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Course/Section: Managing Enterprise Servers / CPE31S5	**Date Submitted:** 10/19/2023
Instructor: Engr. Roman Richard	**Semester and SY:** 1st semester, 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.

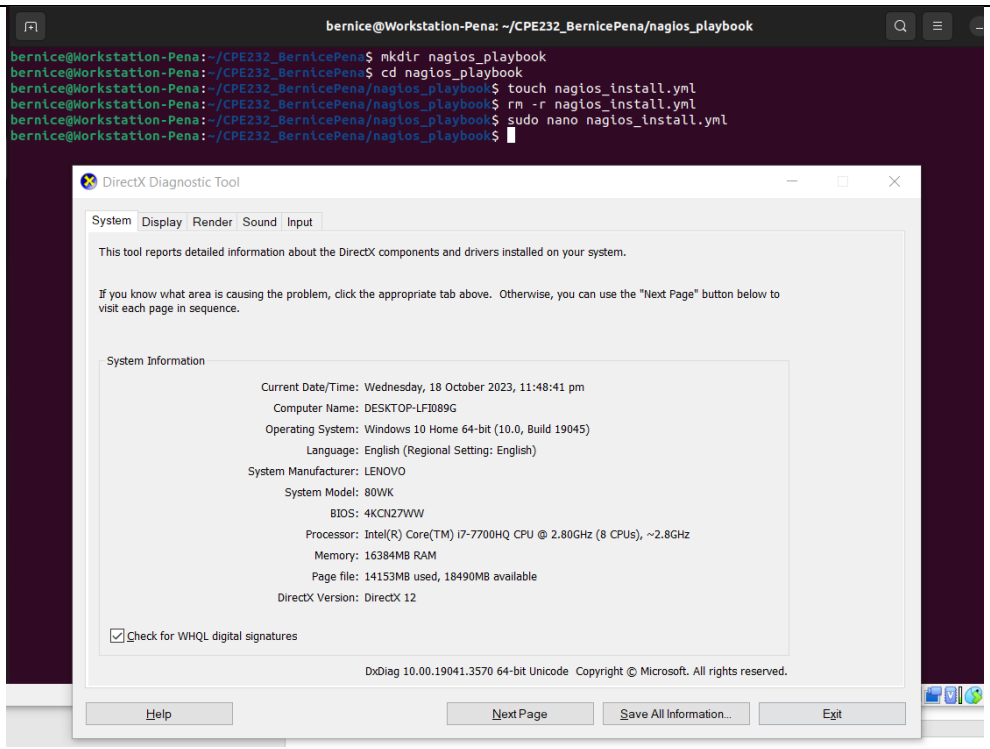
2. Discussion

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.

