



Waterford Institute *of* Technology



openstack®

TRAINING LABS INSTALLATION

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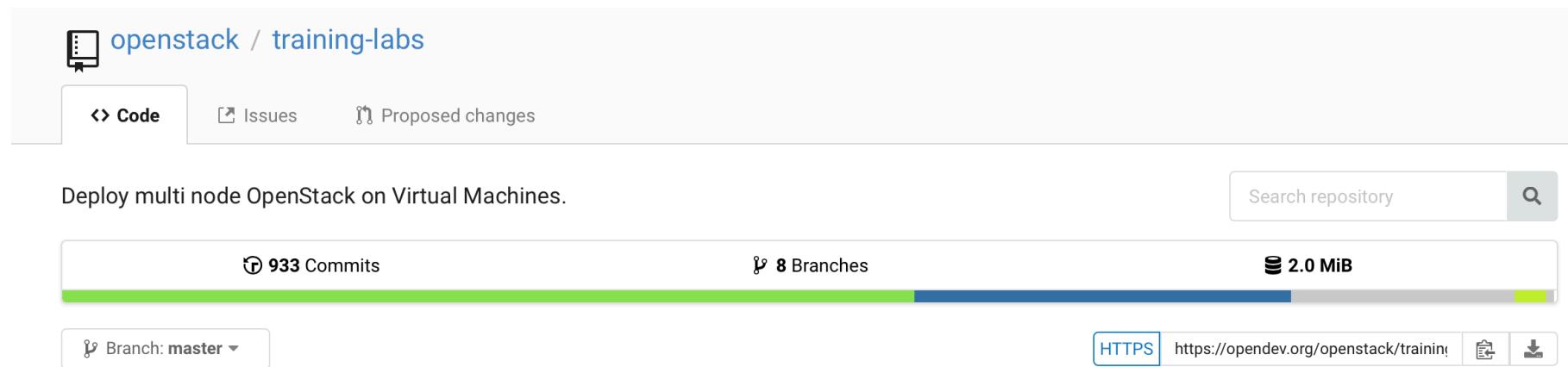
INSTALL VIRTUAL BOX

- VirtualBox is a powerful x86 and AMD64/Intel64 virtualization product for enterprise as well as home use.
- First install the virtual box
 - www.virtualbox.org



DOWNLOAD OPENSTACK TRAINING LABS (FOR LINUX & MAC)

- You can do it using command line (in linux and mac).
 - `git clone git://git.openstack.org/openstack/training-labs.git`
 - Or download using git website.



DOWNLOAD OPENSTACK TRAINING LABS (FOR WINDOWS)

- For windows users
 - https://docs.openstack.org/training_labs/

OpenStack Training Labs

Training Labs provides an easy way to deploy virtualized OpenStack in a desktop environment. Training Labs supports all modern Linux, Windows and macOS platforms. You need to have VirtualBox or KVM/libvirt installed before running Training Labs.

Extract the compressed file to a folder and be ready for one-click deployment of your own OpenStack Training Labs cluster.

For further details and instructions, see the [Training Labs Wiki page](#).

