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Users, Projects, and Roles in OpenStack Keystone

LAB #2

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CSCI A591-PC

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Introduction to OpenStack

Learning Objectives

By the end of this lab, students will be able to:

- Create and manage OpenStack users through both CLI and Dashboard
- Create and organize projects (tenants)
- Understand and assign different roles (admin, member, reader)
- Demonstrate the difference between admin and regular user permissions
- Test access control by switching between different user accounts
- Document user and project hierarchies

Prerequisites

- Basic Linux command-line knowledge
- Completion of Lab1: Introduction to OpenStack
- DevStack environment installed and running
- Access to OpenStack Dashboard (Horizon)
- Understanding of virtualization concepts
- Access to a virtual machine or physical server with:
 - Ubuntu 22.04 LTS or later (recommended)
 - Minimum 8GB RAM, 40GB disk space
 - Network connectivity
 - DevStack Preinstalled ([Install Here](#))

Part 1: Understanding Users, Projects, and Roles

1.1 What are Users?

Users are individuals who interact with OpenStack. Each user has:

- A unique username
- A password for authentication
- An email address
- Association with one or more projects

- Assigned roles that determine permissions

1.2 What are Projects?

Projects (formerly called “tenants”) are organizational units that:

- Group users together
- Isolate resources (instances, networks, volumes)
- Enable resource quotas and billing
- Provide multi-tenancy in OpenStack

Example: A company might have projects for different departments

- Engineering Project
- Finance Project
- HR Project

1.3 What are Roles?

Roles define what actions users can perform. Default roles include:

Role	Permissions	Use Case
admin	Full access to all resources and settings	System administrators
member	Create and manage resources in assigned projects	Regular users, developers
reader	Read-only access to resources	Auditors, viewers

1.4 How They Work Together

A **user’s role** dictates their permissions to access various **projects** and settings within projects. The user contains the login information; the role dictates their access, and it all grants them access to projects.

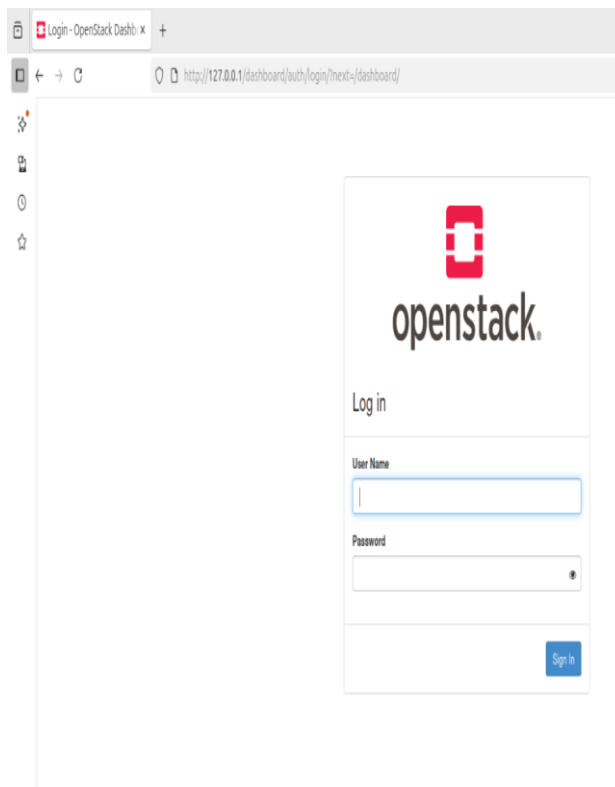
Part 2: Hands-on Lab: Working with Users via Dashboard

