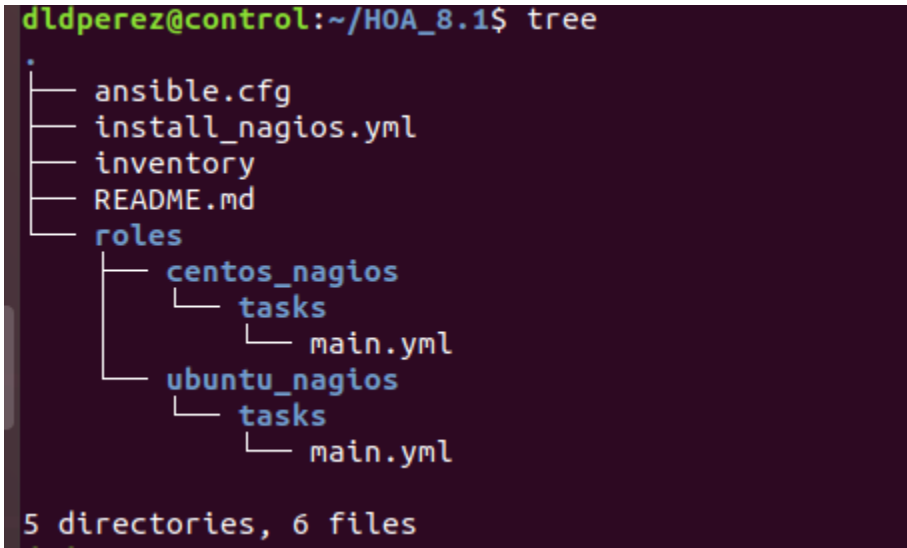


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Course/Section:	Date Submitted: 18/10/24
Instructor:	Semester and SY: 2024-2025
Activity 8: Install, Configure, and Manage Availability Monitoring tools	
Objectives	
Create and design a workflow that installs, configure and manage enterprise monitoring tools using Ansible as an Infrastructure as Code (IaC) tool.	
Discussion	
<p>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.</p>	
Tasks	
<ol style="list-style-type: none"> 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. 	
Output (screenshots and explanations)	
 <pre> dldperez@control:~/HOA_8.1\$ tree . ├── ansible.cfg ├── install_nagios.yml ├── inventory ├── README.md └── roles ├── centos_nagios │ └── tasks │ └── main.yml └── ubuntu_nagios └── tasks └── main.yml 5 directories, 6 files </pre>	

This is the files/directories created.

```
dldperez@control:~/H0A_8.1/roles/ubuntu_nagios/tasks$ cat main.yml
---
- name: nagios (Ubuntu)
  apt:
    name:
      - autoconf
      - libc6
      - gcc
      - make
      - wget
      - unzip
      - apache2
      - php
      - libapache2-mod-php
      - libgd-dev
      - bc
      - gawk
      - dc
      - build_essential
      - snmp
      - libnet-snmp-perl
      - gettext
      - python3
      - python3-pip
    state: latest
```

This installs the essential libraries of Nagios.

```
File Edit View Search Terminal Help
GNU nano 2.9.3 main.yml Modified

- name: nagios directory PATH
  file:
    path: ~/nagios
    state: directory

- name: downloading nagios
  unarchive:
    src: https://github.com/NagiosEnterprises/nagioscore/archive/nagios-4.4.6.tar.gz
    dest: ~/nagios
    remote_src: yes
    mode: 0777
    owner: root
    group: root
```

This downloads the Nagios to a path/directory.

```
dldperez@control:~/HOA_8.1$ cat install_nagios.yml
```

```
---  
  
- hosts: all  
  become: true  
  pre_tasks:  
  
    - name: dnf and epel installation  
      yum:  
        name:  
          - epel-release  
          - dnf  
        when: ansible_distribution == "CentOS"  
  
    - name: dpkg in ubuntu  
      shell: |  
        dpkg --configure -a  
      when: ansible_distribution == "Ubuntu"  
  
    - name: install updates (CentOS)  
      dnf:  
        update_cache: yes  
        update_only: yes  
      when: ansible_distribution == "CentOS"
```

```
      shell: |  
        dpkg --configure -a  
      when: ansible_distribution == "Ubuntu"  
  
- name: install updates (CentOS)  
  dnf:  
    update_cache: yes  
    update_only: yes  
  when: ansible_distribution == "CentOS"  
  
- name: install updates (Ubuntu)  
  apt:  
    upgrade: dist  
    update_cache: yes  
  when: ansible_distribution == "Ubuntu"  
  
- hosts: ubuntu_nagios  
  become: true  
  roles:  
    - ubuntu_nagios  
  
- hosts: centos_nagios  
  become: true  
  roles:  
    - centos_nagios
```

```
dldperez@control:~/HOA_8.1$
```

```
Activities Terminal Fri 08:28 dldperez@control: ~/HOA_8.1
File Edit View Search Terminal Help
TASK [Gathering Facts] *****
*
fatal: [192.168.56.134]: UNREACHABLE! => {"changed": false, "msg": "Failed to connect to the host via ssh: dldperez@192.168.56.134: Permission denied (publickey,password).\r\n", "unreachable": true}
ok: [192.168.56.135]
[WARNING]: Module invocation had junk after the JSON data:
AttributeError("module 'platform' has no attribute 'dist'")
ok: [192.168.56.138]
TASK [get rid of old installation dir] *****
*
ok: [192.168.56.135]
ok: [192.168.56.138]
TASK [get rid of semi-created installation dir] *****
*
ok: [192.168.56.135]
ok: [192.168.56.138]
TASK [get rid of old installation archive] *****
*
ok: [192.168.56.135]
ok: [192.168.56.138]
TASK [refresh apt] *****
*
fatal: [192.168.56.138]: FAILED! => {"changed": false, "cmd": "apt-get update",
```

