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Course/Section: CPE 232 - CPE31S5	**Date Submitted: Oct 21, 2023**
Instructor: Engr. Richard Roman	**Semester and SY: 2023-2024**

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

1. Objectives

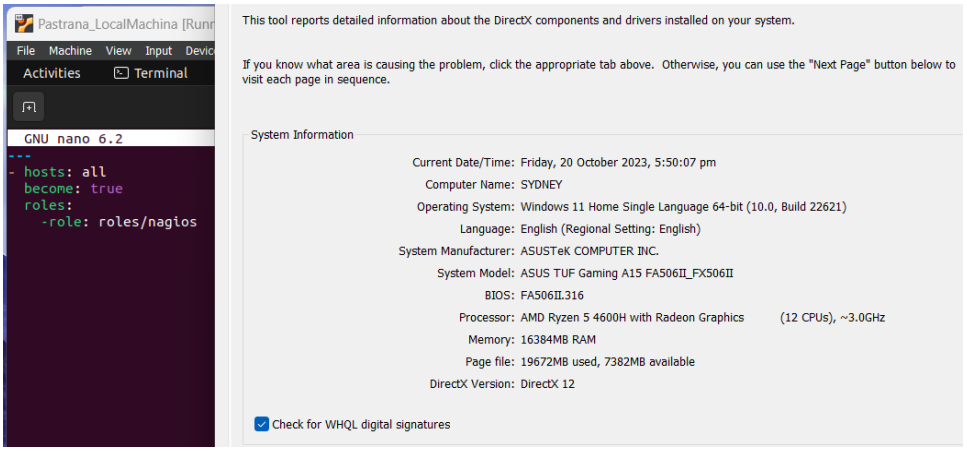
Create and design a workflow that installs, configure and manage enterprise monitoring tools using Ansible as an Infrastructure as Code (IaC) tool.

2. Discussion

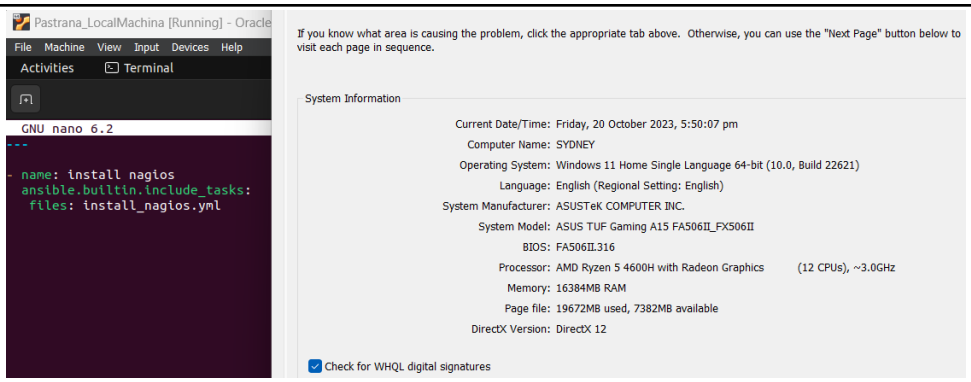
Availability monitoring is a type of monitoring tool that we use if the certain workload is up or reachable on our end. Site downtime can lead to loss of revenue, reputational damage and severe distress. Availability monitoring prevents adverse situations by checking the uptime of infrastructure components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

