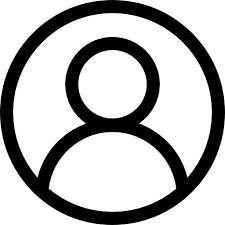
**Keystone** is an OpenStack service that provides API client authentication, service discovery, and distributed multi-tenant authorization by implementing OpenStack’s Identity API.

**KEYSTONE - OPENSTACK**

**Github: hieunguyeu810**



**CLI**

**keystone-manage:** is the command line tool which interacts with the Keystone service to initialize and update data within Keystone. Generally, keystone-manage is only used for operations that cannot be accomplished with the HTTP API, such data import/export and database migrations.

**keystone-status** is a command line tool that helps operators upgrade their deployment.

**User:** has account credentials, is associated with one or more projects or domains

**Group:** a collection of users, is associated with one or more projects or domains

**Project:** unit of ownership in OpenStack, contains one or more users

**Domain:** unit of ownership in OpenStack, contains users, groups and projects

**Role:** a first-class piece of metadata associated with many user-project pairs.

**Token:** identifying credential associated with a user or user and project

**Extras:** bucket of key-value metadata associated with a user-project pair.

**Rule:** describes a set of requirements for performing an action.

**Data Model**

Nova

Cinder

Neutron

Glance

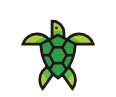
Swift

1. Send Request + Token
2. Receive Token
3. Check Token
4. Receive Token
5. Send Credentials

**Keystone Identity**

**Keystone Identity**

**KEYSTONE**



**IDENTITY**

**Stores Users and Groups**

**(LDAP or SQL)**

**ASSIGNMENT**

**Stores Roles and Role Assignments**

**(SQL)**

**RESOURCE**

**Stores Domains and Projects**

**(SQL)**

**TOKEN**

**Stores Issued and revoked tokens**

**(SQL and Memcached)**

**CATALOG**

**Stores Endpoints for all OpenStack Services**

**(SQL)**

**POLICY**

**RBAC based authorization engine**

**(oslo policy)**

**Architecture**