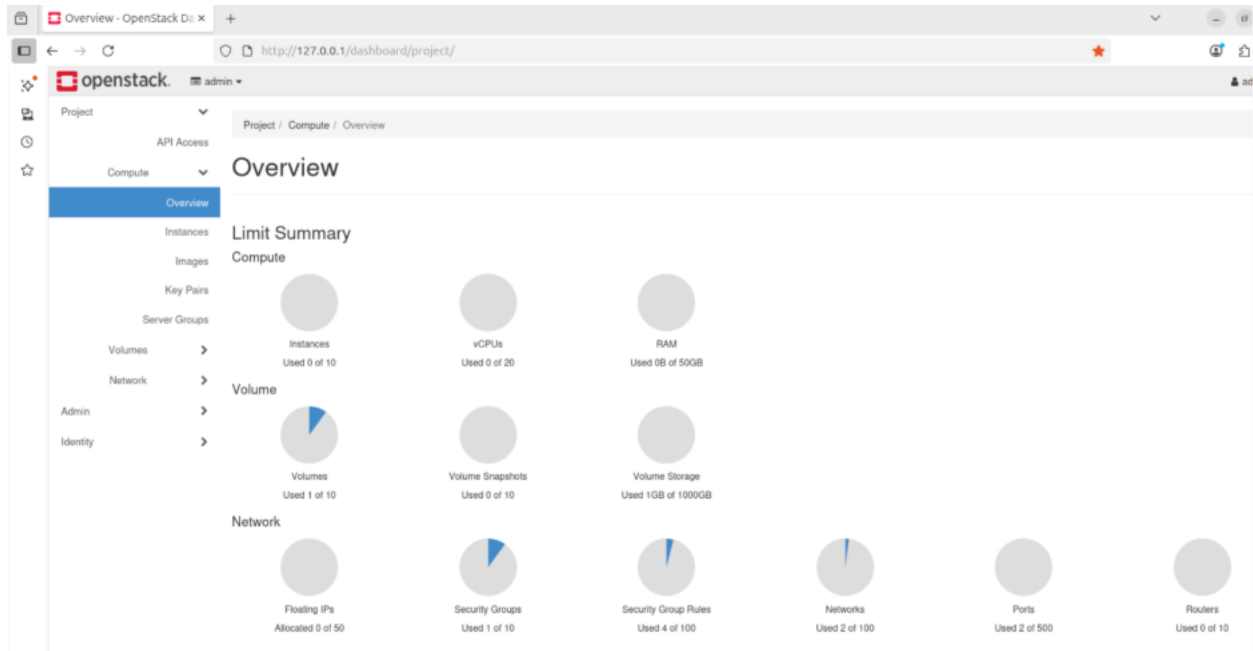
Section 1: Login as Admin

Step 1: Open your web browser and navigate to the OpenStack Dashboard

<http://127.0.0.1/dashboard>

- **Username:** admin
- **Password:** secret



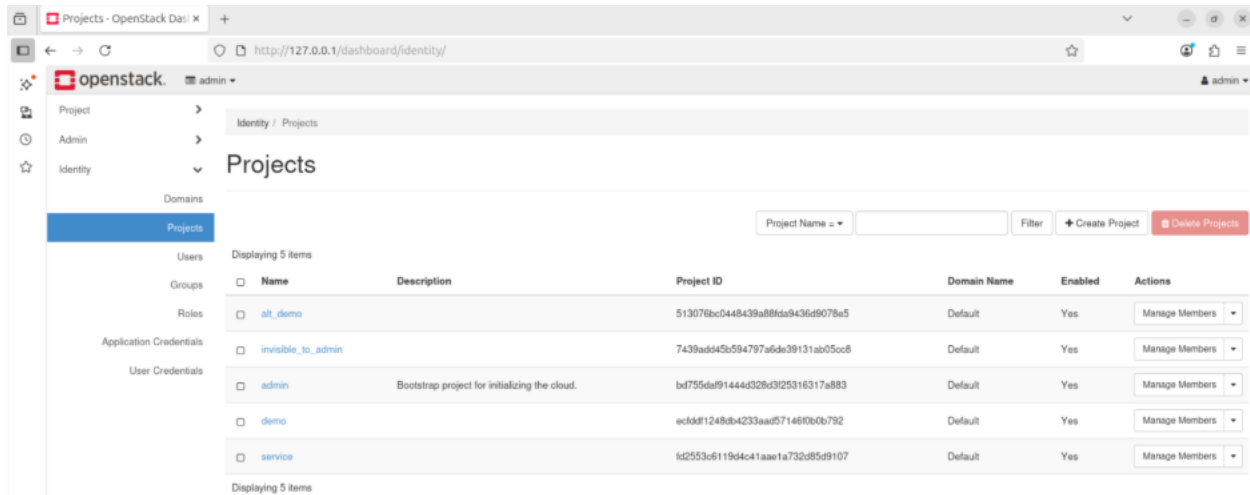


Section 2: Explore Admin Capabilities

Step 2: Navigate to Identity -> Projects

Notice that as an admin, you can see all projects in the system:

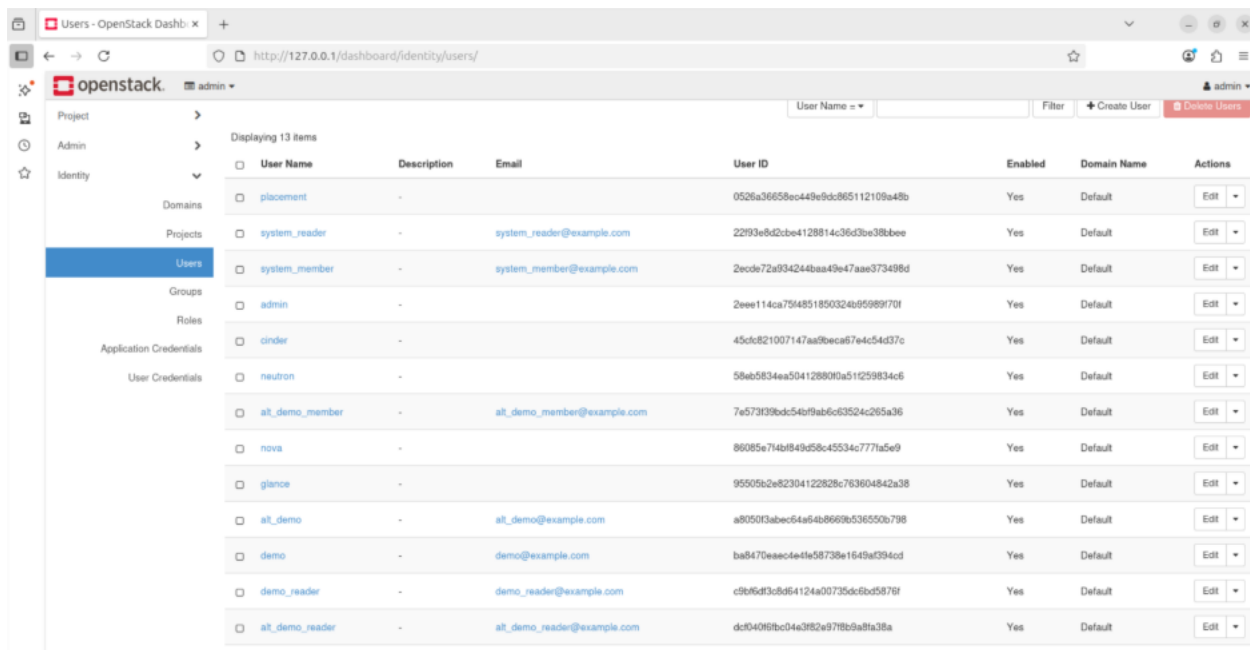
- admin
- demo
- service
- alt_demo



Step 3: Navigate to Identity -> Users

You should see all users including:

- admin
- demo
- Service accounts (nova, neutron, glance, etc.)



Section 3: Create a New Project

Step 4: Click Identity -> Projects then click Create Project

Fill in the following information:

- **Domain ID:** default
- **Domain Name:** Default
- **Name:** Test_project
- **Description:** Test
- **Enabled:** Checked

Click **Create Project**

The image shows two parts of the OpenStack Identity dashboard. The top part is a 'Create Project' modal window. The bottom part is the main 'Projects' page.