Get Training Labs

Linux

Master 

Rocky 

Queens 

Mac OS X

Master 

Rocky 

Queens 

Windows

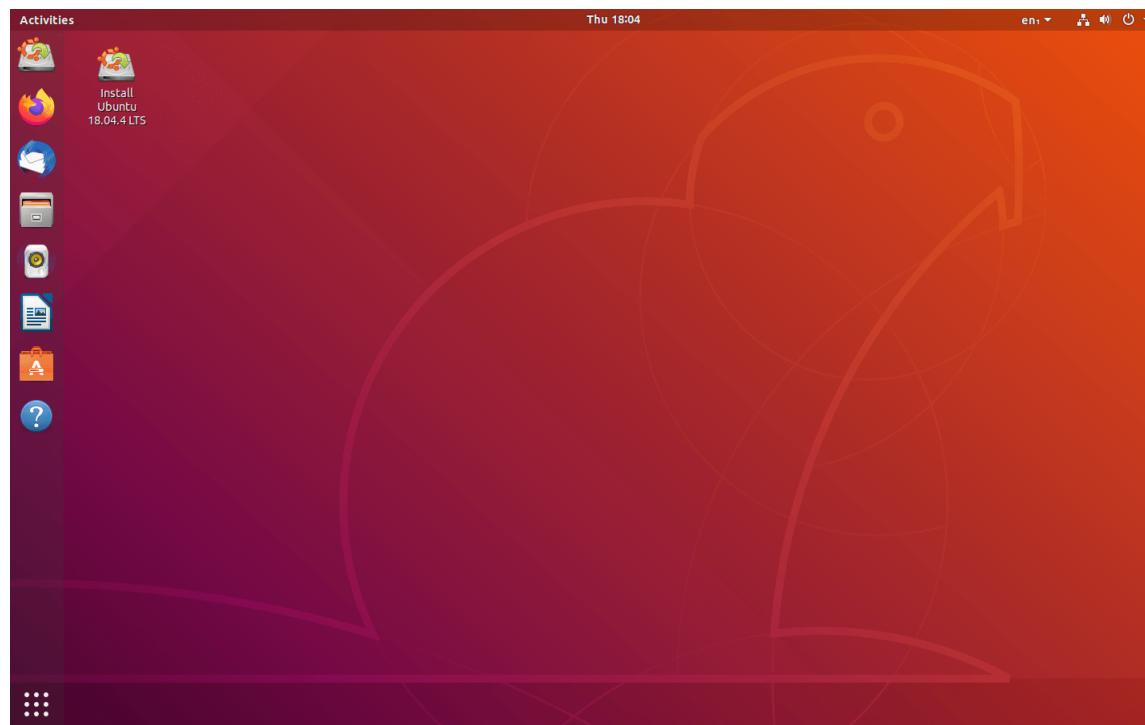
Master 

Rocky 

Queens 

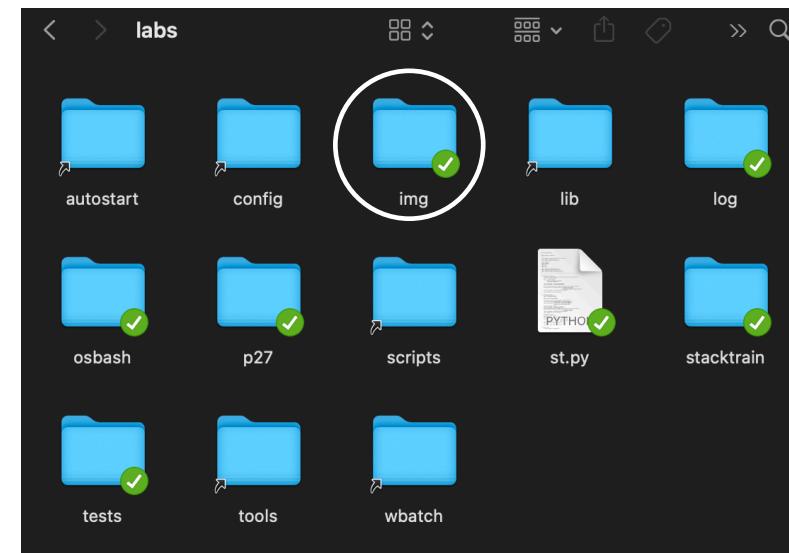
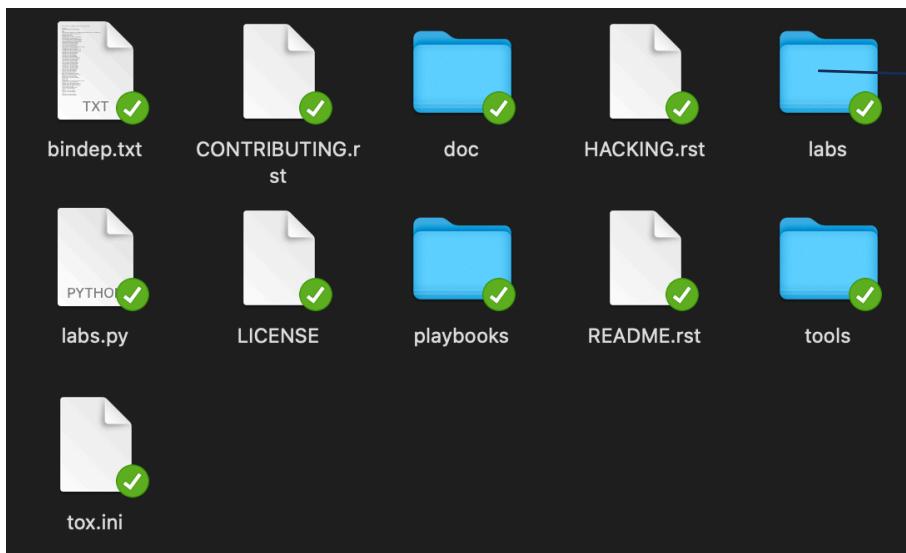
DOWNLOAD UBUNTU ISO

