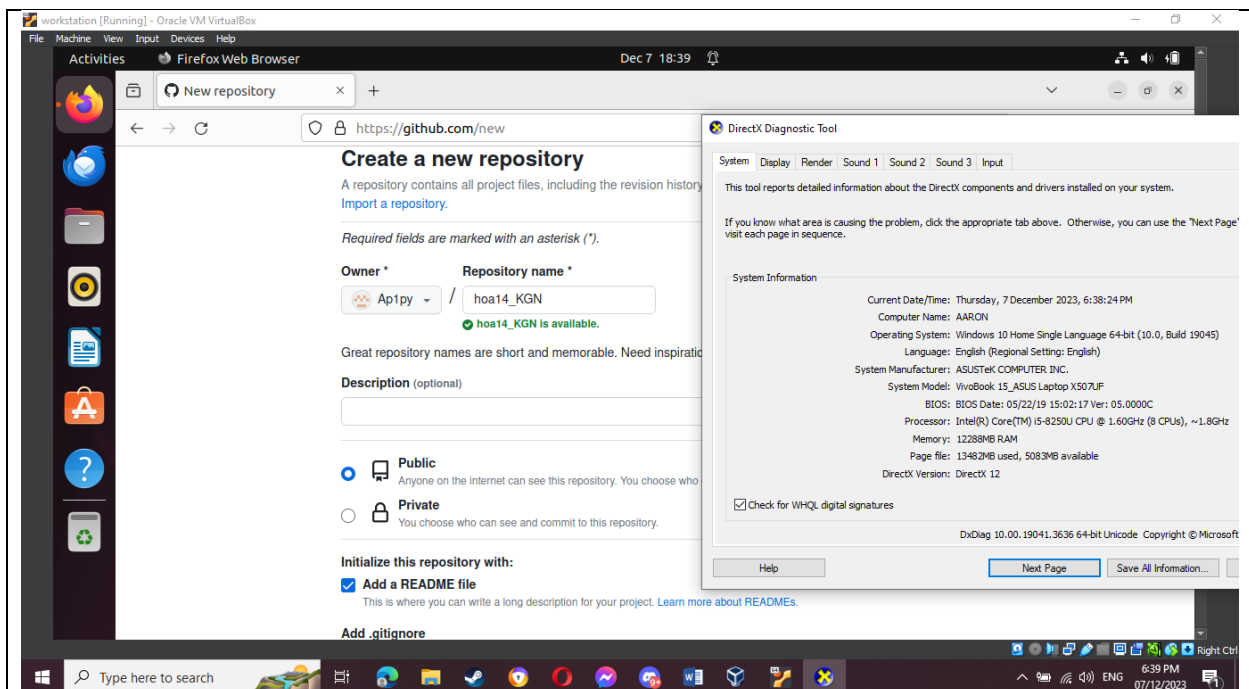
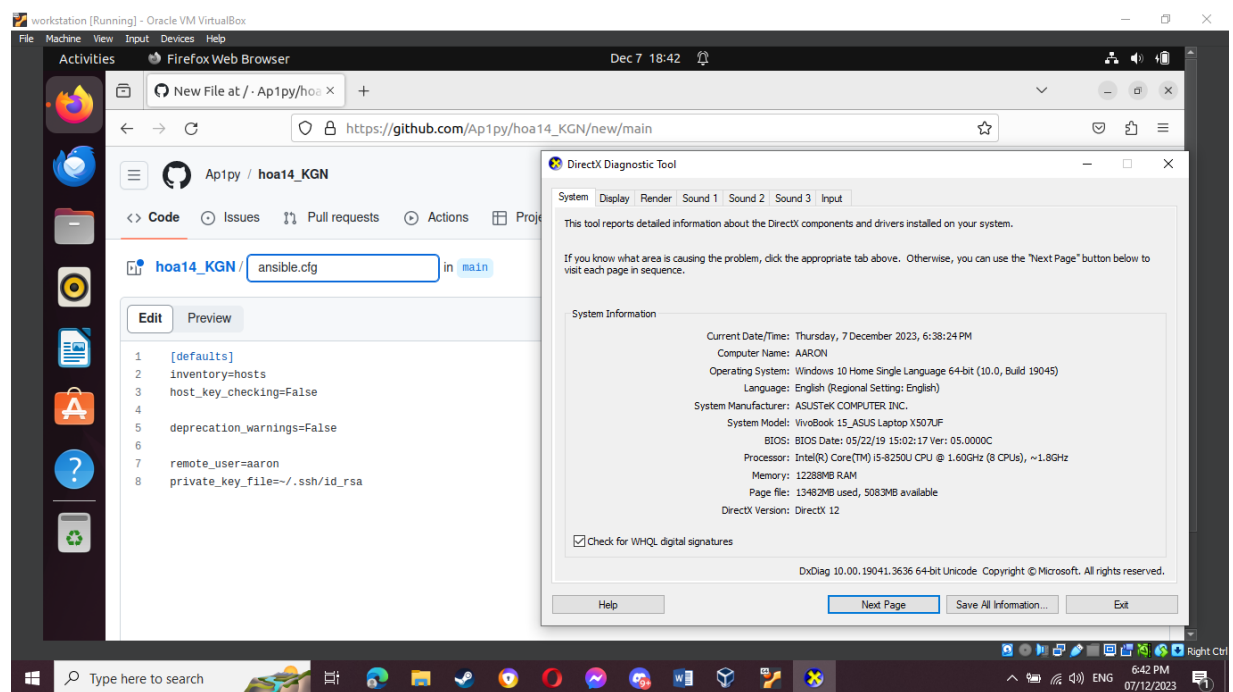