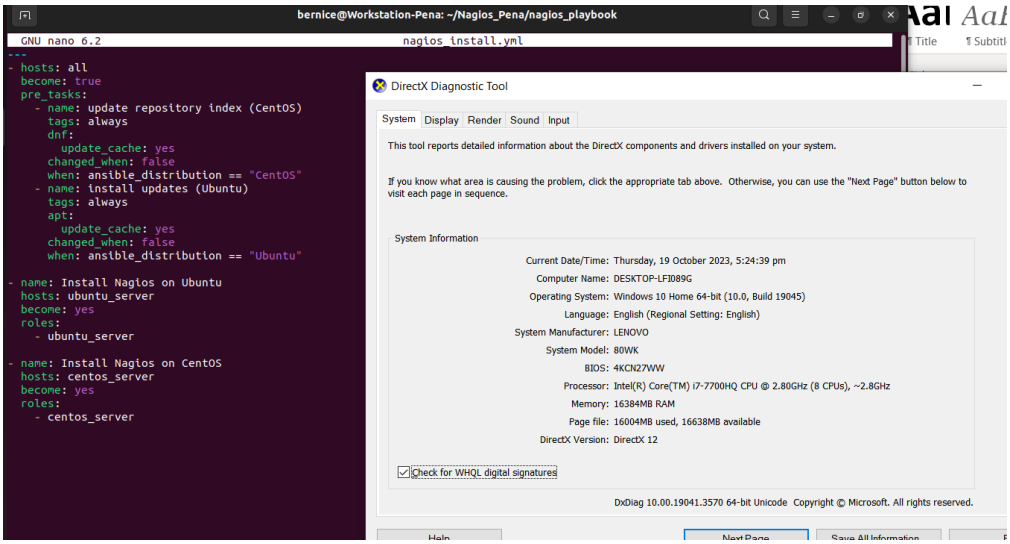
3. Tasks

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

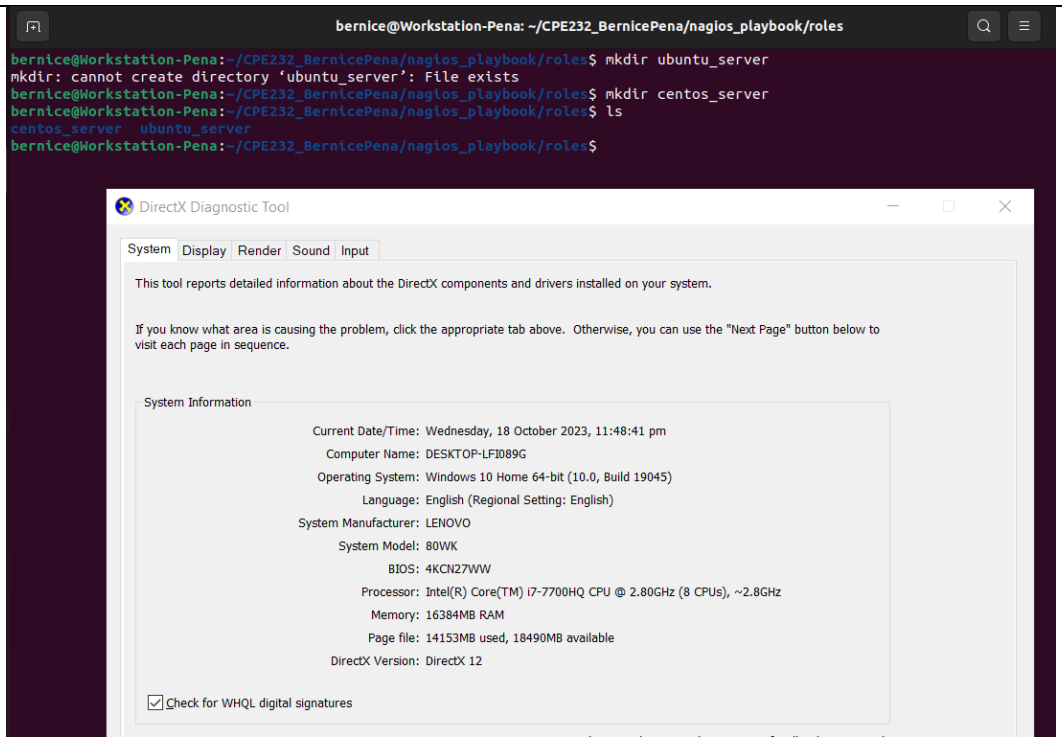
4. Output (screenshots and explanations)



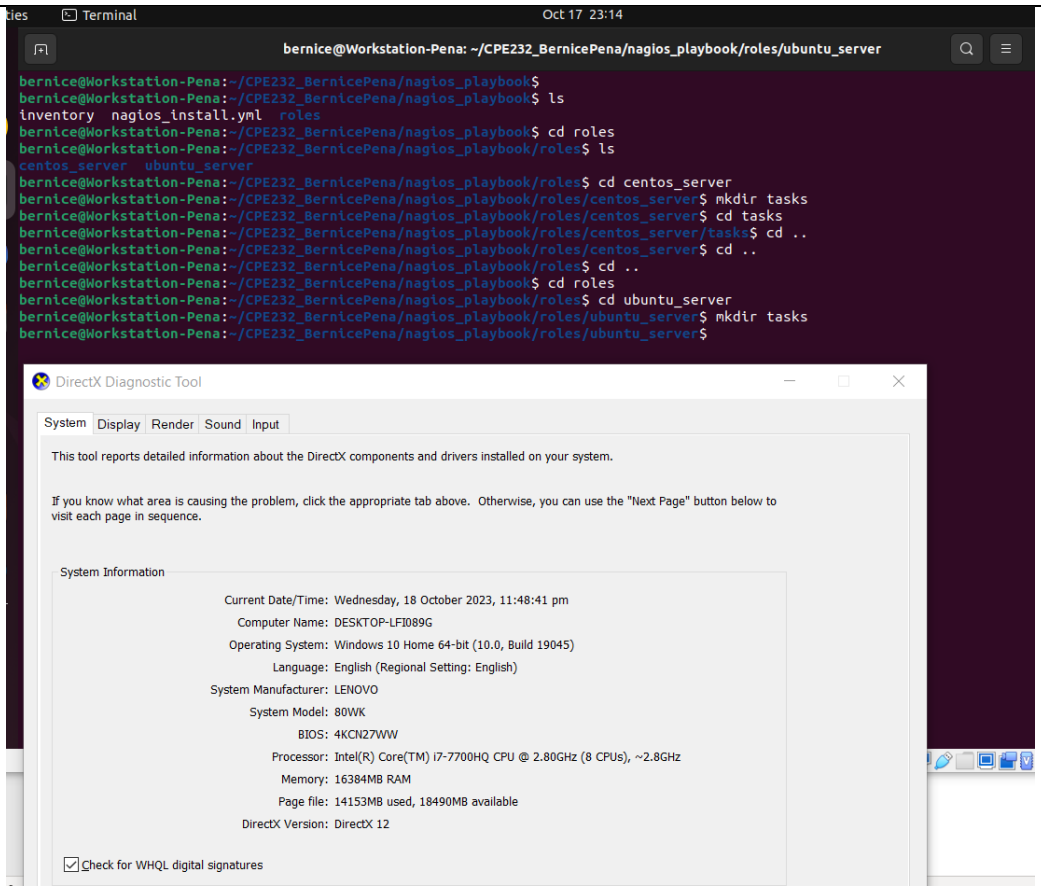
First, I created a directory wherein I can store my nagios_install.yml file for installation of nagios.



