

openstack™

راه اندازی GLANCE

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اصلا OPEN STACK چیه؟؟؟؟

- نرم افزار OPENSTACK به کاربران اجازه می دهد که ماشین های مجازی و دیگر موارد را گسترش دهند تا امور مختلف را در محیط ابری به بهترین نحو مدیریت کنند.
- نرم افزار اپن استک پیمایش افقی را آسان می کند، به این معنی که وظایفی که بایستی انجام شوند به جای این که بصورت همزمان در یک سیستم مشخص انجام شوند می توانند به راحتی روی چندین یوزر عضو OPEN STACK انجام شوند تا از قدرت پردازش خیلی بالاتری استفاده کنند.

اصلا OPEN STACK چیه؟؟؟؟ (ادامه ...)

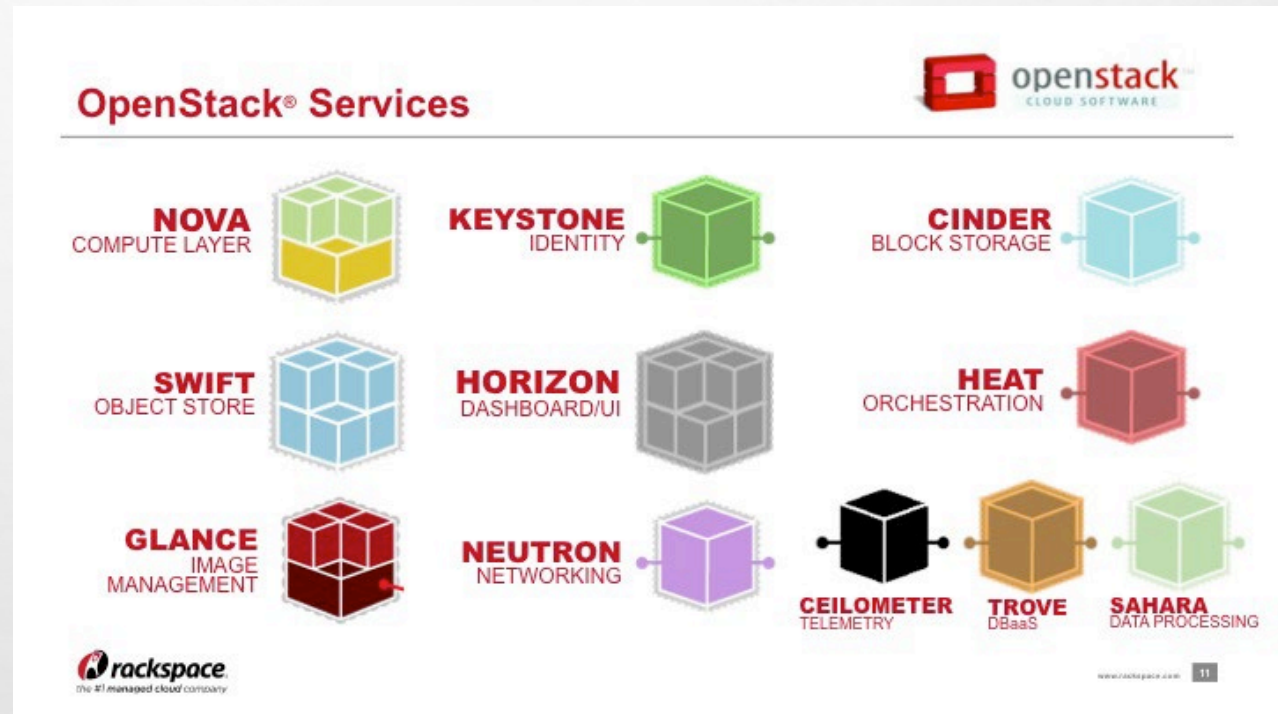
- این اپلیکیشن می تواند ارتباط خود را به جای این که با یک یوزر برقرار کند با چندین یوزر OPENSTACK برقرار کند تا عملیاتی که قصد انجام آن را دارد روی چندین یوزر با قدرت های متفاوت انجام دهد. با این کار می تواند از نیروی پردازی بالاتری استفاده کند. در واقع OPENSTACK پروژه ای است که تلاش می کند تمام یوزر هایی که در یک مجموعه دارد را به عنوان یک سرور قدرتمند در کنار هم قرار دهد.

اجزای مختلف OPEN STACK

: GLANCE

از سرویس های مهم OPENSTACK

GLANCE یک سرویس که قابلیت ذخیره سازی و لود کردن IMAGE هایی که در VIRTUAL MACHINE لود کرده ایم را در OPENSTACK فراهم میکند.



مثالی از کاربرد آن :

شما میتوانید یک VIRTUAL MACHINE را با یک OPERATING SYSTEM خاص رو بالا بیارید

سپس روی آن MY SQL نصب کنید

روی آن APACHE یا هر اپلیکیشنی که مد نظر داریم را نصب میکنید و نهایتاً این پکیج را به عنوان یک IMAGE جدید به OPEN STACK معرفی میکنید و بعد میتوانید از این IMAGE آماده استفاده و آن را لود بکنید و میتواند کاربرد داشته باشد برای سرویس های جدید روی OPEN STACK .



COMPONENTS

- **: DATABASE**

- محل ذخیره سازی این دیتا ها (مثل **MY SQL**)

- **: STORAGE REPOSITOR**

- محلی که خود **IMAGE** ها ذخیره میشن (مثل **OBJECT** **BACE**)

- **: METADATA DEFINITION SERVICE**

- **API** که در اختیار برنامه نویس قرار میدهد برای تعریف متادیتا های خودشون و از **GLANCE SERVICE** بهره مند بشون

- **: GLANCE-API**

- **API** هایی که در اختیار برنامه نویس ها قرار مگیره برای خواندن **IMAGE** ها یا ذخیره سازی آنها

- **: GLANCE-REGISTRY**

- متادیتا های **IMAGE** ها که ذخیره میشه . مثل **SIZE** و **IMAGE TYPE** آن

نصب **OPEN STACK** :

در اینجا یک یوزر به نام **YOUNESIOUSSTACK** ایجاد میکنیم

```
-- bash -- Konsole
File Edit View Bookmarks Plugins Settings Help
New Tab Split View
younesious@localhost:/etc> sudo useradd -s /bin/bash -d /opt/stack -m younesiousStack
younesious@localhost:/etc> sudo chmod +x /opt/stack
younesious@localhost:/etc> echo "stack ALL=(ALL) NOPASSWD: ALL" | sudo tee /etc/sudoers.d/stack
stack ALL=(ALL) NOPASSWD: ALL
younesious@localhost:/etc> sudo -u younesiousStack -i
[sudo] password for younesiousStack:
Sorry, try again.
[sudo] password for younesiousStack:
Sorry, try again.
[sudo] password for younesiousStack:
sudo: 3 incorrect password attempts
younesious@localhost:/etc> sudo su
localhost:/etc # sudo -u younesiousStack -i
younesiousStack@localhost:~>
```

برای **CLONE** کردن نیاز به **GIT** داشتیم پس آن را نصب کردیم

```
--:bash -- Konsole
File Edit View Bookmarks Plugins Settings Help
New Tab Split View
Copy Paste Find

cnf git
younesiousStack@localhost:~> cnf git

The program 'git' can be found in following packages:
* git-core [ path: /usr/bin/git, repository: zypp (repo-sle-update) ]
* git-core [ path: /usr/bin/git, repository: zypp (repo-oss) ]

Try installing with:
sudo zypper install git-core

younesiousStack@localhost:~> sudo zypper
zypp-CheckAccessDeleted zypper zypper-log zypp-NameReqPrv zypp-refresh
younesiousStack@localhost:~> sudo zypper install git-core
Loading repository data...
Reading installed packages...
Resolving package dependencies...

The following 2 NEW packages are going to be installed:
git-core libsha1detectcoll1

2 new packages to install.
Overall download size: 4.8 MiB. Already cached: 0 B. After the operation, additional 26.6 MiB will be used.
Continue? [y/n/v/...? shows all options] (y): y
Retrieving package libsha1detectcoll1-1.0.3-2.18.x86_64 (1/2), 23.2 KiB (45.8 KiB unpacked)
Retrieving: libsha1detectcoll1-1.0.3-2.18.x86_64.rpm .....[done (2.7 KiB/s)]
Retrieving package git-core-2.35.3-150300.10.18.1.x86_64 (2/2), 4.8 MiB (26.6 MiB unpacked)
Retrieving: git-core-2.35.3-150300.10.18.1.x86_64.rpm .....[done (111.3 KiB/s)]

Checking for file conflicts: .....[done]
(1/2) Installing: libsha1detectcoll1-1.0.3-2.18.x86_64 .....[done]
(2/2) Installing: git-core-2.35.3-150300.10.18.1.x86_64 .....[done]
younesiousStack@localhost:~>
```


حال DEV STACK را از GIT ، CLONE میکنیم

```
--: bash -- Konsole
File Edit View Bookmarks Plugins Settings Help
New Tab Split View
younesiousStack@localhost:~> git clone https://opendev.org/openstack/devstack
Cloning into 'devstack'...
remote: Enumerating objects: 28718, done.
remote: Counting objects: 100% (28718/28718), done.
remote: Compressing objects: 100% (9796/9796), done.
remote: Total 49592 (delta 28024), reused 18922 (delta 18922), pack-reused 20874
Receiving objects: 100% (49592/49592), 10.77 MiB | 106.00 KiB/s, done.
Resolving deltas: 100% (34882/34882), done.
younesiousStack@localhost:~> cd devstack/
younesiousStack@localhost:~/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
younesiousStack@localhost:~/devstack> ./stack.sh
+ unset GREP_OPTIONS
+ unset LANG
+ unset LANGUAGE
+ LC_ALL=en_US.utf8
+ export LC_ALL
++ env
++ grep -E '^OS_'
++ cut -d = -f 1
+ unset
+ umask 022
+ PATH=/opt/stack/bin:/usr/local/bin:/usr/bin:/bin:/snap/bin:/usr/local/java/bin:/usr/local/bin:/usr/local/sbin:/usr/sbin:/sbin
+++ dirname ./stack.sh
++ cd .
++ pwd
+ TOP_DIR=/opt/stack/devstack
+ NOUNSET=
+ [[ -n '' ]]
++ date +%s
```