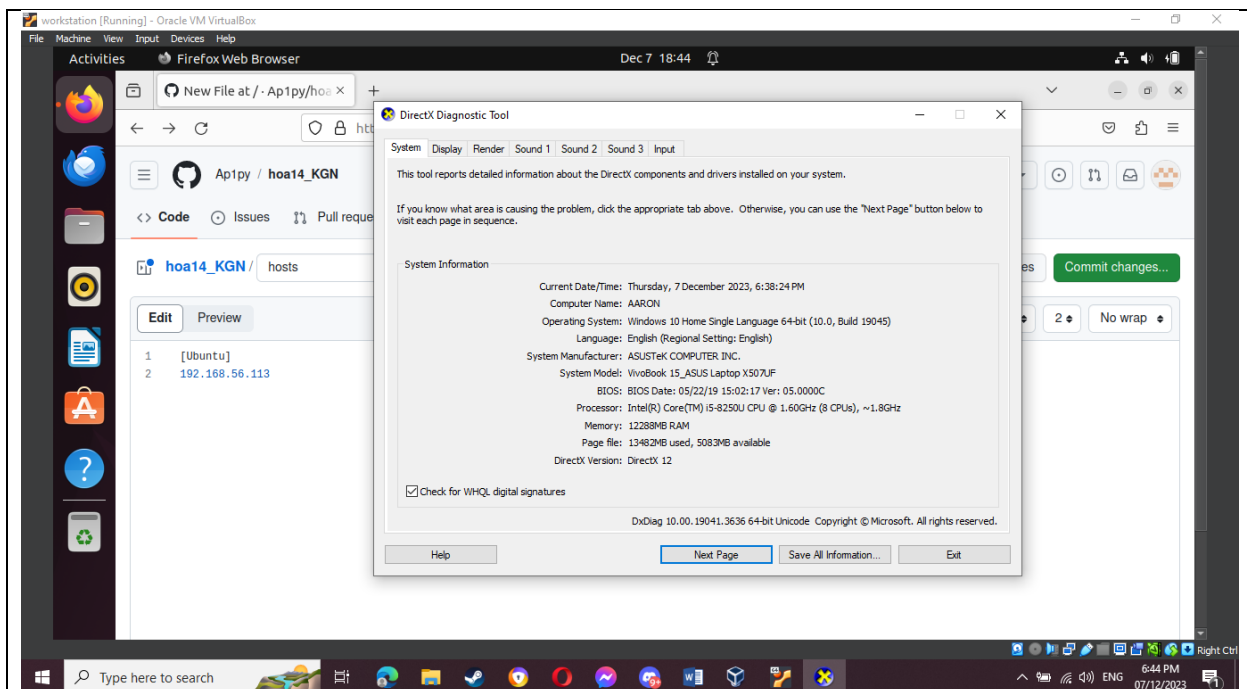
<b>Name: Aaron Martin P. Caro</b>	<b>Date Performed: 07/12/2023</b>
<b>Course/Section: CPE31S5</b>	<b>Date Submitted: 07/12/2023</b>
<b>Instructor: Prof. Roman Richard</b>	<b>Semester and SY: 1<sup>st</sup> sem 2023-2024</b>
<b>Activity 14: OpenStack Installation (Keystone, Glance, Nova)</b>	
<b>1. Objectives</b>	
Create a workflow to install OpenStack using Ansible as your Infrastructure as Code (IaC).	
<b>2. Intended Learning Outcomes</b>	
<ol style="list-style-type: none"> <li>1. Analyze the advantages and disadvantages of cloud services</li> <li>2. Evaluate different Cloud deployment and service models</li> <li>3. Create a workflow to install and configure OpenStack base services using Ansible as documentation and execution.</li> </ol>	
<b>3. Resources</b>	
<p>Oracle VirtualBox (Hypervisor)</p> <p>1x Ubuntu VM or Centos VM</p>	
<b>4. Tasks</b>	
<ol style="list-style-type: none"> <li>1. Create a new repository for this activity.</li> <li>2. Create a playbook that converts the steps in the following items in <a href="https://docs.openstack.org/install-guide/">https://docs.openstack.org/install-guide/</a> <ol style="list-style-type: none"> <li>a. Keystone (Identity Service)</li> <li>b. Glance (Imaging Service)</li> <li>c. Nova (Compute Service)</li> <li>d. Create different plays in installing per server type (controller, compute etc.) and identify it as a group in the Inventory file.</li> <li>e. Add, commit and push it to your GitHub repo.</li> </ol> </li> </ol>	
<b>5. Output</b> (screenshots and explanations)	



