Step 4 : Push your image

docker login

username

password

docker tag nodesimonjacquotv2 simonjacquot/app

docker push simonjacquot/app

Step 5 : share your image to another group

OK

Step 6 : Pull the image from another group

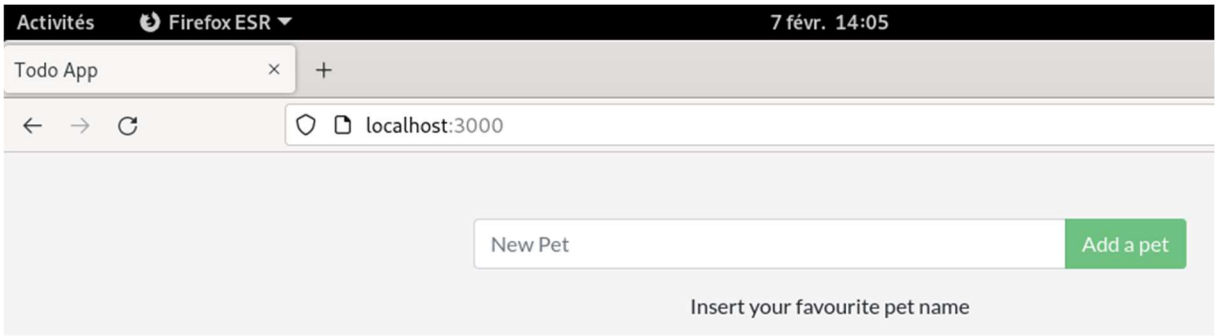
I downloaded the jose masse's image :

docker pull josemasse/petapp

Step 7 : Run the new container and check

And I run the image on web interface :

docker run -p 127.0.0.1 :3000:3000 josemasse/petapp



Mission 3 :

https://github.com/simonjacquot/LPA2SR