در مرحله با اجرای **./STACK.SH** قصد نصب **DEV STACK** را داشتیم که باید **FORCE = YES** را ست میکریم.

```
--: bash — Konsole
File Edit View Bookmarks Plugins Settings Help
New Tab Split View
+++stackrc:source:917
+++functions-common:trueorfalse:219
+++functions-common:trueorfalse:220
+++functions-common:trueorfalse:220
+++functions-common:trueorfalse:220
+++functions-common:trueorfalse:221
++stackrc:source:917
++stackrc:source:929
++stackrc:source:930
++stackrc:source:931
++stackrc:source:933
++stackrc:source:943
++stackrc:source:949
+./stack.sh:main:228
+functions:write_devstack_version:852
+functions:write_devstack_version:852
++functions:write_devstack_version:852
+./stack.sh:main:232
enEuler-22.03'
+./stack.sh:main:234
[openEuler-22.03 ]]
+./stack.sh:main:235
WARNING: this script has not been tested on opensuse-15.4
+./stack.sh:main:236
+./stack.sh:main:237
+functions-common:die:264
+functions-common:die:265
[Call Trace]
./stack.sh:237:die
[ERROR] ./stack.sh:237 If you wish to run this script anyway run with FORCE=yes
/opt/stack/devstack/functions-common: line 310: /opt/stack/logs/error.log: No such file or directory
younesiousStack@localhost:~/devstack> ~

trueorfalse True RECREATE_KEYSTONE_DB
local xtrace
grep xtrace
set +o
xtrace='set -o xtrace'
set +o xtrace
RECREATE_KEYSTONE_DB=True
[[ -z '' ]]
default_logdir=/opt/stack/logs
[[ -z '' ]]
LOGDIR=/opt/stack/logs
unset default_logdir logfile
ULIMIT_NOFILE=2048
write_devstack_version
sudo tee /etc/devstack-version
cat -
git log '--format=%H %s %ci' -1
SUPPORTED_DISTROS='bullseye|focal|jammy|f36|opensuse-15.2|opensuse-tumbleweed|rhel8|rhel9|op
[[ ! opensuse-15.4 =~ bullseye|focal|jammy|f36|opensuse-15.2|opensuse-tumbleweed|rhel8|rhel9
echo 'WARNING: this script has not been tested on opensuse-15.4'
[[ '' != \y\e\s ]]
die 237 'If you wish to run this script anyway run with FORCE=yes'
local exitcode=0
set +o xtrace
```

برای نصب نیاز به کتابخانه **DATEUTIL** داریم
پس آن را نصب میکنیم

```
--:bash -- Konsole
File Edit View Bookmarks Plugins Settings Help
New Tab Split View
younesiousStack@localhost:~/devstack> sudo pip3 install python-dateutil
Collecting python-dateutil
  Downloading python_dateutil-2.8.2-py2.py3-none-any.whl (247 kB)
    | 247 kB 41 kB/s
Requirement already satisfied: six>=1.5 in /usr/lib/python3.6/site-packages (from python-dateutil) (1.14.0)
Installing collected packages: python-dateutil
Successfully installed python-dateutil-2.8.2
younesiousStack@localhost:~/devstack>
```


DATEUTIL نصب کتابخانه

```
--: bash -- Konsole
File Edit View Bookmarks Plugins Settings Help
New Tab Split View
younesiousStack@localhost:~/devstack> zypper search python-dateutil
Loading repository data...
Reading installed packages...

S | Name | Summary | Type
-----|-----|-----|-----
| python3-python-dateutil | A Python Datetime Library | package
younesiousStack@localhost:~/devstack> zypper install python3-python-dateutil
Root privileges are required to run this command.
younesiousStack@localhost:~/devstack> sudo zypper install python3-python-dateutil
Loading repository data...
Reading installed packages...
Resolving package dependencies...

The following NEW package is going to be installed:
python3-python-dateutil

1 new package to install.
Overall download size: 312.4 KiB. Already cached: 0 B. After the operation, additional 869.8 KiB will be used.
Continue? [y/n/v/...? shows all options] (y): y
Retrieving package python3-python-dateutil-2.8.1-1.24.noarch ..... (1/1), 312.4 KiB (869.8 KiB unpacked)
Retrieving: python3-python-dateutil-2.8.1-1.24.noarch.rpm .....[done (94.0 KiB/s)]

Checking for file conflicts: .....[done]
(1/1) Installing: python3-python-dateutil-2.8.1-1.24.noarch .....[done]
younesiousStack@localhost:~/devstack>
```