- Download ubuntu-18.04.4-server-amd64.iso
 - <http://old-releases.ubuntu.com/releases/18.04.4/ubuntu-18.04.4-server-amd64.iso>



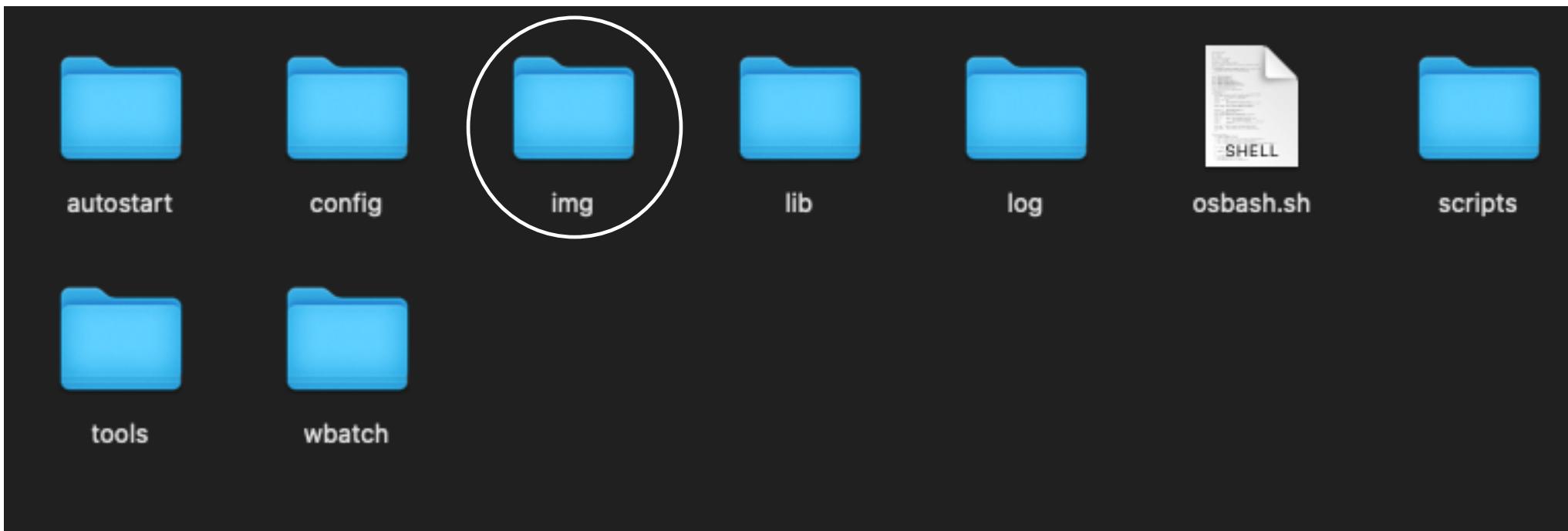
PLACE THE ISO (FOR LINUX & MAC)

- Go to the downloaded training labs folder.
- Go into labs.
- Create a folder called “img” and place the downloaded .iso file in “img” folder.



PLACE THE ISO (FOR WINDOWS)

- Go to the downloaded training labs folder.
- Place the downloaded .iso file in “img” folder”.



RUN THE SCRIPT FOR THE OPENSTACK TRAINING

- Open a terminal
- Go into “labs” folder inside the “training-labs” folder.
- For Linux & Mac users run
 - `./st.py -b cluster` (this needs python 2.7)

