

Ex 8: Virtual Machine Creation in OpenStack Cloud Platform (Online)

Step 1: Switch to “root” user

```
user@vmub-hadoop1:~$ sudo su -  
root@vmub-hadoop1:~# sudo apt-get update
```

Step 2: Install “git” and logout from “root user”

```
root@vmub-hadoop1:~# sudo apt-get install git  
root@vmub-hadoop1:~# exit  
logout  
user@vmub-hadoop1:~$
```

Step 3: Create/Add a user “stack” with “no password”

```
user@vmub-hadoop1:~$ sudo useradd -s /bin/bash -d /opt/stack -m stack  
user@vmub-hadoop1:~$ echo "stack ALL=(ALL) NOPASSWD: ALL" | sudo tee  
/etc/sudoers.d/stack  
stack ALL=(ALL) NOPASSWD: ALL
```

Step 4: Move to “stack” user

```
user@vmub-hadoop1:~$ sudo su - stack
```

Step 5: Clone the “devstack” from the specified link

```
stack@vmub-hadoop1:~$ git clone https://github.com/openstack-dev/devstack
```

Cloning into 'devstack'...

remote: Enumerating objects: 49330, done.

remote: Counting objects: 100% (2556/2556), done.

remote: Compressing objects: 100% (836/836), done.

remote: Total 49330 (delta 1831), reused 2226 (delta 1709), pack-reused 46774

Receiving objects: 100% (49330/49330), 15.56 MiB | 2.33 MiB/s, done.

Resolving deltas: 100% (34462/34462), done.

Checking connectivity... done.

Step 6: Move to “/devstack/samples”

```
stack@vmub-hadoop1:~$ cd devstack
stack@vmub-hadoop1:~/devstack$ ls
clean.sh      doc      functions  gate    lib    openrc  roles    stackrc  tools
CONTRIBUTING.rst  extras.d  functions-common  HACKING.rst  LICENSE  playbooks
run_tests.sh  stack.sh  tox.ini
data          files    FUTURE.rst  inc     Makefile  README.rst  samples    tests
unstack.sh

stack@vmub-hadoop1:~/devstack$ cd samples
stack@vmub-hadoop1:~/devstack/samples$ ls
local.conf  local.sh
```

Step 7: Copy “local.conf” file to “devstack”

```
stack@vmub-hadoop1:~/devstack/samples$ cp local.conf ../
stack@vmub-hadoop1:~/devstack/samples$ cd ..
stack@vmub-hadoop1:~/devstack$ ls
clean.sh      doc      functions  gate    lib    Makefile  README.rst  samples  tests
unstack.sh

CONTRIBUTING.rst  extras.d  functions-common  HACKING.rst  LICENSE  openrc  roles
stackrc  tools
data          files    FUTURE.rst  inc     local.conf  playbooks  run_tests.sh  stack.sh  tox.ini
```

Step 8: Open “local.conf” and edit the lines

```
stack@vmub-hadoop1:~/devstack$ nano local.conf
```

ADMIN_PASSWORD=**p1**

DATABASE_PASSWORD=**p1**

RABBIT_PASSWORD=**p1**

SERVICE_PASSWORD=**p1**

HOST_IP=**10.0.2.4**

FLOATING_RANGE=**10.0.2.224/27**

Step 9: Remove the following files to Lock the error

```
stack@vmub-hadoop1:~/devstack$ sudo rm /var/lib/dpkg/lock
stack@vmub-hadoop1:~/devstack$ sudo rm /var/lib/apt/lists/lock
stack@vmub-hadoop1:~/devstack$ sudo rm /var/cache/apt/archives/lock
stack@vmub-hadoop1:~/devstack$ sudo rm -rf /var/lib/apt/lists/*
```

Step 10: To install stack

```
stack@vmub-hadoop1:~/devstack$ FORCE=yes ./stack.sh
```

```
        print a[2]
    }
    ' /opt/stack/devstack/local.conf
+./stack.sh:main:1489                                set to xtrace

=====
DevStack Component Timing
(times are in seconds)
=====
run_process           53
test_with_retry       2
apt-get-update        1
osc                   177
wait_for_service      21
dbsync                56
pip_install           149
apt-get               7
-----
Unaccounted time      418
=====
Total runtime         884

This is your host IP address: 10.128.0.8
This is your host IPv6 address: ::1
Horizon is now available at http://10.128.0.8/dashboard
Keystone is serving at http://10.128.0.8/identity/
The default users are: admin and demo
The password: StrongAdminSecret

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: train
Change: 16d11d27f375b8c027bbc3a1db1885e90ce6c604 Merge "Option "lock_path" from group "DEFAULT"
OS Version: Ubuntu 18.04 bionic

2019-06-04 12:19:19.207 | stack.sh completed in 884 seconds.
```

