CSE546 - Project 3 Individual Report

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Implementation of Tasks:

1. **Launching an AWS EC2 instance:** An AWS EC2 instance was launched with Ubuntu 22.04 as the operating system, likely choosing the t2.large instance type.

2. **Installing DevStack:** After the EC2 instance was launched, DevStack, an all-in-one installer for OpenStack, was installed.

3. **Configuring DevStack:** DevStack was then configured to work with the AWS EC2 environment, setting environment variables to specify the credentials for the OpenStack services, such as the Identity (keystone) and Compute (nova) services.

4. **Creating a VM:** Using the OpenStack Compute (nova) service, a VM running CentOS was created, possibly using the OpenStack Dashboard (Horizon) or the command-line interface (CLI) tools.

5. **Setting up a private network and router:** To enable the VM to communicate with other instances in the OpenStack environment, a private network and router were set up using the OpenStack Networking (neutron) service. This involved creating a network, subnet, and router, and attaching the VM to the network.

6. **Enabling floating IP:** Finally, a floating IP was enabled using the OpenStack Networking (neutron) service, allowing the VM to be accessed from an external network by associating a public IP address with the instance.

Key Learnings:

1. Launching an AWS EC2 instance with Ubuntu 22.04 and the t2.large instance type
2. Installing and configuring DevStack, an all-in-one installer for OpenStack
3. Creating a VM running CentOS using the OpenStack Compute (nova) service
4. Setting up a private network and router using the OpenStack Networking (neutron) service to enable communication between instances in the OpenStack environment
5. Enabling a floating IP using the OpenStack Networking (neutron) service to allow the VM to be accessed from an external network by associating a public IP address with the instance