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Course/Section: CPE232-CPE31S23	Date Submitted:
Instructor: Dr. Taylar	Semester and SY:

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.

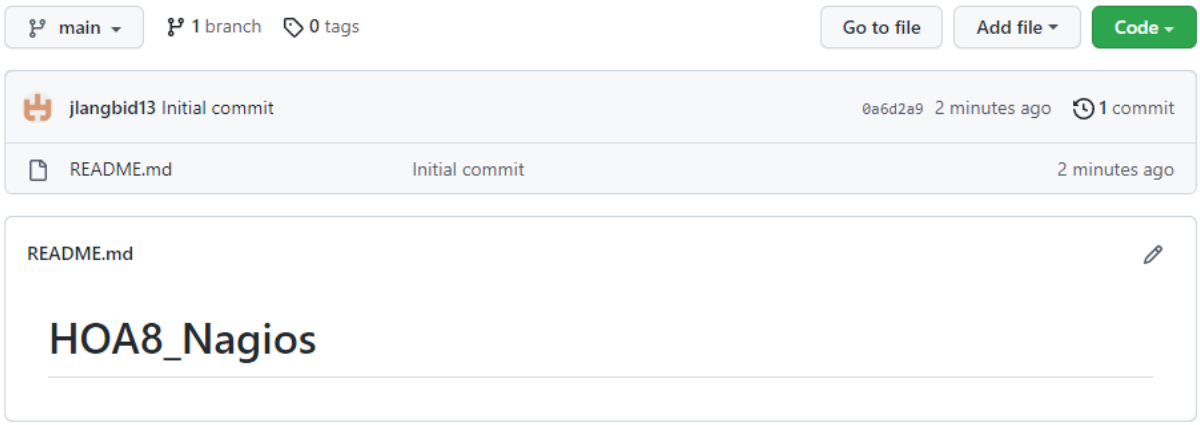
2. Discussion

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)



Create a new repository for the activity.

```
jefferson@LocalMachine-VirtualBox: ~
jefferson@LocalMachine-VirtualBox:~$ git clone git@github.com:jlangbid13/HOA8_N
agios.git
Cloning into 'HOA8_Nagios'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.
```

Clone the repository to the local machine.

```
jefferson@
  GNU nano 6.2
[remote_servers]
192.168.56.106
192.168.56.110
```

Create the inventory file

```
jefferson@LocalMachine-VirtualBox: ~/HOA8_Nagios
  GNU nano 6.2                          ansible.cfg *
[defaults]

inventory = inventory
Host_key_checking = False

Depracation_warnings = False

Remote_users = jefferson
Private_key_file= ~/.ssh/
```