3. Tasks

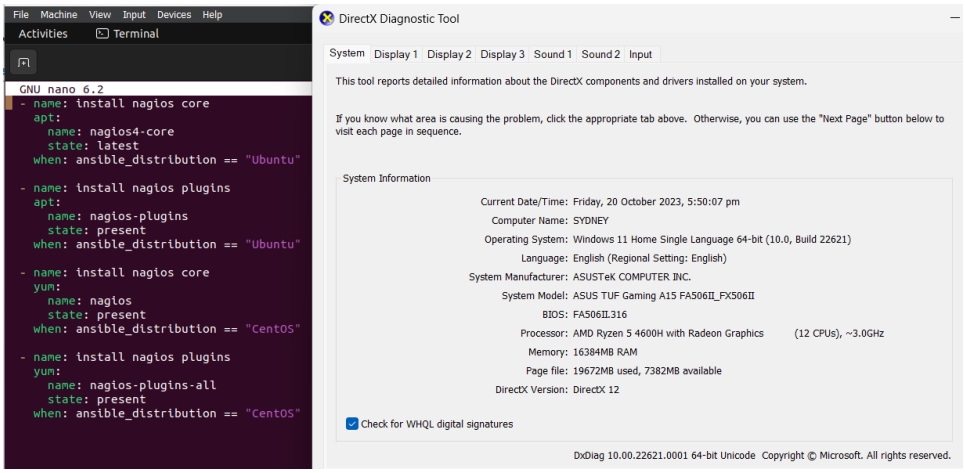
1. Create a playbook that installs Nagios in both Ubuntu and CentOS. Apply the concept of creating roles.
   sudo nano install_nagios.yml



   roles/nagios/tasks/main.yml



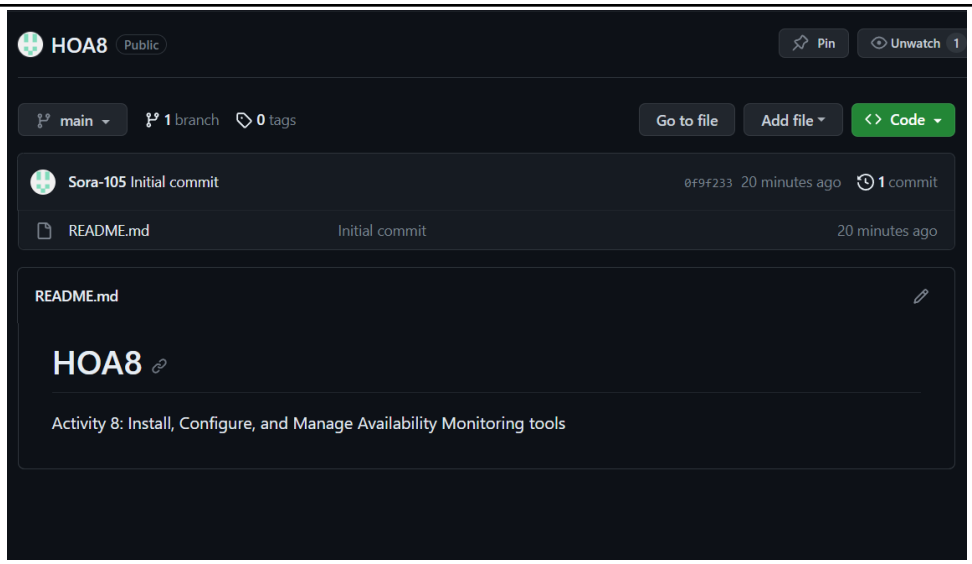
sudo nano install_nagios1.yml



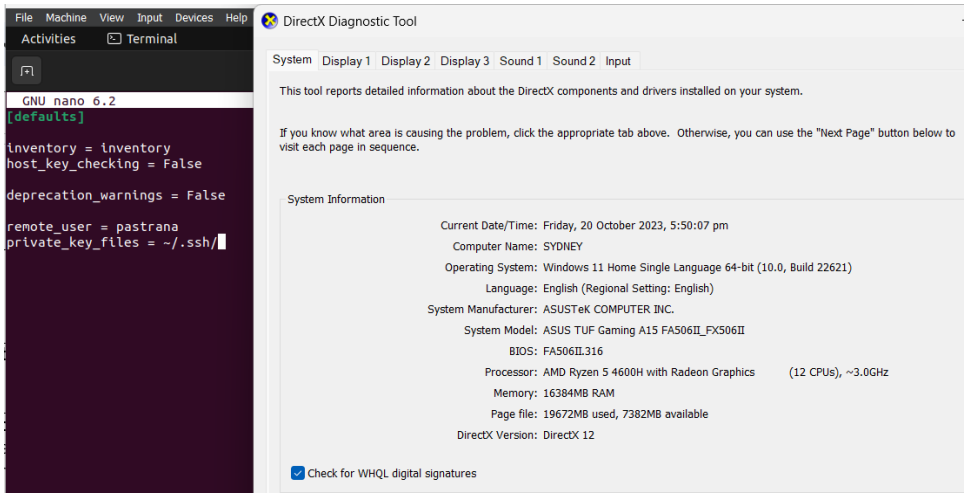
The documentation is very helpful to do this activity because it helps me create the directory and role for this task.