Create Project Modal:

- Project Information** (selected tab)
- Domain ID:** default
- Domain Name:** Default
- Name:** Test_project
- Description:** Test
- Enabled:** ☒
- Buttons:** Cancel, Create Project

Projects Page:

Project Name: Filter [+ Create Project](#) [Delete Projects](#)

Name	Description	Project ID	Domain Name	Enabled	Actions
all_demo		513076bc0448439a8885a436d9078e5	Default	Yes	Manage Members
invisible_to_admin		7439a4d45b594797ad6a39131ab05cc8	Default	Yes	Manage Members
admin	Bootstrap project for initializing the cloud.	bd755da91444d32b0325316317a883	Default	Yes	Manage Members
Test_project	Test	e02b816e273045d5ad8924aaa1b06c42	Default	Yes	Manage Members
demo		ecddfd1248db4233aad571490b0b792	Default	Yes	Manage Members
service		4d2553cd1194dc41aaa1a732d85d9107	Default	Yes	Manage Members

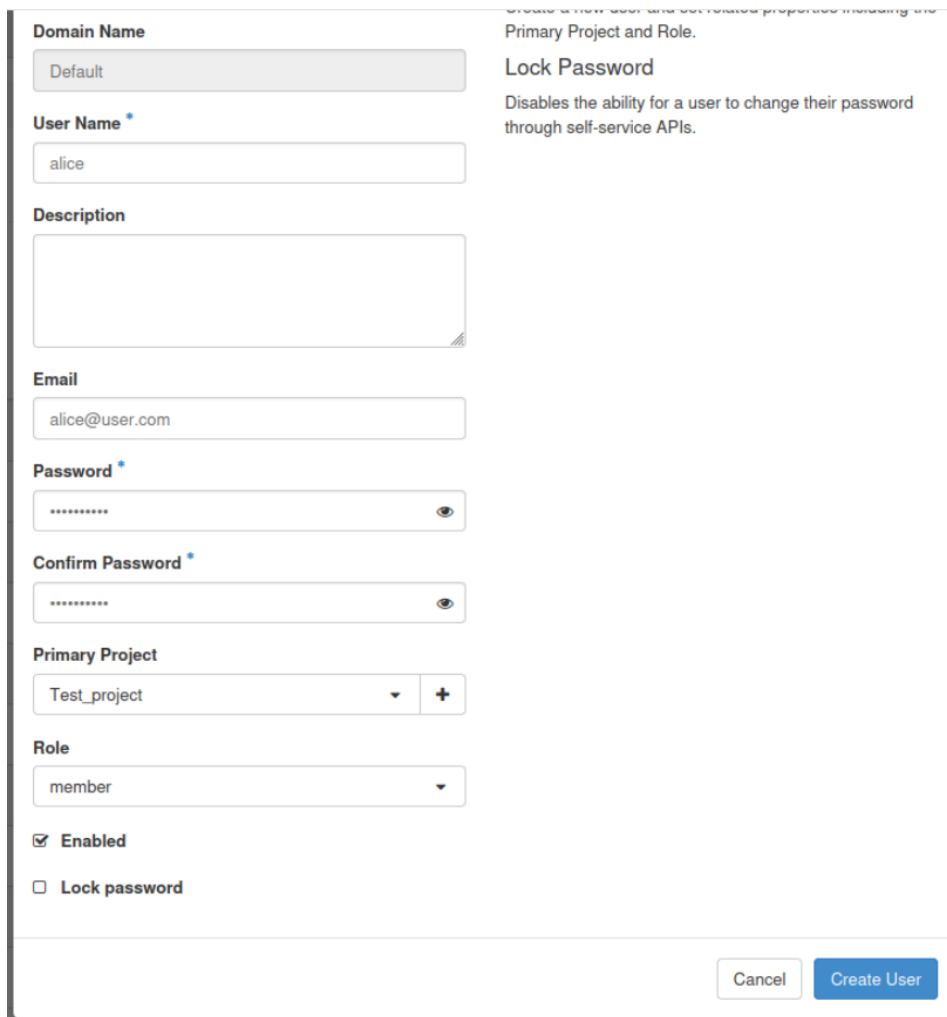
Section 4: Create New Users

Step 5: Navigate to Identity -> Users then click Create User

Create the first user with these details:

- **Username:** alice
- **Email:** alice@user.com
- **Password:** Alice123!@
- **Confirm Password:** Alice123!@
- **Primary Project:** Test_project
- **Role:** member
- **Enabled:** Yes

Click **Create User**



The screenshot shows a 'Create New User' form with the following fields and options:

- Domain Name:** A dropdown menu with 'Default' selected.
- User Name:** A text input field containing 'alice'.
- Description:** A large text area for additional information.
- Email:** A text input field containing 'alice@user.com'.
- Password:** A text input field with masked characters (dots) and a toggle icon to show/hide the password.
- Confirm Password:** A text input field with masked characters (dots) and a toggle icon to show/hide the password.
- Primary Project:** A dropdown menu with 'Test_project' selected and a '+' icon to add a new project.
- Role:** A dropdown menu with 'member' selected.
- Enabled:** A checkbox that is checked.
- Lock password:** A checkbox that is unchecked.

On the right side of the form, there is a section titled 'Lock Password' with the text: 'Disables the ability for a user to change their password through self-service APIs.' Below this section, there are two buttons: 'Cancel' and 'Create User'.

Step 6: Create a second user

Create the second user with these details:

- **Username:** bob
- **Email:** bob@user.com
- **Password:** Bob123!@
- **Confirm Password:** Bob123!@
- **Primary Project:** Test_project
- **Role:** member
- **Enabled:** Yes

Click **Create User**

Step 7: Create a third user who will have admin privileges

Create the second user with these details:

- **Username:** charlie
- **Email:** charlie@admin.com
- **Password:** Charlie123!@
- **Confirm Password:** Charlie123!@
- **Primary Project:** admin
- **Role:** admin
- **Enabled:** Yes

Click **Create User**

Screenshot Task: Take a screenshot of the Users list showing alice, bob, and charlie.

Domain Name
Default

User Name *
charlie

Description

Email
charlie@admin.com

Password *

Confirm Password *

Primary Project
Test_project

Role
admin

☒ **Enabled**

☐ **Lock password**

Primary Project and Role.
Lock Password
Disables the ability for a user to change their password through self-service APIs.

Cancel Create User

User Name	Description	Email	User ID	Enabled	Domain Name	Actions
placement	-		0526a3965bec449e9db865112109e48b	Yes	Default	Edit
bob	-	bob@user.com	180e4ea1e055450db806304aa63b3e	Yes	Default	Edit
system_reader	-	system_reader@example.com	2293e8d3de4128814c36d3e398b6e	Yes	Default	Edit
system_member	-	system_member@example.com	2ecde72a934244baa49e47aa373498d	Yes	Default	Edit
admin	-		2ee114ca7914851850324b9598970f	Yes	Default	Edit
cinder	-		45c0d21007147aaf9eca67e4c54c37c	Yes	Default	Edit
neutron	-		58e5834ea504128806a510259834c6	Yes	Default	Edit
charlie	-	charlie@admin.com	5c84da3aec7a457a75db210e48c07	Yes	Default	Edit
alt_demo_member	-	alt_demo_member@example.com	7e573938cd54b9ab6c63524c265a36	Yes	Default	Edit
nova	-		86085e714b49d58c45534c7771a5e9	Yes	Default	Edit
glance	-		95509c2a2204122828c763604842a38	Yes	Default	Edit
alt_demo	-	alt_demo@example.com	a8c5093abec64a64b669b536550b798	Yes	Default	Edit
demo	-	demo@example.com	ba8470aeece4fe58738e1649af934cd	Yes	Default	Edit
demo_reader	-	demo_reader@example.com	c9e4b83c8d54124a00735d6db5876f	Yes	Default	Edit
alt_demo_reader	-	alt_demo_reader@example.com	du454068cd4c382c678b9a8fa38a	Yes	Default	Edit
alice	-	alice@user.com	fd5a75d1c6a84151af341c70daa620f	Yes	Default	Edit