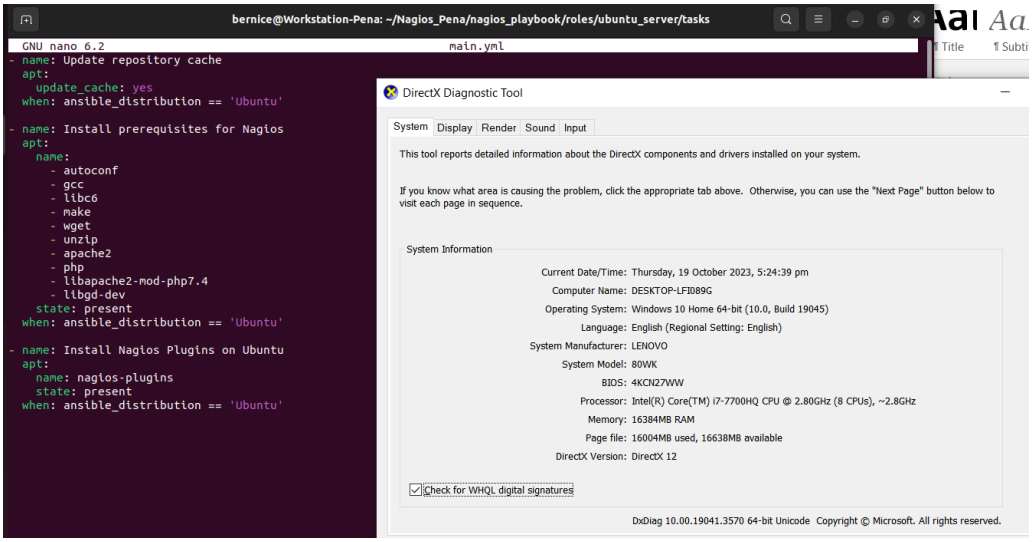
This is what I have in my nagios_playbook.yml, I used the roles function for the installation of nagios.



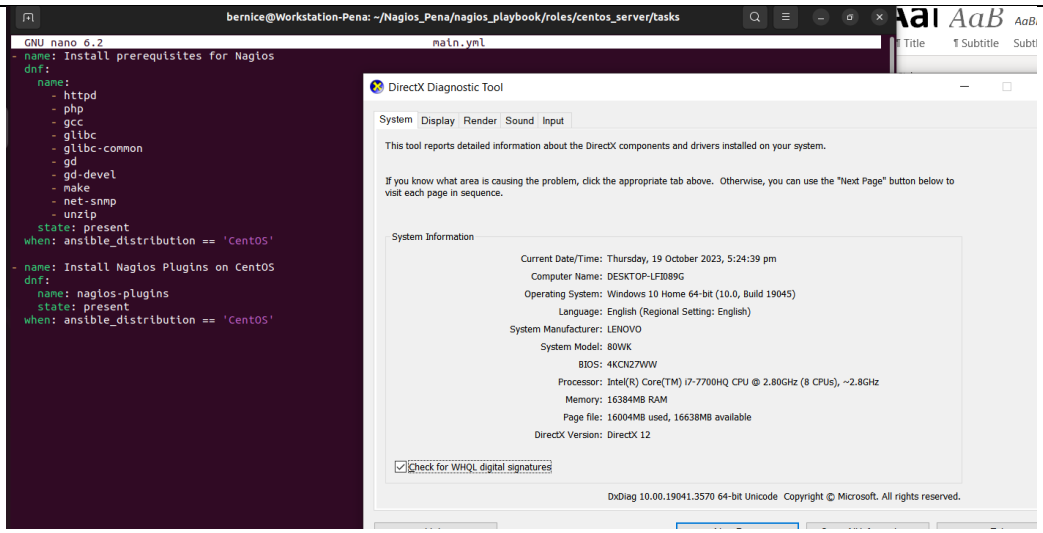
Then I created directories such as the ubuntu_server and centos_server inside my newly created directory named nagios_playbook/roles. These directories will be part of my Nagios installation.