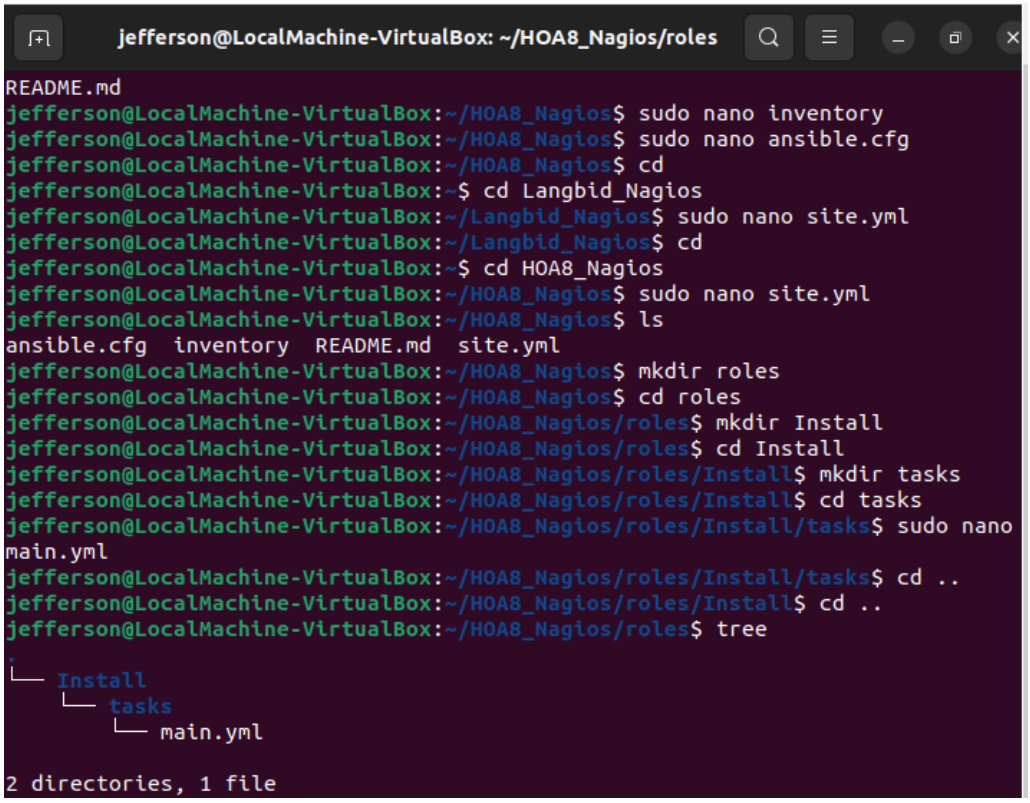
Create the ansible.cfg file to configure the remote users.

jefferson@LocalMachine-VirtualBox: ~/HOA8_Nagios

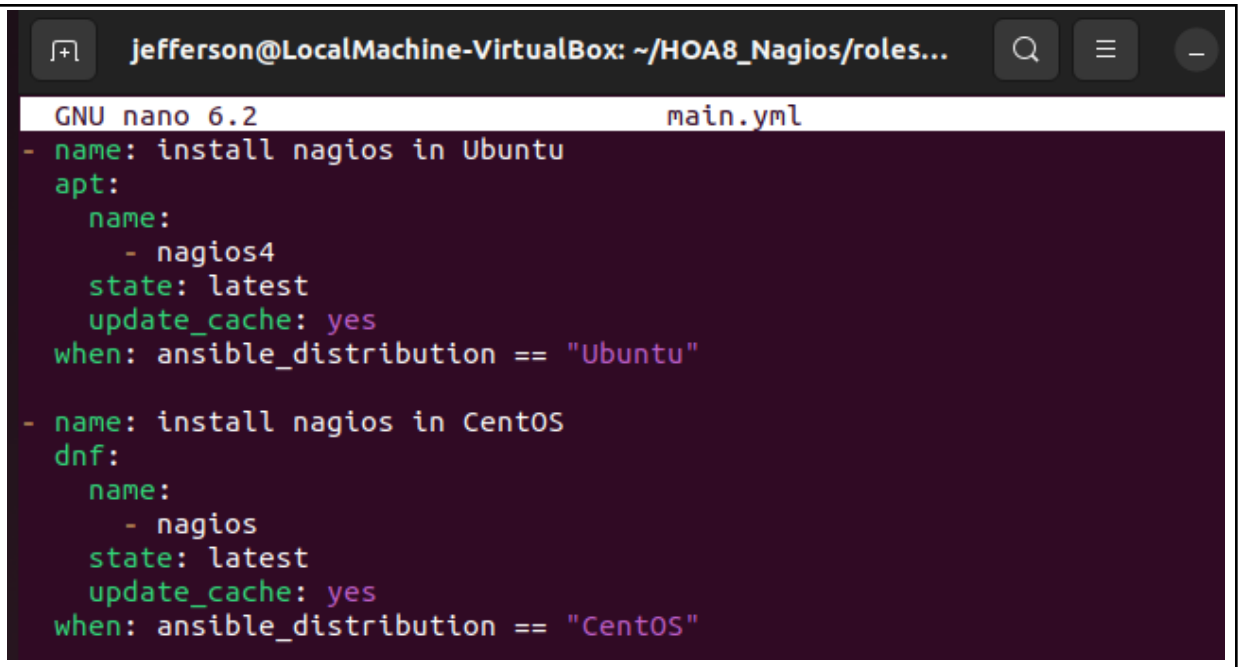
```
 GNU nano 6.2                                site.yml *
-
 hosts: all
 become: true
 pre_tasks:

 - 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"
```

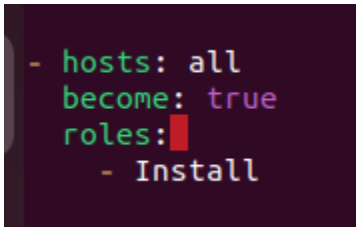
Create the site.yml for the pre_tasks.



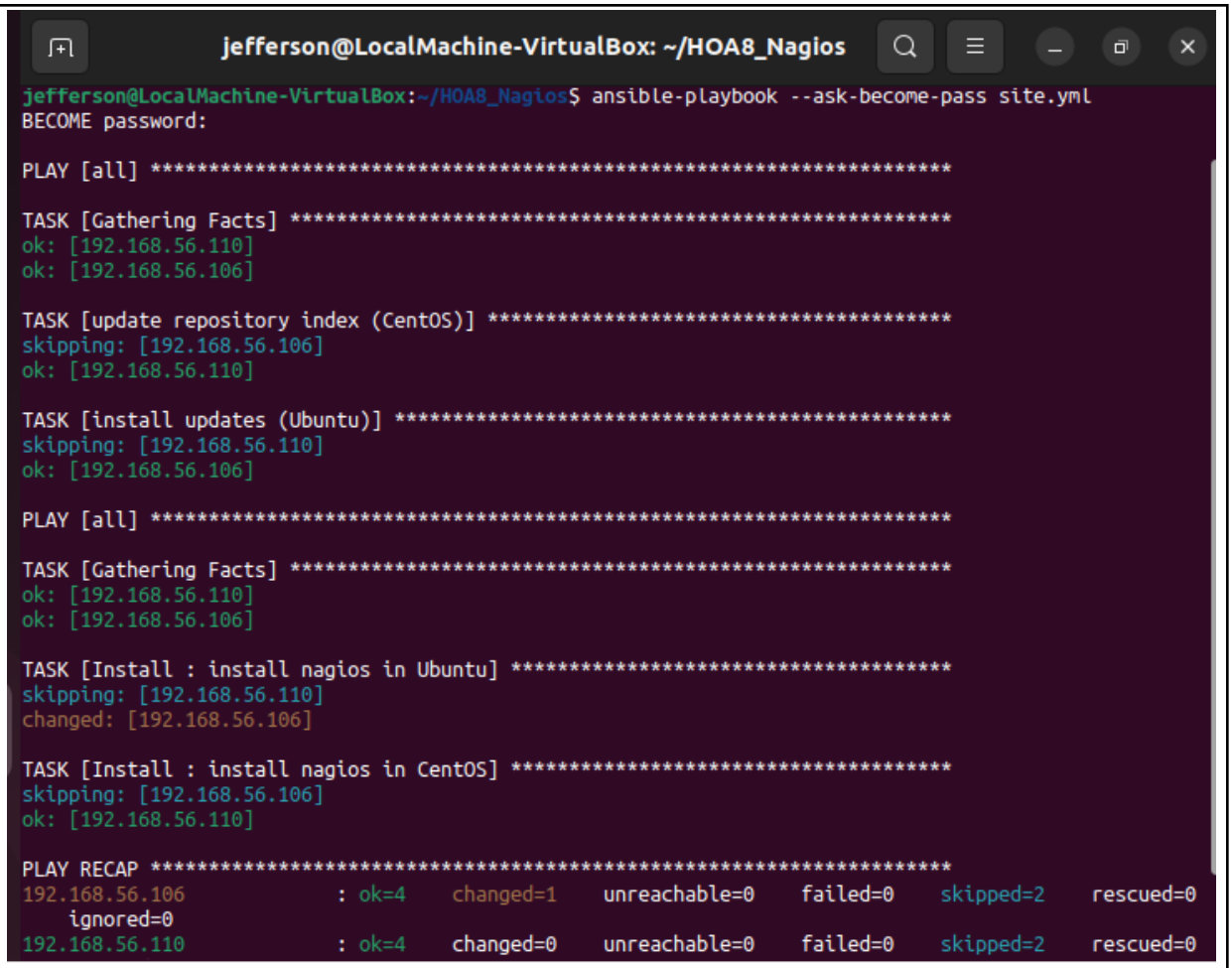
Create new directory for the roles and a new directory such as Install and tasks to input the main.yml in the tasks directory.



Input in the main.yml the command that will install nagios in both Ubuntu and CentOS.



The command inside the site.yml to run the roles



It ran successfully and installed the nagios in both Ubuntu and CentOS.

```
jefferson@Server1-VirtualBox:~$ nagios4 --version

Nagios Core 4.4.6
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 2020-04-28
License: GPL

Website: https://www.nagios.org
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published by the Free Software Foundation.

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along with this program; if not, write to the Free Software
Foundation, Inc., 675 Mass Ave, Cambridge, MA 02139, USA.
```

Installed in the Ubuntu server

```
[jefferson@localhost ~]$ nagios --version

Nagios Core 4.4.6
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 2020-04-28
License: GPL

Website: https://www.nagios.org
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```
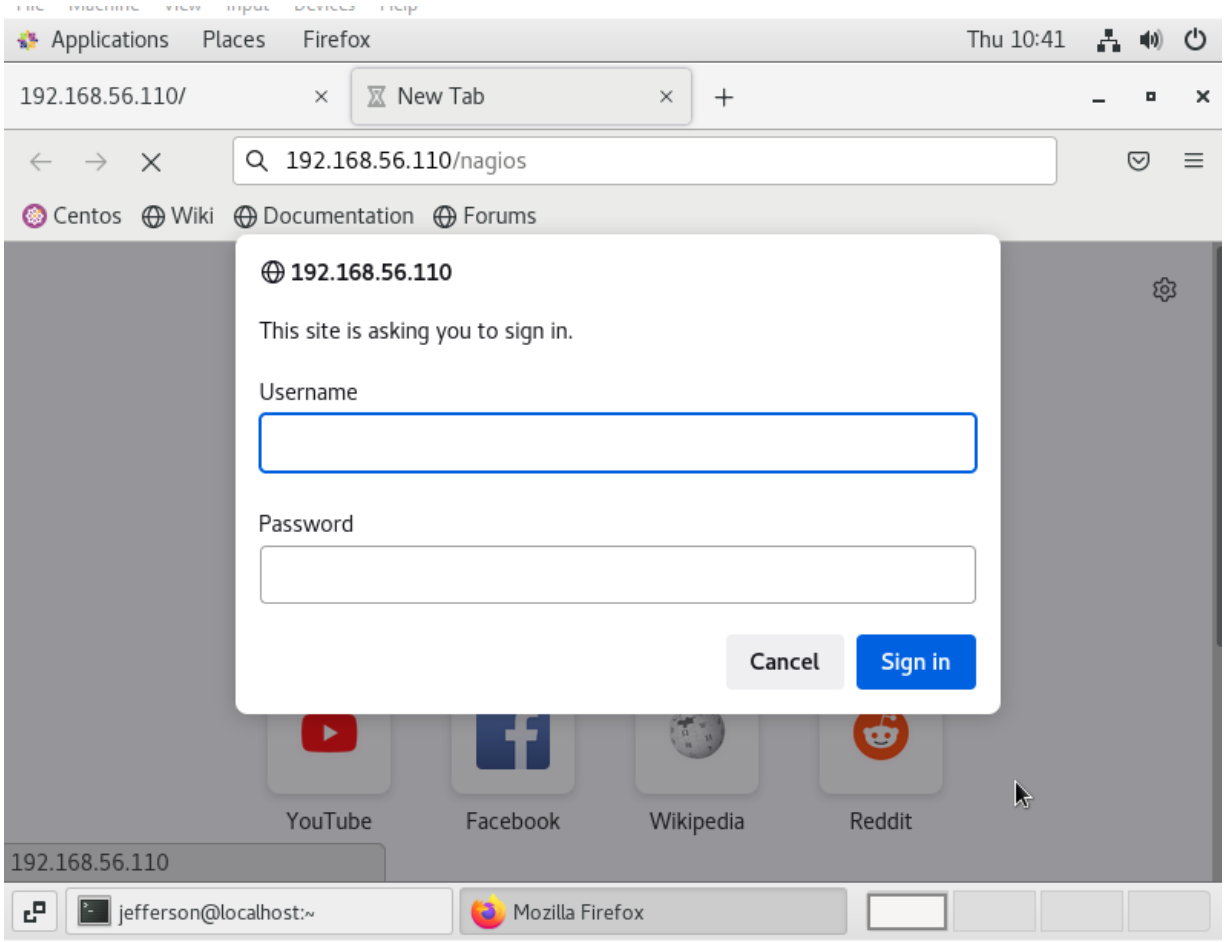
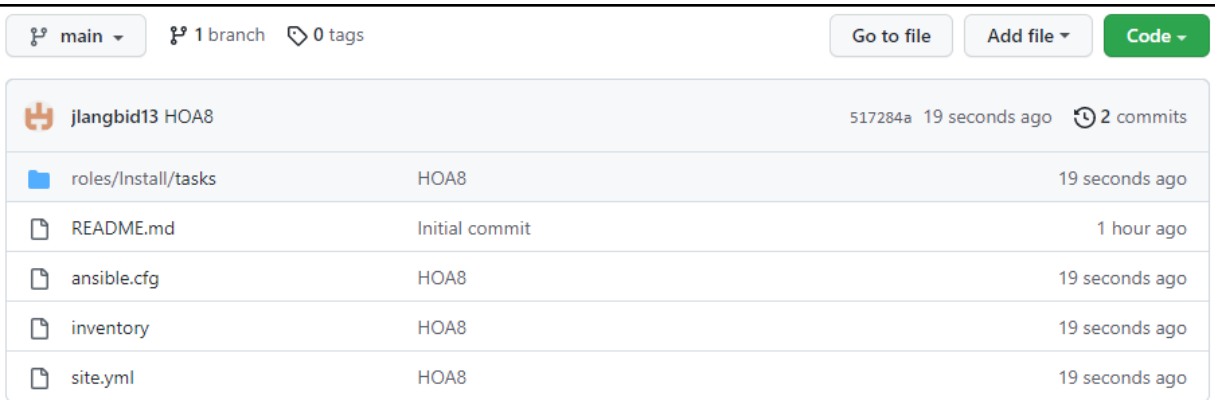



Installed in the CentOS server



Commit it in the github

[jlangbid13/HOA8_Nagios (github.com)]

Reflections:

Answer the following:

1. What are the benefits of having an availability monitoring tool?
   The benefits of having an availability monitoring tool is for better work outcomes because you can monitor what everybody is doing and check if it is good or correct and the monitoring personnel can guide the person to improve the performance and for the better work outcomes.

Conclusions:

All in all, I created a new directory for the activity and cloned it in my local machine. I created the file which is the ansible.cfg and inventory to configure the remote user to connect with the ansible. After creating the file I created a new file for the ansible playbook which is the site.yml and input the commands. After creating the file I created the roles directory and tasks to input the main.yml file for the command that will install the nagios in both Ubuntu and CentOs. After that I run the site.yml playbook to run and it successfully ran and installed the nagios in both Ubuntu and CentOS.