Part 3: Hands-On Lab: Working with Users via CLI

Section 1: Using OpenStack CLI

Step 1: Open a terminal and navigate to the DevStack directory

```
ubuntu@ubuntu: ~/devstack
ubuntu@ubuntu:~$ cd ~/devstack/
ubuntu@ubuntu:~/devstack$
```

Step 2: Source the admin credentials

```
ubuntu@ubuntu: ~/devstack
ubuntu@ubuntu:~$ cd ~/devstack/
ubuntu@ubuntu:~/devstack$ source openrc admin admin
ubuntu@ubuntu:~/devstack$
```

You should see your prompt change with no errors. This loads environment variables needed for authentication.

Step 3: Verify authentication by requesting a token

```
ubuntu@ubuntu: ~/devstack
(openstack) token issue
-----+-----+
Field | Value
-----+-----+
expires | 2025-10-19T17:17:30+0000
id | gAAAAA8o9Q8aQAYEHkg0WzTHJbVGnzFyCWtGcW0evbZLByW1gG8V4A0-L3Yb-2rvcyJ2g LH28cGe-
 | akepbFiLvEbS00njSEAlGVsDsCFkRyCqyhr6ZqVIRt6CoQdZIxNkkIuEBe_GIuC1L9-bad98Z0--YCdU9oKeDQaY_NKKUJnLQsbyZltcss
project_id | bd755daf91444d328d3f25316317a883
user_id | 2eee114ca75f4851850324b95989f70f
-----+-----+
(openstack)
(openstack) █
```

Step 4: Once authenticated successfully, list all users

```
(openstack) user list
-----+-----+
ID | Name
-----+-----+
0526a36658ec449e9dc865112109a48b | placement
180e4ea1a055450d8d8063f04aa63b3e | bob
22f93e8d2cbe4128814c36d3be38bbee | system_reader
2ecde72a934244baa49e47aae373498d | system_member
2eee114ca75f4851850324b95989f70f | admin
45cfc821007147aa9beca67e4c54d37c | cinder
58eb5834ea50412880f0a51f259834c6 | neutron
5c84da3eec7a45f7a75b8c210fc48c07 | charlie
7e573f39bdc54bf9ab6c63524c265a36 | alt_demo_member
86085e7f4bf849d58c45534c777fa5e9 | nova
95505b2e82304122828c763604842a38 | glance
a8050f3abec64a64b8669b536550b798 | alt_demo
ba8470eaec4e4fe58738e1649af394cd | demo
c9bf6df3c8d64124a00735dc6bd5876f | demo_reader
dcf040f6fbc04e3f82e97f8b9a8fa38a | alt_demo_reader
f0da75d1c6a94151afc341c70dae620f | alice
-----+-----+
(openstack) █
```

You should see a table with users including alice, bob, charlie, and system users.

Step 5: View detailed information about a specific user

Take a screenshot of the output showing alice's details.

Note: Do NOT use the interactive (openstack) shell for this lab. Always use direct commands like `openstack user list` after setting up the environment variables.

```
(openstack) exit
ubuntu@ubuntu:~/devstack$ openstack user show alice
```

Field	Value
default_project_id	e02b816e273045ddad8824aea1b0fc42
domain_id	default
email	alice@user.com
enabled	True
id	f0da75d1c6a94151afc341c70dae620f
name	alice
description	None
password_expires_at	None
options	{'lock_password': False}

```
ubuntu@ubuntu:~/devstack$
```

Section 2: Create a New Project via CLI

Step 1: Create a user for the finance project

```
ubuntu@ubuntu:~/devstack$ openstack user create david --project finance --password 'David123!@' --email david@finance.com
```

Field	Value
default_project_id	c0e769564ce24dbca7f892e7d7942113
domain_id	default
email	david@finance.com
enabled	True
id	38514d8c71f5475f87cd8df300775e4f
name	david
description	None
password_expires_at	None
options	{}

```
ubuntu@ubuntu:~/devstack$
```

Step 2: Verify the user was created

```
ubuntu@ubuntu:~/devstack$ openstack user show david
```

Field	Value
default_project_id	c0e769564ce24dbca7f892e7d7942113
domain_id	default
email	david@finance.com
enabled	True
id	38514d8c71f5475f87cd8df300775e4f
name	david
description	None
password_expires_at	None
options	{}

```
ubuntu@ubuntu:~/devstack$
```

Step 3: List all projects to confirm both Test_project and finance exist

```
ubuntu@ubuntu:/opt/stack/devstack$ source openrc admin admin
ubuntu@ubuntu:/opt/stack/devstack$ openstack project list
```

ID	Name
2e8ed426deb441f19f47733f7845f1cb	finance
3bb3226221e64ca4a18267052169edd9	Test_project
513076bc0448439a88fda9436d9078e5	alt_demo
7439add45b594797a6de39131ab05cc8	invisible_to_admin
bd755daf91444d328d3f25316317a883	admin
ecfddf1248db4233aad57146f0b0b792	demo
fd2553c6119d4c41aae1a732d85d9107	service

```
ubuntu@ubuntu:/opt/stack/devstack$
```

Part 4: Hands-On Lab: Understanding and Assigning Roles

Section 1: View Available Roles

Step 1: List all available roles in your OpenStack deployment

You should see roles including:

- admin
- member
- reader

```
ubuntu@ubuntu:~/devstack$ openstack role list
+-----+-----+
| ID                                | Name          |
+-----+-----+
| 0d37478aaf6547ca9431a61875ac4581 | service       |
| 2bbb2fc206bb4097bd9a9584433b3251 | reader        |
| 2c88f95e06554c44ad4c61e238b6d830 | member        |
| 525553ab65ab4822a2cfa7b16e5e849a | manager       |
| 7f62fa9295294cfba8540fedf74a8478 | ResellerAdmin |
| 8dba605dda2f4199bac4e12478c0979e | anotherrole   |
| b6cebb4885fe4b678d2159db040ce296 | admin         |
+-----+-----+
ubuntu@ubuntu:~/devstack$
```

Step 2: View details of the admin role

```
ubuntu@ubuntu:~/devstack$ openstack role show admin
```

Field	Value
id	b6cebb4885fe4b678d2159db040ce296
name	admin
domain_id	None
description	None

```
ubuntu@ubuntu:~/devstack$
```

Section 2: Assign Roles to Users

Step 3: Assign the member role to david in the finance project

```
ubuntu@ubuntu:~/devstack$ openstack role add --project finance --user david member
ubuntu@ubuntu:~/devstack$
```

Step 4: View role assignments for david

```
ubuntu@ubuntu:~/devstack$ openstack role assignment list --user david --names
```

Role	User	Group	Project	Domain	System	Inherited
member	david@Default		finance@Default			False

```
ubuntu@ubuntu:~/devstack$
```

Step 5: Create another user and assign reader role

```
ubuntu@ubuntu:~/devstack$ openstack user create eve --project finance --password 'Eve123!@' --email eve@finance.com
```

Field	Value
default_project_id	c0e769564ce24dbca7f892e7d7942113
domain_id	default
email	eve@finance.com
enabled	True
id	ac47259130384d6eae36d033282d3cb5
name	eve
description	None
password_expires_at	None
options	{}

```
ubuntu@ubuntu:~/devstack$
```


Step 6: Compare role assignments

```
ubuntu@ubuntu:~/devstack$ openstack role assignment list --user david --names
+-----+-----+-----+-----+-----+-----+-----+
| Role   | User           | Group | Project           | Domain | System | Inherited |
+-----+-----+-----+-----+-----+-----+-----+
| member | david@Default  |       | finance@Default   |        |        | False     |
+-----+-----+-----+-----+-----+-----+-----+
ubuntu@ubuntu:~/devstack$ openstack role assignment list --user eve --names

ubuntu@ubuntu:~/devstack$
```

Section 3: Assign Multiple Roles

Step 7: Give alice access to both Test_project and finance projects

```
ubuntu@ubuntu:~/devstack$ openstack role add --project finance --user alice member
ubuntu@ubuntu:~/devstack$ openstack role assignment list --user alice --names
+-----+-----+-----+-----+-----+-----+-----+
| Role   | User           | Group | Project           | Domain | System | Inherited |
+-----+-----+-----+-----+-----+-----+-----+
| member | alice@Default  |       | finance@Default   |        |        | False     |
| member | alice@Default  |       | Test_project@Default |        |        | False     |
+-----+-----+-----+-----+-----+-----+-----+
ubuntu@ubuntu:~/devstack$
```

Part 5: Hands-On Lab: Testing Admin vs Regular User Permissions

Section 1: Admin User Capabilities

Step 1: Create a credentials file for the admin user (already exists)


```

ubuntu@ubuntu:~/devstack$ cat ~/devstack/openrc
#!/usr/bin/env bash
#
# source openrc [username] [projectname]
#
# Configure a set of credentials for $PROJECT/$USERNAME:
# Set OS_PROJECT_NAME to override the default project 'demo'
# Set OS_USERNAME to override the default user name 'demo'
# Set ADMIN_PASSWORD to set the password for 'admin' and 'demo'

if [[ -n "$1" ]]; then
    OS_USERNAME=$1
fi
if [[ -n "$2" ]]; then
    OS_PROJECT_NAME=$2
fi

# Find the other rc files
RC_DIR=$(cd $(dirname "${BASH_SOURCE:-$0}") && pwd)

# Import common functions
source $RC_DIR/functions

# Load local configuration
source $RC_DIR/stackrc

# Load the last env variables if available
if [[ -r $RC_DIR/.stackenv ]]; then
    source $RC_DIR/.stackenv
    export OS_CACERT
fi

# Get some necessary configuration
source $RC_DIR/lib/tls

# Minimal configuration
export OS_AUTH_TYPE=password

```

Step 2: While logged in as admin, perform these operations

```

ubuntu@ubuntu:~/devstack$ openstack user create test_admin --password 'Test123!@' --email test@test.local
+-----+-----+
| Field | Value |
+-----+-----+
| default_project_id | None |
| domain_id | default |
| email | test@test.local |
| enabled | True |
| id | 6087f9fe735441e28cb8ea05c47f5910 |
| name | test_admin |
| description | None |
| password_expires_at | None |
| options | {} |
+-----+-----+
ubuntu@ubuntu:~/devstack$

```

Step 3: While logged in as admin, perform these operations

```
ubuntu@ubuntu:~/devstack$ openstack user delete test_admin
ubuntu@ubuntu:~/devstack$ openstack user list
```

ID	Name
0526a36658ec449e9dc865112109a48b	placement
180e4ea1a055450d8d8063f04aa63b3e	bob
22f93e8d2cbe4128814c36d3be38bbee	system_reader
2ecde72a934244baa49e47aae373498d	system_member
2eee114ca75f4851850324b95989f70f	admin
38514d8c71f5475f87cd8df300775e4f	david
45cfc821007147aa9beca67e4c54d37c	cinder
58eb5834ea50412880f0a51f259834c6	neutron
5c84da3eec7a45f7a75b8c210fc48c07	charlie
7e573f39bdc54bf9ab6c63524c265a36	alt_demo_member
86085e7f4bf849d58c45534c777fa5e9	nova
95505b2e82304122828c763604842a38	glance
a8050f3abec64a64b8669b536550b798	alt_demo
ac47259130384d6eae36d033282d3cb5	eve
ba8470eaec4e4fe58738e1649af394cd	demo
c9bf6df3c8d64124a00735dc6bd5876f	demo_reader
dcf040f6fbc04e3f82e97f8b9a8fa38a	alt_demo_reader
f0da75d1c6a94151afc341c70dae620f	alice

```
ubuntu@ubuntu:~/devstack$
```

Step 4: While logged in as admin, perform these operations

```
ubuntu@ubuntu:~/devstack$ openstack server list --all-projects
```

```
ubuntu@ubuntu:~/devstack$ openstack hypervisor list
```