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.)
    - First I created a new repository and cloned it into my ubuntu local machine. After that I created a new ansible and inventory file so that the nagios could be installed in both remote server and centOS, because the server will contain their IP addresses.

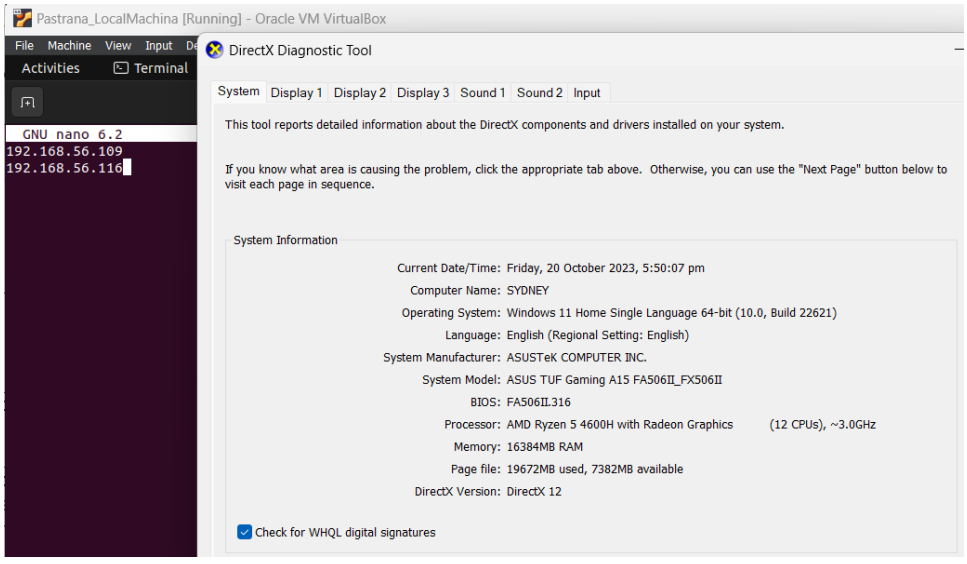
      new repository:



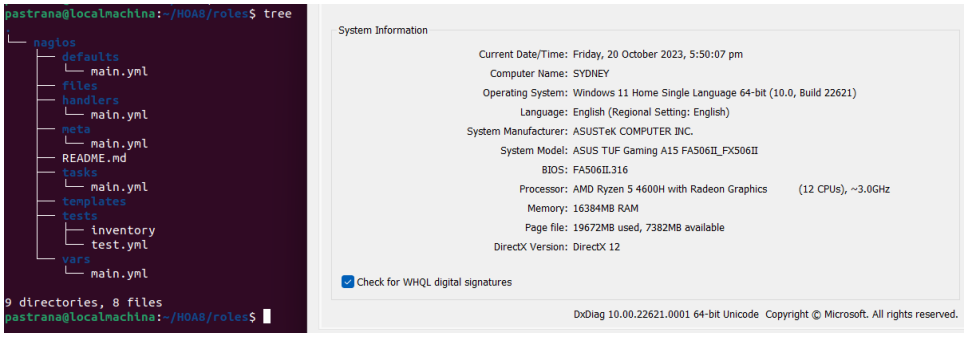
ansible.cfg:



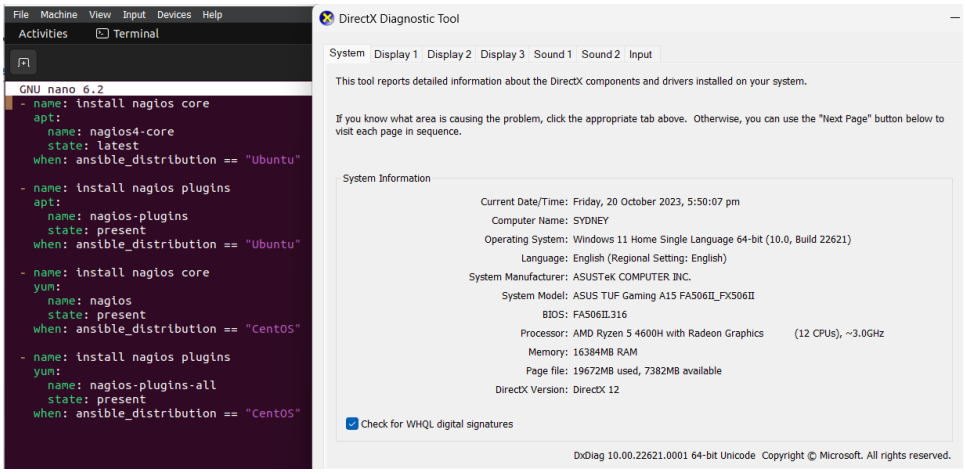
inventory:



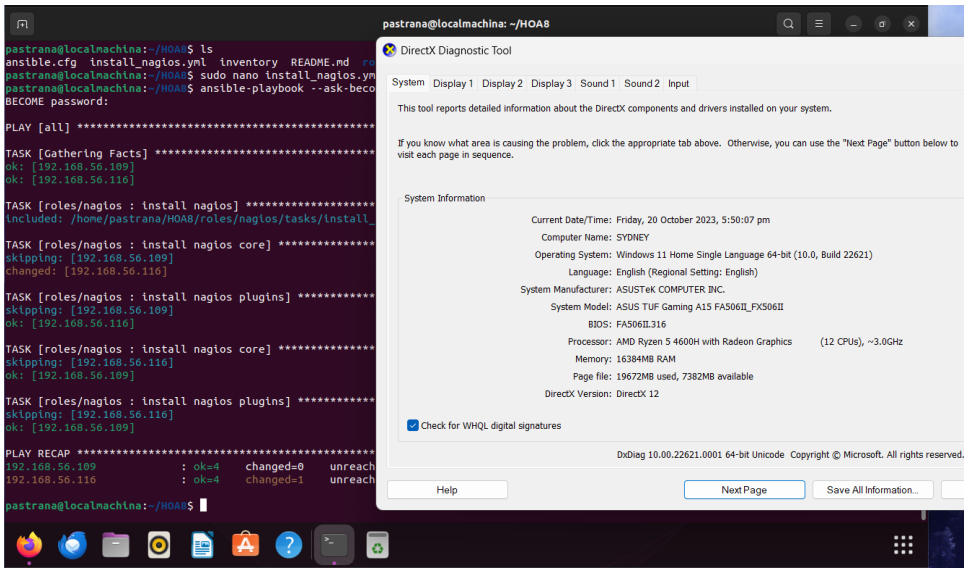
- In the new repository, I created a nagios role using “ansible-galaxy init roles/nagios” so that it will be easier for me not to manually type everything.



- And then I created the playbook that I will be using in syntax to install the Nagios.

