

EX:08 VIRTUAL MACHINE CREATION IN OPENSTACK CLOUD PLATFORM

Date :28-10-22

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Roll no: 19UITE032

```
stack@vmub-hadoop1: ~/devstack
useradd: user 'stack' already exists
user@vmub-hadoop1:~$ sudo useradd -s /bin/bash -d /opt/stack -m stack1
useradd: warning: the home directory already exists.
Not copying any file from skel directory into it.
user@vmub-hadoop1:~$ sudo useradd -s /bin/bash -d /opt/stack -m stack
useradd: user 'stack' already exists
user@vmub-hadoop1:~$ sudo useradd -s /bin/bash -d /opt/stack -m stack1
useradd: user 'stack1' already exists
user@vmub-hadoop1:~$ sudo useradd -s /bin/bash -d /opt/stack -m stack
useradd: user 'stack' already exists
user@vmub-hadoop1:~$ sudo su - stack
stack@vmub-hadoop1:~$ git clone https://github.com/openstack-dev/devstack
Cloning into 'devstack'...
remote: Enumerating objects: 49349, done.
remote: Counting objects: 100% (2575/2575), done.
remote: Compressing objects: 100% (856/856), done.
remote: Total 49349 (delta 1842), reused 2233 (delta 1708), pack-reused 46774
Receiving objects: 100% (49349/49349), 15.57 MiB | 2.33 MiB/s, done.
Resolving deltas: 100% (34473/34473), done.
Checking connectivity... done.
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
stack@vmub-hadoop1:~/devstack/samples$ cp local.conf ../
stack@vmub-hadoop1:~/devstack/samples$ cd ..
cd.: command not found
stack@vmub-hadoop1:~/devstack/samples$ cd ..
stack@vmub-hadoop1:~/devstack$ ls
clean.sh  doc  functions  gate  lib  openrc  roles  stackrc  tools
CONTRIBUTING.rst  extras.d  functions-common  HACKING.rst  LICENSE  Makefile  README.rst  samples  tests  unstack.sh
data  files  FUTURE.rst  inc  local.conf  playbooks  run_tests.sh  stack.sh  tox.ini
stack@vmub-hadoop1:~/devstack$ nano local.conf
Use "fg" to return to nano.
[1]+  Stopped                  nano local.conf
stack@vmub-hadoop1:~/devstack$

stack@vmub-hadoop1:~/devstack
Setting up git-man (1:1.9.1-1ubuntu0.10) ...
Setting up git (1:1.9.1-1ubuntu0.10) ...
root@vmub-hadoop1:~# exit
logout
user@vmub-hadoop1:~$ sudo useradd -s /bin/bash -d /opt/stack -m stack
useradd: user 'stack' already exists
user@vmub-hadoop1:~$ sudo useradd -s /bin/bash -d /opt/stack -m stack1
useradd: warning: the home directory already exists.
Not copying any file from skel directory into it.
user@vmub-hadoop1:~$ sudo useradd -s /bin/bash -d /opt/stack -m stack
useradd: user 'stack' already exists
user@vmub-hadoop1:~$ sudo useradd -s /bin/bash -d /opt/stack -m stack1
useradd: user 'stack1' already exists
user@vmub-hadoop1:~$ sudo useradd -s /bin/bash -d /opt/stack -m stack
useradd: user 'stack' already exists
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stack@vmub-hadoop1:~/devstack/samples$ cp local.conf ../
stack@vmub-hadoop1:~/devstack/samples$ cd ..
cd.: command not found
stack@vmub-hadoop1:~/devstack/samples$ cd ..
stack@vmub-hadoop1:~/devstack$ ls
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data  files  FUTURE.rst  inc  local.conf  playbooks  run_tests.sh  stack.sh  tox.ini
```

stack@vmub-hadoop1: ~/devstack



```
Hit http://in.archive.ubuntu.com trusty/main i386 Packages
Hit http://in.archive.ubuntu.com trusty/restricted i386 Packages
Hit http://in.archive.ubuntu.com trusty/universe i386 Packages
Hit http://in.archive.ubuntu.com trusty/multiverse i386 Packages
Hit http://in.archive.ubuntu.com trusty/main Translation-en
Hit http://in.archive.ubuntu.com trusty/multiverse Translation-en
Hit http://in.archive.ubuntu.com trusty/restricted Translation-en
Hit http://in.archive.ubuntu.com trusty/universe Translation-en
Ign http://in.archive.ubuntu.com trusty/main Translation-en_IN
Ign http://in.archive.ubuntu.com trusty/multiverse Translation-en_IN
Ign http://in.archive.ubuntu.com trusty/restricted Translation-en_IN
Ign http://in.archive.ubuntu.com trusty/universe Translation-en_IN
Fetched 8,409 kB in 39s (215 kB/s)
Reading package lists... Done
root@vmub-hadoop1:~# sudo apt-get install git
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  git-man liberror-perl
Suggested packages:
  git-daemon-run git-daemon-sysvinit git-doc git-el git-email git-gui
  gitweb git-arch git-bzr git-cvs git-mediawiki git-svn
The following NEW packages will be installed:
  git git-man liberror-perl
0 upgraded, 3 newly installed, 0 to remove and 456 not upgraded.