ID	Hypervisor Hostname	Hypervisor Type	Host IP	State
7985fdc4-e253-4bdb-800c-b334e6c4f203	ubuntu	QEMU	127.0.0.1	up

```
ubuntu@ubuntu:~/devstack$
```

Part 6: Hands-On Lab: Dashboard Comparison: Admin vs Regular User

Section 1: Admin Dashboard View

Step 1: Logout of the current session (if logged in)

Step 2: Login as **admin** user

Step 3: Observe the navigation menu

As admin, you should see:

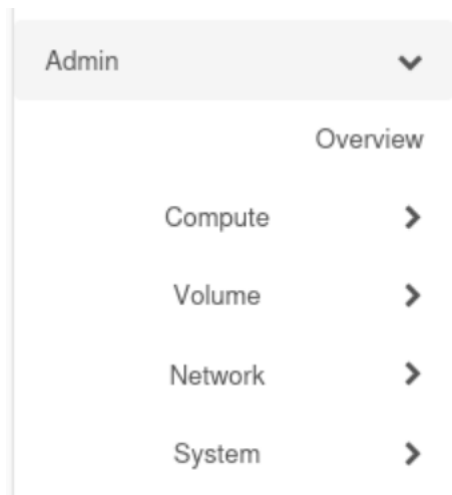
- **Project** tab
- **Admin** tab (only visible to admins)
- **Identity** tab



Step 4: Click on the **Admin** tab

You should see sections for:

- Compute (Hypervisors, Instances across all projects)
- Volume (Volume Types)
- Network (Networks across all projects)
- System Information



Step 5: Navigate to **Admin -> System -> System Information -> Compute Services**

This shows all compute services running in your OpenStack environment.

The screenshot shows the OpenStack Admin Dashboard at the URL `http://127.0.0.1/dashboard/admin/info/`. The left sidebar has a menu with 'Project', 'Admin', and 'System'. The 'System' menu is expanded, showing 'Overview', 'Compute', 'Volume', 'Network', and 'System'. The 'Compute' menu is further expanded, showing 'Services', 'Compute Services', 'Block Storage Services', and 'Network Agents'. The 'Services' tab is selected, displaying a table of compute services.

Name	Host	Zone	Status	State	Last Updated
nova-scheduler	ubuntu	internal	Enabled	Up	1 minute
nova-conductor	ubuntu	internal	Enabled	Up	1 minute
nova-conductor	ubuntu	internal	Enabled	Up	1 minute
nova-compute	ubuntu	nova	Enabled	Up	0 minutes

Version: 25.5.1

The screenshot shows the OpenStack Admin Dashboard at the URL `http://127.0.0.1/dashboard/identity/`. The left sidebar has a menu with 'Project', 'Admin', and 'Identity'. The 'Identity' menu is expanded, showing 'Domains', 'Projects', 'Users', 'Groups', 'Roles', 'Application Credentials', and 'User Credentials'. The 'Projects' menu is selected, displaying a table of projects.

Name	Description	Project ID	Domain Name	Enabled	Actions
finance		2e8ed426deb441f19477337845f1cb	Default	Yes	Manage Members
Test_project	Test	3bb3226221e64ca418267052169edd9	Default	Yes	Manage Members
alt_demo		513076bc0448439a88da9436d907be5	Default	Yes	Manage Members
invisible_to_admin		7439add45b594797a6de39131ab050c8	Default	Yes	Manage Members
admin	Bootstrap project for initializing the cloud.	bd755da91444d328d325316317a883	Default	Yes	Manage Members
demo		ecdd8f1248db4233aad57146f0b0b792	Default	Yes	Manage Members
service		5d2553c6119d4c41aae1a732d85d9107	Default	Yes	Manage Members

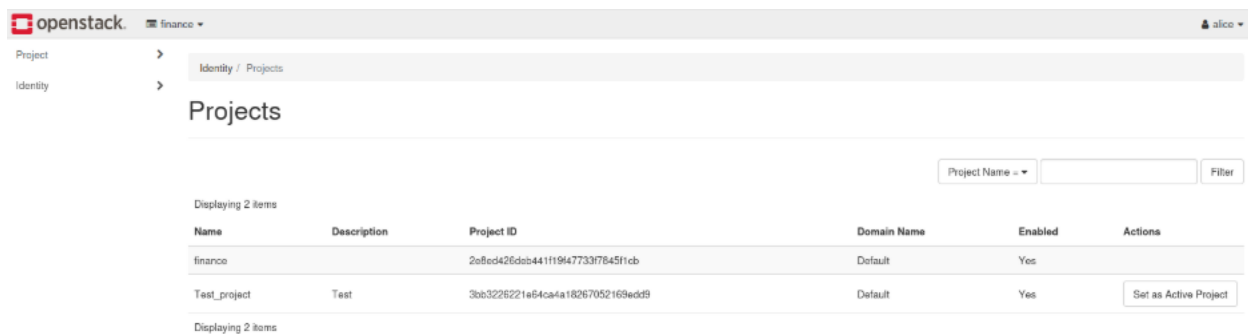
Section 2: Regular User Dashboard View

Step 6: Logout of the admin account

Step 7: Login as **alice**

- **Username:** alice
- **Password:** Alice123!@
- **Domain:** Default

Step 8: Observe the navigation menu



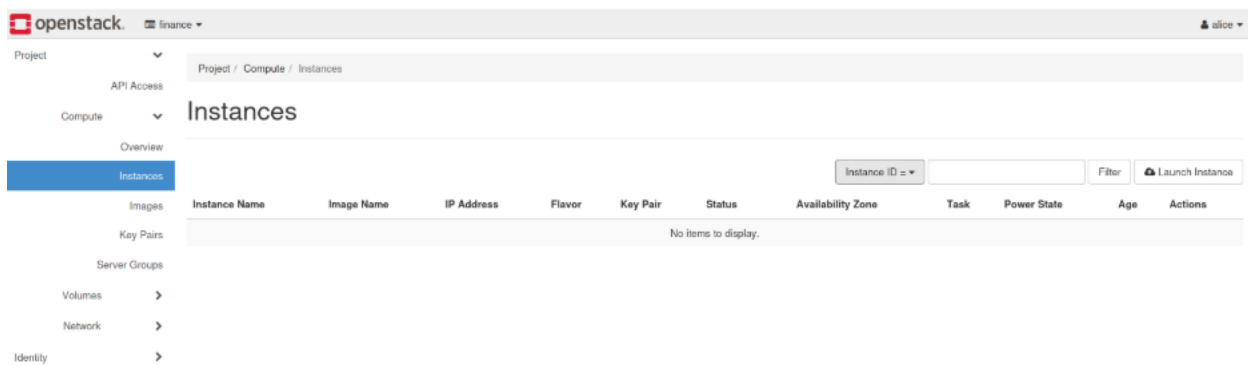
As a regular user (member role), alice should see:

- **Project** tab (can access)
- **NO Admin** tab (not visible)

Screenshot Task: Take a screenshot showing alice's limited navigation menu (no Admin tab).