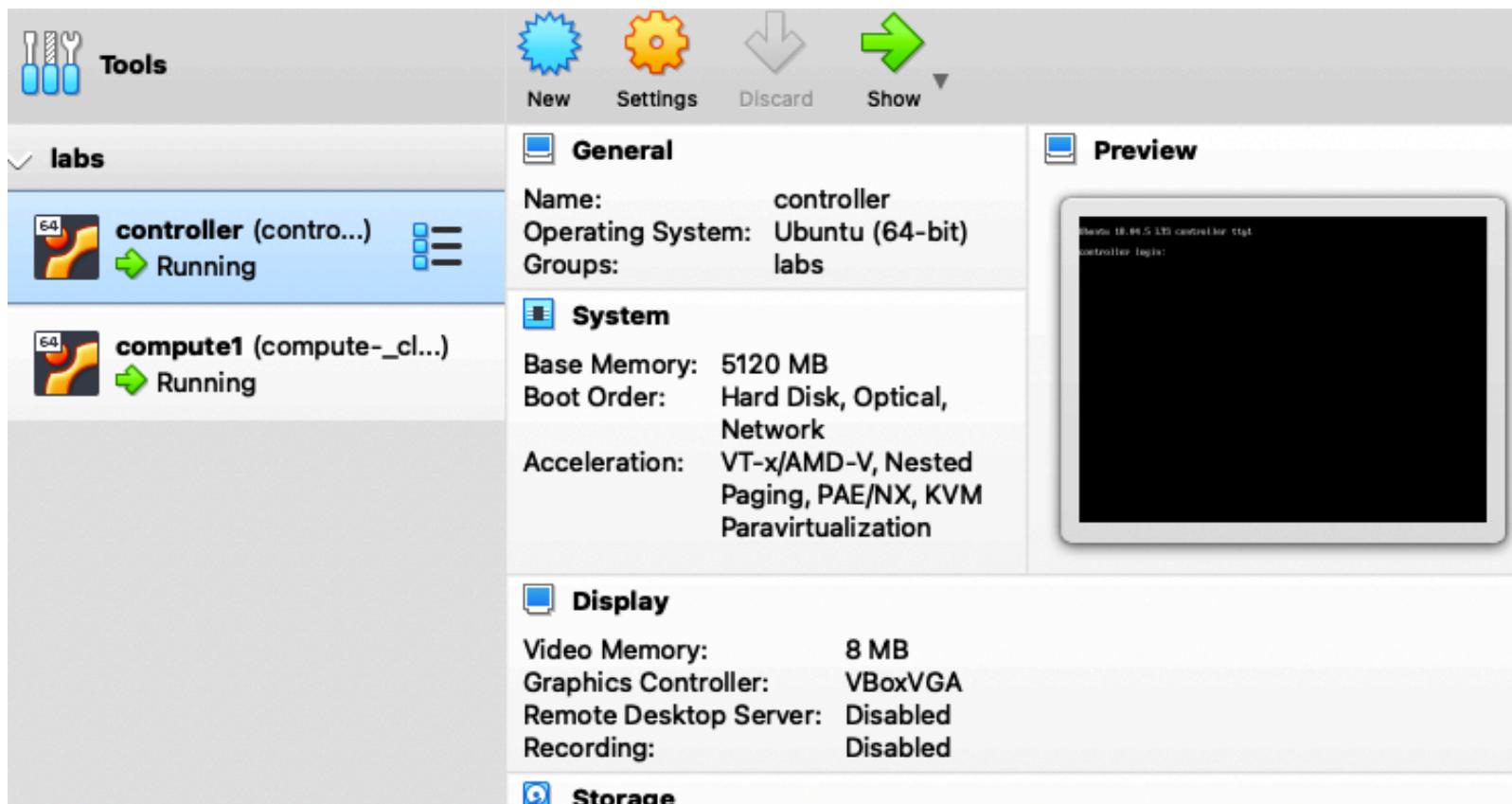
RUN THE SCRIPT FOR THE OPENSTACK TRAINING

- **create_hostnet.bat**
 - Creates the host-only networks used by the node VMs to communicate. The script asks for elevated privileges which are needed for that task. *You only need to run this script once*, the network configuration is saved by VirtualBox. You can verify the configured networks in the VirtualBox GUI: *File->Preferences->Network->Host-only Networks*.
- **create_base.bat**
 - Creates the base disk. *You only need to run this script once* (and every time you want to update the base disk). This script downloads the OS image needed to build the base disk to *training-labs\labs\img*, if it doesn't exist, and asks the user to hit a key to proceed after downloading.
- **create_ubuntu_cluster_node.bat**
 - Creates the node VMs based on the base disk.
 - Note: The Windows batch scripts still have some limitations. For instance, if they find an existing node VM of the same name, they print an error and exit. *Do not start a batch script if another one is still running*.

