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Course/Section: CPE232/CPE31S5	Date Submitted: 20/10/2023
Instructor: Prof. Roman Richard	Semester and SY: 1st sem 2023-2024

Activity 8: Install, Configure, and Manage Availability Monitoring tools

1. Objectives

Create and design a workflow that installs, configure and manage enterprise monitoring tools using Ansible as an Infrastructure as Code (IaC) tool.

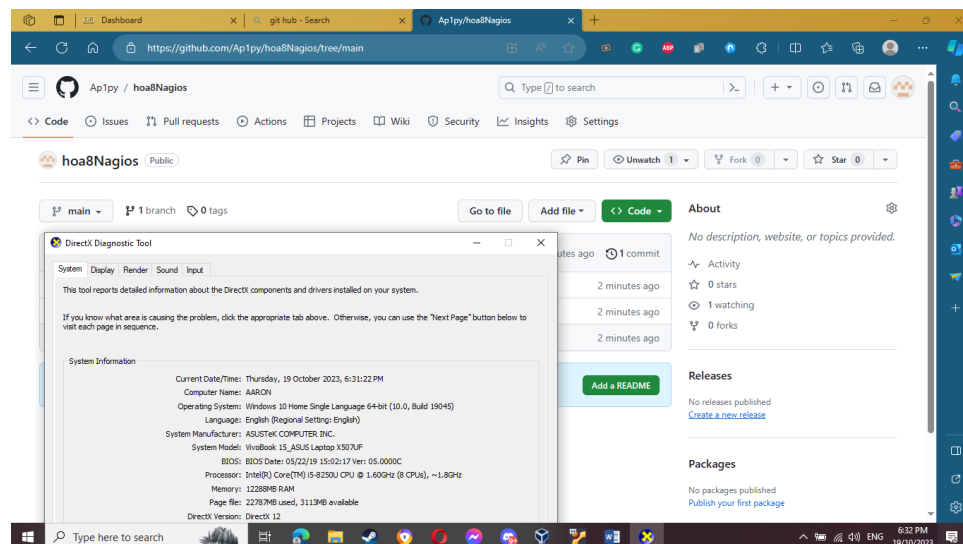
2. Discussion

Availability monitoring is a type of monitoring tool that we use if the certain workload is up or reachable on our end. Site downtime can lead to loss of revenue, reputational damage and severe distress. Availability monitoring prevents adverse situations by checking the uptime of infrastructure components such as servers and apps and notifying the webmaster of problems before they impact on business.