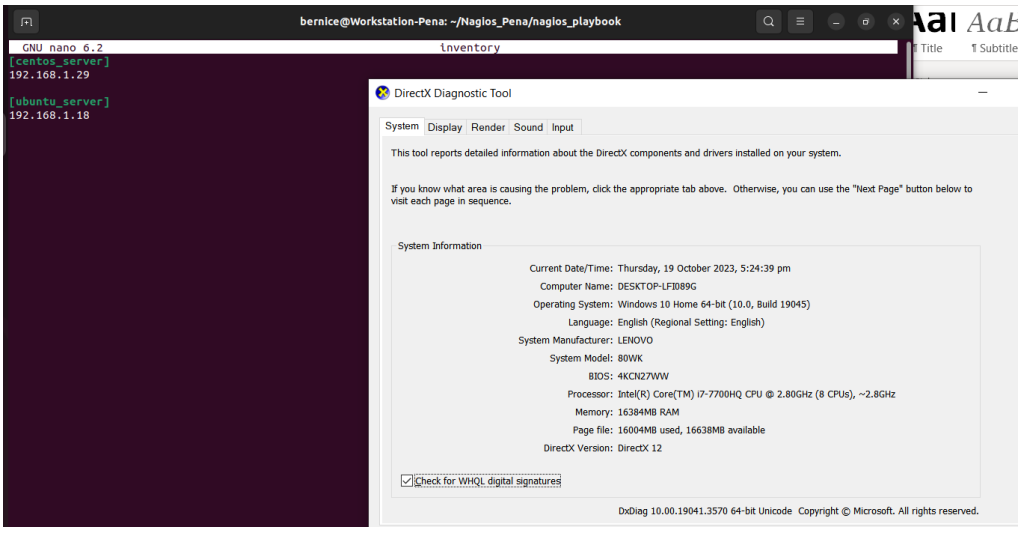
Inside these directories, I created another directory named tasks for ubuntu_server and centos_server.



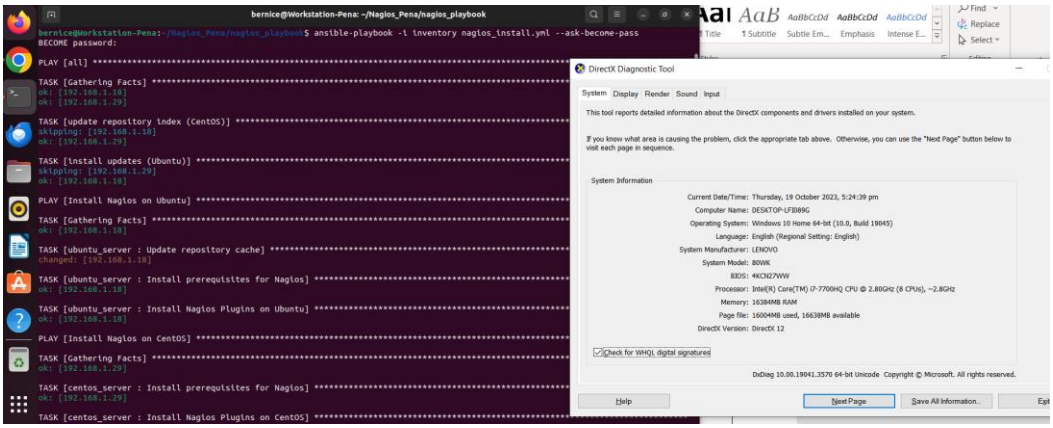
This is where I created my yml file named main.yml inside my ubuntu_server/tasks, then wrote the specific tasks for installation of nagios in my ubuntu server.