COMPLETED INSTALLATION

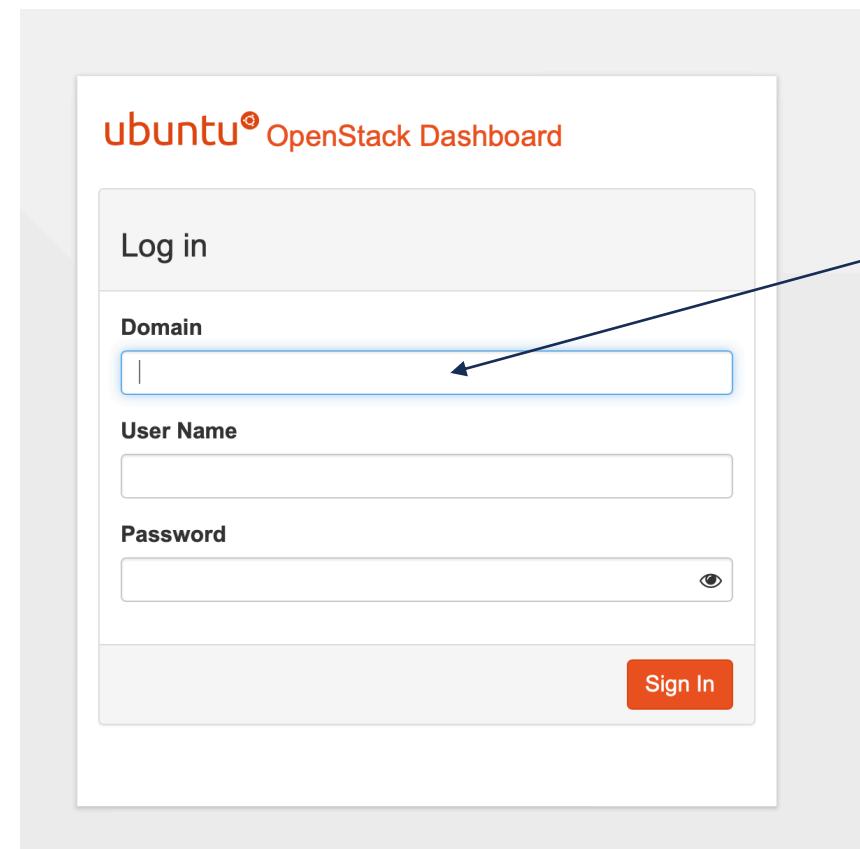
```
.....  
0      done  
INFO  Processing of scripts successful.  
INFO  Shutting down VM controller.  
INFO  Waiting for shutdown of VM controller.  
.....INFO  Machine powered off.  
INFO  Shutting down VM compute1.  
INFO  Waiting for shutdown of VM compute1.  
.....INFO  Machine powered off.  
INFO  Starting VM compute1 with headless GUI  
.INFO  Waiting for ssh server in VM compute1 to respond at 127.0.0.1:2232.  
.....INFO  Connected to ssh server.  
.INFO  Processing of scripts successful.  
INFO  Starting VM controller with headless GUI  
.INFO  Waiting for ssh server in VM controller to respond at 127.0.0.1:2230.  
.....INFO  Connected to ssh server.  
.INFO  Processing of scripts successful.  
INFO  Cluster build took 1690 seconds  
Your cluster nodes:  
INFO  VM name: compute1  
INFO          SSH login: ssh -p 2232 osbash@127.0.0.1  
INFO          (password: osbash)  
INFO  VM name: controller  
INFO          SSH login: ssh -p 2230 osbash@127.0.0.1  
INFO          (password: osbash)  
INFO  Dashboard: Assuming horizon is on controller VM.  
INFO          http://127.0.0.1:8888/horizon/  
INFO          User : myuser (password: myuser_user_pass)  
INFO          User : admin (password: admin_user_secret)  
INFO  Network: mgmt  
INFO          Network address: 10.0.0.0  
INFO  Network: provider  
INFO          Network address: 203.0.113.0  
(p27) (base) Samithas-MacBook-Pro-TB:labs samithasomathilaka$
```

THE VIRTUAL BOX AFTER INSTALLATION



LOGGING TO THE OPENSTACK DASHBOARD

```
Dashboard: Assuming horizon is on controller VM.  
http://127.0.0.1:8888/horizon/  
User : myuser (password: myuser_user_pass)  
User : admin (password: admin_user_secret)
```



Domain: default