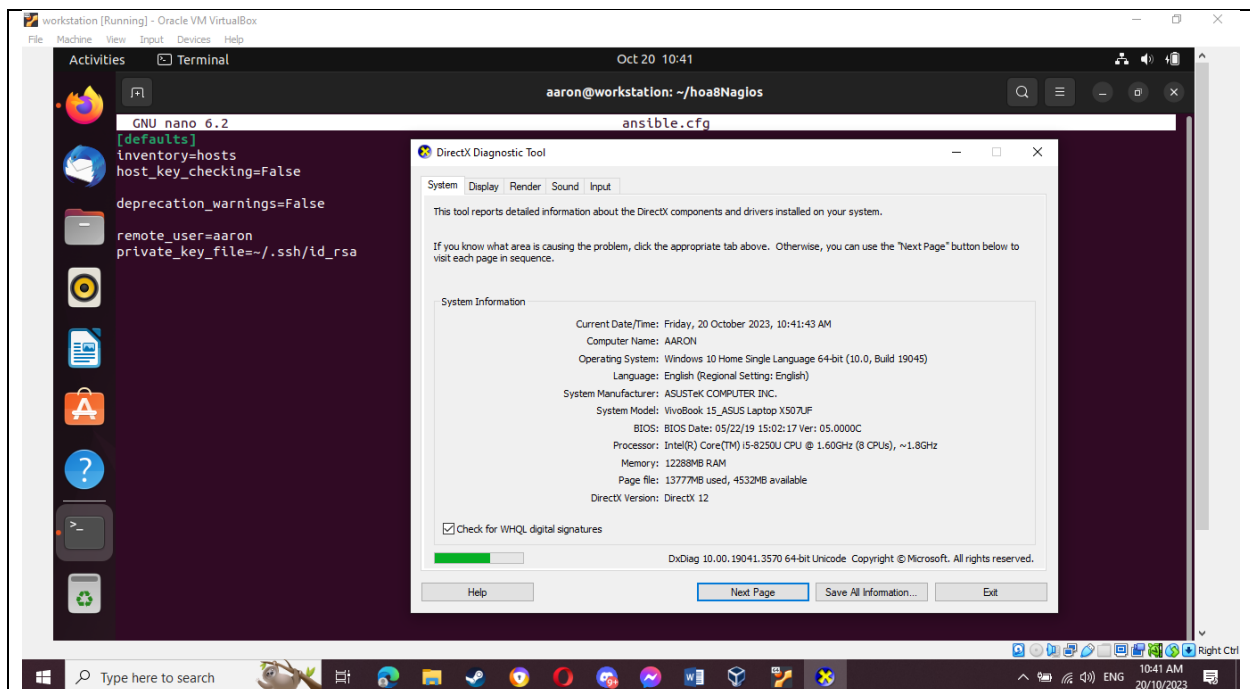
3. Tasks

1. Create a playbook that installs Nagios in both Ubuntu and CentOS. Apply the concept of creating roles.
2. Describe how you did step 1. (Provide screenshots and explanations in your report. Make your report detailed such that it will look like a manual.)
3. Show an output of the installed Nagios for both Ubuntu and CentOS.
4. Make sure to create a new repository in GitHub for this activity.

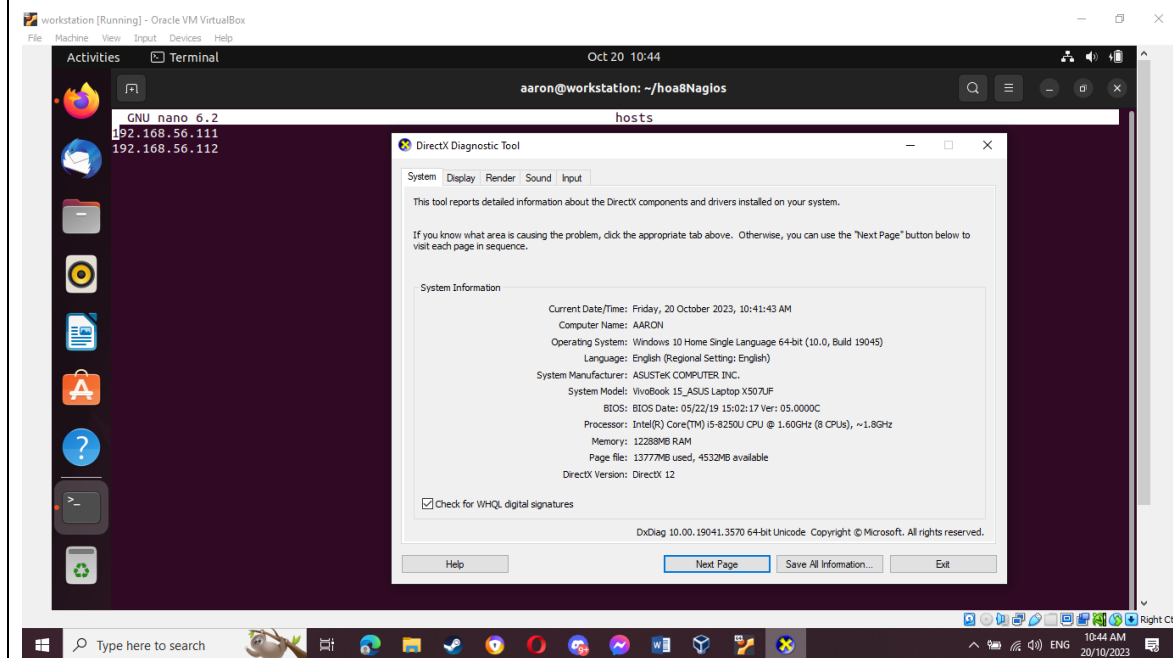
4. Output (screenshots and explanations)