Step 9: Navigate to **Project -> Compute -> Instances**

Alice can manage instances within her project.



Step 10: Try to access admin functions

In the URL bar, manually try to navigate to:

<http://127.0.0.1/dashboard/admin/>

You should see an error or be redirected, showing alice doesn't have access.



Section 3: Create Resources as Different Users

Step 11: While logged in as alice, create an instance

- Go to **Project -> Compute -> Instances**
- Click **Launch Instance**
- **Instance Name:** alice-test-vm
- **Source:** Select cirros image
- **Flavor:** m1.tiny
- Click **Launch Instance**

Launch Instance

Details

Source *

Flavor *

Networks

Network Ports

Security Groups

Key Pair

Configuration

Server Groups

Scheduler Hints

Metadata

Please provide the initial hostname for the instance, the availability zone where it will be deployed, and the instance count. Increase the Count to create multiple instances with the same settings.

Project Name

Test_project

Instance Name *

alice-test-vm

Description

Availability Zone

nova

Count *

1

Total Instances (10 Max)

10%

0 Current Usage

1 Added

9 Remaining

✕ Cancel

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Next >

Launch Instance

Details

Source *

Flavor *

Networks

Network Ports

Security Groups

Key Pair

Configuration

Server Groups

Scheduler Hints

Metadata

Instance source is the template used to create an instance. You can use an image, a snapshot of an instance (image snapshot), a volume or a volume snapshot (if enabled). You can also choose to use persistent storage by creating a new volume.

Select Boot Source

Image

Create New Volume

YesNo

Volume Size (GB) *

1

Delete Volume on Instance Delete

YesNo

Volume Type

lvmdriver-1

Allocated

Displaying 0 items

Name	Updated	Size	Format	Visibility
Select an item from Available items below				

Displaying 0 items

Available 1

Select one

Q

Click here for filters or full text search.

x

Displaying 1 item

Name	Updated	Size	Format	Visibility
> cirros-0.6.3-x86_64-disk	9/12/25 11:47 PM	20.69 MB	QCOW2	Public

Displaying 1 item

✕ Cancel

< Back

Next >

Launch Instance

[Details](#)
[Source](#)
[Flavor](#)
[Networks](#)
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[Metadata](#)

Flavors manage the sizing for the compute, memory and storage capacity of the instance.

Allocated

Displaying 0 items

Name	vCPUs	RAM	Total Disk	Root Disk	Ephemeral Disk	Public
Select a flavor from the available flavors below.						

Displaying 0 items

Available 12 Select one

Click here for filters or full text search.

Displaying 12 items

Name	vCPUs	RAM	Total Disk	Root Disk	Ephemeral Disk	Public
> m1.nano	1	192 MB	1 GB	1 GB	0 GB	Yes
> m1.micro	1	256 MB	1 GB	1 GB	0 GB	Yes
> cirros256	1	256 MB	1 GB	1 GB	0 GB	Yes
> m1.tiny	1	512 MB	1 GB	1 GB	0 GB	Yes

✕ Cancel
< Back
Next >
Launch Instance

<input type="checkbox"/>	Instance Name	Image Name	IP Address	Flavor	Key Pair	Status	Availability Zone	Task	Power State	Age	Actions	
<input type="checkbox"/>	alice-test-vm	-	192.168.233.122	m1.tiny	-	Build	us-east-1a	nova	<div>Block Device Mapping</div>	No State	0 minutes	<div>Associate Floating IP</div>

Step 12: Verify the instance is running

Displaying 1 item

<input type="checkbox"/>	Instance Name	Image Name	IP Address	Flavor	Key Pair	Status	Availability Zone	Task	Power State	Age	Actions	
<input type="checkbox"/>	alice-test-vm	-	192.168.233.122	m1.tiny	-	Active	us-east-1a	nova	None	Running	0 minutes	Create Snapshot

Displaying 1 item

Step 13: Logout and login as bob

- **Username:** bob
- **Password:** Bob123!@

Step 14: Navigate to Project -> Compute -> Instances

Bob should see alice's instance because they're in the same project (Test_project).

Displaying 1 item

<input type="checkbox"/>	Instance Name	Image Name	IP Address	Flavor	Key Pair	Status	Availability Zone	Task	Power State	Age	Actions	
<input type="checkbox"/>	alice-test-vm	-	192.168.233.122	m1.tiny	-	Active	us-east-1a	nova	None	Running	0 minutes	<div>Create Snapshot</div>

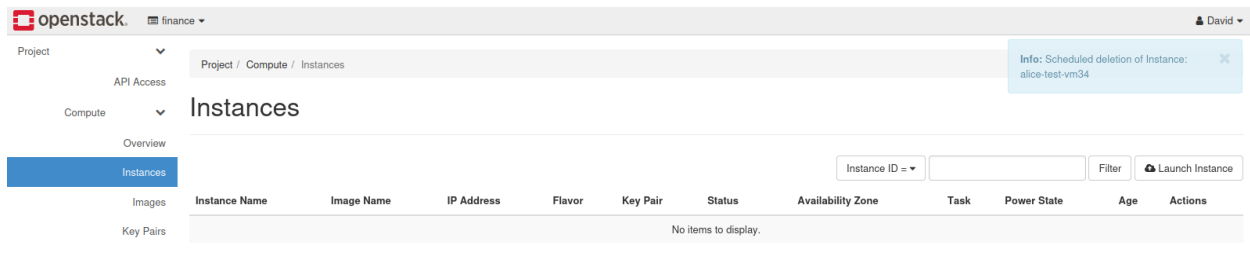
Displaying 1 item

Screenshot Task: Take a screenshot showing bob can see alice's instance.

Step 15: Logout and login as **david**

- **Username:** david
- **Password:** David123!@

Step 16: Navigate to **Project -> Compute -> Instances**



David should NOT see alice's instance because he's in a different project (finance).