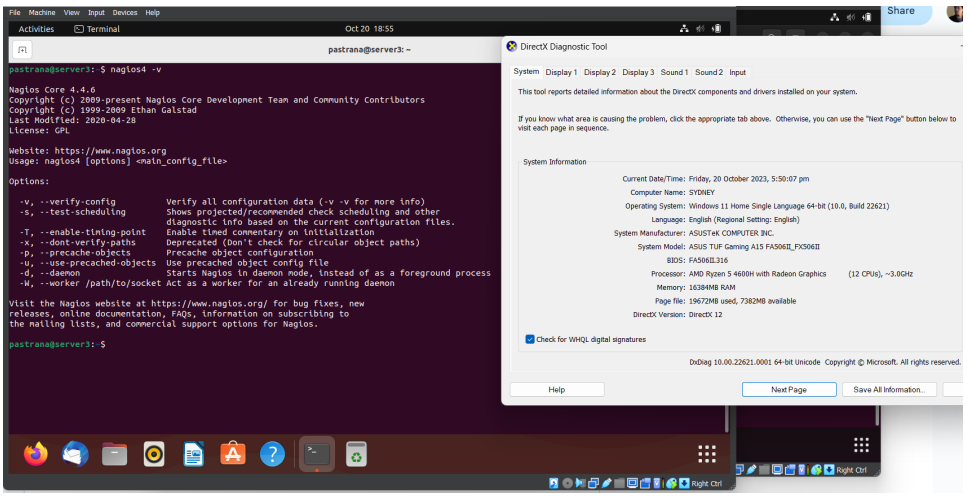


Installed:

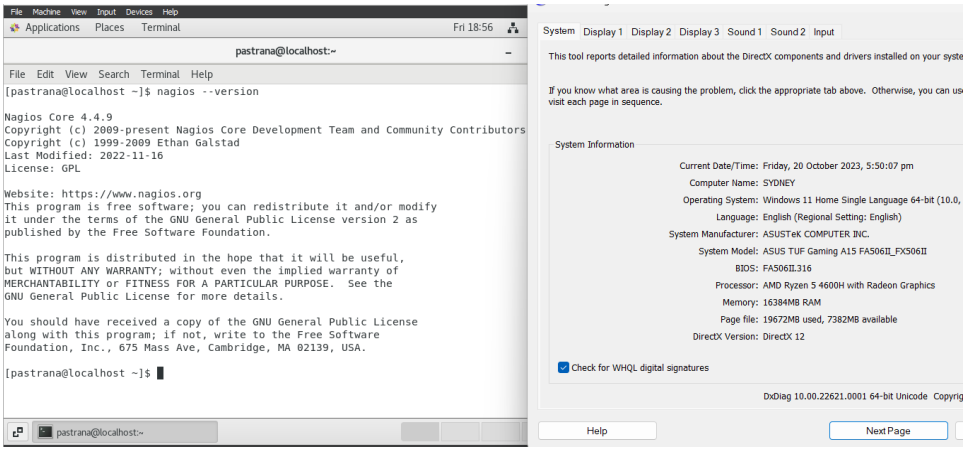


3. Show an output of the installed Nagios for both Ubuntu and CentOS.

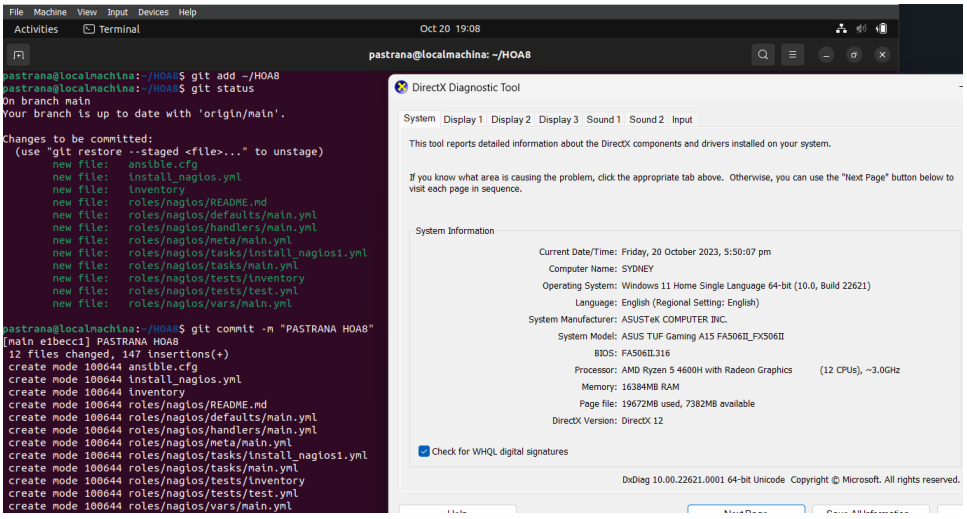
Ubuntu:

