

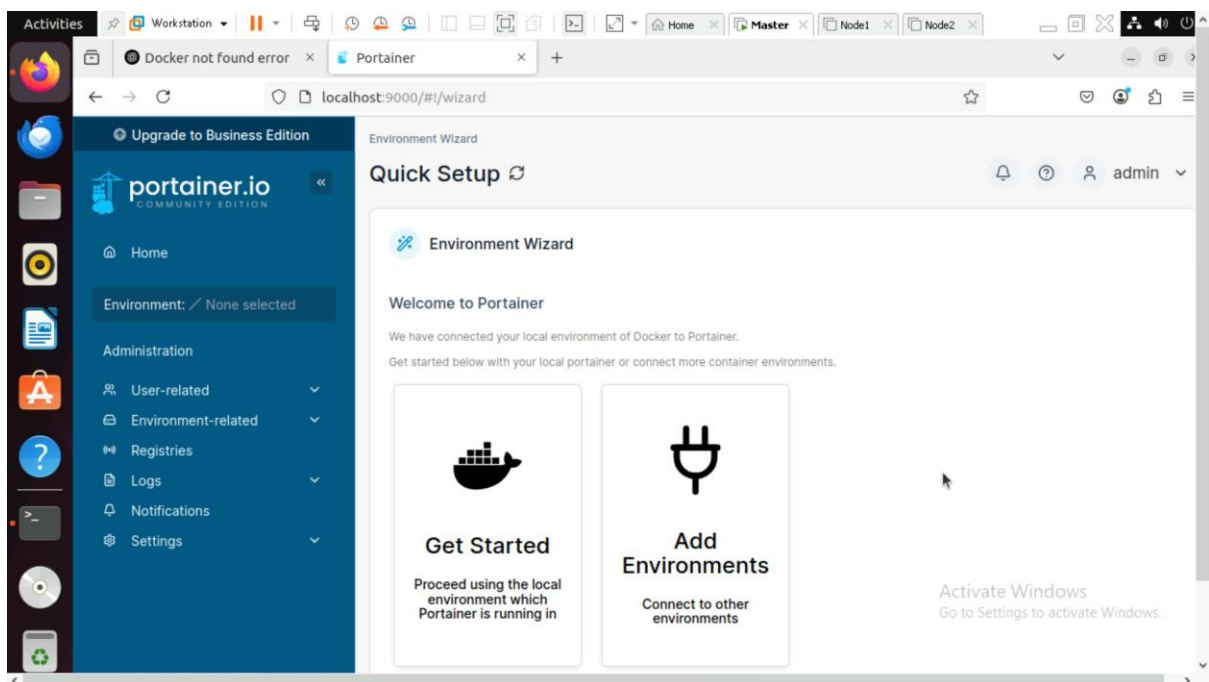
DOCKERS AND NGINX

Deploying a nginx Web Server with Docker :

```
master@master-vm: ~/Desktop
master@master-vm:~/Desktop$ sudo chmod a+r /etc/apt/keyrings/docker.asc
master@master-vm:~/Desktop$ echo "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
master@master-vm:~/Desktop$ sudo apt update
Get:1 https://download.docker.com/linux/ubuntu jammy InRelease [48.8 kB]
Hit:2 http://security.ubuntu.com/ubuntu jammy-security InRelease
Get:3 https://download.docker.com/linux/ubuntu jammy/stable amd64 Packages [45.7 kB]
Hit:4 http://in.archive.ubuntu.com/ubuntu jammy InRelease
Hit:5 http://in.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:6 http://in.archive.ubuntu.com/ubuntu jammy-backports InRelease
Fetched 94.5 kB in 1s (72.1 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
20 packages can be upgraded. Run 'apt list --upgradable' to see them.
master@master-vm:~/Desktop$ sudo apt install -y docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  bridge-utils ubuntu-fan
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  docker-ce-rootless-extras libslirp0 slirp4netns
Suggested packages:
  cgroupfs-mount | cgroup-lite
The following packages will be REMOVED:
  containerd docker.io runc
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-cli
  docker-ce-rootless-extras docker-compose-plugin libslirp0 slirp4netns
0 upgraded, 8 newly installed, 3 to remove and 20 not upgraded.
Need to get 120 MB of archives.
After this operation, 138 MB of additional disk space will be used.
Get:1 https://download.docker.com/linux/ubuntu jammy/stable amd64 containerd.io amd64 1.7.25-1 [29.6 MB]
```

```
Unpacking libslirp0:amd64 (4.6.1-1build1) ...
Selecting previously unselected package slirp4netns.
Preparing to unpack .../7-slirp4netns_1.0.1-2_amd64.deb ...
Unpacking slirp4netns (1.0.1-2) ...
Setting up docker-buildx-plugin (0.21.1-1-ubuntu.22.04-jammy) ...