Accessing OpenStack on a web browser

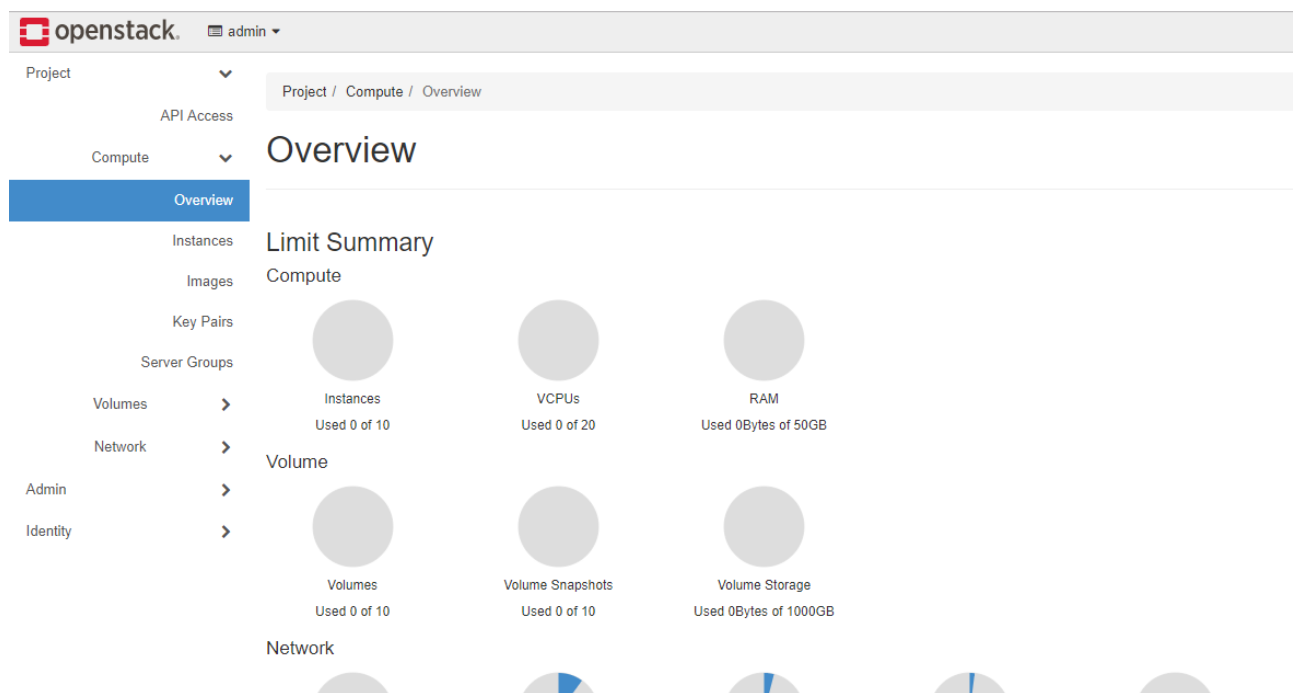
To access OpenStack via a web browser browse your Ubuntu's IP address as shown.

<https://server-ip/dashboard>

This directs you to a login page as shown.



The image shows the OpenStack login page. At the top is the OpenStack logo, which consists of a red square with a white 'O' inside, followed by the word 'openstack' in a black, lowercase, sans-serif font. Below the logo is the text 'Log in'. Underneath is a form with two input fields: 'User Name' and 'Password'. The 'User Name' field has a small cursor icon. The 'Password' field has a small eye icon to its right. At the bottom right of the form is a blue button with the text 'Sign In' in white.



The image shows the OpenStack dashboard interface. At the top is a header bar with the OpenStack logo and the text 'openstack.' followed by a dropdown menu showing 'admin'. Below the header is a sidebar with a list of navigation items: Project, API Access, Compute, Overview (highlighted in blue), Instances, Images, Key Pairs, Server Groups, Volumes, Network, Admin, and Identity. To the right of the sidebar is the main content area. At the top of the main content area is a breadcrumb trail: 'Project / Compute / Overview'. Below the breadcrumb trail is the title 'Overview'. Underneath the title is a section titled 'Limit Summary' with a sub-header 'Compute'. This section contains three circular progress indicators for 'Instances' (Used 0 of 10), 'VCPUs' (Used 0 of 20), and 'RAM' (Used 0Bytes of 50GB). Below this is a section titled 'Volume' with three circular progress indicators for 'Volumes' (Used 0 of 10), 'Volume Snapshots' (Used 0 of 10), and 'Volume Storage' (Used 0Bytes of 1000GB). At the bottom of the main content area is a section titled 'Network' with five circular progress indicators, all of which are currently empty.