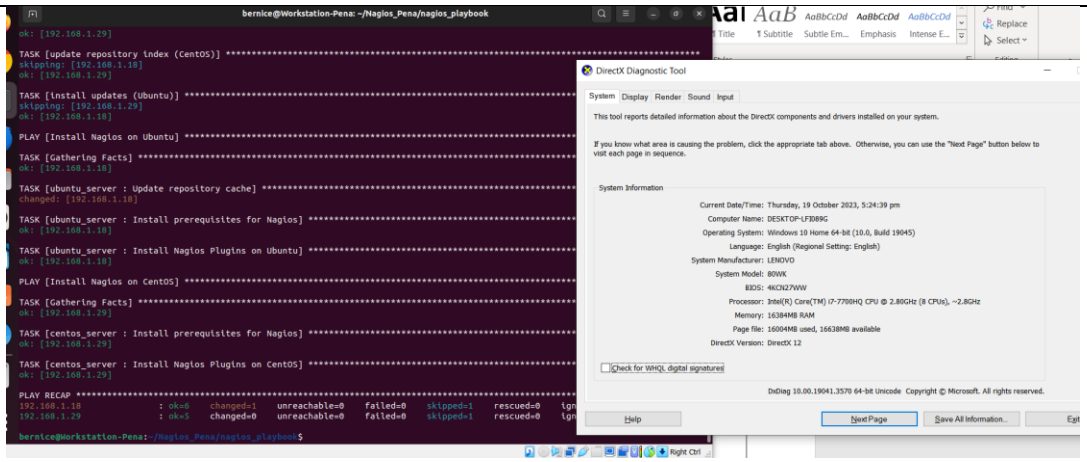


I also create my main.yml file for centos for the installation of Nagios.

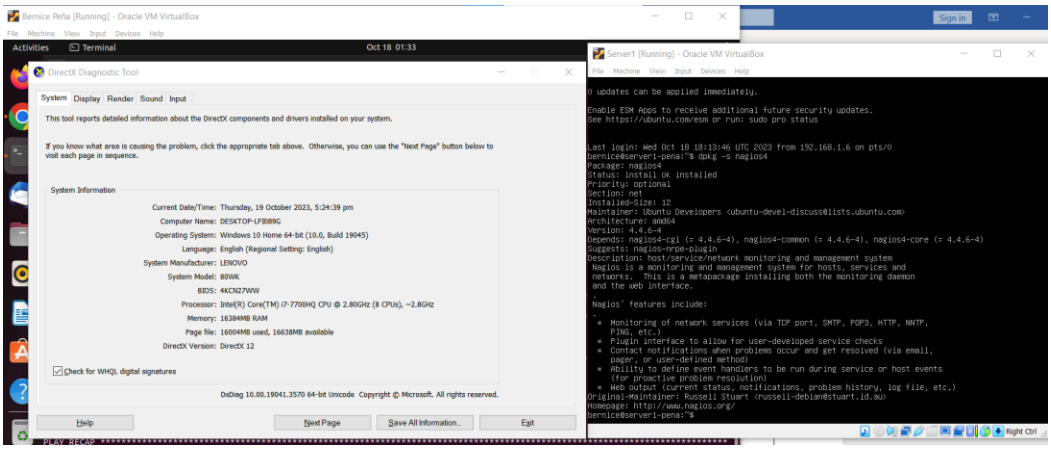


Before running the nagio_install.yml, I created first the inventory which consists of ip address of my ubuntu and centos server.