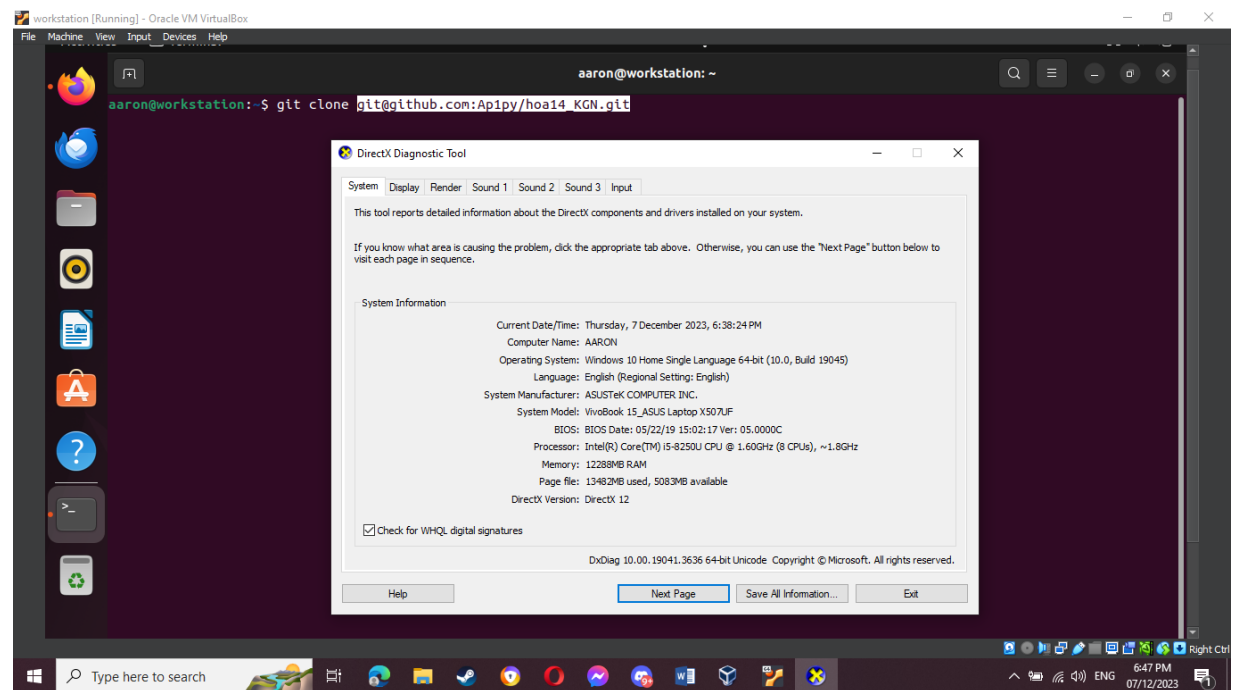
## Creating a new repository



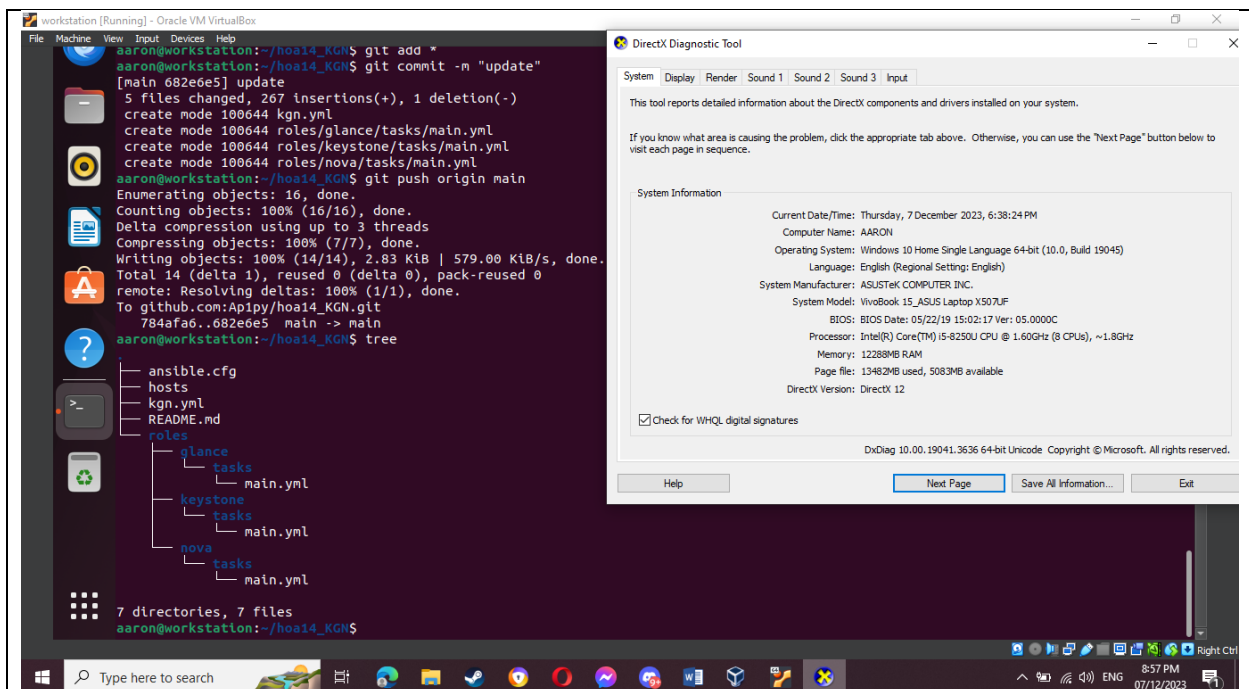
## Ansible configuration copied from previous activity



