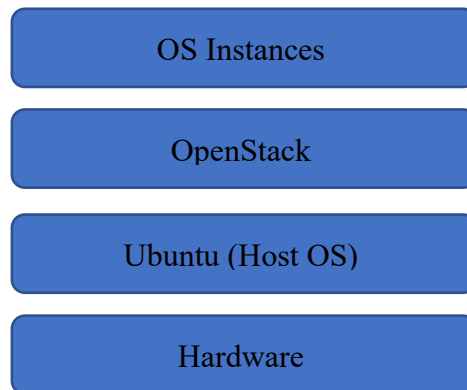


Hands on OpenStack using Devstack

What are we going to do?

- ➔ Using a Personal Computer with 16GB of RAM , i5 7th Gen Processor, 500GB HDD
- ➔ Installing Ubuntu 18 as host OS
- ➔ Configuring OpenStack on it using DevStack scripts



STEP 1: INSTALLING THE HOST OS

- ➔ Installing the Ubuntu 18.04.1 LTS (Bionic Beaver)
[Download Ubuntu](#)
- ➔ Other options include – [Fedora](#) , [CentOS](#) , [Debian](#)
- ➔ Create a bootable pen drive using [Rufus](#)(On Windows) or [Etcher](#)(On Mac OS)

STEP 2: INSTALLING THE DEVSTACK

- ➔ Open the terminal on Ubuntu
- ➔ Create a separate stack user for Installation -

```
$ sudo useradd -s /bin/bash -d /opt/stack -m stack
```

- ➔ Since this user will be making many changes to your system, it should have sudo privileges

```
$ echo "stack ALL=(ALL) NOPASSWD: ALL" | sudo tee /etc/sudoers.d/stack
```

```
$ sudo su - stack
```

- ➔ Now download DevStack

```
$ git clone https://git.openstack.org/openstack-dev/devstack
```

```
$ cd devstack
```

➔ Create **local.conf** file inside devstack directory

```
$ vi local.conf
```

(Now inside vi editor press **I** to go into insert mode)

Inside local.conf , type-

➔

```
[[local|localrc]]
ADMIN_PASSWORD=secret
DATABASE_PASSWORD=$ADMIN_PASSWORD
RABBIT_PASSWORD=$ADMIN_PASSWORD
SERVICE_PASSWORD=$ADMIN_PASSWORD
```

(Now for saving press **esc** and type **:wq** and press enter/return)

➔ Start the installation

```
$ ./stack.sh
```



NOTE: The time taken by the installation process is dependent upon the internet speed.

What if error occurs during installation?

Error during installation occurs as a World Dumping message
example- (see the 4th statement from bottom)

(And for the error type see 7th line from bottom)

```
cloud_project@Version: ~/devstack
File Edit View Search Terminal Help
+Functions-common:git_clone:518      egrep -q '^refs'
+Functions-common:git_clone:532      [[ ! -d /opt/stack/requirements ]]
+Functions-common:git_clone:533      [[ False = \T\r\w\le ]]
+Functions-common:git_clone:539      git_timed clone git://git.openstack.org/openstack/requirements.git /opt/stack/requirements --branch
master
+Functions-common:git_timed:591       local count=0
+Functions-common:git_timed:592       local timeout=0
+Functions-common:git_timed:594       [[ -n 0 ]]
+Functions-common:git_timed:595       timeout=0
+Functions-common:git_timed:598       time_start git_timed
+Functions-common:time_start:2247     local name=git_timed
+Functions-common:time_start:2248     local start_time=
+Functions-common:time_start:2249     [[ -n '' ]]
++Functions-common:time_start:2252    date +%s%3N
+Functions-common:time_start:2252     _TIME_START[$name]=1539187439418
+Functions-common:git_timed:599       timeout -s SIGINT 0 git clone git://git.openstack.org/openstack/requirements.git /opt/stack/require
ments --branch master
Cloning into '/opt/stack/requirements'...
fatal: unable to connect to git.openstack.org:
git.openstack.org[0: 104.130.246.85]: errno=Connection timed out
git.openstack.org[1: 2001:4800:7819:103:be76:4eff:fe04:77e6]: errno=Network is unreachable

+Functions-common:git_timed:602       [[ 128 -ne 124 ]]
+Functions-common:git_timed:603       die 603 'git call failed: [git clone] git://git.openstack.org/openstack/requirements.git /opt/stack
/requirements --branch 'master']
+Functions-common:die:187             local exitcode=0
+Functions-common:die:188             set +o xtrace
[Call Trace]
./stack.sh:751:git_clone
/home/cloud_project/devstack/functions-common:539:git_timed
/home/cloud_project/devstack/functions-common:603:die
[ERROR] /home/cloud_project/devstack/functions-common:603 git call failed: [git clone git://git.openstack.org/openstack/requirements.git /opt/
stack/requirements --branch master]
Error on exit
World dumping... see /opt/stack/logs/worlddump-2018-10-10-160611.txt for details
/bin/sh: 1: brctl: not found
cloud_project@Version:~/devstack$ git config --global url."https://".insteadOf git://
cloud_project@Version:~/devstack$ ./stack.sh
```

If the error shows git command not found -

```
$ sudo apt-get update
$ sudo apt-get upgrade
$ sudo apt-get install git
```

And if error is as given in the image

“git call failed: [git clone git://git.openstack.org/opensta.....”

To resolve this error -

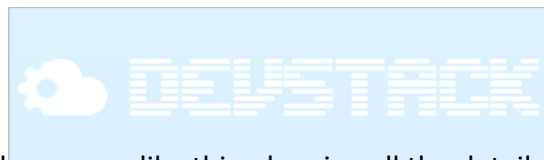
```
$ git config --global url.https://.insteadOf git://
```

But if the process still shows error –

```
$ ./unstack.sh
$ ./clean.sh
```

Then after it,

```
$ ./stack.sh
```



The process completes with a screen like this, showing all the details regarding accessing of Horizon(Dashboard)-

```
cloud_project@Version: ~/devstack

File Edit View Search Terminal Help
=====
run_process      17
test_with_retry   2
apt-get-update    2
osc              93
wait_for_service  10
git_timed        1836
dbsync           455
plp_install       586
apt-get          849
=====
Unaccounted time  837
=====
Total runtime     4687

This is your host IP address: 172.16.12.139
This is your host IPv6 address: ::1
Horizon is now available at http://172.16.12.139/dashboard
Keystone is serving at http://172.16.12.139/identity/
The default users are: admin and demo
The password: secret

WARNING:
Using lib/neutron-legacy is deprecated, and it will be removed in the future

Services are running under systemd unit files.
For more information see:
https://docs.openstack.org/devstack/latest/systemd.html

DevStack Version: stein
Change: dd0f884b7e08eff920d27b10b53b1301b9ffd9c3 Merge "Convert to openSUSE Leap 15.0 platform testing" 2018-10-09 08:51:41 +0000
OS Version: Ubuntu 18.04 bionic

2018-10-10 17:26:53.170 | stack.sh completed in 4687 seconds.
cloud_project@Version: ~/devstack$ ./stack.sh
```