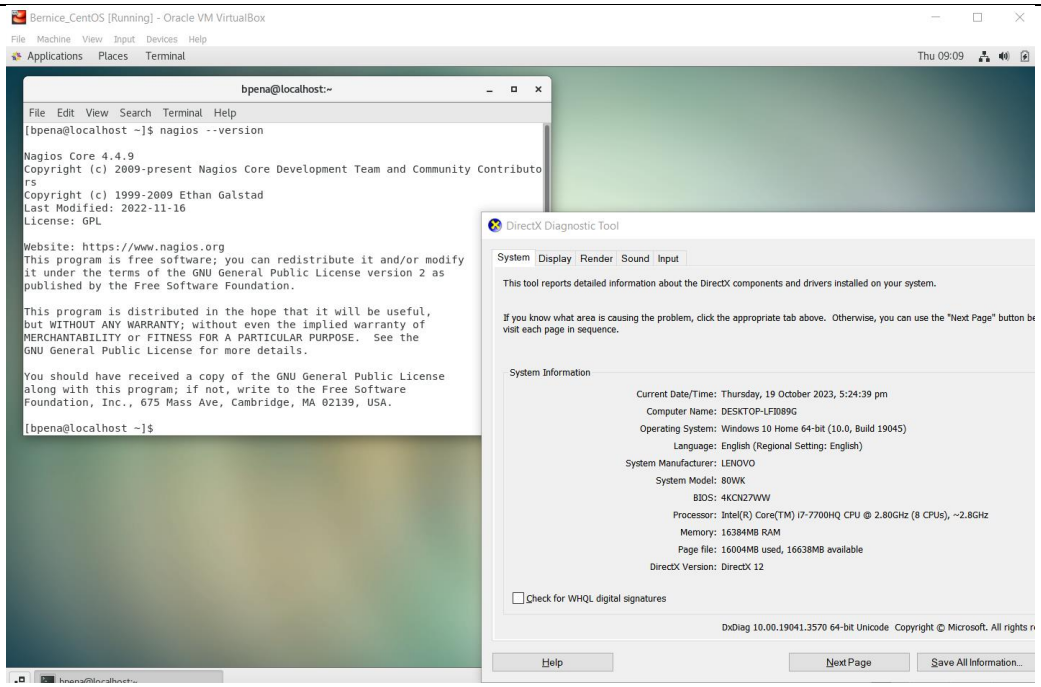




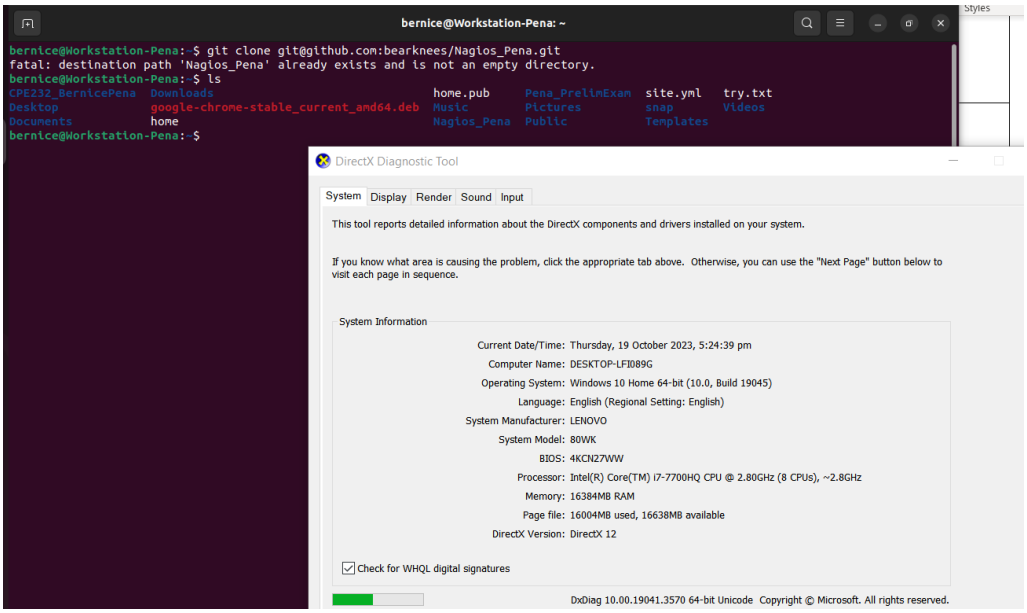
After running my nagios_install.yml, it shows that the status of installation for centos and ubuntu server was successfully executed, it is indicated by the status “ok” and “change” considering that the changes were applied as part of the installation.