Activities Terminal Fri 08:28 dldperez@control: ~/HOA_8.1

File Edit View Search Terminal Help

TASK [refresh apt] *****
*
fatal: [192.168.56.138]: FAILED! => {"changed": false, "cmd": "apt-get update",
"msg": "[Errno 2] No such file or directory: 'apt-get'", "rc": 2}
ok: [192.168.56.135]

TASK [install nagios reqs] *****
*
changed: [192.168.56.135]

TASK [download and uncompress] *****
*
changed: [192.168.56.135]

TASK [configure and make all] *****
*
changed: [192.168.56.135]

TASK [create users and groups] *****
*
changed: [192.168.56.135]

TASK [create nagios user homedir] *****
*
changed: [192.168.56.135]

TASK [change nagios user home dir and add group members] *****
*

Activities Terminal Fri 08:28 ● dldperez@control: ~/HOA_8.1

File Edit View Search Terminal Help

*
changed: [192.168.56.135]
TASK [change nagios user home dir and add group members] *****
*
changed: [192.168.56.135] => (item=usermod --home /home/nagios nagios)
changed: [192.168.56.135] => (item=usermod -a -G nagios www-data)
TASK [make binaries] *****
*
changed: [192.168.56.135] => (item=make install)
changed: [192.168.56.135] => (item=make install-daemoninit)
changed: [192.168.56.135] => (item=make install-commandmode)
changed: [192.168.56.135] => (item=make install-config)
changed: [192.168.56.135] => (item=make install-webconf)
TASK [Enable apache2 modules] *****
*
failed: [192.168.56.135] (item=cgi) => {"changed": false, "item": "cgi", "msg":
"Failed to set module cgi to enabled:\nEnabling module cgi.\n\nMaybe the modul
e identifier (cgi_module) was guessed incorrectly.Consider setting the \"identi
fier\" option.", "rc": 13, "stderr": "Could not create /etc/apache2/mods-enable
d/cgi.load: Permission denied\n", "stderr_lines": ["Could not create /etc/apach
e2/mods-enabled/cgi.load: Permission denied"], "stdout": "Enabling module cgi.\n", "stdout_lines": ["Enabling module cgi."]}
failed: [192.168.56.135] (item=rewrite) => {"changed": false, "item": "rewrite"
, "msg": "Failed to set module rewrite to enabled:\nEnabling module rewrite.\n\nMaybe the module identifier (rewrite_module) was guessed incorrectly.Consider
setting the \"identifier\" option.", "rc": 13, "stderr": "Could not create /etc

```
Activities Terminal Fri 08:29 dldperez@control: ~/HOA_8.1
File Edit View Search Terminal Help
changed: [192.168.56.135] => (item=make install-webconf)

TASK [Enable apache2 modules] *****
*
failed: [192.168.56.135] (item=cgi) => {"changed": false, "item": "cgi", "msg":
"Failed to set module cgi to enabled:\nEnabling module cgi.\n\nMaybe the modul
e identifier (cgi_module) was guessed incorrectly.Consider setting the \"identi
fier\" option.", "rc": 13, "stderr": "Could not create /etc/apache2/mods-enable
d/cgi.load: Permission denied\n", "stderr_lines": ["Could not create /etc/apach
e2/mods-enabled/cgi.load: Permission denied"], "stdout": "Enabling module cgi.\n", "stdout_lines": ["Enabling module cgi."]}
failed: [192.168.56.135] (item=rewrite) => {"changed": false, "item": "rewrite"
, "msg": "Failed to set module rewrite to enabled:\nEnabling module rewrite.\n\n
Maybe the module identifier (rewrite_module) was guessed incorrectly.Consider
setting the \"identifier\" option.", "rc": 13, "stderr": "Could not create /etc
/apache2/mods-enabled/rewrite.load: Permission denied\n", "stderr_lines": ["Cou
ld not create /etc/apache2/mods-enabled/rewrite.load: Permission denied"], "std
out": "Enabling module rewrite.\n", "stdout_lines": ["Enabling module rewrite."
]}

to retry, use: --limit @/home/dldperez/HOA_8.1/site.retry

PLAY RECAP *****
*
192.168.56.134 : ok=0 changed=0 unreachable=1 failed=0
192.168.56.135 : ok=12 changed=7 unreachable=0 failed=1
192.168.56.138 : ok=4 changed=0 unreachable=0 failed=1

dldperez@control:~/HOA_8.1$
```

These are the status of the tasks.

Reflections:

Answer the following:

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

You can easily detect issues and you can improve the security. You can monitor it so that all the files are available to you can easily access and monitor the changes you have done.

Conclusions:

Availability monitoring tool is an important tool that we can use to monitor our files. Without it, our files might be configured without our knowledge, so it is important to monitor it to prevent any mishaps that might happen.

https://github.com/dldperez/HOA_8.1.git