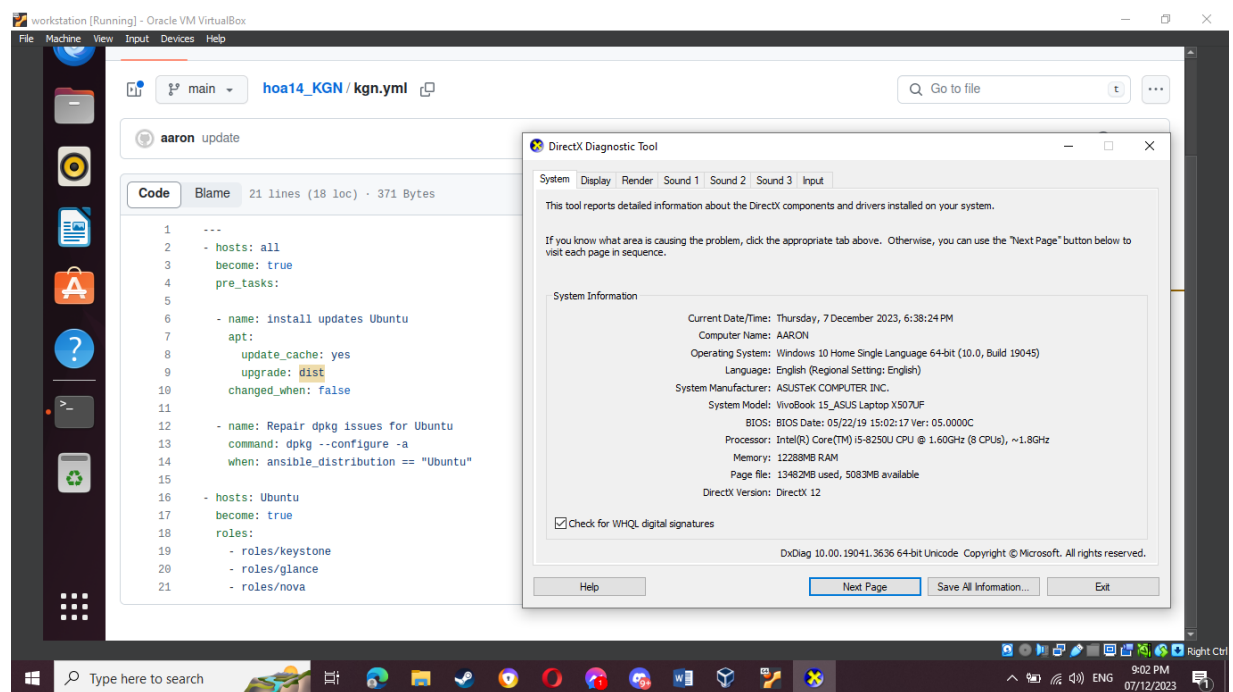
Hosts configuration copied from previous activity