Need to get 3,459 kB of archives.
After this operation, 22.0 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://in.archive.ubuntu.com/ubuntu/ trusty/main liberror-perl a
Get:2 http://in.archive.ubuntu.com/ubuntu/ trusty-updates/main git-man
Get:3 http://in.archive.ubuntu.com/ubuntu/ trusty-updates/main git amd
Fetched 3,459 kB in 12s (282 kB/s)
Selecting previously unselected package liberror-perl.
(Reading database ... 166759 files and directories currently installed
Preparing to unpack .../liberror-perl_0.17-1.1_all.deb ...
Unpacking liberror-perl (0.17-1.1) ...
Selecting previously unselected package git-man.
Preparing to unpack .../git-man_1%3a1.9.1-1ubuntu0.10_all.deb ...
Unpacking git-man (1:1.9.1-1ubuntu0.10) ...
Selecting previously unselected package git.
```

```
stack@vmub-hadoop1: ~/devstack
root@vmub-hadoop1:~# exit
logout
user@vmub-hadoop1:~$ sudo su -
root@vmub-hadoop1:~# sudo apt-get update
Ign http://security.ubuntu.com trusty-security InRelease
Ign http://in.archive.ubuntu.com trusty InRelease
Ign http://extras.ubuntu.com trusty InRelease
Ign http://security.ubuntu.com trusty-security Release.gpg
Hit http://extras.ubuntu.com trusty Release.gpg
Ign http://security.ubuntu.com trusty-security Release
Ign http://in.archive.ubuntu.com trusty-updates InRelease
Hit http://extras.ubuntu.com trusty Release
Ign http://security.ubuntu.com trusty-security/main Sources/DiffIndex
Ign http://in.archive.ubuntu.com trusty-backports InRelease
Ign http://security.ubuntu.com trusty-security/restricted Sources/DiffIndex
Hit http://extras.ubuntu.com trusty/main Sources
Ign http://security.ubuntu.com trusty-security/universe Sources/DiffIndex
Hit http://extras.ubuntu.com trusty/main amd64 Packages
Ign http://in.archive.ubuntu.com trusty Release.gpg
Ign http://security.ubuntu.com trusty-security/multiverse Sources/DiffIndex
Hit http://extras.ubuntu.com trusty/main i386 Packages
Ign http://security.ubuntu.com trusty-security/main amd64 Packages/DiffIndex
Ign http://in.archive.ubuntu.com trusty-updates Release.gpg
Ign http://security.ubuntu.com trusty-security/restricted amd64 Packages/DiffIndex
Ign http://in.archive.ubuntu.com trusty-backports Release.gpg
Ign http://security.ubuntu.com trusty-security/universe amd64 Packages/DiffIndex
Ign http://in.archive.ubuntu.com trusty Release
Ign http://security.ubuntu.com trusty-security/multiverse amd64 Packages/DiffIndex
Ign http://security.ubuntu.com trusty-security/main i386 Packages/DiffIndex
Ign http://in.archive.ubuntu.com trusty-updates Release
Ign http://security.ubuntu.com trusty-security/restricted i386 Packages/DiffIndex
Ign http://security.ubuntu.com trusty-security/universe i386 Packages/DiffIndex
Ign http://in.archive.ubuntu.com trusty-backports Release
Ign http://security.ubuntu.com trusty-security/multiverse i386 Packages/DiffIndex
Ign http://in.archive.ubuntu.com trusty/main Sources/DiffIndex
Ign http://extras.ubuntu.com trusty/main Translation-en_IN
Ign http://extras.ubuntu.com trusty/main Translation-en
Ign http://in.archive.ubuntu.com trusty/restricted Sources/DiffIndex
Ign http://in.archive.ubuntu.com trusty/universe Sources/DiffIndex
Ign http://in.archive.ubuntu.com trusty/multiverse Sources/DiffIndex
Ign http://in.archive.ubuntu.com trusty/main amd64 Packages/DiffIndex

stack@vmub-hadoop1: ~/devstack
GNU nano 2.2.6 File: local.conf Modified