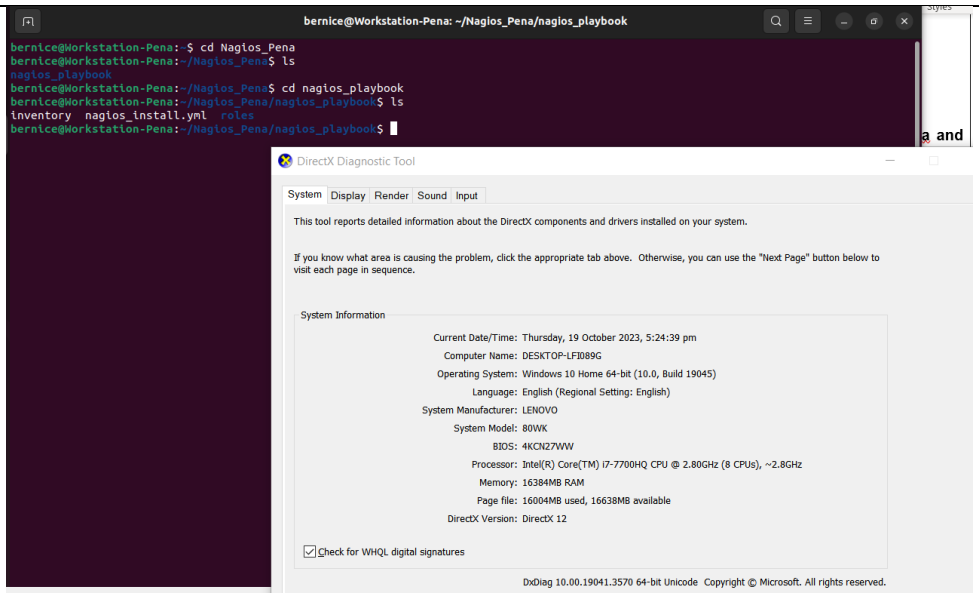
For Ubuntu



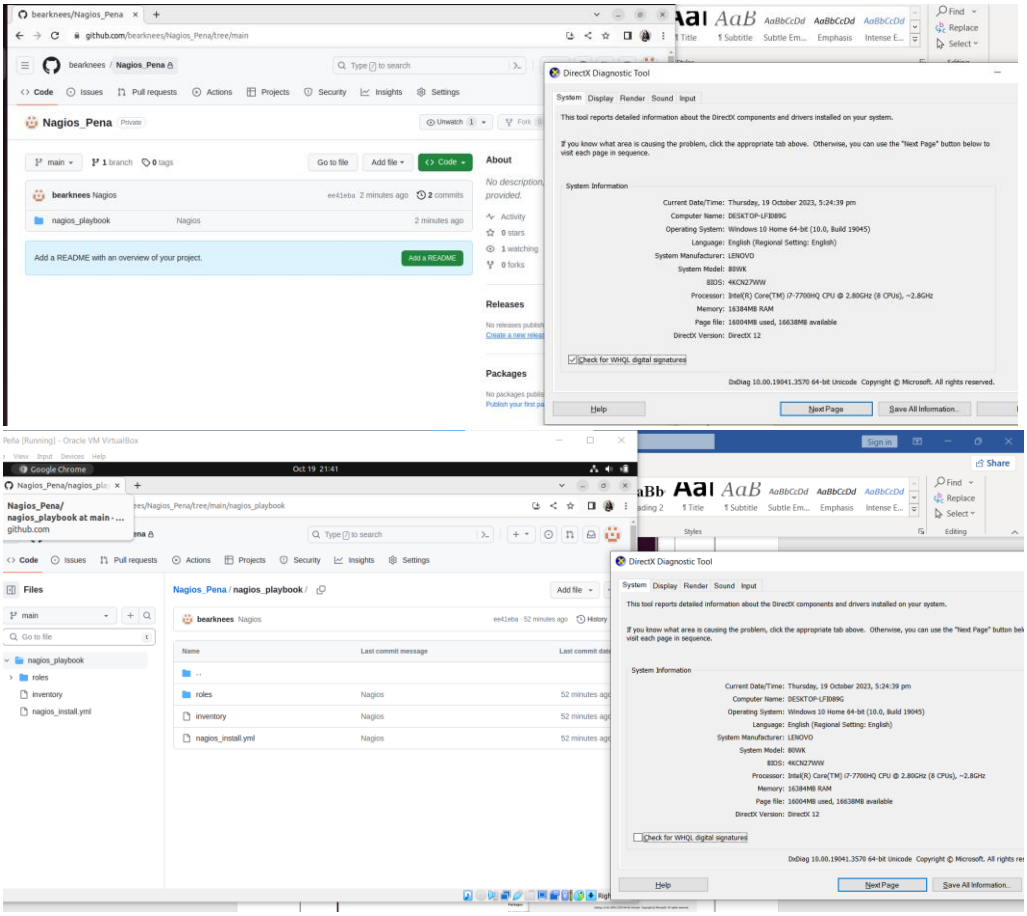
For CentOS



I created a new repository in my github named Nagios_Pena and cloned it using my ubuntu terminal.

