OpenStack cheat sheet

Canonical **OpenStack**

Install

Install OpenStack
```
$ sudo snap install openstack
$ sunbeam prepare-node-script | bash -x && newgrp
snap_daemon
$ sunbeam cluster bootstrap --accept-defaults
$ sunbeam configure --accept-defaults --openrc demo-
openrc
```

Launch test instance
```
$ sunbeam launch ubuntu -n test
```

Interact

Obtain OpenStack dashboard URL
```
$ sunbeam dashboard-url
```

Generate admin RC file
```
$ sunbeam openrc > admin_openrc
```

Source RC file
```
source <file path>
```

List OpenStack services
```
openstack catalog list
```

Domains

List domains
```
openstack domain list
```

Show domain details
```
openstack domain show <domain ID>
```

Create domain
```
openstack domain create <domain name>
```

Update domain
```
openstack domain set <key> <value> <domain ID>
```

Update domain
```
openstack domain set <key> <value> <domain ID>
```

Users

List users
```
openstack user list
```

Show user details
```
openstack user show <user ID>
```

Create user
```
openstack user create --password <password> <user name>
```

Update user
```
openstack user set <key> <value> <user ID>
```

Set user password
```
openstack user password set
```

Delete user
```
openstack user delete <user ID>
```

Groups

List groups
```
openstack group list
```

Show group details
```
openstack group show <group ID>
```

Create group
```
openstack group create <group name>
```

Update group
```
openstack group set <key> <value> <group ID>
```

Add user to group
```
openstack group add user <group ID> <user ID>
```

Remove user from
```
openstack group remove user <group ID> <user ID>
```

Delete group
```
openstack group delete <group ID>
```

Projects

List projects
```
openstack project list
```

Show project details
```
openstack project show <project ID>
```

Create project
```
openstack project create <project name>
```

Update project
```
openstack project set <key> <value> <project ID>
```

Delete project
```
openstack project delete <project ID>
```

Roles

Assign role on project
```
openstack role add --project <project ID> [--user <user ID> | --group <group ID>] <role name>
```

Remove role on project
```
openstack role remove --project <project ID> [--user <user ID> | --group <group ID>] <role name>
```

Images

List images
```
openstack image list
```

Show image details
```
openstack image show <image ID>
```

Create image
```
openstack image create --disk-format qcow2 --file <file path> <image name>
```

Update image
```
openstack image set <key> <value> <image ID>
```

Delete image
```
openstack image delete <image ID>
```

OpenStack cheat sheet

Flavors

List flavors
`openstack flavor list`

Show flavor details
`openstack flavor show <flavor name>`

Create flavor
`openstack flavor create --vcpus <vCPUs> --ram <RAM [MB]> --disk <Disk [GB]> <flavor name>`

Update flavor
`openstack flavor set <key> <value> <flavor name>`

Delete flavor
`openstack flavor delete <flavor name>`

Networks

List networks
`openstack network list`

Show network details
`openstack network show <network ID>`

Create network
`openstack network create <network name>`

Update network
`openstack network set <key> <value> <network ID>`

Delete network
`openstack network delete <network ID>`

Subnets

List subnets
`openstack subnet list`

Show subnet details
`openstack subnet show <subnet ID>`

Create subnet
`openstack subnet create --network <network ID> --subnet-range <subnet CIDR> <subnet name>`

Update subnet
`openstack subnet set <key> <value> <subnet ID>`

Delete subnet
`openstack subnet delete <subnet ID>`

Routers

List routers
`openstack router list`

Show router details
`openstack router show <router ID>`

Create router
`openstack router create <router name>`

Update router
`openstack router set <key> <value> <router ID>`

Attach subnet to router
`openstack router add subnet <router ID> <subnet ID>`

Detach subnet from router
`openstack router remove subnet <router ID> <subnet ID>`

Delete router
`openstack router delete <router ID>`

Security groups

List security groups
`openstack security group list`

Show security group details
`openstack security group show <security group ID>`

Create security group
`openstack security group create <security group name>`

Update security group
`openstack security group set <key> <value> <security group ID>`

List rules in the security group
`openstack security group rule list <security group ID>`

Add rule to the security group
`openstack security group rule create <key> <value> ... <security group ID>`

Delete rule from the security group
`openstack security group rule delete <rule ID>`

Delete security group
`openstack security group delete <security group ID>`

Key pairs

List key pairs
`openstack keypair list`

Show key pair details
`openstack keypair show <key pair name>`

Create kay pair
`openstack keypair create --private-key <file path> <key pair name>`

Delete key pair
`openstack keypair delete <key pair name>`

OpenStack cheat sheet

Instances

List instances
openstack server list

Show instance details
openstack server show <instance name>

Create instance
openstack server create --flavor <flavor name> --image <image ID> --network <network ID> --key-name <key pair name> <instance name>

Update instance
openstack server set <key> <value> <instance ID>

Delete instance
openstack server delete <instance ID>

Floating IPs

List floating IPs
openstack floating ip list

Create floating IP
openstack floating ip create <network ID>

Attach floating IP to instance
openstack server add floating ip <instance ID> <floating IP ID>

Detach floating IP from instance
openstack server remove floating ip <instance ID> <floating IP ID>

Delete floating IP
openstack floating ip delete <floating IP ID>

Volumes

List volumes
openstack volume list

Show volume details
openstack volume show <volume ID>

Create volume
openstack volume create --size <size [GB]> <volume name>

Update volume
openstack volume set <key> <value> <volume ID>

Attach the volume to the instance
openstack server add volume <instance ID> <volume ID>

Detach the volume from the instance
openstack server remove volume <instance ID> <volume ID>

Delete volume
openstack volume delete <volume ID>

Quotas

List default quotas
openstack quota show --default

Update default quotas
openstack quota set <key> <value> --class default

List project quotas
openstack quota show <project ID>

Update project quotas
openstack quota set <key> <value> <project ID>

Teardown

Stop OpenStack
sudo snap stop openstack

Start OpenStack
sudo snap start openstack

Disable OpenStack
sudo snap disable openstack

Enable OpenStack
sudo snap enable openstack

Uninstall OpenStack
sudo snap remove --purge openstack

Ubuntu Pro

Attach Ubuntu Pro subscription
sunbeam enable pro --token <token>

Detach Ubuntu Pro subscription
sunbeam disable pro

OpenStack tutorials

Experience OpenStack through a series of tutorials. Learn how to use OpenStack for cloud infrastructure implementation purposes on your workstation, from a single-node installation to large-scale clusters.

Find out more at:
https://ubuntu.com/openstack/tutorials.