که به این ارور برخورد میکنیم

```
--: bash -- Konsole

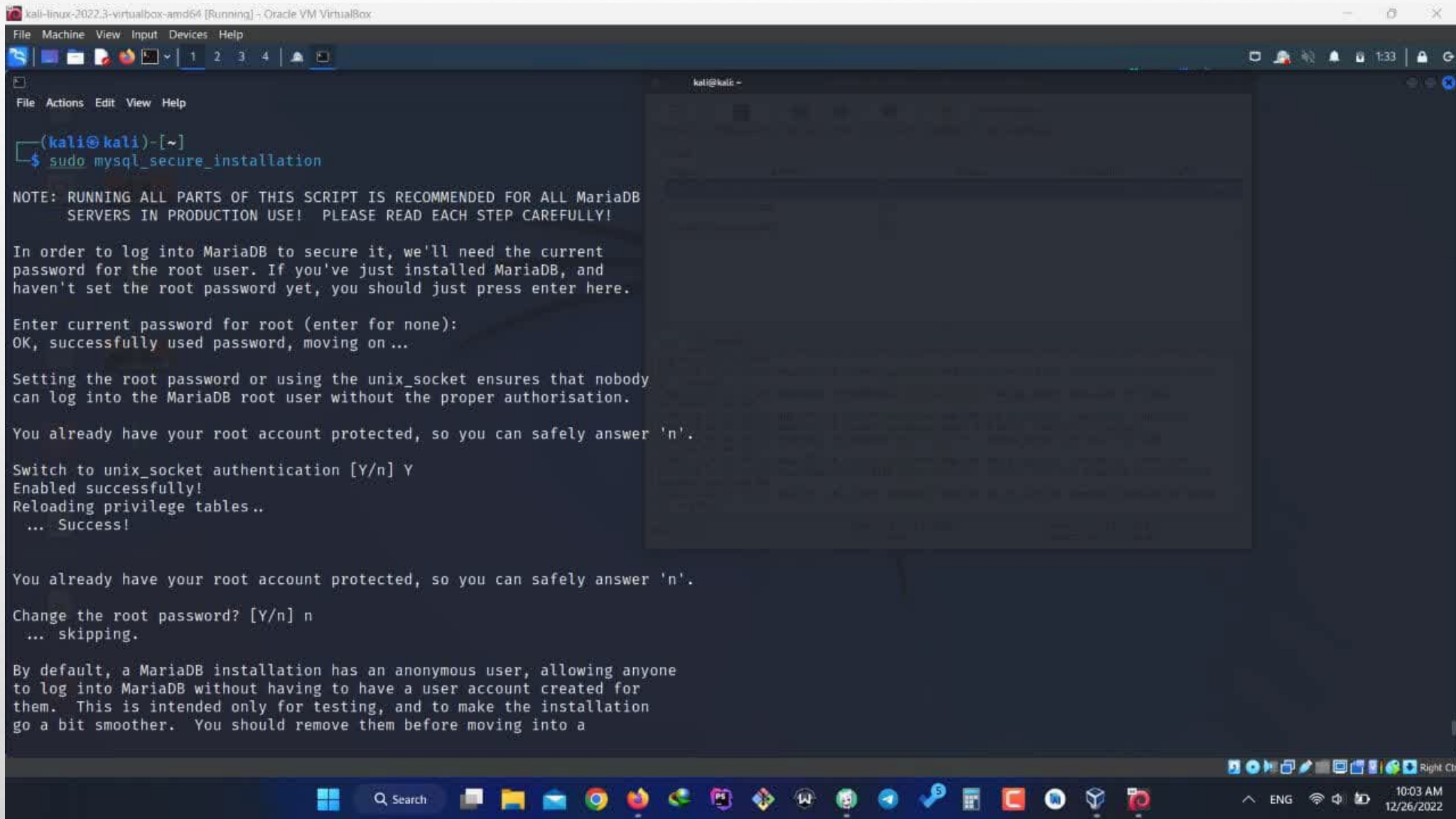
File Edit View Bookmarks Plugins Settings Help

New Tab Split View

++ ./stack.sh:read_password:639
+ ./stack.sh:read_password:639
+ ./stack.sh:read_password:640
+ ./stack.sh:main:740
+functions-common:is_service_enabled:2060
++functions-common:is_service_enabled:2061
++functions-common:is_service_enabled:2061
++functions-common:is_service_enabled:2061
+functions-common:is_service_enabled:2062
+functions-common:is_service_enabled:2089
+ ./stack.sh:main:749
+functions-common:is_service_enabled:2060
++functions-common:is_service_enabled:2061
++functions-common:is_service_enabled:2061
++functions-common:is_service_enabled:2061
+functions-common:is_service_enabled:2062
+functions-common:is_service_enabled:2089
+ ./stack.sh:main:761
+functions-common:save_stackenv:60
++functions-common:save_stackenv:62
+functions-common:save_stackenv:62
+functions-common:save_stackenv:63
/home/younesious/devstack/functions-common: line 63: /home/younesious/devstack/.stackenv: Permission denied
+functions-common:save_stackenv:1
+ ./stack.sh:exit_trap:525
++ ./stack.sh:exit_trap:526
+ ./stack.sh:exit_trap:526
+ ./stack.sh:exit_trap:529
+ ./stack.sh:exit_trap:535
+ ./stack.sh:exit_trap:540
+ ./stack.sh:kill_spinner:435
+ ./stack.sh:exit_trap:542
+ ./stack.sh:exit_trap:543
Error on exit
+ ./stack.sh:exit_trap:545
+ ./stack.sh:exit_trap:548
+ ./stack.sh:exit_trap:551
World dumping... see /opt/stack/logs/worldddump-2022-12-26-091552.txt for details
+ ./stack.sh:exit_trap:560
younesiousStack@localhost: /home/younesious/devstack>

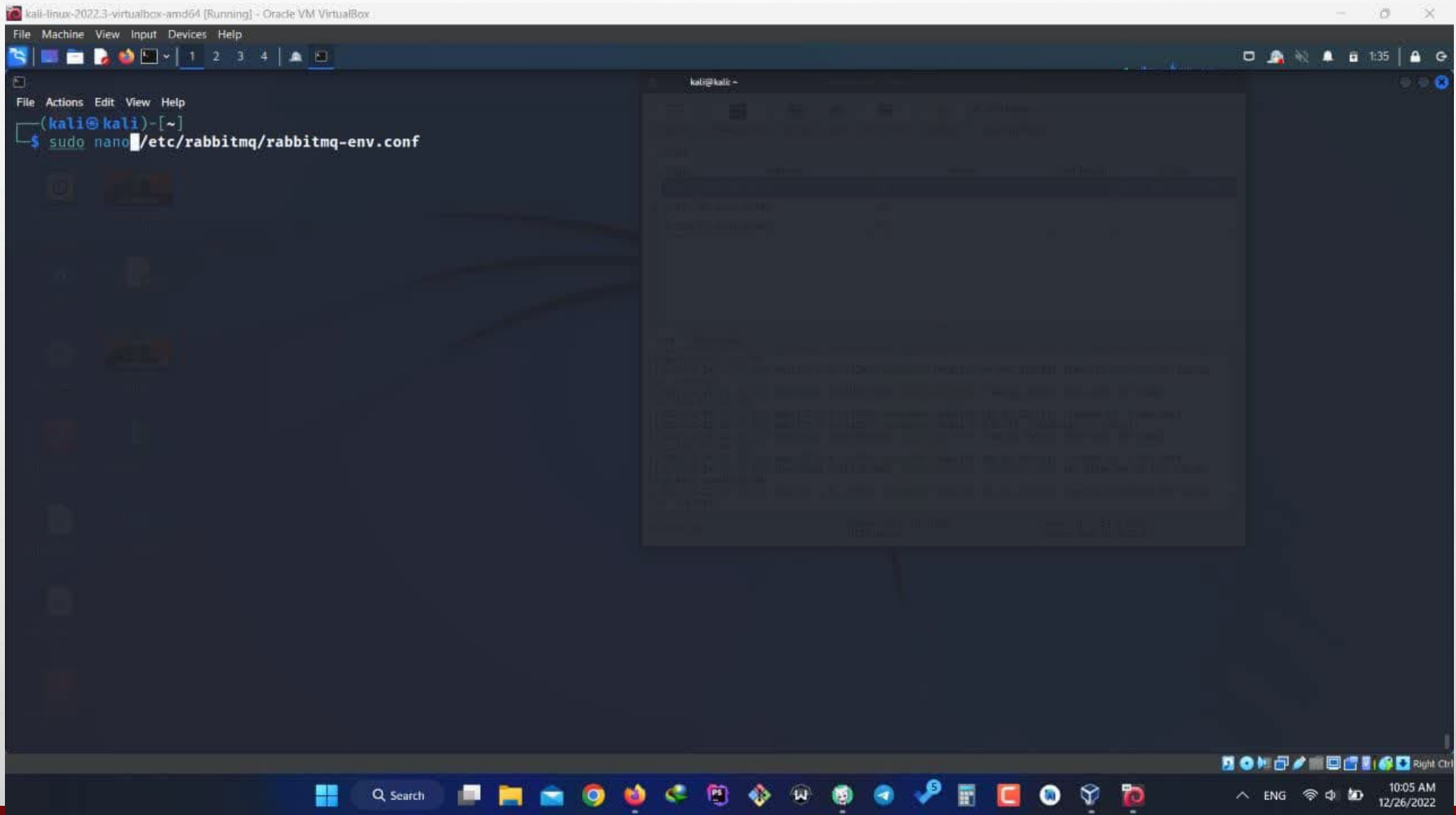
grep xtrace
xtrace='set -o xtrace'
set +o xtrace
is_service_enabled ldap
local xtrace
set +o
grep xtrace
xtrace='set -o xtrace'
set +o xtrace
return 1
is_service_enabled s-proxy
local xtrace
set +o
grep xtrace
xtrace='set -o xtrace'
set +o xtrace
return 1
save_stackenv 761
local tag=761
date +%F-%H%M%S
time_stamp=2022-12-26-041551
echo '# 2022-12-26-041551 761'
/home/younesious/devstack/functions-common: line 63: /home/younesious/devstack/.stackenv: Permission denied
exit_trap
local r=1
jobs -p
jobs=
[[ -n '' ]]
[' -f '' '].
kill_spinner
[' '' -z '' '].
[[ 1 -ne 0 ]]
echo 'Error on exit'

type -p generate-subunit
[[ -z /opt/stack/logs ]]
/usr/bin/python3.6 /home/younesious/devstack/tools/worldddump.py -d /opt/stack/logs
exit 1
```




```
kali-linux-2022.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
1 2 3 4

(kali@kali)-[~]
$ sudo apt install -y rabbitmq-server
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
 libatk1.0-data libev4 libexporter-tiny-perl libfmt8 libhttp-server-simple-perl libilmbase25 liblerc3 liblist-moreutils-perl liblist-moreutils-xs-perl
 libopenexr25 libopenh264-6 libplacebo192 libpoppler118 libpython3.9-minimal libpython3.9-stdlib libsvtav1enc0 libwebsockets16 libwireshark15 libwiretap12
 libwsutil13 python3-dataclasses-json python3-limiter python3-marshmallow-enum python3-mypy-extensions python3-responses python3-spyse
 python3-token-bucket python3-typing-inspect python3.9 python3.9-minimal
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
 erlang-asn1 erlang-base erlang-crypto erlang-eldap erlang-ftp erlang-inets erlang-mnesia erlang-os-mon erlang-parsetools erlang-public-key
 erlang-runtime-tools erlang-snmp erlang-ssl erlang-syntax-tools erlang-tftp erlang-tools erlang-xmerl libsctp1
Suggested packages:
 erlang erlang-manpages erlang-doc lksctp-tools
The following NEW packages will be installed:
 erlang-asn1 erlang-base erlang-crypto erlang-eldap erlang-ftp erlang-inets erlang-mnesia erlang-os-mon erlang-parsetools erlang-public-key
 erlang-runtime-tools erlang-snmp erlang-ssl erlang-syntax-tools erlang-tftp erlang-tools erlang-xmerl libsctp1 rabbitmq-server
0 upgraded, 19 newly installed, 0 to remove and 1253 not upgraded.
Need to get 34.4 MB of archives.
After this operation, 55.0 MB of additional disk space will be used.
Get:1 http://http.kali.org/kali kali-rolling/main amd64 erlang-base amd64 1:25.2+dfsg-1 [9,690 kB]
Get:2 http://http.kali.org/kali kali-rolling/main amd64 erlang-asn1 amd64 1:25.2+dfsg-1 [896 kB]
Get:3 http://http.kali.org/kali kali-rolling/main amd64 erlang-crypto amd64 1:25.2+dfsg-1 [164 kB]
Get:4 http://http.kali.org/kali kali-rolling/main amd64 erlang-public-key amd64 1:25.2+dfsg-1 [724 kB]
Get:5 http://http.kali.org/kali kali-rolling/main amd64 erlang-mnesia amd64 1:25.2+dfsg-1 [872 kB]
Get:6 http://http.kali.org/kali kali-rolling/main amd64 erlang-runtime-tools amd64 1:25.2+dfsg-1 [229 kB]
Get:7 http://http.kali.org/kali kali-rolling/main amd64 erlang-ssl amd64 1:25.2+dfsg-1 [1,608 kB]
Get:8 http://http.kali.org/kali kali-rolling/main amd64 erlang-eldap amd64 1:25.2+dfsg-1 [129 kB]
Get:9 http://http.kali.org/kali kali-rolling/main amd64 erlang-ftp amd64 1:25.2+dfsg-1 [94.1 kB]
Get:10 http://http.kali.org/kali kali-rolling/main amd64 erlang-tftp amd64 1:25.2+dfsg-1 [109 kB]
Get:11 http://http.kali.org/kali kali-rolling/main amd64 erlang-inets amd64 1:25.2+dfsg-1 [633 kB]
```




```
kali-linux-2022.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
1 2 3 4

(kali@kali)~$ sudo systemctl enable rabbitmq-server
Synchronizing state of rabbitmq-server.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable rabbitmq-server
Created symlink /etc/systemd/system/multi-user.target.wants/rabbitmq-server.service → /lib/systemd/system/rabbitmq-server.service.

(kali@kali)~$ sudo rabbitmqctl add_user younesopenstack pass
Adding user "yunesopenstack" ...
Done. Don't forget to grant the user permissions to some virtual hosts! See 'rabbitmqctl help set_permissions' to learn more.

(kali@kali)~$ sudo rabbitmqctl set_permissions younesopenstack ".*" ".*" ".*"
Setting permissions for user "yunesopenstack" in vhost "/" ...

(kali@kali)~$ sudo apt install -y memcached python3-memcache
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libatk1.0-data libev4 libexporter-tiny-perl libfmt8 libhttp-server-simple-perl libilmbase25 liblerc3 liblist-moreutils-perl liblist-moreutils-xs-perl
  libopenexr25 libopenh264-6 libplacebo192 libpoppler118 libpython3.9-minimal libpython3.9-stdlib libsvtavifenc0 libwebsockets16 libwireshark15 libwiretap12
  libwsutil13 python3-dataclasses-json python3-limiter python3-marshmallow-enum python3-mypy-extensions python3-responses python3-spyse
  python3-token-bucket python3-typing-inspect python3.9 python3.9-minimal
Use 'sudo apt autoremove' to remove them.
Suggested packages:
  libanyevent-perl libcache-memcached-perl libmemcached libyaml-perl
The following NEW packages will be installed:
  memcached python3-memcache
0 upgraded, 2 newly installed, 0 to remove and 1253 not upgraded.
Need to get 239 kB of archives.
After this operation, 706 kB of additional disk space will be used.
0% [Working]
```


kali-linux-2022.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

1 2 3 4

File Actions Edit View Help

GNU nano 6.4 /etc/memcached.conf

```
# Be even more verbose (print client commands as well)
# -vv

# Start with a cap of 64 megs of memory. It's reasonable, and the daemon default
# Note that the daemon will grow to this size, but does not start out holding this much
# memory
-m 64

# Default connection port is 11211
-p 11211

# Run the daemon as root. The start-memcached will default to running as root if no
# -u command is present in this config file
-u memcache

# Specify which IP address to listen on. The default is to listen on all IP addresses
# This parameter is one of the only security measures that memcached has, so make sure
# it's listening on a firewalled interface.
-l 127.0.0.1

# Limit the number of simultaneous incoming connections. The daemon default is 1024
# -c 1024

# Lock down all paged memory. Consult with the README and homepage before you do this
# -k

# Return error when memory is exhausted (rather than removing items)
# -M

Maximize core file limit
```