# -----
# By default clients are installed from pip. See LIBS_FROM_GIT in
# stackrc for details on getting clients from specific branches or
# revisions. e.g.
# LIBS_FROM_GIT="python-ironicclient"
# IRONICCLIENT_BRANCH=refs/changes/44/2.../1

# Swift
# -----

# Swift is now used as the back-end for the S3-like object store. Setting the
# hash value is required and you will be prompted for it if Swift is enabled
# so just set it to something already:
SWIFT_HASH=66a3d6b56c1f479c8b4e70ab5c2000f5

# For development purposes the default of 3 replicas is usually not required.
# Set this to 1 to save some resources:
SWIFT_REPLICAS=1

# The data for Swift is stored by default in ('$DEST/data/swift'),
# or ('$DATA_DIR/swift') if '$DATA_DIR' has been set, and can be
# moved by setting '$SWIFT_DATA_DIR'. The directory will be created
# if it does not exist.
SWIFT_DATA_DIR=$DEST/data
^X

^G Get Help ^O WriteOut ^R Read File ^V Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^N Next Page ^U UnCut Text ^T To Spell
```

```
stack@vmub-hadoop1: ~/devstack
GNU nano 2.2.6 File: local.conf Modified

# Sample ``local.conf`` for user-configurable variables in ``stack.sh``
# NOTE: Copy this file to the root DevStack directory for it to work properly.
# ``local.conf`` is a user-maintained settings file that is sourced from ``stackrc``.
# This gives it the ability to override any variables set in ``stackrc``.
# Also, most of the settings in ``stack.sh`` are written to only be set if no
# value has already been set; this lets ``local.conf`` effectively override the
# default values.
# This is a collection of some of the settings we have found to be useful
# in our DevStack development environments. Additional settings are described
# in https://docs.openstack.org/devstack/latest/configuration.html#local-conf
# These should be considered as samples and are unsupported DevStack code.
# The ``localrc`` section replaces the old ``localrc`` configuration file.
# Note that if ``localrc`` is present it will be used in favor of this section.
[[local|localrc]]
# Minimal Contents
# -----
# While ``stack.sh`` is happy to run without ``localrc``, devlife is better when
# there are a few minimal variables set:
# If the ``*_PASSWORD`` variables are not set here you will be prompted to enter
# values for them by ``stack.sh`` and they will be added to ``local.conf``.
ADMIN_PASSWORD=nomoresecret
DATABASE_PASSWORD=stackdb
RABBIT_PASSWORD=stackqueue
SERVICE_PASSWORD=$ADMIN_PASSWORD
# ``HOST_IP`` and ``HOST_IPV6`` should be set manually for best results if
# the NIC configuration of the host is unusual, i.e. ``eth1`` has the default
# route but ``eth0`` is the public interface. They are auto-detected in
# ``stack.sh`` but often is indeterminate on later runs due to the IP moving

^G Get Help      ^O WriteOut      ^R Read File     ^V Prev Page     ^K Cut Text      ^C Cur Pos
^X Exit          ^J Justify       ^W Where Is      ^N Next Page     ^U UnCut Text    ^T To Spell

stack@vmub-hadoop1: ~/devstack
++++functions-common:cidr2netmask:2203      echo 255.255.252.0
++++functions-common:address_in_net:2182    maskip 10.0.0.0 255.255.252.0
++++functions-common:maskip:2262           local ip=10.0.0.0
++++functions-common:maskip:2263           local mask=255.255.252.0
++++functions-common:maskip:2264           local l=10.0.0
++++functions-common:maskip:2264           local r=0.0.0
++++functions-common:maskip:2264           local n=255.255.252
++++functions-common:maskip:2264           local m=255.252.0
++++functions-common:maskip:2265           local subnet
++++functions-common:maskip:2266           subnet=10.0.0.0
++++functions-common:maskip:2267           echo 10.0.0.0
++++functions-common:address_in_net:2182    network=10.0.0.0
++++functions-common:address_in_net:2183    local subnet
++++functions-common:address_in_net:2184    cidr2netmask 22
++++functions-common:cidr2netmask:2200     local 'maskpat=255 255 255 255'
++++functions-common:cidr2netmask:2201     local 'maskdgt=254 252 248 240 224 192 128'
++++functions-common:cidr2netmask:2202     set -- 255 255 252
++++functions-common:cidr2netmask:2203     echo 255.255.252.0
++++functions-common:address_in_net:2184    maskip 10.0.2.15 255.255.252.0
++++functions-common:maskip:2262           local ip=10.0.2.15
++++functions-common:maskip:2263           local mask=255.255.252.0
++++functions-common:maskip:2264           local l=10.0.2
++++functions-common:maskip:2264           local r=0.2.15
++++functions-common:maskip:2264           local n=255.255.252
++++functions-common:maskip:2264           local m=255.252.0
++++functions-common:maskip:2265           local subnet
++++functions-common:maskip:2266           subnet=10.0.0.0
++++functions-common:maskip:2267           echo 10.0.0.0
++++functions-common:address_in_net:2184    subnet=10.0.0.0
++++functions-common:address_in_net:2185    [[ 10.0.0.0 == 10.0.0.0 ]]
++++functions-common:get_default_host_ip:801 echo
++stackrc:source:832                       HOST_IP=
++stackrc:source:833                       '[' '' = '' ']'
++stackrc:source:834                       die 834 'Could not determine host ip address. See local.conf for suggestions on setting HOST_IP.'