Setting up containerd.io (1.7.25-1) ...
Setting up docker-compose-plugin (2.33.1-1-ubuntu.22.04-jammy) ...
Setting up docker-ce-cli (5:28.0.1-1-ubuntu.22.04-jammy) ...
Setting up libslirp0:amd64 (4.6.1-1build1) ...
Setting up docker-ce-rootless-extras (5:28.0.1-1-ubuntu.22.04-jammy) ...
Setting up slirp4netns (1.0.1-2) ...
Setting up docker-ce (5:28.0.1-1-ubuntu.22.04-jammy) ...
Could not execute systemctl: at /usr/bin/deb-systemd-invoke line 142.
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.9) ...
master@master-vm:~/Desktop$ sudo systemctl start docker
master@master-vm:~/Desktop$ sudo systemctl enable docker
Synchronizing state of docker.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable docker
master@master-vm:~/Desktop$ sudo docker --version
Docker version 28.0.1, build 068a01e
master@master-vm:~/Desktop$ sudo usermod -aG docker $USER
master@master-vm:~/Desktop$ newgrp docker
master@master-vm:~/Desktop$ sudo docker pull portainer/portainer-ce
Using default tag: latest
latest: Pulling from portainer/portainer-ce
436768c74267: Pull complete
d61825c69234: Pull complete
04de093ad5ed: Pull complete
a528983d077c: Pull complete
26eb502a78ed: Pull complete
b2724536dfda: Pull complete
5b45cfb2ea0c: Pull complete
20b115ea6339: Pull complete
8e73efb50b28: Pull complete
```

```
master@master-vm: ~/Desktop
master@master-vm:~/Desktop$ sudo docker run -d -p 9000:9000 --name=portainer --restart=always \
-v /var/run/docker.sock:/var/run/docker.sock \
-v portainer_data:/data \
portainer/portainer-ce
[sudo] password for master:
36226e1b866dc4cb6c5debe1fcb2559e15b1df94a6b719fbd0ec665771179
master@master-vm:~/Desktop$ sudo docker ps
CONTAINER ID   IMAGE          NAMES      COMMAND      CREATED      STATUS      PORTS
36226e1b866d   portainer/portainer-ce   "/portainer"   54 seconds ago   Up 53 seconds   8000/tcp, 9443/tcp, 0.0.0.0:9000->9000/tcp,
[::]:9000->9000/tcp   portainer
master@master-vm:~/Desktop$
```