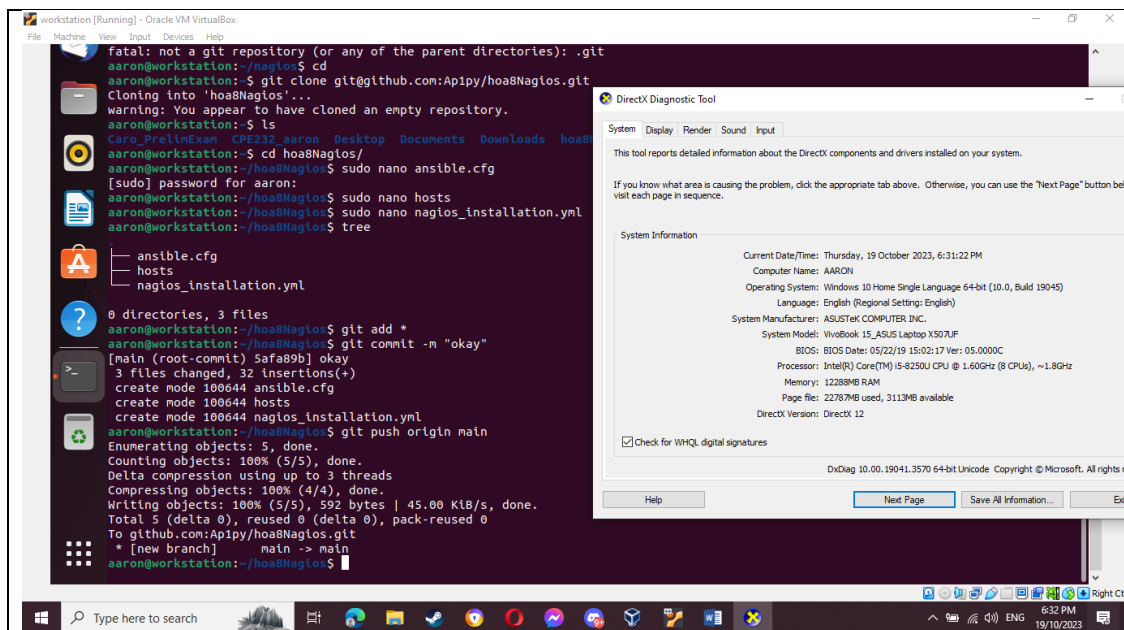
Creating a new repository



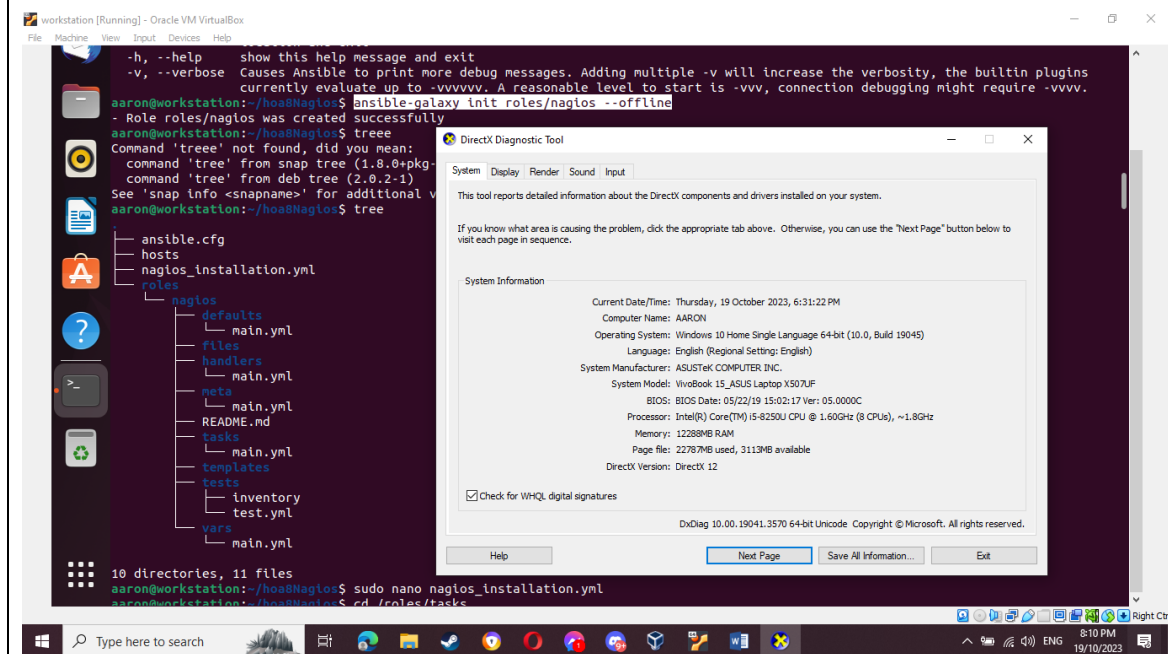
Setting up the ansible.cfg file using the **sudo nano** command