Screenshot Task: Take a screenshot showing david's empty instance list (different project).

Part 7: Managing Project Access

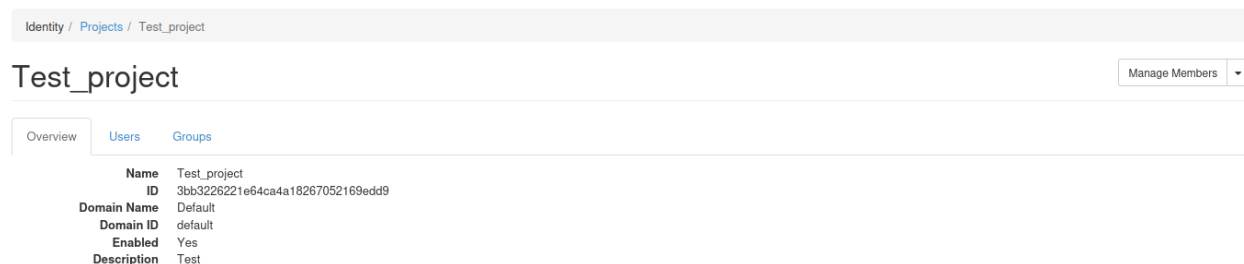
Section 1: Add User to Multiple Projects

Step 1: Logout and login back as **admin**

Step 2: Navigate to **Identity -> Projects**

Step 3: Click on the Test_project

Step 4: Go to the **Users** tab



You should see alice and bob listed as members.

Step 5: Click **Manage Members**

Step 6: Add david to the engineering project

- Find david in the available users
- Click the + button next to his name
- Select the **member** role
- Click **Save**

Project Information * Project Members Project Groups

All Users Filter Q

placement	+
system_reader	+
David	+
system_member	+
cinder	+
neutron	+
alt_demo_member	+
nova	+
glance	+
alt_demo	+

Project Members Filter Q

alice	member ▼	-
bob	member ▼	-
admin	member ▼	-

Cancel Save

Screenshot Task: Take a screenshot showing david added to the Test_project project.

Step 7: Verify via CLI

- Enter the command: `source ~/devstack/openrc admin admin`
- `openstack role assignment list --user david --names`

```

clean.sh      functions  lib          README.rst   tests
CONTRIBUTING.rst  functions-common  LICENSE      roles        tools
data          FUTURE.rst  local.conf   run_tests.sh tox.ini
doc           gate        Makefile     samples      unstack.sh
extras.d      HACKING.rst openrc        stackrc
files         inc         playbooks    stack.sh

ubuntu@ubuntu:/opt/stack/devstack$ openstack role assignment list --user david -
-names
Missing value auth-url required for auth plugin password
ubuntu@ubuntu:/opt/stack/devstack$ source openrc admin admin
ubuntu@ubuntu:/opt/stack/devstack$ openstack role assignment list --user david -
-names
No User found for david
ubuntu@ubuntu:/opt/stack/devstack$ openstack role assignment list --user David -
-names
+-----+-----+-----+-----+-----+-----+-----+
| Role   | User           | Group | Project      | Domain | System | Inherited |
+-----+-----+-----+-----+-----+-----+-----+
| member | David@Defau   |      | finance@Def  |        |        | False     |
|        | lt            |      | ault         |        |        |           |
| member | David@Defau   |      | Test_projec  |        |        | False     |
|        | lt            |      | t@Default    |        |        |           |
+-----+-----+-----+-----+-----+-----+-----+
ubuntu@ubuntu:/opt/stack/devstack$

```

David should now have member role in both Test_project and finance projects.

Section 2: Test Cross-Project Access

Step 8: Create credentials file for david with Test_project project

```
vim /david_testp_openrc
```

Press [INSERT] to edit

```
export OS_PROJECT_DOMAIN_NAME=Default
```

```
export OS_USER_DOMAIN_NAME=Default
```

```
export OS_PROJECT_NAME=Test_project
```

```
export OS_USERNAME=David
```

```
export OS_PASSWORD=David123!@
```

```
export OS_AUTH_URL=http://127.0.0.1/identity
```

```
export OS_IDENTITY_API_VERSION=3
```

Press [ESCAPE]

Enter :wq to save

```
ubuntu@ubuntu: /opt/stack/devstack
export OS_USER_DOMAIN_NAME=Default
export OS_PROJECT_NAME=Test_project
export OS_USERNAME=David
export OS_PASSWORD=David123!@
export OS_AUTH_URL=http://127.0.0.1/identity
export OS_IDENTITY_API_VERSION=3
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
:wq
```

Step 9: Test david's access to Test_project

- Enter the command: `source ~/david_finance_openrc`
- Enter the command: `openstack server list`

```
ubuntu@ubuntu: /opt/stack/devstack$ source ~/david_testp_openrc
ubuntu@ubuntu: /opt/stack/devstack$ openstack server list
+-----+-----+-----+-----+-----+-----+
| ID          | Name          | Status | Networks      | Image          | Flavor        |
+-----+-----+-----+-----+-----+-----+
| 817ae776-   | alice-test-   | ACTIVE | shared=192.1  | cirros-        | m1.tiny       |
| 8e7f-4c21-   | vm            |        | 68.233.36     | 0.6.3-         |               |
| 89f8-       |               |        |               | x86_64-disk    |               |
| 937042304e73 |               |        |               |               |               |
+-----+-----+-----+-----+-----+-----+
ubuntu@ubuntu: /opt/stack/devstack$
```

bash

- Enter the command: `Vim david_testp_openrc`

Press [INSERT] to edit

```
export OS_USER_DOMAIN_NAME=Default
```

```
export OS_PROJECT_NAME=finance
```

```
export OS_USERNAME=David
```

```
export OS_PASSWORD=David123!@
```

```
export OS_AUTH_URL=http://127.0.0.1/identity
```

```
export OS_IDENTITY_API_VERSION=3
```

Press [ESCAPE]

Enter: WQ to save and exit

[illegible]

- Enter the command: `source ~/david_testp_openrc`
- Enter the command: `openstack server list`

```
ubuntu@ubuntu:/opt/stack/devstack$ source ~/david_testp_openrc
ubuntu@ubuntu:/opt/stack/devstack$ openstack server list

ubuntu@ubuntu:/opt/stack/devstack$
```

Nothing is shown because there are no instances in the finance group

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