++++functions-common:die:264               local exitcode=0
++++functions-common:die:265               set +o xtrace
[Call Trace]
./stack.sh:225:source
/opt/stack/devstack/stackrc:834:die
[ERROR] /opt/stack/devstack/stackrc:834 Could not determine host ip address. See local.conf for suggestions on setting HOST_IP.
stack@vmub-hadoop1:~/devstack$
```

```
stack@vmub-hadoop1: ~/devstack
+ [[ -r /opt/stack/devstack/local.conf ]]
+ get_meta_section_files /opt/stack/devstack/local.conf local
+ local file=/opt/stack/devstack/local.conf
+ local matchgroup=local
+ [[ -r /opt/stack/devstack/local.conf ]]
+ awk -v matchgroup=local '
    /\^[ \[ \. + \. * \] \] / {
        gsub("[[]]", "", $1);
        split($1, a, "|");
        if (a[1] == matchgroup)
            print a[2]
    }
' /opt/stack/devstack/local.conf
+ LRC=localrc
+ for lfile in '$LRC'
+ [[ localrc == \\o\\c\\a\\r\\c ]]
+ [[ -r /opt/stack/devstack/localrc ]]
+ echo '# Generated file, do not edit'
+ get_meta_section /opt/stack/devstack/local.conf local localrc
+ local file=/opt/stack/devstack/local.conf
+ local matchgroup=local
+ local configFile=localrc
+ [[ -r /opt/stack/devstack/local.conf ]]
+ [[ -z localrc ]]
+ awk -v matchgroup=local -v configFile=localrc '
    BEGIN { group = "" }
    /\^[ \[ \. + \. * \] \] / {
        gsub("[[]]", "", $1);
        split($1, a, "|");
        if (a[1] == matchgroup && a[2] == configFile) {
            group=a[1]
        } else {
            group=""
        }
        next
    }
    {
        if (group != "")
            print $0
    }
' /opt/stack/devstack/local.conf

stack@vmub-hadoop1: ~/devstack
GNU nano 2.2.6 File: local.conf

# Sample ``local.conf`` for user-configurable variables in ``stack.sh``

# NOTE: Copy this file to the root DevStack directory for it to work properly.

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# route but ``eth0`` is the public interface. They are auto-detected in
# ``stack.sh`` but often is indeterminate on later runs due to the IP moving

Read 100 lines
Get Help    WriteOut   R Read File  AY Prev Page  AK Cut Text   AC Cur Pos
Exit        Justify    W Where Is   AV Next Page  AU UnCut Text AT To Spell
```



```
stack@vmub-hadoop1: ~/devstack
user@vmub-hadoop1:~$ sudo useradd -s /bin/bash -d/opt/stack -m stack
[sudo] password for user:
user@vmub-hadoop1:~$ echo "stack ALL=(ALL)NOPASSWD: ALL" | sudo tee /etc/sudoers.d/stack
stack ALL=(ALL)NOPASSWD: ALL
user@vmub-hadoop1:~$ sudo su - stack
stack@vmub-hadoop1:~$ git clone https://github.com/openstack-dev/devstack
Cloning into 'devstack'...
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