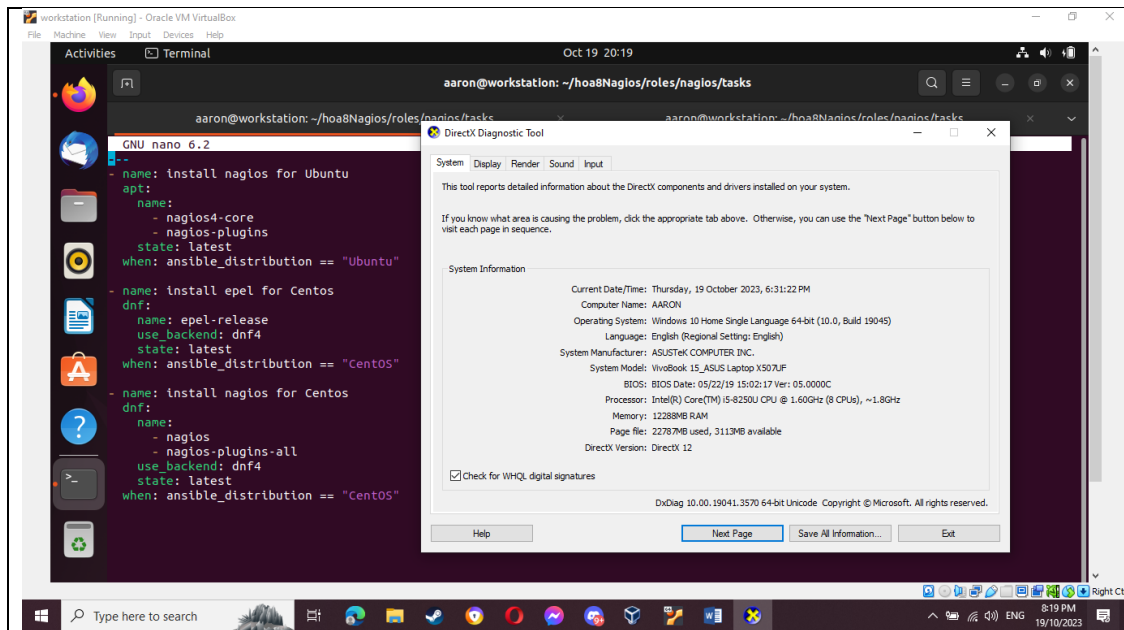
Setting up the host file using the **sudo nano** command



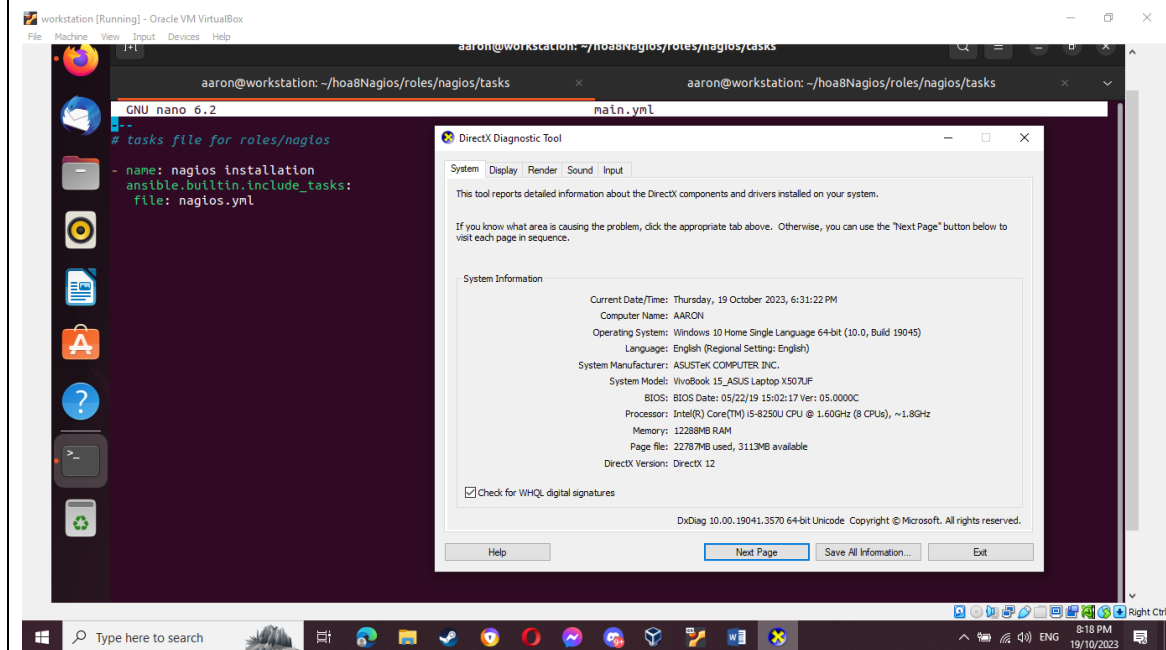
Adding the set up and the playbook to the repository but using the **git add**, **git commit** and **git push** command but keep the yml file empty for now



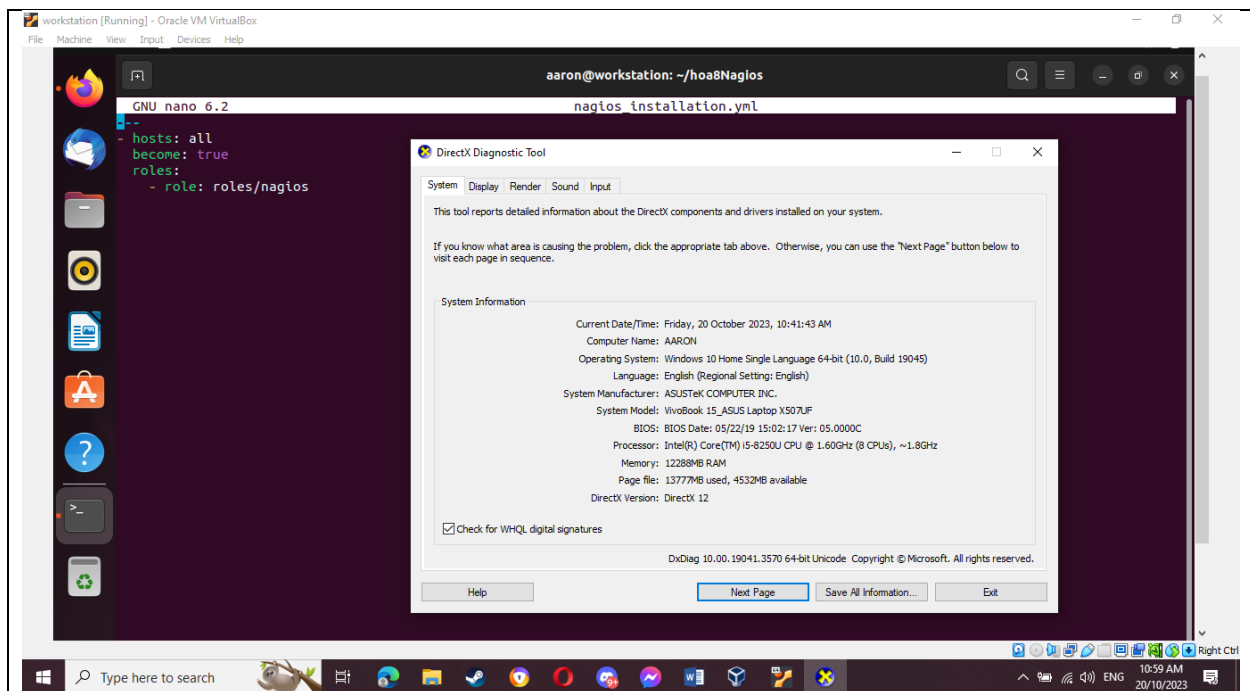
Using the **ansible-galaxy** command to create roles then use the tree command to verify the changes.