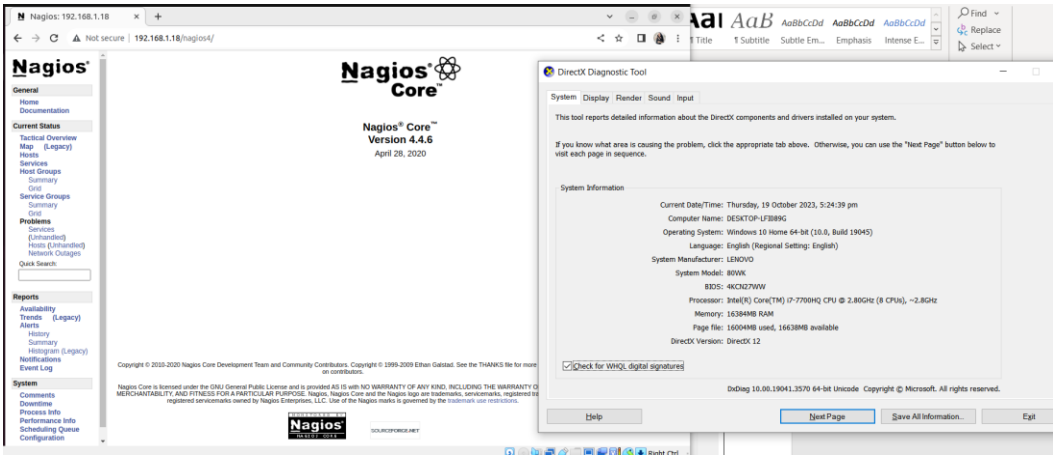


And then I moved my nagios_playbook directory from my old repository to the newly created repository in my GitHub named Nagios_Pena

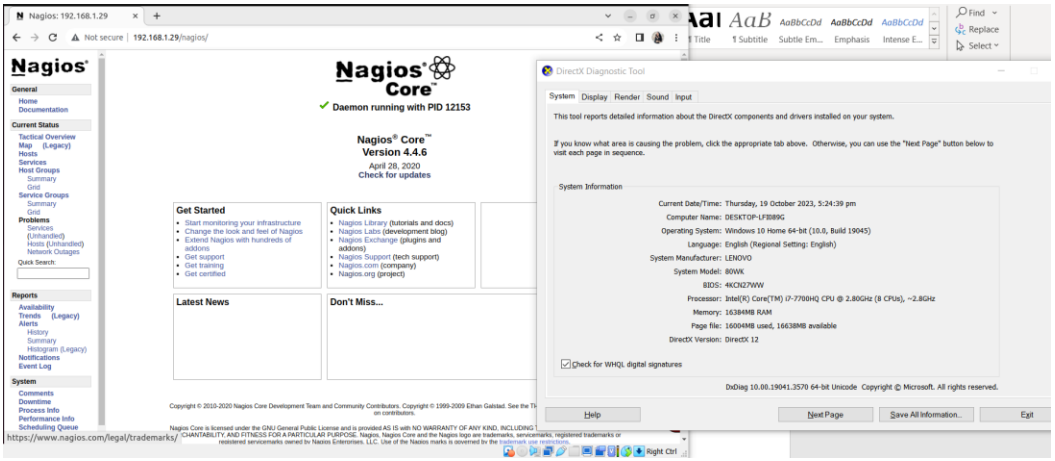


This is where I used the command push to push it in my Nagios_Pena repository

Ubuntu:



CentOS:



GitHub repository link: https://github.com/bearknees/Nagios_Pena

Reflections:

Answer the following:

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

   Monitoring tools help in detecting proactive issues as well as in restoration, this ensures the uninterrupted system and application performance accessibility. These kinds of technologies not only capable of quick problem diagnosis, but also minimizes the downtime and improves the user's experience by providing real-time insights into performance of the data. Monitoring tool contributes to better resource management and planning for prospective infrastructure improvements since it can optimize resource allocation.

Conclusions:

This activity helped me understand more about the installation of Nagios as well as the use of tasks and roles in installation process. During my troubleshooting process of Nagios installation, things get clearer and clearer as I figure things out like analyzing the error and configurations as it is essential for the efficient operation. Through this activity, it was emphasized how important it is to learn and apply the particular commands and methods within the system since it will be crucial for troubleshooting problems as well as in ensuring that the monitoring tool is operating appropriately. In order to ensure an efficient and reliable monitoring process, this activity also helped me understand how crucial it is to frequently update both the monitoring tool and its components, maintaining its optimal and continuous performance, this allows effective management and resolution of possible issues.