^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark M-] To Bracket
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/_ Go To Line M-E Redo M-6 Copy M-Q Where Was

10:10 AM 12/26/2022

```
kali-linux-2022.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
1 2 3 4 | [Icons] 1:40 [Lock] [Refresh]

File Actions Edit View Help
(kali@kali)-[~]
$ sudo nano /etc/memcached.conf

(kali@kali)-[~]
$ sudo nano /etc/memcached.conf

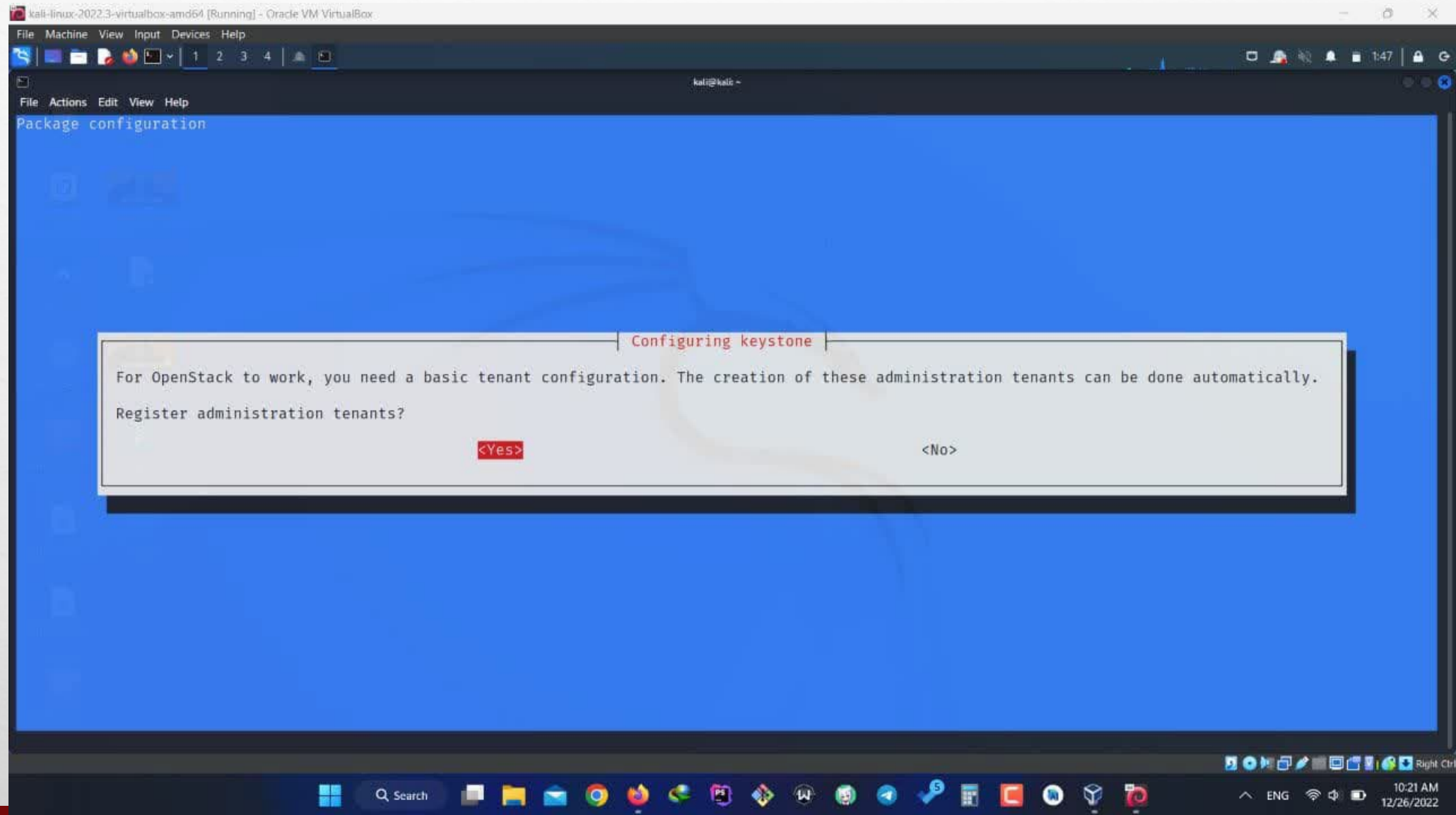
(kali@kali)-[~]
$ sudo systemctl restart memcached

(kali@kali)-[~]
$ sudo systemctl enable memcached
Synchronizing state of memcached.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable memcached
Created symlink /etc/systemd/system/multi-user.target.wants/memcached.service -> /lib/systemd/system/memcached.service.

(kali@kali)-[~]
$
```



```
kali-linux-2022.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
1 2 3 4
kali@kali: ~
File Actions Edit View Help
(kali@kali)~$ sudo apt install -y keystone
Reading package lists ... Done
Building dependency tree ... Done
Reading state information ... Done
The following packages were automatically installed and are no longer required:
  libatk1.0-data libexporter-tiny-perl libfmt8 libhttp-server-simple-perl libilmbase25 liblerc3 liblist-moreutils-perl liblist-moreutils-xs-perl
  libopenexr25 libopenh264-6 libplacebo192 libpoppler118 libpython3.9-minimal libpython3.9-stdlib libsvtavcodec0 libwebsockets16 libwireshark15 libwiretap12
  libwsutil13 python3-dataclasses-json python3-limiter python3-marshmallow-enum python3-mypy-extensions python3-spyse python3-token-bucket
  python3-typing-inspect python3.9 python3.9-minimal
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  alembic dbconfig-common librdkafka1 libxmlsec1 libxmlsec1-openssl libyajl2 pycadf-common python3-amqp python3-anyjson python3-binary-memcached
  python3-cachetools python3-confluent-kafka python3-elementpath python3-eventlet python3-extras python3-fasteners python3-fixtures python3-futurist
  python3-gevent python3-greenlet python3-importlib-resources python3-keystone python3-keystonemiddleware python3-kombu python3-ldap python3-ldappool
  python3-migrate python3-monotonic python3-oslo.cache python3-oslo.concurrency python3-oslo.db python3-oslo.messaging python3-oslo.metrics
  python3-oslo.middleware python3-oslo.policy python3-oslo.service python3-oslo.upgradecheck python3-osprofiler python3-prometheus-client python3-pycadf
  python3-pysaml2 python3-q-text-as-data python3-repoze.who python3-scrypt python3-sqlalchemy-ext python3-statsd python3-tenacity python3-testresources
  python3-testscenarios python3-testtools python3-uhashring python3-unittest2 python3-vine python3-xmlschema python3-yappi python3-zmq python3-zope.event
  uwsgi-core uwsgi-plugin-apparmor uwsgi-plugin-python3 xmlsec1
Suggested packages:
  dbconfig-mysql | dbconfig-pgsql | dbconfig-sqlite3 | dbconfig-no-thanks python-amqp-doc python-binary-memcached-doc python3-avro python-eventlet-doc
  python-futurist-doc python-gevent-doc python-greenlet-dev python-greenlet-doc python-kombu-doc python3-boto python3-pymongo python-migrate-doc
  python-oslo.cache-doc python-oslo.concurrency-doc python-oslo.metrics-doc python-oslo.middleware-doc python-oslo.policy-doc python-oslo.service-doc
  python-oslo.upgradecheck-doc python-tenacity-doc python-testtools-doc nginx-full | cherokee | libapache2-mod-proxy-uwsgi | libapache2-mod-uwsgi
  | libapache2-mod-uwsgi uwsgi-dev uwsgi-extra uwsgi-plugins-all python3-uwsgidecorators
The following NEW packages will be installed:
  alembic dbconfig-common keystone librdkafka1 libyajl2 pycadf-common python3-amqp python3-anyjson python3-binary-memcached python3-cachetools
  python3-confluent-kafka python3-elementpath python3-eventlet python3-extras python3-fasteners python3-fixtures python3-futurist python3-gevent
  python3-importlib-resources python3-keystone python3-keystonemiddleware python3-kombu python3-ldap python3-ldappool python3-migrate python3-monotonic
  python3-oslo.cache python3-oslo.concurrency python3-oslo.db python3-oslo.messaging python3-oslo.metrics python3-oslo.middleware python3-oslo.policy
  python3-oslo.service python3-oslo.upgradecheck python3-osprofiler python3-prometheus-client python3-pycadf python3-pysaml2 python3-q-text-as-data
  python3-repoze.who python3-scrypt python3-statsd python3-tenacity python3-testresources python3-testscenarios python3-testtools python3-uhashring
  python3-unittest2 python3-vine python3-xmlschema python3-yappi python3-zmq python3-zope.event uwsgi-core uwsgi-plugin-apparmor uwsgi-plugin-python3
```

```
kali-linux-2022.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
1 2 3 4 | 1:54 |

(kali@kali)-[~]
$ sudo mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 69
Server version: 10.6.11-MariaDB-1 Debian n/a

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> CREATE DATABASE keystone;
Query OK, 1 row affected (0.000 sec)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON keystone.* TO 'keystone'@'localhost' IDENTIFIED BY 'kali';
Query OK, 0 rows affected (0.302 sec)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON keystone.* TO 'keystone'@'%' IDENTIFIED BY 'kali';
Query OK, 0 rows affected (0.004 sec)

MariaDB [(none)]> 
```

```
kali-linux-2022.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
1 2 3 4

(kali@kali)-[~]
$ sudo vi /etc/keystone/keystone.conf

(kali@kali)-[~]
$ sudo vi /etc/keystone/keystone.conf

(kali@kali)-[~]
$ sudo systemctl restart keystone

(kali@kali)-[~]
$ sudo systemctl enable keystone
Synchronizing state of keystone.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable keystone

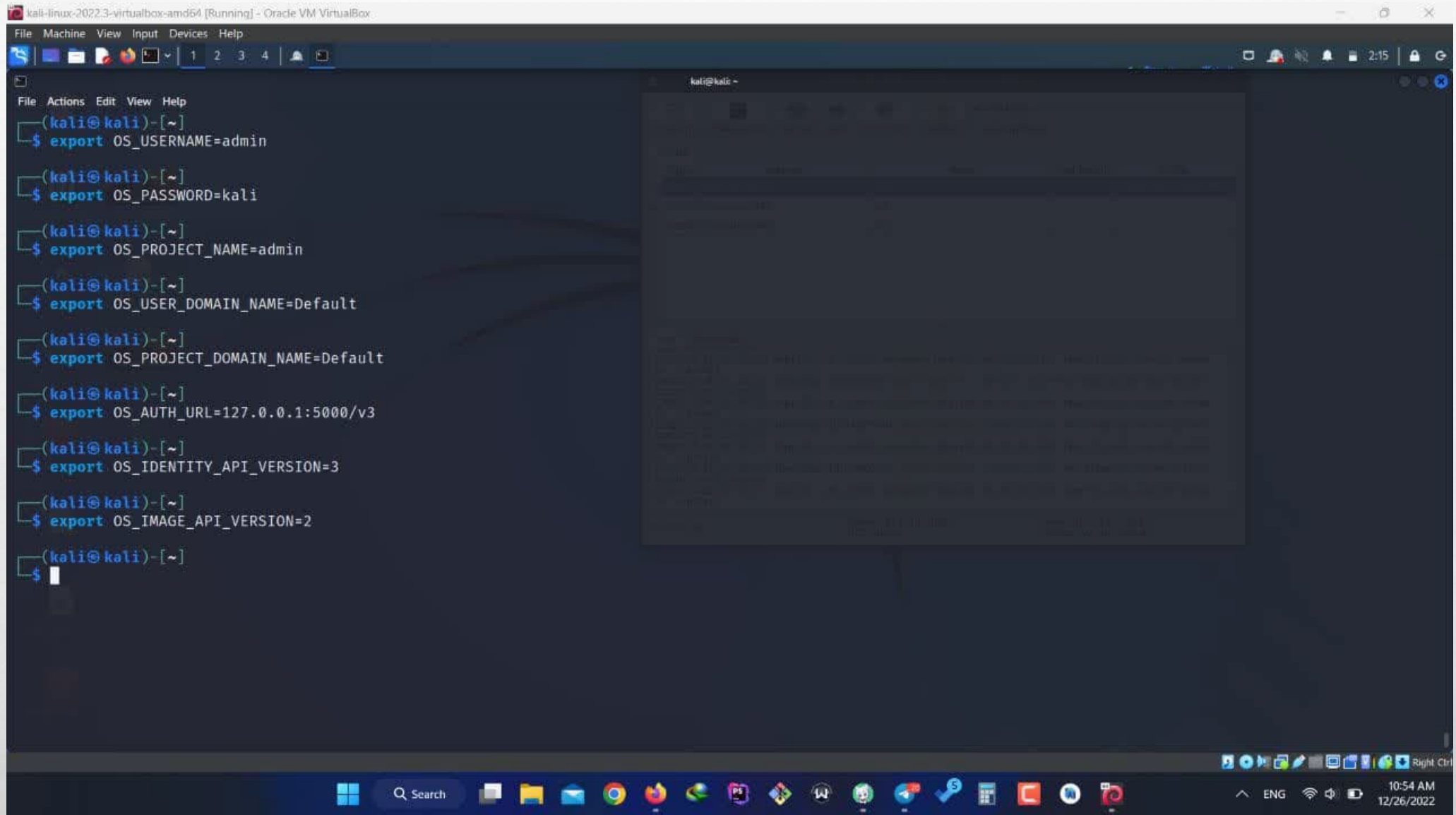
(kali@kali)-[~]
$ sudo su -s /bin/sh -c "keystone-manage db_sync" keystone

(kali@kali)-[~]
$ sudo keystone-manage fernet_setup --keystone-user keystone --keystone-group keystone

(kali@kali)-[~]
$ sudo keystone-manage credential_setup --keystone-user keystone --keystone-group keystone

(kali@kali)-[~]
$ sudo keystone-manage bootstrap --bootstrap-password kali \
--bootstrap-admin-url 127.0.0.1:5000/v3/ \
--bootstrap-internal-url 127.0.0.1:5000/v3/ \
--bootstrap-public-url 127.0.0.1:5000/v3/ \
--bootstrap-region-id RegionOne

(kali@kali)-[~]
$
```

```
kali-linux-2022.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
1 2 3 4

kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ sudo apt install -y python3-rbd ceph-common
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libatk1.0-data libexporter-tiny-perl libfmt8 libhttp-server-simple-perl libilmbase25 liblerc3 liblist-moreutils-perl liblist-moreutils-xs-perl
  libopenexr25 libopenh264-6 libplacebo192 libpoppler118 libpython3.9-minimal libpython3.9-stdlib libsvtav1enc0 libwebsockets16 libwireshark15 libwiretap12
  libwsutil13 python3-dataclasses-json python3-limiter python3-marshmallow-enum python3-mypy-extensions python3-spyse python3-token-bucket
  python3-typing-inspect python3.9 python3.9-minimal
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  binutils binutils-common binutils-x86-64-linux-gnu cpp-12 g++-12 gcc-12 gcc-12-base icu-devtools lib32gcc-s1 lib32stdc++6 libasan8 libatomic1
  libbabeltrace1 libbinutils libboost-context1.74.0 libboost-filesystem1.74.0 libboost-iostreams1.74.0 libboost-program-options1.74.0 libboost-thread1.74.0
  libboost1.74-dev libbcc1-0 libcephfs2 libctf-nobfd0 libctf0 libgcc-12-dev libgcc-s1 libgfortran5 libgomp1 libgprofng0 libicu-dev libicu72 libitm1
  libleveldb1d liblsan0 liboath0 libobjc-12-dev libobjc4 libpskc0 libquadmath0 librados2 libradosstriper1 librbd1 libstdc++-12-dev libstdc++6 libtsan2
  libubsan1 python3-ceph-argparse python3-ceph-common python3-cephfs python3-rados
Suggested packages:
  binutils-doc ceph ceph-mds gcc-12-locales cpp-12-doc g++-12-multilib gcc-12-doc gcc-12-multilib libboost1.74-doc libboost-atomic1.74-dev
  libboost-chrono1.74-dev libboost-container1.74-dev libboost-context1.74-dev libboost-contract1.74-dev libboost-coroutine1.74-dev
  libboost-date-time1.74-dev libboost-exception1.74-dev libboost-fiber1.74-dev libboost-filesystem1.74-dev libboost-graph1.74-dev
  libboost-graph-parallel1.74-dev libboost-iostreams1.74-dev libboost-locale1.74-dev libboost-log1.74-dev libboost-math1.74-dev libboost-mpi1.74-dev
  libboost-mpi-python1.74-dev libboost-numpy1.74-dev libboost-program-options1.74-dev libboost-python1.74-dev libboost-random1.74-dev
  libboost-regex1.74-dev libboost-serialization1.74-dev libboost-stacktrace1.74-dev libboost-system1.74-dev libboost-test1.74-dev libboost-thread1.74-dev
  libboost-timer1.74-dev libboost-type-erasure1.74-dev libboost-wave1.74-dev libboost1.74-tools-dev libmpfrc++-dev libntl-dev libboost-nowide1.74-dev
  icu-doc libstdc++-12-doc
The following NEW packages will be installed:
  ceph-common libbabeltrace1 libboost-context1.74.0 libboost-filesystem1.74.0 libboost-program-options1.74.0 libicu72 libleveldb1d liboath0
  libradosstriper1 librbd1 python3-ceph-argparse python3-ceph-common python3-cephfs python3-rados python3-rbd
The following packages will be upgraded:
  binutils binutils-common binutils-x86-64-linux-gnu cpp-12 g++-12 gcc-12 gcc-12-base icu-devtools lib32gcc-s1 lib32stdc++6 libasan8 libatomic1 libbinutils
  libboost-iostreams1.74.0 libboost-thread1.74.0 libboost1.74-dev libbcc1-0 libcephfs2 libctf-nobfd0 libctf0 libgcc-12-dev libgcc-s1 libgfortran5 libgomp1
  libgprofng0 libicu-dev libitm1 liblsan0 libobjc-12-dev libobjc4 libpskc0 libquadmath0 librados2 libstdc++-12-dev libstdc++6 libtsan2 libubsan1
37 upgraded, 15 newly installed, 0 to remove and 1212 not upgraded.
```



```
File Machine View Input Devices Help
$ sudo apt install -y glance
Reading package lists ... Done
Building dependency tree ... Done
Reading state information ... Done

The following packages were automatically installed and are no longer required:
 libatk1.0-data libexporter-tiny-perl libfmt8 libhttp-server-simple-perl liblmbase25 liblerc3 liblist-moreutils-perl liblist-moreutils-xs-perl
 libopenexr25 libopenh264-6 libplacebo192 libpoppler118 libpython3.9-minimal libpython3.9-stdlib libsvtavifc0 libwebsockets16 libwireshark15 libwiretap12
 libwsutil13 python3-dataclasses-json python3-limiter python3-marshmallow-enum python3-mypy-extensions python3-spyse python3-token-bucket
 python3-typing-inspect python3.9 python3.9-minimal
Use 'sudo apt autoremove' to remove them.

The following additional packages will be installed:
 glance-api glance-common glance-store-common libiscsi7 libisns0 libopeniscsiusr libxslt1-dev open-iscsi os-brick-common python3-automaton
 python3-barbicanclient python3-boto3 python3-botocore python3-castellan python3-cursive python3-ddt python3-glance python3-glance-store python3-httplib2
 python3-kazoo python3-kerberos python3-os-brick python3-os-win python3-oslo.limit python3-oslo.privsep python3-oslo.reports python3-oslo.rootwrap
 python3-oslo.vmware python3-psutil python3-pure-sasl python3-s3transfer python3-simplegeneric python3-suds python3-swiftclient python3-taskflow
 python3-wsme python3-xattr qemu-block-extra qemu-utils
Suggested packages:
 python3-ceph python-automaton-doc python-castellan-doc python-cursive-doc python-kazoo-doc python-os-brick-doc python-os-win-doc python-oslo.limit-doc
 python-oslo.privsep-doc python-oslo.reports-doc python-psutil-doc debootstrap
Recommended packages:
 finalrd
The following NEW packages will be installed:
 glance glance-api glance-common glance-store-common libiscsi7 libisns0 libopeniscsiusr libxslt1-dev open-iscsi os-brick-common python3-automaton
 python3-barbicanclient python3-boto3 python3-botocore python3-castellan python3-cursive python3-ddt python3-glance python3-glance-store python3-httplib2
 python3-kazoo python3-kerberos python3-os-brick python3-os-win python3-oslo.limit python3-oslo.privsep python3-oslo.reports python3-oslo.rootwrap
 python3-oslo.vmware python3-psutil python3-pure-sasl python3-s3transfer python3-simplegeneric python3-suds python3-swiftclient python3-taskflow
 python3-wsme python3-xattr qemu-block-extra qemu-utils
0 upgraded, 40 newly installed, 0 to remove and 1212 not upgraded.
Need to get 10.3 MB of archives.
After this operation, 115 MB of additional disk space will be used.
Get:1 http://http.kali.org/kali kali-rolling/main amd64 libisns0 amd64 0.101-0.2+b1 [92.0 kB]
0% [1 libisns0 38.0 kB/92.0 kB 41%] [Waiting for headers]
```



```
kali-linux-2022.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
1 2 3 4 | 2:40 |

kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ sudo mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 45
Server version: 10.6.11-MariaDB-1 Debian n/a

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> CREATE DATABASE glance;
Query OK, 1 row affected (0.200 sec)

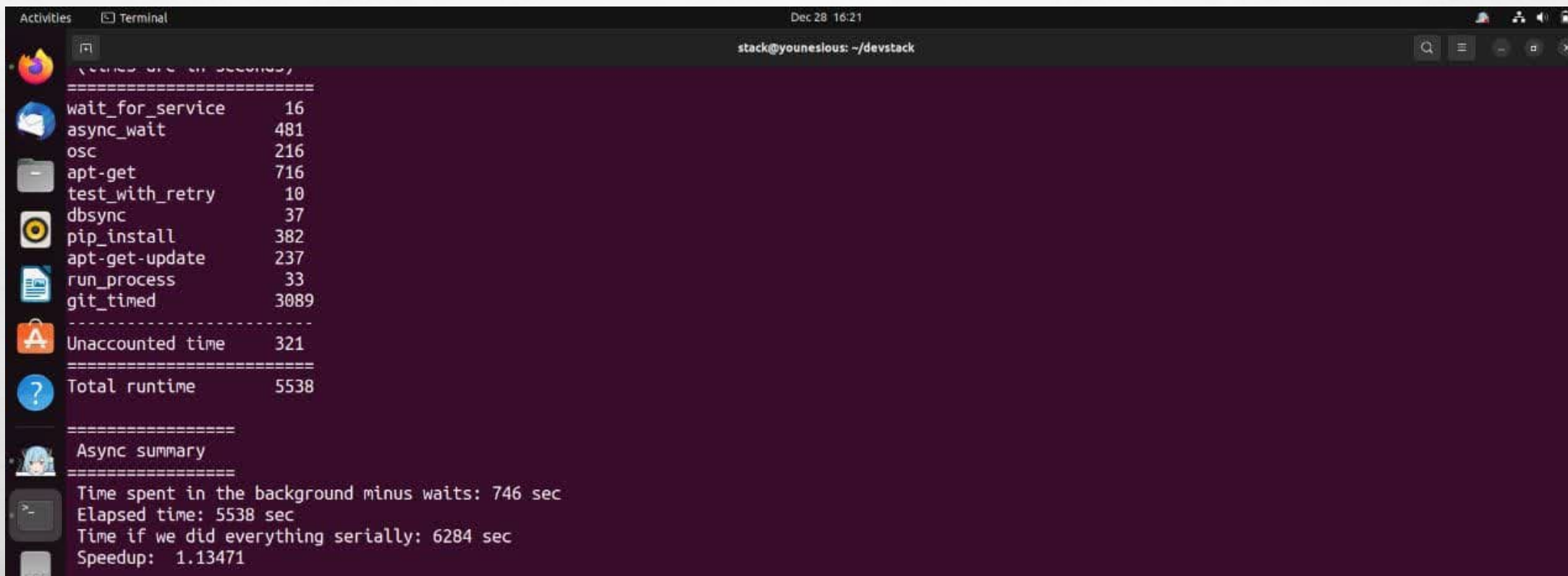
MariaDB [(none)]> GRANT ALL PRIVILEGES ON glance.* TO 'glance'@'localhost' IDENTIFIED BY 'kali';
Query OK, 0 rows affected (0.111 sec)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON glance.* TO 'glance'@'%' IDENTIFIED BY 'kali';
Query OK, 0 rows affected (0.021 sec)

MariaDB [(none)]> exit
Bye

(kali@kali)-[~]
$
```

بعد از پایان **SHELL SCRIPT STACK.SH** با چنین صفحه ای مواجه میشویم



```
stack@youneslous: ~/devstack
=====
wait_for_service      16
async_wait           481
osc                  216
apt-get              716
test_with_retry       10
dbsync                37
pip_install          382
apt-get-update        237
run_process           33
git_timed            3089
-----
Unaccounted time      321
=====
Total runtime         5538
=====
Async summary
=====
Time spent in the background minus waits: 746 sec
Elapsed time: 5538 sec
Time if we did everything serially: 6284 sec
Speedup: 1.13471
```

در ادامه لیستی از عملیات های درج و حذف روی دیتابیس به صورت خودکار انجام شده را به ما نمایش میدهد

```
Activities Terminal Dec 28 16:21 stack@youneslous: ~/devstack

=====
Async summary
=====
Time spent in the background minus waits: 746 sec
Elapsed time: 5538 sec
Time if we did everything serially: 6284 sec
Speedup: 1.13471

Post-stack database query stats:
+-----+
| db      | op      | count |
+-----+
| keystone | SELECT  | 41762 |
| keystone | SHOW    | 1      |
| keystone | CREATE  | 64     |
| keystone | ALTER   | 1      |
| keystone | INSERT  | 99     |
| glance   | SELECT  | 1007   |
| glance   | CREATE  | 65     |
| glance   | INSERT  | 256    |
| glance   | SHOW    | 8      |
| glance   | UPDATE  | 13     |
| glance   | ALTER   | 10     |
| glance   | DROP    | 3      |
| neutron  | SELECT  | 4746   |
| neutron  | CREATE  | 326    |
| neutron  | SHOW    | 42     |
| cinder   | SELECT  | 215    |
| cinder   | SHOW    | 1      |
| cinder   | CREATE  | 53     |
| neutron  | INSERT  | 1129   |
| neutron  | UPDATE  | 252    |
| neutron  | ALTER   | 180    |
| neutron  | DROP    | 54     |
| neutron  | DELETE  | 30     |
| nova_cell1 | SELECT | 234    |
| nova_cell1 | SHOW   | 60     |
| nova_cell1 | CREATE | 211    |
+-----+
```


ادامه عملیات های انجام شده روی دیتابیس ...

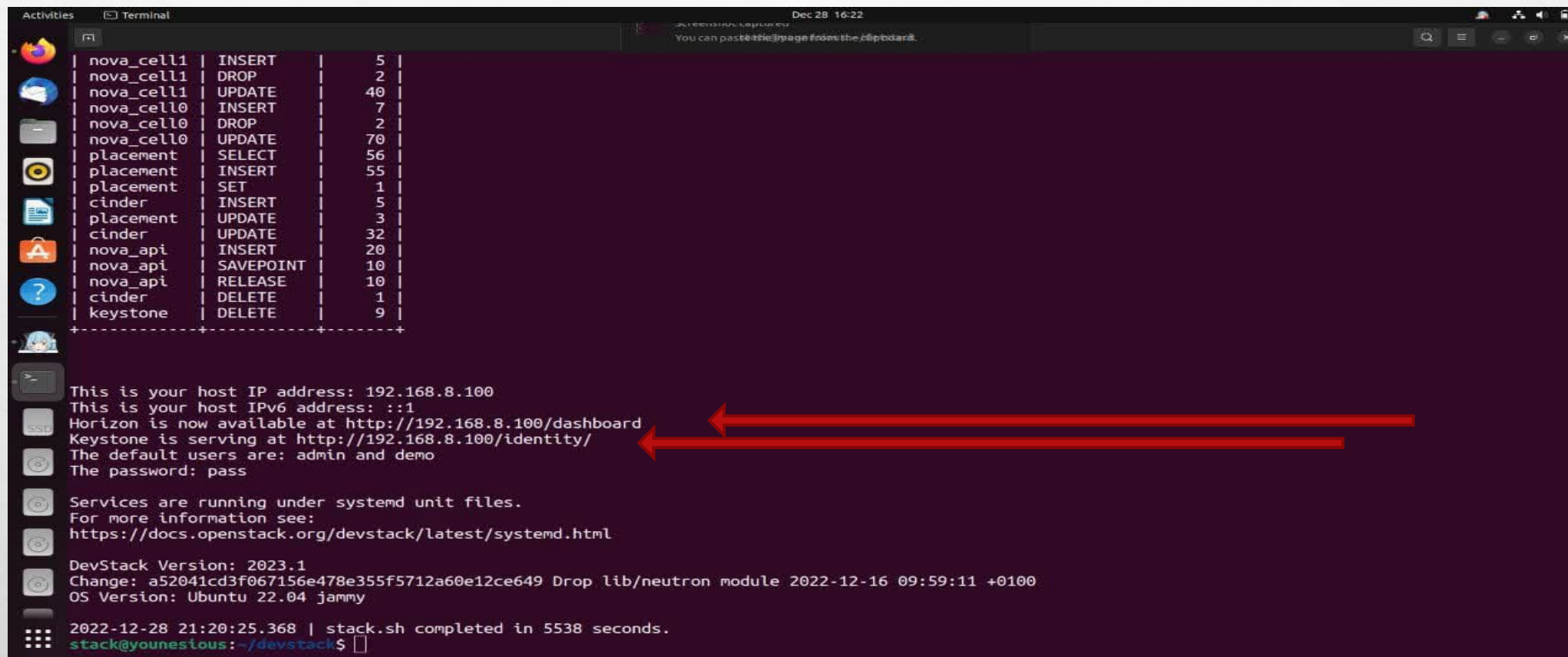
```
Activities Terminal Dec 28 16:22 stack@younesious: ~/devstack
```

nova_cell1	SELECT	234
nova_cell1	SHOW	60
nova_cell1	CREATE	211
nova_cell0	SELECT	250
nova_cell0	SHOW	60
nova_api	SELECT	116
nova_cell0	CREATE	211
nova_api	SHOW	1
nova_api	CREATE	47
nova_cell1	ALTER	13
nova_cell0	ALTER	13
nova_cell1	INSERT	5
nova_cell1	DROP	2
nova_cell1	UPDATE	40
nova_cell0	INSERT	7
nova_cell0	DROP	2
nova_cell0	UPDATE	70
placement	SELECT	56
placement	INSERT	55
placement	SET	1
cinder	INSERT	5
placement	UPDATE	3
cinder	UPDATE	32
nova_api	INSERT	20
nova_api	SAVEPOINT	10
nova_api	RELEASE	10
cinder	DELETE	1
keystone	DELETE	9

+-----+-----+

This is your host IP address: 192.168.8.100
This is your host IPV6 address: ::1
Horizon is now available at <http://192.168.8.100/dashboard>
Keystone is serving at <http://192.168.8.100/identity/>
The default users are: admin and demo
The password: pass

در پایان نیز پیام در دسترس بودن **HORIZON** ما روی
اندپوینت: **192.168.8.100/DASHBOARD** را به اضافه **KEYSTONE** میدهد



```
Activities Terminal Dec 28 16:22
You can paste the image from the clipboard.

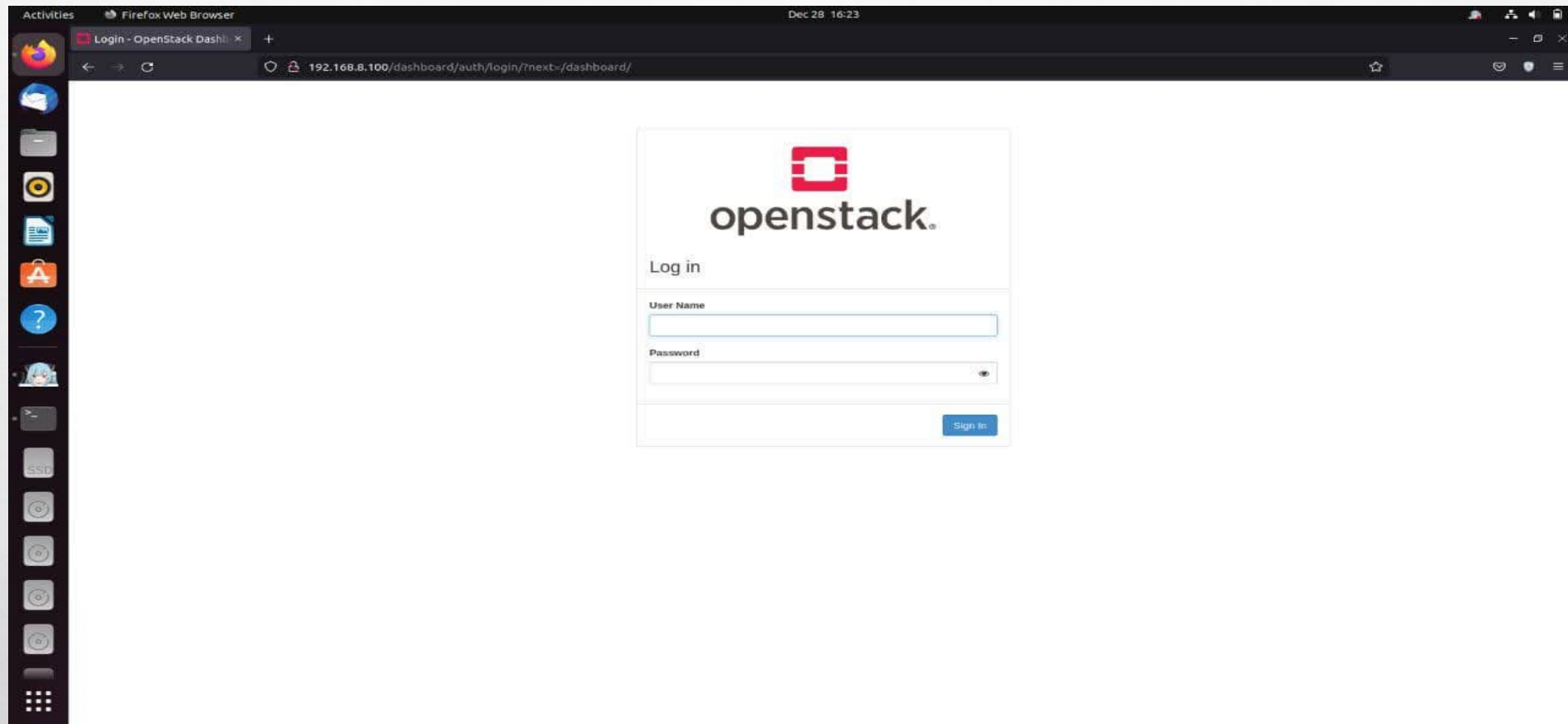
nova_cell1 | INSERT | 5 |
nova_cell1 | DROP | 2 |
nova_cell1 | UPDATE | 40 |
nova_cell0 | INSERT | 7 |
nova_cell0 | DROP | 2 |
nova_cell0 | UPDATE | 70 |
placement | SELECT | 56 |
placement | INSERT | 55 |
placement | SET | 1 |
cinder | INSERT | 5 |
placement | UPDATE | 3 |
cinder | UPDATE | 32 |
nova_api | INSERT | 20 |
nova_api | SAVEPOINT | 10 |
nova_api | RELEASE | 10 |
cinder | DELETE | 1 |
keystone | DELETE | 9 |
+-----+
This is your host IP address: 192.168.8.100
This is your host IPv6 address: ::1
Horizon is now available at http://192.168.8.100/dashboard
Keystone is serving at http://192.168.8.100/identity/
The default users are: admin and demo
The password: pass

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

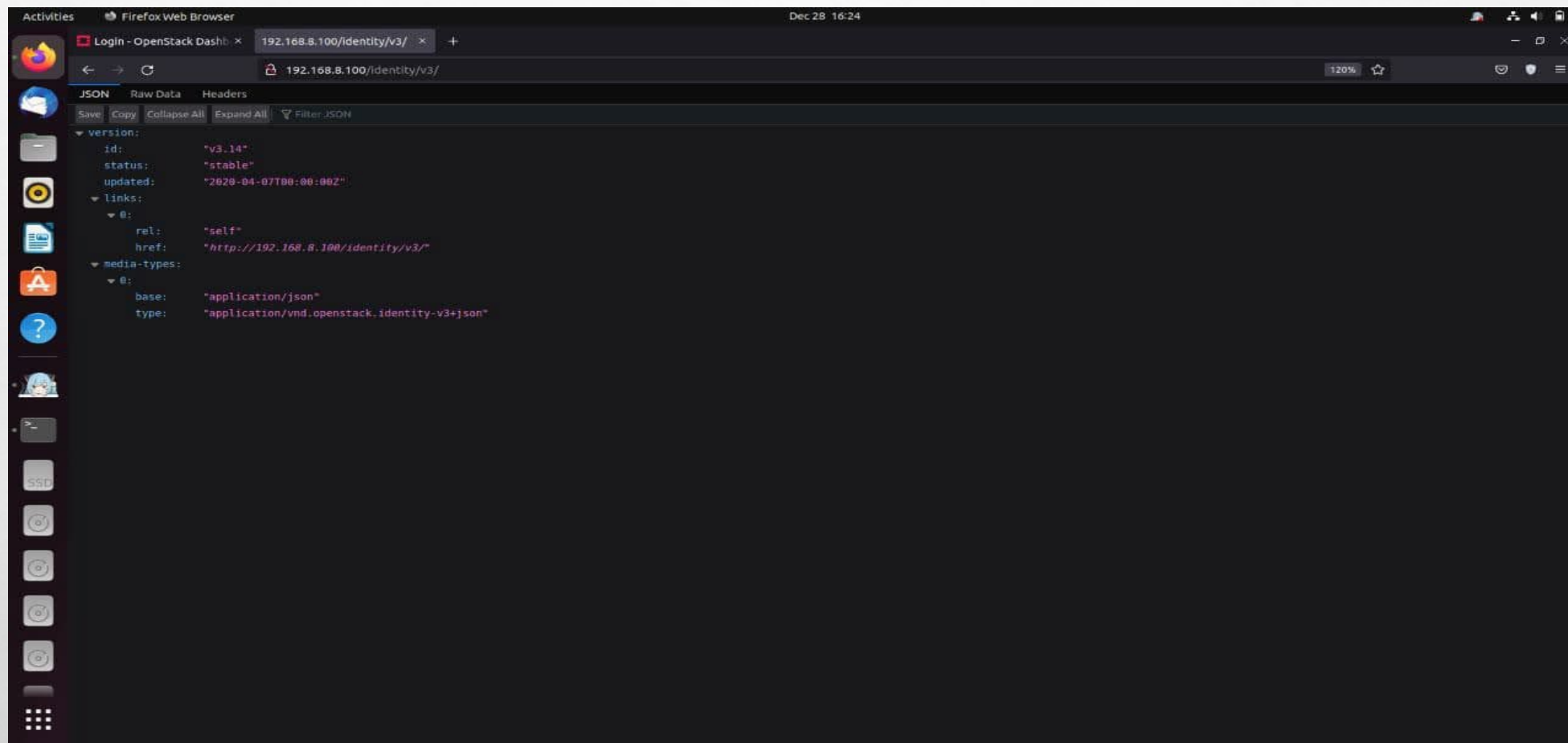
DevStack Version: 2023.1
Change: a52041cd3f067156e478e355f5712a60e12ce649 Drop lib/neutron module 2022-12-16 09:59:11 +0100
OS Version: Ubuntu 22.04 jammy

2022-12-28 21:20:25.368 | stack.sh completed in 5538 seconds.
stack@younesious: ~/devstack$
```

و اینجا صفحه **HORIZON** با موفقیت بالا می آید



اندپوینت مربوط به KEYSTONE در BROWSER




ابتدا با **:OPENSTACK IMAGE LIST**
لیست **IMAGE** هایی که تا کنون داشته را دریافت میکنیم

```
Activities Terminal Dec 29 14:18 stack@younesious: -
stack@younesious:~$ openstack image list
+-----+-----+-----+
| ID                | Name                | Status |
+-----+-----+-----+
| 9fb8fe90-cfa6-4873-a63c-a1e0edf05698 | cirros-0.5.2-x86_64-disk | active |
+-----+-----+-----+
```

در اینجا مشاهده میکنیم که همان **SCRIPT** به صورت دیفالت **IMAGE** ای به نام **CIRROS** برای ما ایجاد کرده و یک **INSTANCE** از آن را داخل **GLANCE** قرار داده.

```
Activities Terminal Dec 29 14:18 stack@younesious: ~
stack@younesious:~$ openstack image list
```

ID	Name	Status
9fb8fe90-cfa6-4873-a63c-a1e0edf05698	cirros-0.5.2-x86_64-disk	active



سیس با دستور **WGET** ، **IMAGE** مورد نظر خود یعنی **CIRROS** را با یک ورژن متفاوت (فرمت : **IMG**) دانلود میکنیم

```
stack@younesious:~$ openstack image list
+-----+-----+-----+
| ID | Name | Status |
+-----+-----+-----+
| 9fb8fe90-cfa6-4873-a63c-a1e0edf05698 | cirros-0.5.2-x86_64-disk | active |
+-----+-----+-----+

stack@younesious:~$ wget http://download.cirros-cloud.net/0.3.4/cirros-0.3.4-x86_64-disk.img
--2022-12-29 14:17:32-- http://download.cirros-cloud.net/0.3.4/cirros-0.3.4-x86_64-disk.img
Resolving download.cirros-cloud.net (download.cirros-cloud.net)... 64.90.42.85, 2607:f298:6:a036::bd6:a72a
Connecting to download.cirros-cloud.net (download.cirros-cloud.net)|64.90.42.85|:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://github.com/cirros-dev/cirros/releases/download/0.3.4/cirros-0.3.4-x86_64-disk.img [following]
--2022-12-29 14:17:33-- https://github.com/cirros-dev/cirros/releases/download/0.3.4/cirros-0.3.4-x86_64-disk.img
Resolving github.com (github.com)... 140.82.121.4
Connecting to github.com (github.com)|140.82.121.4|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://objects.githubusercontent.com/github-production-release-asset-2e65be/219785102/e41baf80-4120-11ea-8591-3a2c8739c5a3?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWNJYAX4CSVEH53A%2F20221229%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20221229T191733Z&X-Amz-Expires=300&X-Amz-Signature=db56843760e58b7a1db45f87564ffe5bf7efd3ba5bc8d0080add33f83c3589d6&X-Amz-SignedHeaders=host&actor_id=0&key_id=0&repo_id=219785102&response-content-disposition=attachment%3B%20filename%3Dcirros-0.3.4-x86_64-disk.img&response-content-type=application%2Foctet-stream [following]
--2022-12-29 14:17:34-- https://objects.githubusercontent.com/github-production-release-asset-2e65be/219785102/e41baf80-4120-11ea-8591-3a2c8739c5a3?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWNJYAX4CSVEH53A%2F20221229%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20221229T191733Z&X-Amz-Expires=300&X-Amz-Signature=db56843760e58b7a1db45f87564ffe5bf7efd3ba5bc8d0080add33f83c3589d6&X-Amz-SignedHeaders=host&actor_id=0&key_id=0&repo_id=219785102&response-content-disposition=attachment%3B%20filename%3Dcirros-0.3.4-x86_64-disk.img&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.109.133, 185.199.111.133, 185.199.110.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)|185.199.109.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 13287936 (13M) [application/octet-stream]
Saving to: 'cirros-0.3.4-x86_64-disk.img'

cirros-0.3.4-x86_64-disk.img      100%[=====>] 12.67M  2.41MB/s   in 9.5s

2022-12-29 14:17:45 (1.33 MB/s) - 'cirros-0.3.4-x86_64-disk.img' saved [13287936/13287936]

stack@younesious:~$ ls
async  bindip-venv  cirros-0.3.4-x86_64-disk.img  devstack  glance  keystone  neutron  novnc  requirements
bin    cinder       data                          devstack.subunit  horizon  logs      nova     placement  tempest
stack@younesious:~$
```

CIRROS چیست؟

- به صورت ساده **CIRROS** یک ورژن ساده و کم حجم از لینوکس است که برای تست در چنین مواقعی از آن استفاده میشود



پس از دانلود **CIRROS** اگه **LS** بزنییم میبینیم که با فرمت **IMG** در دسترسه.

```
stack@younesious: ~$ openstack image list
+-----+-----+-----+
| ID | Name | Status |
+-----+-----+-----+
| 9fb8fe90-cfa6-4873-a63c-a1e0edf05698 | cirros-0.5.2-x86_64-disk | active |
+-----+-----+-----+

stack@younesious: ~$ wget http://download.cirros-cloud.net/0.3.4/cirros-0.3.4-x86_64-disk.img
--2022-12-29 14:17:32-- http://download.cirros-cloud.net/0.3.4/cirros-0.3.4-x86_64-disk.img
Resolving download.cirros-cloud.net (download.cirros-cloud.net)... 64.90.42.85, 2607:f298:6:a036::bd6:a72a
Connecting to download.cirros-cloud.net (download.cirros-cloud.net)|64.90.42.85|:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://github.com/cirros-dev/cirros/releases/download/0.3.4/cirros-0.3.4-x86_64-disk.img [following]
--2022-12-29 14:17:33-- https://github.com/cirros-dev/cirros/releases/download/0.3.4/cirros-0.3.4-x86_64-disk.img
Resolving github.com (github.com)... 140.82.121.4
Connecting to github.com (github.com)|140.82.121.4|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://objects.githubusercontent.com/github-production-release-asset-2e65be/219785102/e41baf80-4120-11ea-8591-3a2c8739c5a3?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWNJYAX4CSVEH53A%2F20221229%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20221229T191733Z&X-Amz-Expires=300&X-Amz-Signature=db56843760e58b7a1db45f87564ffe5bf7efd3ba5bc8d0080add33f83c3589d6&X-Amz-SignedHeaders=host&actor_id=0&key_id=0&repo_id=219785102&response-content-disposition=attachment%3B%20filename%3Dcirros-0.3.4-x86_64-disk.img&response-content-type=application%2Foctet-stream [following]
--2022-12-29 14:17:34-- https://objects.githubusercontent.com/github-production-release-asset-2e65be/219785102/e41baf80-4120-11ea-8591-3a2c8739c5a3?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWNJYAX4CSVEH53A%2F20221229%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20221229T191733Z&X-Amz-Expires=300&X-Amz-Signature=db56843760e58b7a1db45f87564ffe5bf7efd3ba5bc8d0080add33f83c3589d6&X-Amz-SignedHeaders=host&actor_id=0&key_id=0&repo_id=219785102&response-content-disposition=attachment%3B%20filename%3Dcirros-0.3.4-x86_64-disk.img&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.109.133, 185.199.111.133, 185.199.110.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)|185.199.109.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 13287936 (13M) [application/octet-stream]
Saving to: 'cirros-0.3.4-x86_64-disk.img'

cirros-0.3.4-x86_64-disk.img 100%[=====>] 12.67M 2.41MB/s in 9.5s

2022-12-29 14:17:45 (1.33 MB/s) - 'cirros-0.3.4-x86_64-disk.img' saved [13287936/13287936]

stack@younesious: ~$ ls
async  bindip-venv  cirros-0.3.4-x86_64-disk.img  devstack  glance  keystone  neutron  novnc  requirements
bin    cinder      data                        devstack.subunit  horizon  logs      nova     placement  tempest
stack@younesious: ~$
```


در گام بعد فرمت IMAGE را به RAW تغییر میدهیم

سپس با دستور: OPENSTACK IMAGE CREATE

```
stack@younesious:~$ openstack image create "younes" --file cirros-0.3.4-x86_64-disk.raw --disk-format raw --container-format bare
+-----+
| Field          | Value |
+-----+
| container_format | bare  |
+-----+
| created_at      | 2022-12-29T19:58:00Z |
| disk_format     | raw   |
| file            | /v2/images/f270e387-c12e-4848-a1b8-ecae3cc861f0/file |
| id              | f270e387-c12e-4848-a1b8-ecae3cc861f0 |
| min_disk        | 0     |
| min_ram         | 0     |
| name            | younes |
| owner           | 6b199b8caf9148b080e1fe536d685cdb |
| properties      | os_hidden='False', owner_specified.openstack.md5='', owner_specified.openstack.object='images/younes', owner_specified.openstack.sh |
| protected       | False |
| schema          | /v2/schemas/image |
| status          | queued |
| tags            |       |
| updated_at      | 2022-12-29T19:58:00Z |
| visibility       | shared |
+-----+
```

NAME : YOUNES

FILE : CIRROS.0.3.1-86_64-DISK.RAW

DISK.FORMAT : RAW

CONTAINER.FORMAT : BARE

IMAGE با موفقیت ایجاد شد

حال که دوباره لیست IMAGE ها را میگیریم میبینیم که یک IMAGE جدید با نام YOUNES ایجاد شده

```
Activities Terminal Dec 29 14:59
stack@younesious: ~
stack@younesious:~$ openstack image list
+-----+-----+-----+
| ID | Name | Status |
+-----+-----+-----+
| 9fb8fe90-cfa6-4873-a63c-a1e0edf05698 | cirros-0.5.2-x86_64-disk | active |
| f270e387-c12e-4848-a1b8-ecae3cc861f0 | younes | active |
+-----+-----+-----+
stack@younesious:~$
```

CLI VS GUI(HORIZON DASHBOARD)

در این داکيومنت از طريق **CLI** ايميج رو اضافه كرديم در ويديو كه ضميمه شده با **BROWSER** و رابط گرافيكی **(GUI)** و با استفاده از **HORIZON** هم همين ايميج را به گلنس اضافه مي كنيم.

منابع

- [HTTPS://IRANHOST.COM/BLOG/OPENSTACK](https://iranhost.com/blog/openstack)
- [HTTPS://WWW.OPENSTACK.ORG](https://www.openstack.org)
- [HTTPS://DANIELPERSSON.DEV/2022/07/25/MANUALLY-INSTALL-OPENSTACK/](https://danielpersson.dev/2022/07/25/manually-install-openstack/)