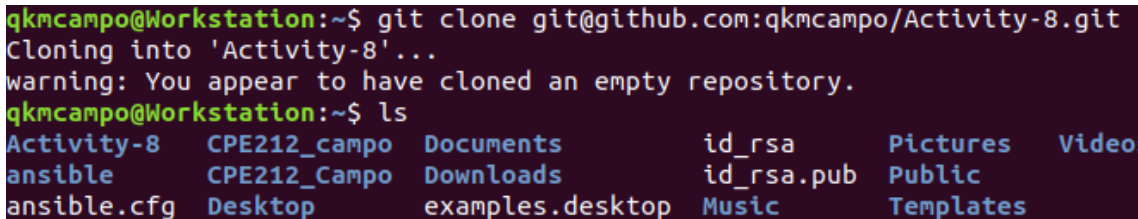
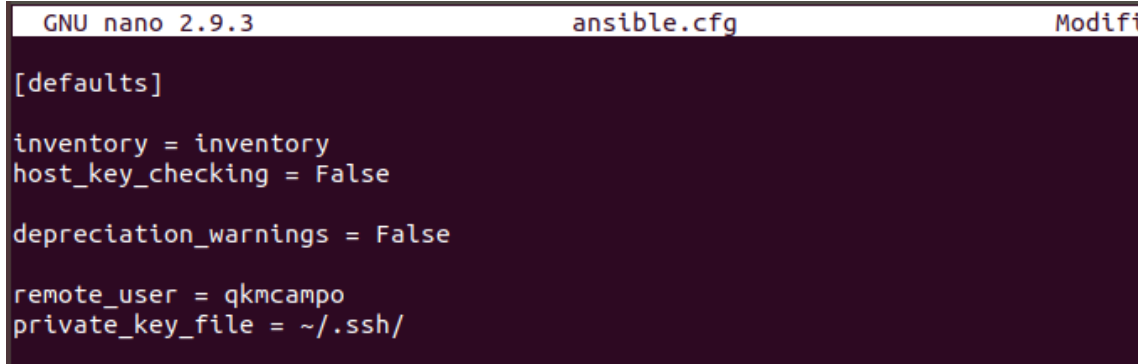


Name: Campo, Keneth	Date Performed: October 18, 2024
Course/Section: CPE212/CPE31S21	Date Submitted: October 18, 2024
Instructor: Engr. Robin Valenzuela	Semester and SY: 2024-2025
Activity 8: Install, Configure, and Manage Availability Monitoring tools	
1. Objectives	
Create and design a workflow that 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	
<ol style="list-style-type: none"> Create a playbook that installs Nagios in both Ubuntu and CentOS. Apply the concept of creating roles. <ul style="list-style-type: none"> This is the proof of successful git cloned of repository.  <pre>qkmcampo@Workstation:~\$ git clone git@github.com:qkmcampo/Activity-8.git Cloning into 'Activity-8'... warning: You appear to have cloned an empty repository. qkmcampo@Workstation:~\$ ls Activity-8 CPE212_campo Documents id_rsa Pictures Video ansible CPE212_Campo Downloads id_rsa.pub Public ansible.cfg Desktop examples.desktop Music Templates</pre> 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.) <ul style="list-style-type: none"> I created a new inventory, anisible.cfg and a directory.  <pre>GNU nano 2.9.3 anisible.cfg Modifi [defaults] inventory = inventory host_key_checking = False depreciation_warnings = False remote_user = qkmcampo private_key_file = ~/.ssh/</pre> 	

```
GNU nano 2.9.3 inventory

[Ubuntu_servers]
192.168.56.120
192.168.56.121
192.168.56.123

[CentOS_servers]
196.168.56.124

```

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)

```
GNU nano 2.9.3 activity.yml Modified
--
- hosts: all
  become: true
  tasks:

- name: Install dependencies
  package:
    name:
      - wget
    state: present
    update_cache: yes

- name: Create Nagios user and group
  ansible.builtin.user:
    name: nagcmd
    state: present

- name: Create Nagios Group
  ansible.builtin.user:
    name: nagcmd
    state: present

```

```
- name: Add nagios user to nagcmd group
  ansible.builtin.user:
    name: nagios
    groups: nagcmd
    append: yes

- name: Ubuntu Install Nagios
  apt:
    name:
      - apache2
      - php
      - libapache2-mod-php
      - build-essential
      - libgd-dev
    state: present
    update_cache: yes

- name: Nagios Download
  ansible.builtin.get_url:
    url: https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.>
    dest: /tmp/nagios.tar.gz

- name: Nagios Extract
```

```
  name:
    - php
    - gcc
    - glibc-common
    - gd
    - gd-level
    - make
    - net-snmp
  state: present
  update_cache: yes

- name: Download Nagios
  ansible.builtin.get_url:
    url: https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.>
    dest: /tmp/nagios.tar.gz

- name: Nagios Extract
  ansible.builtin.unarchive:
    src: /tmp/nagios.tar.gz
    dest: /tmp
    remote_src: yes
```

```
GNU nano 2.9.3                                nagios.yml                                Modified
---
- hosts: all
  become: true
  pre_tasks:

    - name: update repository index (CentOS)
      tags: always
      dnf:
        update_cache: yes
        changed_when: false
        when: ansible_distribution == "CentOS"

    - name: install updates (Ubuntu)
      tags: always
      apt:
        update_cache: yes
        changed_when: false
        when: ansible_distribution == "Ubuntu"

- hosts: all
  become: true
  roles:
    - base
```

```
GNU nano 2.9.3                                nagios.yml                                Modified
- name: install updates (Ubuntu)
  tags: always
  apt:
    update_cache: yes
    changed_when: false
    when: ansible_distribution == "Ubuntu"

- hosts: all
  become: true
  roles:
    - base

- hosts: workstations
  become: true
  roles:
    - workstations
```

Reflections:

Answer the following:

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

- An availability monitoring tool guarantees better user experience, lowers downtime, and swiftly identifies problems to keep our systems operating properly. Having a solution like this also helps since it offers simple reporting, real-time warnings, and automated monitoring.

Conclusions:

- This task shows how to set up an automated Ansible playbook for Ubuntu and CentOS servers in order to install Nagios. By establishing the OS-specific packages and utilizing responsibilities, I wasn't able to properly and efficiently manage the differences between the two systems. As a result, this project didn't work properly. It always says unreachable.