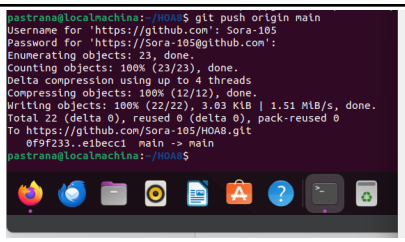


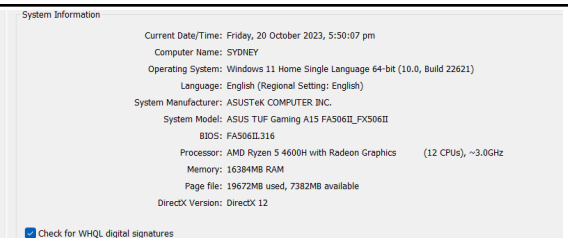
CentOS:

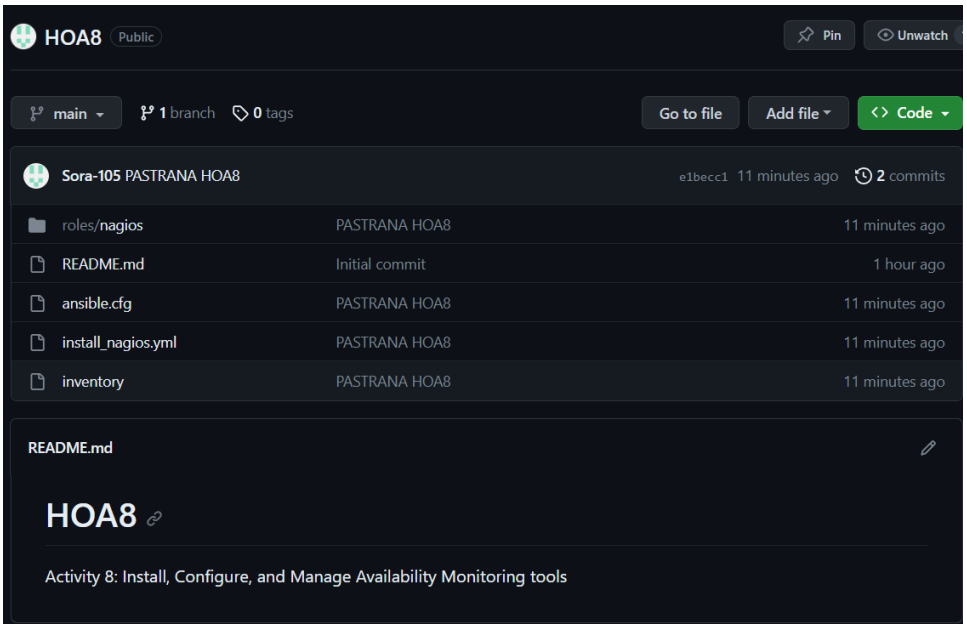


4. Make sure to create a new repository in GitHub for this activity.









https://github.com/Sora-105/HOA8.git

Reflections:

Answer the following:

1. What are the benefits of having an availability monitoring tool?
    - The availability of monitoring tools gives the user or admin real-time monitoring and early issue detection, which is helpful for IT teams in maintaining service reliability while minimizing downtime. These tools provide insights into performance, resource utilization, and security that can enable proactive issue resolution and optimization. Through ensuring high availability, organizations can enhance the user experience, comply with service level agreements, and reduce costs associated with downtime and emergency resolutions.

Conclusions:

In conclusion, it is easier to utilize playbooks when installing, maintaining, and setting something from one server to another when configuring a lot of servers and devices, even if the servers support different packages, because tasks can be simplified and defined in the ansible playbook file. We can also better monitor if there are changes in

the servers when a playbook is run by using playbooks. Because we can organize and assign responsibilities within a playbook, debugging becomes easy because we can point from a large group of ideas and activities to a specific one that is failing.