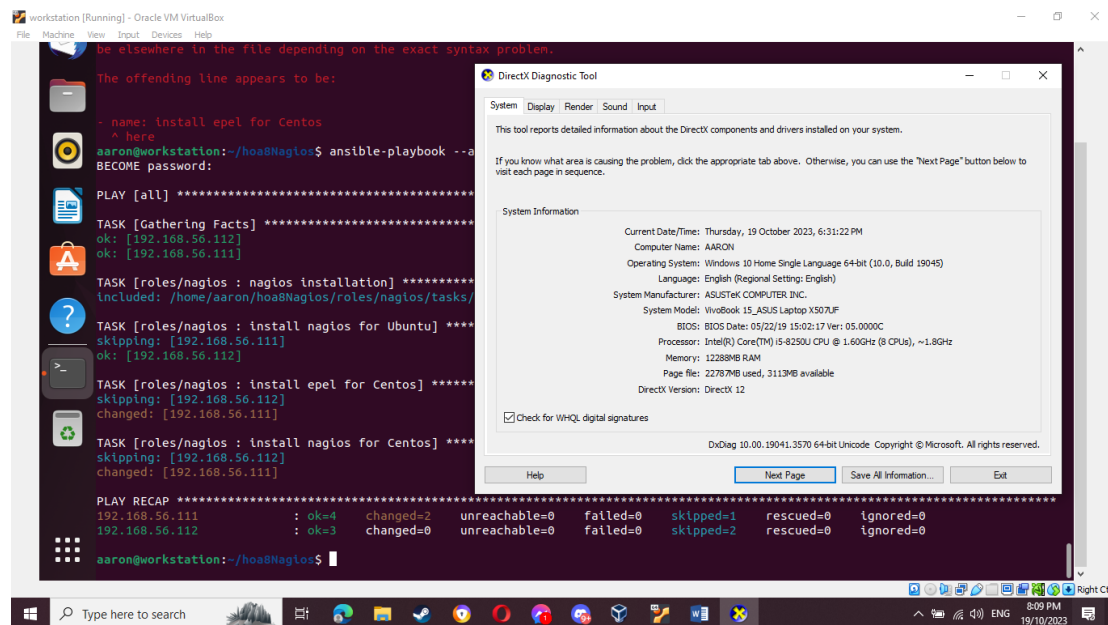
Go to the task directory by using **cd /roles/Nagios/tasks** create the playbook for Ubuntu it needs the nagios4-core and plugins and for CentOS installing the epel release is required to create a repository for the Nagios, and just like for Ubuntu the CentOS will also download Nagios and their plugins.



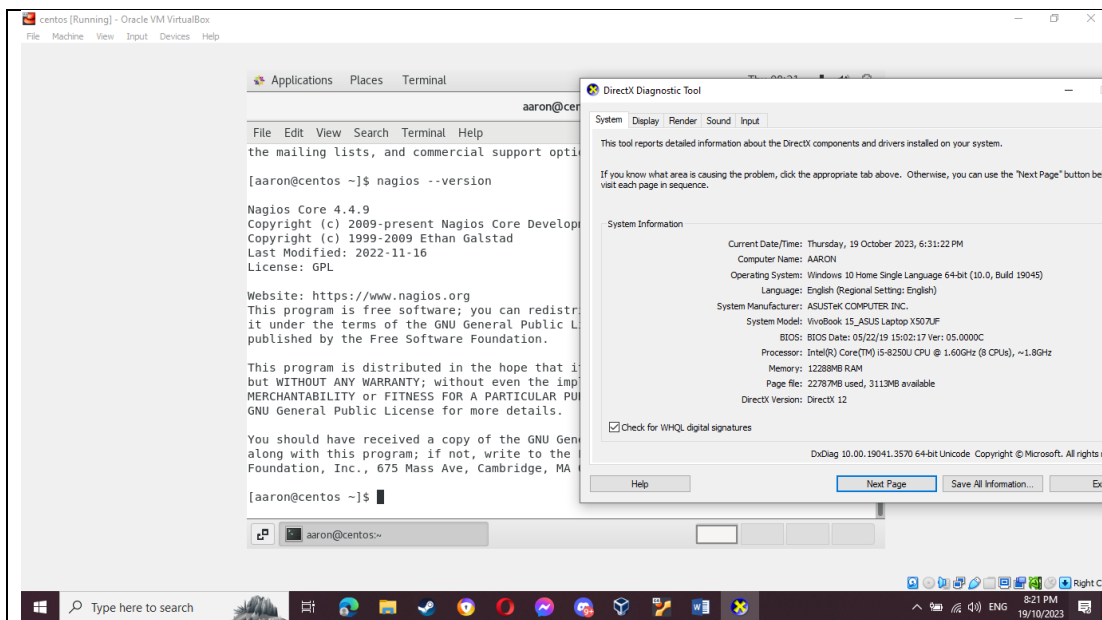
Then in the same directory configure the main.yml make sure to link the file name of the playbook.