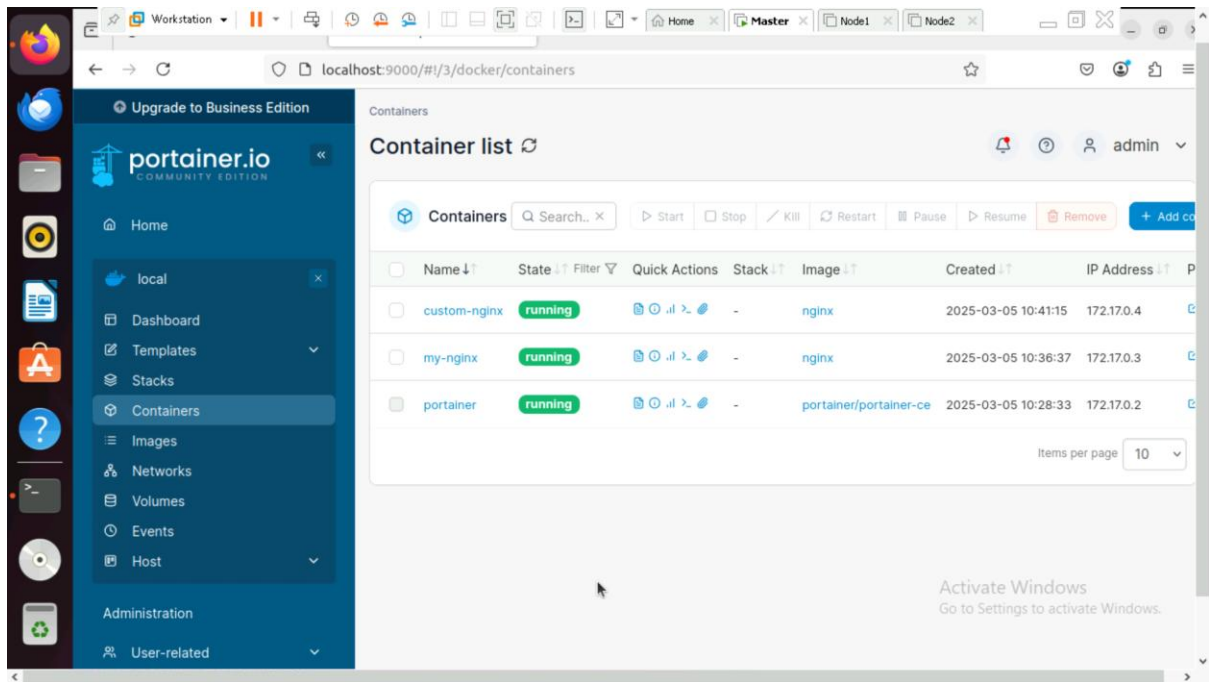
```
Workstation
master@master-vm: ~/Desktop$ docker pull nginx
Using default tag: latest
latest: Pulling from library/nginx
7cf63256a31a: Pull complete
bf9acace214a: Pull complete
513c3649bb14: Pull complete
d014f92d532d: Pull complete
9dd21ad5a4a6: Pull complete
943ea0f0c2e4: Pull complete
103f50cb3e9f: Pull complete
Digest: sha256:9d6b58feebd2dbd3c56ab585333d627cc6e281011cfd6050fa4bcf2072c9496
Status: Downloaded newer image for nginx:latest
docker.io/library/nginx:latest
master@master-vm: ~/Desktop$ docker run -d -p 8080:80 --name my-nginx nginx
ada485a1774b0439b3eef7bc43dfaf008137eff238df94a6b7a033e22ba952ad
master@master-vm: ~/Desktop/nginx_project$ mkdir nginx_project && cd nginx_project
master@master-vm: ~/Desktop/nginx_project$ nano index.html
master@master-vm: ~/Desktop/nginx_project$ docker run -d -p 8081
docker: 'docker run' requires at least 1 argument

Usage: docker run [OPTIONS] IMAGE [COMMAND] [ARG...]

See 'docker run --help' for more information
master@master-vm: ~/Desktop/nginx_project$ docker run -d -p 8081:80 --name custom-nginx -v $(pwd):/usr/share/nginx/html nginx
674f47fe3d0e479fb5a34b1869ab9a5a3d8c82381ee7f106ba5f8703953e7f44
master@master-vm: ~/Desktop/nginx_project$
```

Activate Windows
Go to Settings to activate Windows.

```
GNU nano 6.2 index.html *
<!DOCTYPE html>
<html>
<head>
  <title>My Dockerized Nginx</title>
</head>
<body>
<h1>Hello, this is a custom Nginx page inside Docker!</h1>
</body>
</html>
```



Output:

