##How To Minishift LAB - Por: Gabriel Peixer

Esse passo a passo envolve as tecnologias:

- **Linux Ubuntu;**
- **Minishift;**
- **Docker;**
- **Nginx**

Preparando o ambiente de trabalho

#1 instale libvirt e qemu-kvm em seu sistema:

root@ubuntu1604:/home/vagrant# apt install libvirt-bin

#2 adicionar seu usuário ao grupo:

root@ubuntu1604:/home/vagrant# groupadd libvirt
root@ubuntu1604:/home/vagrant# sudo usermod --append --groups libvirt $(whoami)

#3 atualize sua sessão atual para aplicar a mudança do grupo

root@ubuntu1604:/home/vagrant# newgrp libvirt

#4 como root instalar o binário da kvm da seguinte forma

```
root@ubuntu1604:/home/vagrant# curl -L
https://github.com/dhiltgen/docker-machine-kvm/releases/download/v0.10.0/docker-mac
hine-driver-kvm-centos7 -o /usr/local/bin/docker-machine-driver-kvm
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100   657  100   657    0     0    753      0 --:--:-- --:--:-- --:--:--   753
100 11.3M  100 11.3M    0     0  2609k      0  0:00:04  0:00:04 --:--:-- 4174k
root@ubuntu1604:/home/vagrant# chmod +x /usr/local/bin/docker-machine-driver-kvm
```

Startando o serviços

#5 checar o status da virtlibd

```
root@ubuntu1604:/home/vagrant# systemctl is-active libvirtd
active
```

#6 caso serviço não esteja ativo, ativar conforme abaixo:

root@ubuntu1604:/home/vagrant# sudo systemctl start libvirtd

Instalando o minishift

#8 instalando pelos binários e descompactando

```
root@ubuntu1604:/home/vagrant# wget
https://github.com/minishift/minishift/releases/download/v1.24.0/minishift-1.24.0-linux-am
d64.tgz
```

root@ubuntu1604:/home/vagrant# tar -xvf minishift-1.24.0-linux-amd64.tgz
minishift-1.24.0-linux-amd64/
minishift-1.24.0-linux-amd64/LICENSE
minishift-1.24.0-linux-amd64/README.adoc
minishift-1.24.0-linux-amd64/minishift

#9 Mova o arquivo binário minishift para seu PATH, que você pode encontrar executando o seguinte e observando a saída:

root@ubuntu1604:/home/vagrant/minishift-1.24.0-linux-amd64# echo $PATH
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin

root@ubuntu1604:/home/vagrant/minishift-1.24.0-linux-amd64# mv minishift /usr/local/bin
root@ubuntu1604:/home/vagrant/minishift-1.24.0-linux-amd64# ls /usr/local/bin/
docker-machine-driver-kvm minishift

#10 Execute o comando minishift e observe a saída:

root@ubuntu1604:/home/vagrant/minishift-1.24.0-linux-amd64# minishift
Minishift is a command-line tool that provisions and manages single-node OpenShift clusters optimized for development workflows.

Usage:
  minishift [command]

Available Commands:
  addons   Manages Minishift add-ons.
  completion Outputs minishift shell completion for the given shell (bash or zsh)
  config   Modifies Minishift configuration properties.
  console   Opens or displays the OpenShift Web Console URL.
  delete   Deletes the Minishift VM.
  docker-env Sets Docker environment variables.
  help   Help about any command
  hostfolder Manages host folders for the Minishift VM.
  image   Exports and imports container images.
  ip   Gets the IP address of the running cluster.
  logs   Gets the logs of the running OpenShift cluster.
  oc-env   Sets the path of the 'oc' binary.
  openshift   Interacts with your local OpenShift cluster.

#11Logar no MiniShift Web Console

root@ubuntu1604:/home/vagrant/minishift-1.24.0-linux-amd64#minishift start
  Starting profile 'minishift'
  Check if deprecated options are used … OK
  Checking if https://github.com is reachable … OK

[...]

  Minishift will be configured with…
  Memory: 4GB
  vCPUs : 2GB
  Disk size: 20 GB
Starting Minishift VM …….OK

Server Information ...
MiniShift server started.
The server is accessible via web console at:
https://192.168.42.66:8443/console

 vroot@ubuntu1604:/home/vagrant/minishift-1.24.0-linux-amd64#minishift oc-env

#12.Subindo a imagem do docker

root@ubuntu1604:/home/vagrant/minishift-1.24.0-linux-amd64# docker pull nginx
Using default tag: latest
latest: Pulling from library/nginx
a076a628af6f: Pull complete
0732ab25fa22: Pull complete
d7f36f6fe38f: Pull complete
f72584a26f32: Pull complete
7125e4df9063: Pull complete
Digest:
sha256:10b8cc432d56da8b61b070f4c7d2543a9ed17c2b23010b43af434fd40e2ca4aa
Status: Downloaded newer image for nginx:latest

#13. Listando e executando o container

root@ubuntu1604:/home/vagrant/minishift-1.24.0-linux-amd64# docker image ls
REPOSITORY TAG IMAGE ID CREATED SIZE
nginx latest f6d0b4767a6c 2 weeks ago 133MB
root@ubuntu1604:/home/vagrant/minishift-1.24.0-linux-amd64# docker run --name nginx2Coloque este arquivo no mesmo diretório do seu diretório de conteúdo ("static-html-directory"), execute -p 80:80 -d nginx
3df60968c6915597db6df6f866d43fa90eecd4684ab5bb70c38aeffc06131336

#14. Criar arquivo com conteúdo estático

root@ubuntu1604:/home/vagrant# touch nexxes.json
root@ubuntu1604:/home/vagrant# ls
minishift-1.24.0-linux-amd64 minishift-1.24.0-linux-amd64.tgz nexxes.json
root@ubuntu1604:/home/vagrant# chmod 777 nexxes.json
root@ubuntu1604:/home/vagrant# vi nexxes.json

copiar o conteúdo para arquivo nexxes.json

{"service": {"oracle": "ok", "redis": "ok", "mongo": "down", "pgsql": "down", "mysql": "ok"}}

#15. Hospedando o contéudo

Criar arquivo Dockerfile com o conteúdo

FROM nginx

COPY static-html-directory /usr/share/nginx/hmtl

#16. Coloque este arquivo no mesmo diretório do seu diretório de conteúdo ("static-html-directory"), execute:

root@ubuntu1604:/home/vagrant#docker build -t nginx

#17. Expor a porta para acesso
root@ubuntu1604:/home/vagrant#docker run nginx -d -p 8080:80 nginx

#18. Acessando
digitar no browser http://localhost:8080