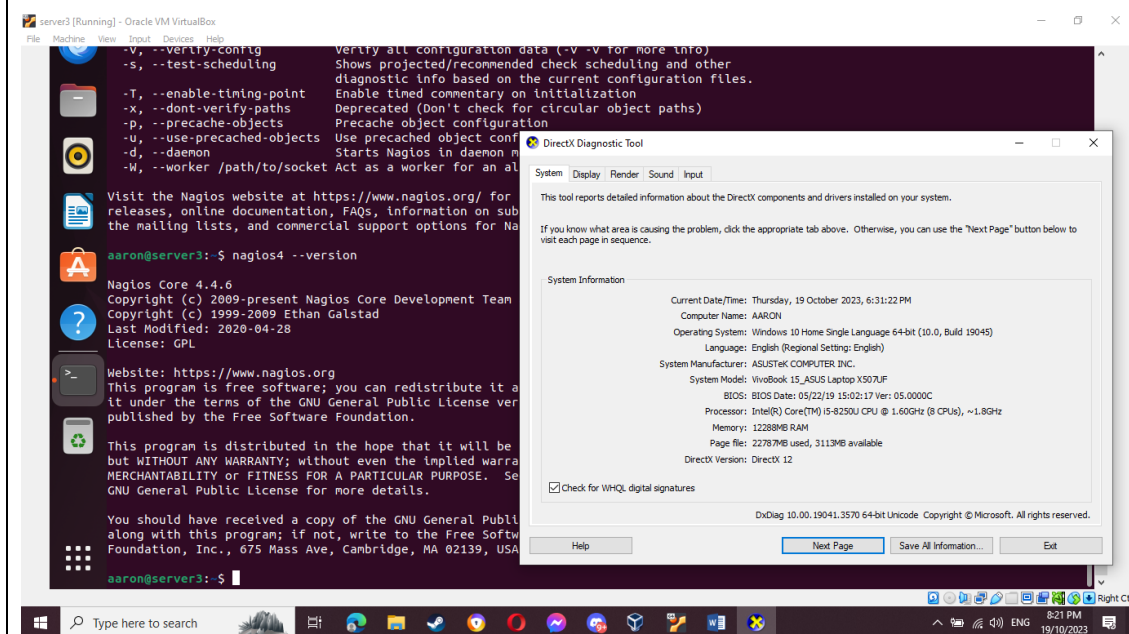
Then go to the home directory of the repository and configure the empty yml file by using roles.



Then run the playbook



Verify the installation by using the **nagios --version** command



Verify the installation by using the **nagios4 --version** command

Reflections:

Answer the following:

1. What are the benefits of having an availability monitoring tool?

Accessibility observing devices are vital for organizations, as they consistently take a look at framework status, ready overseers to issues progressively, and forestall expensive free time. They improve client experience by guaranteeing framework accessibility and responsiveness, prompting expanded consumer loyalty and

maintenance. These instruments proactively identify and resolve issues, advance execution, and save costs by diminishing expected blackouts and tending to execution bottlenecks. They work with information-driven navigation, help in security episode reaction, guarantee consistence, and proposition verifiable information for pattern examination. Custom alarms and warnings keep the perfect staff informed, and their adaptability and remote access abilities make them fundamental for present-day associations planning to keep up with framework dependability and strategic advantage in the computerized scene.

Conclusions:

All in all, accessibility observing is an essential apparatus in the domain of IT the board. Its basic role is to protect against the exorbitant and notoriety-harming impacts of site-free time. By carefully looking at the uptime of basic foundation parts, like servers and applications, and expeditiously making managers aware of any issues, accessibility checking forestalls potential business disturbances as well as strengthens an association's capacity to offer continuous types of assistance to its clients. In a computerized age where dependability and execution are fundamental, the utilization of accessibility checking devices is a proactive and fundamental system for any business trying to safeguard its income, notoriety, and generally speaking achievement.