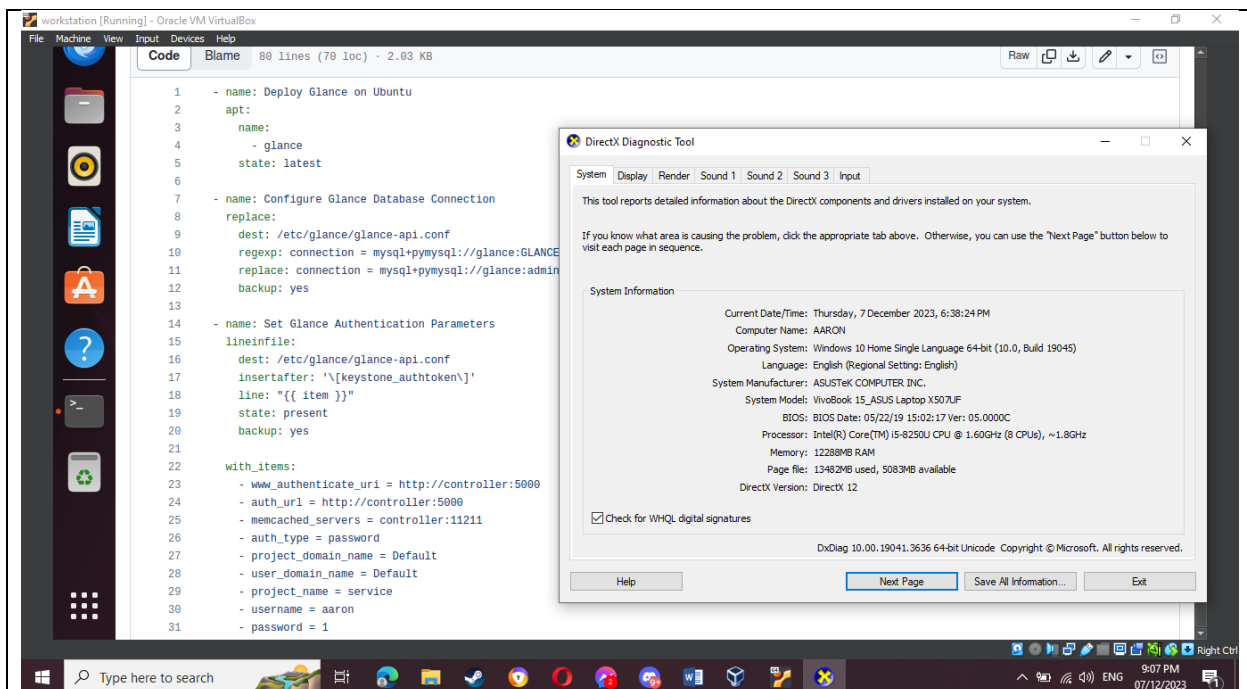
Cloning the repository



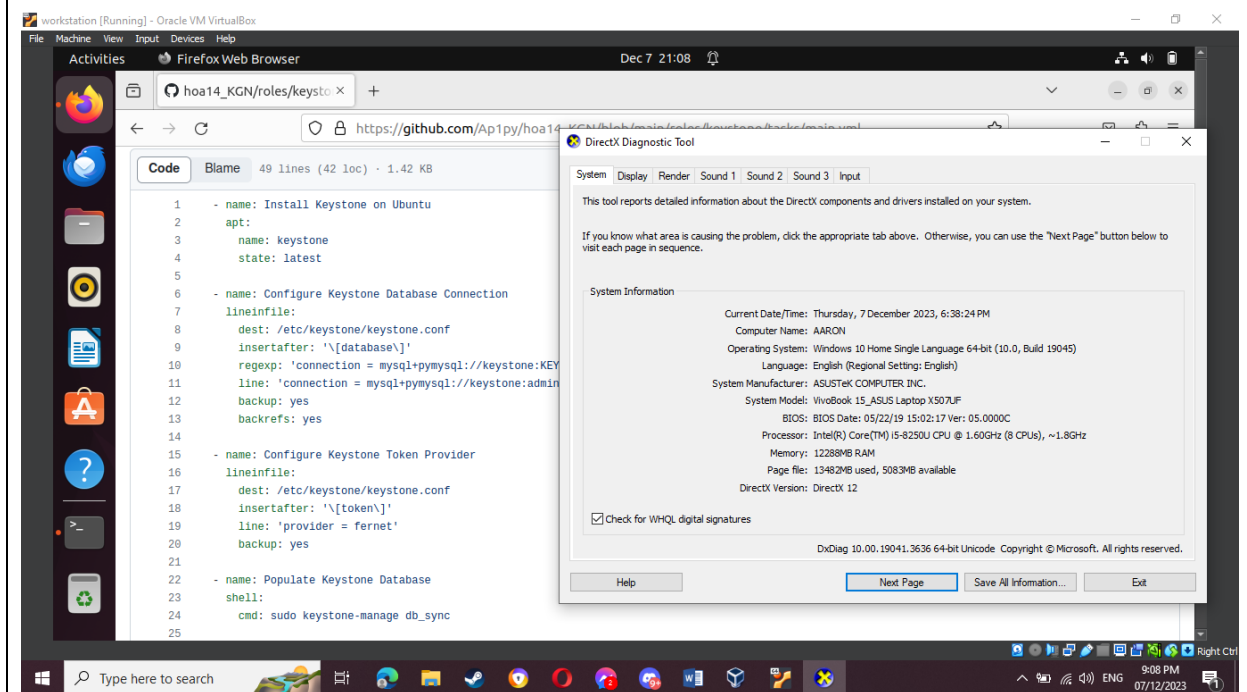
## Structure



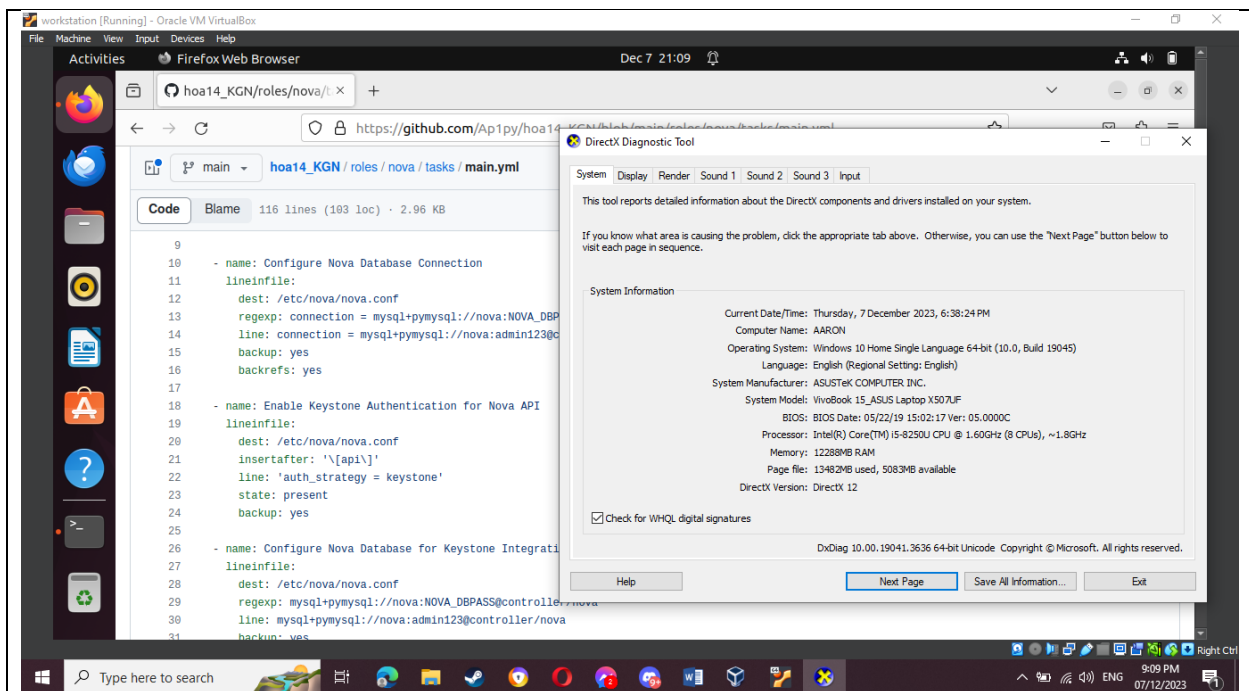
The playbook that will call the roles



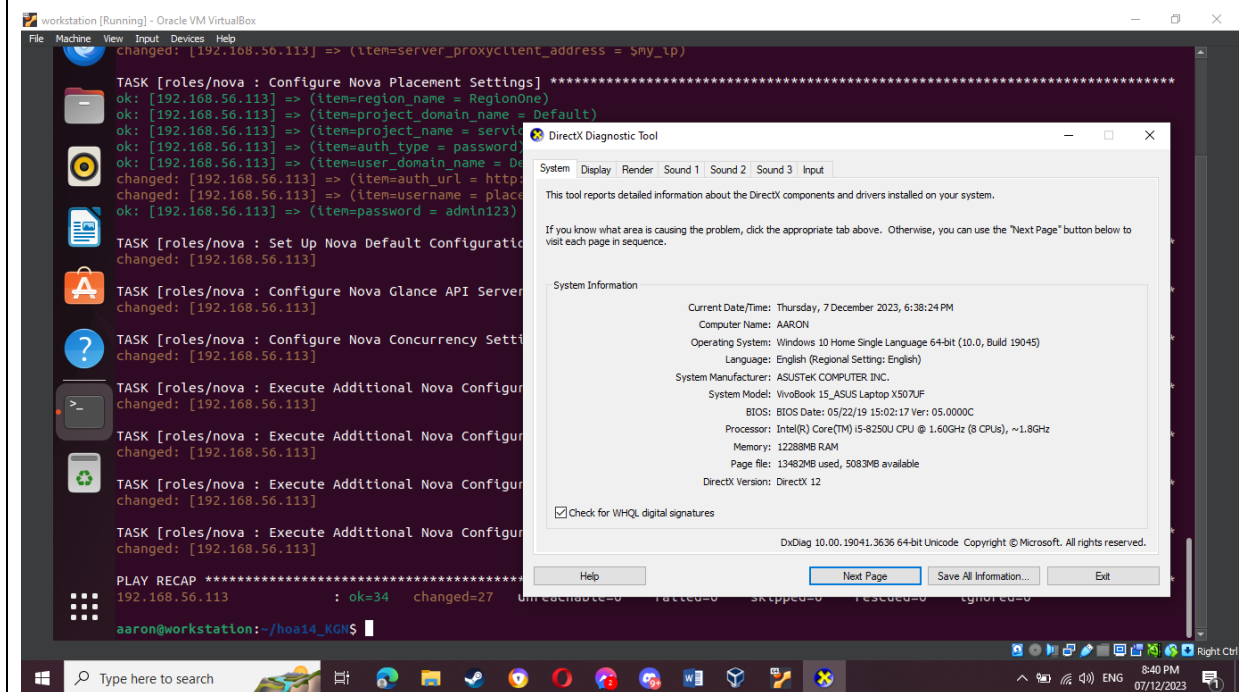
## The Glance playbook



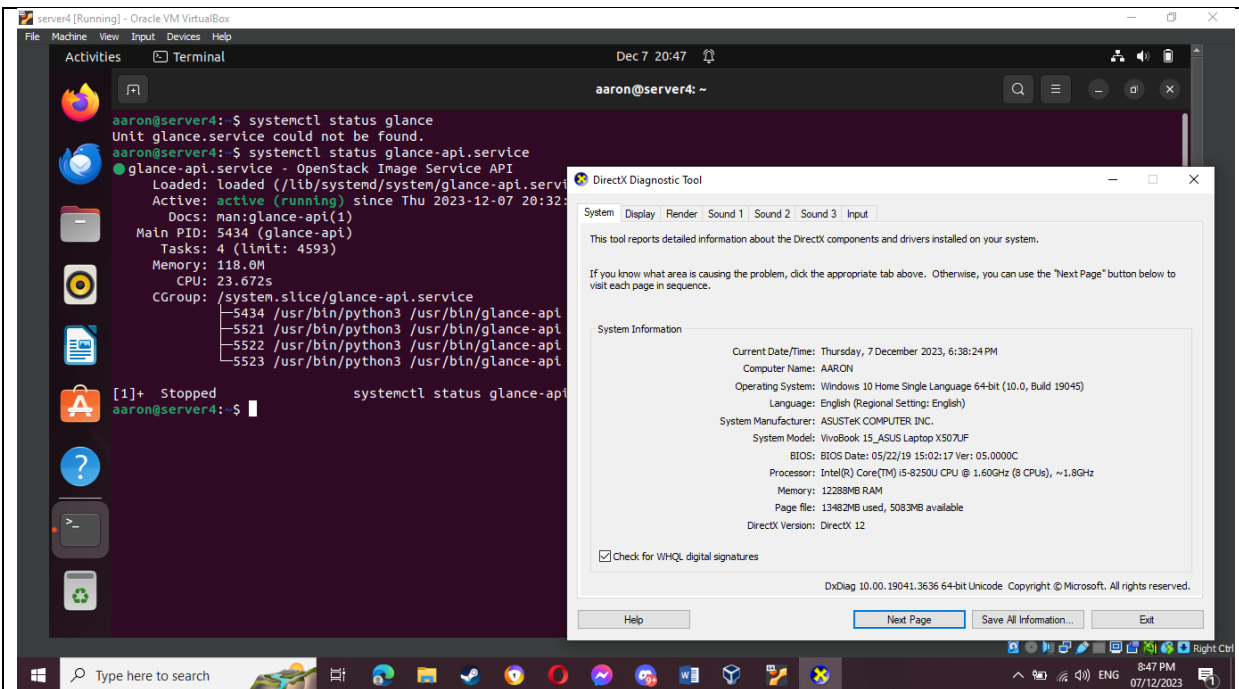
## The keystone playbook



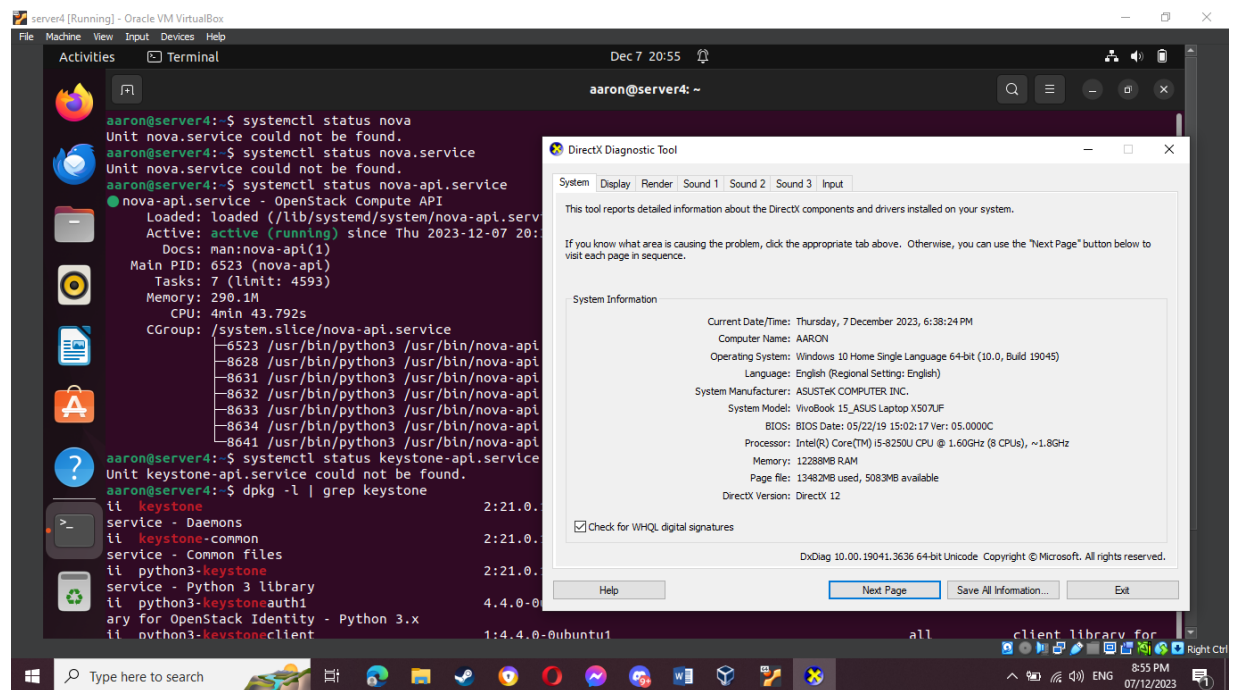
## The nova playbook



## Running the playbook

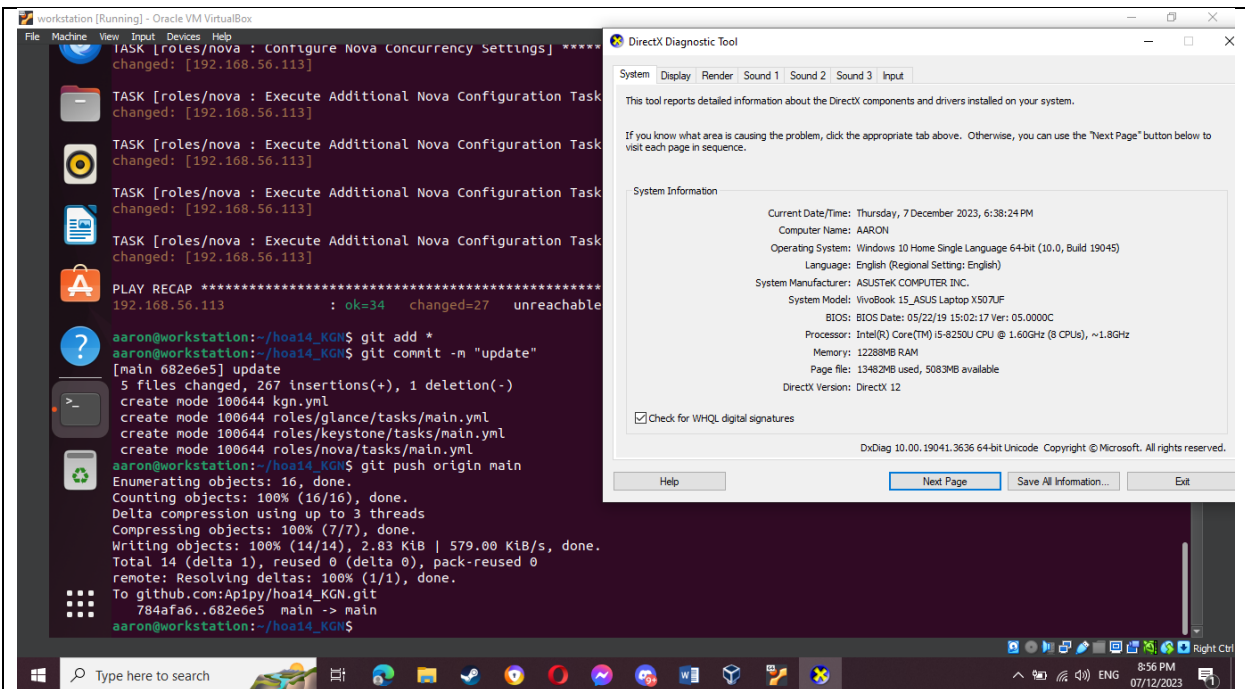


## Verifying the glance installation



## verify nova and keystone installation





## Pushing to the repository

### Reflections:

Answer the following:

1. Describe Keystone, Glance and Nova services

Glance is in charge of image storage and management, Nova is in charge of computing resources, and Keystone is in charge of access and identity management. OpenStack is a comprehensive cloud computing solution for building and managing scalable and adaptable infrastructure thanks to these services, which together form the backbone of the platform.

### Conclusions:

In conclusion, the OpenStack cloud computing platform is built on three services Keystone, Glance, and Nova, with each service contributing significantly to the infrastructure's seamless and secure operation. Cornerstone's personality and access to the board administrations give a vigorous establishment to verifying clients and controlling access consents. Look works with the proficient picture of the executives, empowering clients to convey examples with pre-arranged working framework conditions. In the meantime, Nova, the Compute service, manages computing resources and orchestrates virtual machines to ensure scalability and adaptability in the dynamic cloud environment. Together, these administrations typify the center functionalities of OpenStack, offering an exhaustive answer for clients to fabricate, scale, and deal with their cloud framework with accuracy and dependability.