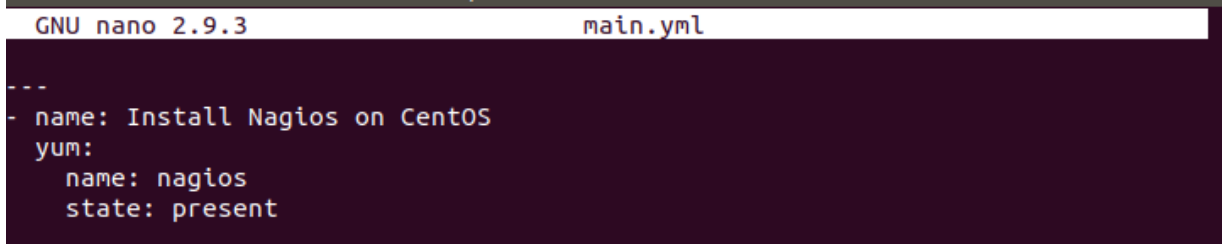| Name: San Jose, Kier Justin F.	Date Performed: 10/18/2024
Course/Section: CPE212 - CPE31S21	Date Submitted: 10/18/2024
Instructor: Engr. Robin Valenzuela	Semester and SY: 2024-2025

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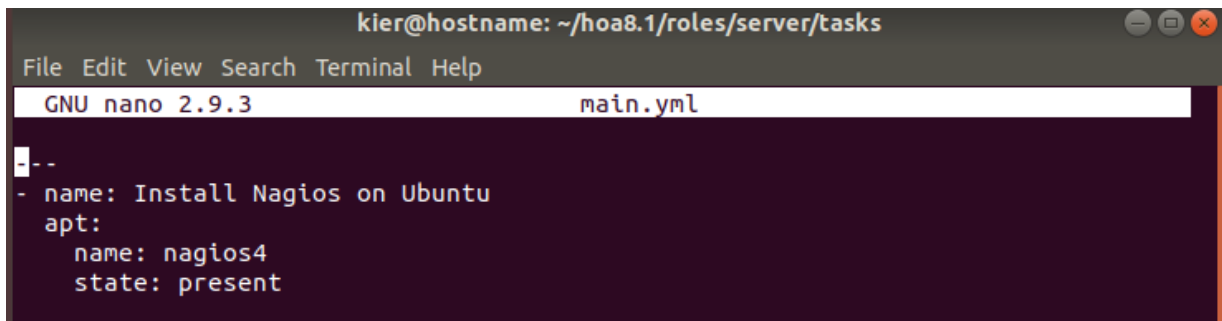4. Make sure to create a new repository in GitHub for this activity.

4. Output (screenshots and explanations)

```
mkdir -p roles/{server, server_centos}/tasks
cd roles
cd server
```

```
  GNU nano 2.9.3                        main.yml


---
- name: Install Nagios on CentOS
  yum:
    name: nagios
    state: present
```
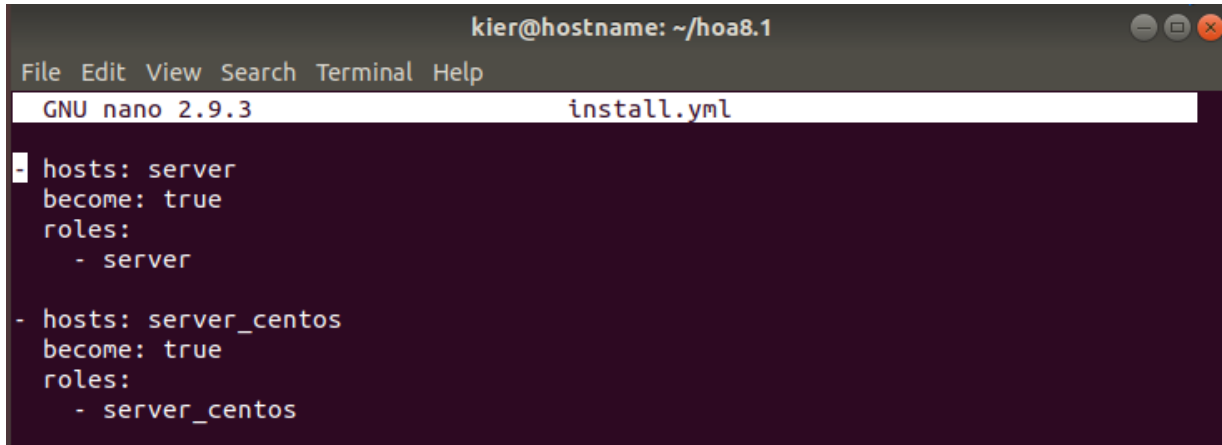
kier@hostname: ~/hoa8.1/roles/server/tasks

File Edit View Search Terminal Help

```
  GNU nano 2.9.3                        main.yml

---
- name: Install Nagios on Ubuntu
  apt:
    name: nagios4
    state: present
```

kier@hostname: ~/hoa8.1

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```
  GNU nano 2.9.3                        install.yml

- hosts: server
  become: true
  roles:
    - server

- hosts: server_centos
  become: true
  roles:
    - server_centos
```

```
skipping: no hosts matched

PLAY [server_centos] **********************************************************
*

TASK [Gathering Facts] *******************************************************
*
 [WARNING]: Module invocation had junk after the JSON data:
AttributeError("module 'platform' has no attribute 'dist'")

ok: [centos]

TASK [server_centos : Install Nagios on CentOS] ******************************
*
fatal: [centos]: FAILED! => {"changed": false, "msg": "The Python 2 yum module
is needed for this module. If you require Python 3 support use the `dnf` Ansibl
e module instead."}
        to retry, use: --limit @/home/kier/hoa8.1/install.retry

PLAY RECAP *******************************************************************
*
centos                     : ok=1    changed=0    unreachable=0    failed=1

kier@hostname:~/hoa8.1$ python --version
Python 2.7.17
kier@hostname:~/hoa8.1$ python3 --version
Python 3.6.9
kier@hostname:~/hoa8.1$ █
```

```
                        requires --auto-attach
[root@centos kiersanjose]# python --version
Python 3.9.20
[root@centos kiersanjose]#
```

First off, you need to create roles within your github repository and then create a playbook inside them that is titled "main.yml". After you create main.yml, create the install.yml within your github repository which is titled in my case "hoa8.1". Make sure the inventory and ansible files are correct.

Reflections:

Answer the following:

1. What are the benefits of having an availability monitoring tool?
   - An availability monitoring tool acts as a watchful guardian for your systems, providing early issue detection, improved uptime, performance insights, compliance reporting, cost savings, and peace of mind. It helps ensure your operations run smoothly by catching problems early and optimizing system performance.

Conclusions:
   - **Installing Availability monitoring tools can be difficult if your system is not updated, you'll encounter many software problems but overall i learned a lot from this activity like double checking if there are any indention erorrs for your code to work.**