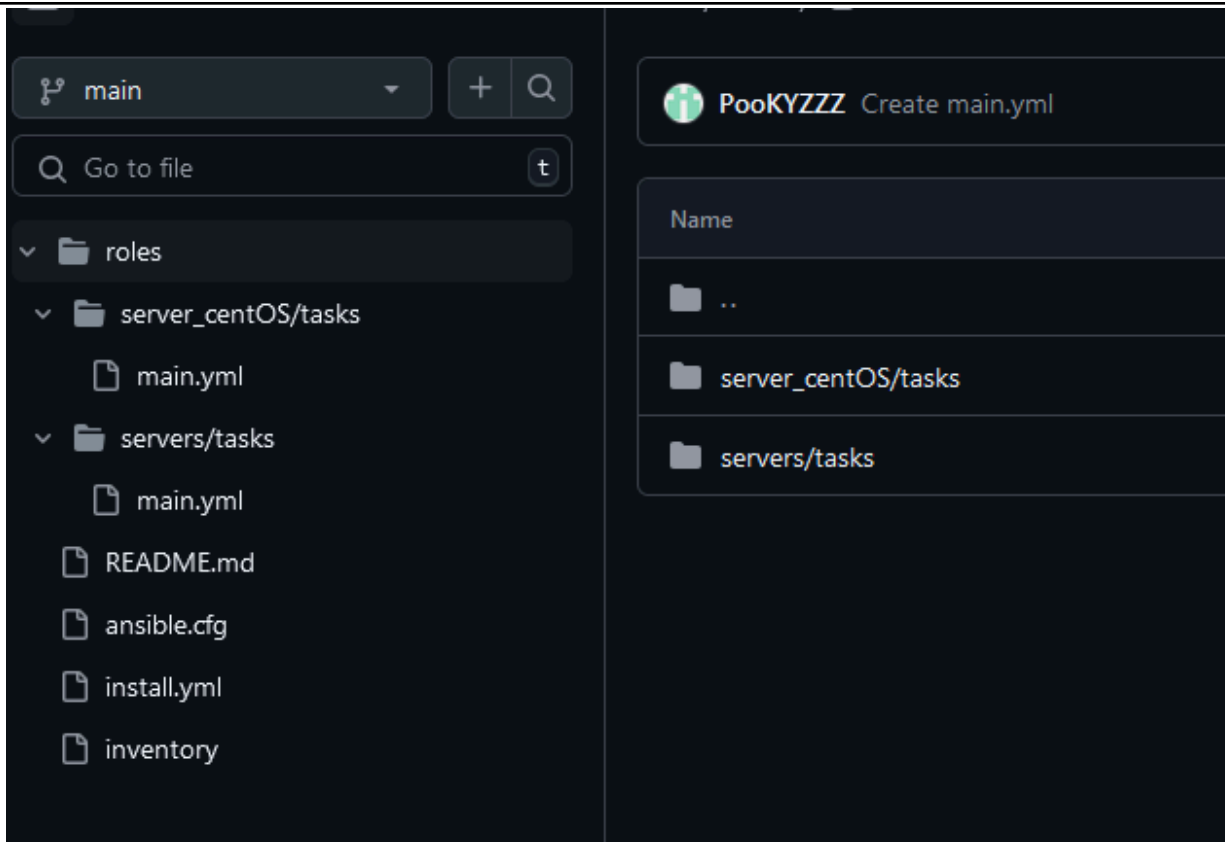| Name: Gayao, Froilan M. | Date Performed: 21/10/2024 |
|---|---|
| Course/Section: CPE212-CPE31S21 | Date Submitted: 21/10/2024 |
| Instructor: Engr. Robin Valenzuela | Semester and SY: 1st Sem 2024-2025 |

**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)

main

Go to file                                    t

roles
  server_centOS/tasks
    main.yml
  servers/tasks
    main.yml
  README.md
  ansible.cfg
  install.yml
  inventory

PooKYZZZ  Create main.yml

Name

..

server_centOS/tasks

servers/tasks

 in here, i just copied my act 7 and modify my inventories and everything since i'm doing this at home

PooKYZZZ Create main.yml

Code   Blame   63 lines (52 loc) · 1.3 KB

```yaml
 1    - name: Install dependencies for Nagios on CentOS
 2      yum:
 3        name:
 4          - httpd
 5          - php
 6          - wget
 7          - gcc
 8        state: present
 9
10    - name: Download Nagios tarball
11      get_url:
12        url: https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.4.6.tar.gz
13        dest: /tmp/nagios.tar.gz
14
15    - name: Extract Nagios tarball
16      unarchive:
17        src: /tmp/nagios.tar.gz
18        dest: /opt/
19        remote_src: yes
20
21    - name: Configure Nagios
22      command: ./configure --with-httpd-conf=/etc/httpd/conf.d/
23      args:
24        chdir: /opt/nagios-4.4.6
25
26    - name: Build Nagios
27      command: make all
28      args:
29        chdir: /opt/nagios-4.4.6
30
31    - name: Install Nagios
32      command: make install
33      args:
34        chdir: /opt/nagios-4.4.6
35
36    - name: Install Nagios init scripts
37      command: make install-init
38      args:
```

```
38          args:
39            chdir: /opt/nagios-4.4.6
40
41      - name: Install Nagios config
42        command: make install-config
43        args:
44            chdir: /opt/nagios-4.4.6
45
46      - name: Install Nagios command mode
47        command: make install-commandmode
48        args:
49            chdir: /opt/nagios-4.4.6
50
51      - name: Install Nagios web configuration
52        command: make install-webconf
53        args:
54            chdir: /opt/nagios-4.4.6
55
56      - name: Configure Nagios Admin User
57        command: htpasswd -b -c /usr/local/nagios/etc/htpasswd.users nagiosadmin password
58
59      - name: Enable and Start Apache
60        systemd:
61          name: httpd
62          enabled: yes
63          state: started
```

- this is the main task that will run for my centOS server which will install the nagiOS

Code    Blame    63 lines (52 loc) · 1.33 KB

```yaml
 1      - name: Install dependencies for Nagios on Ubuntu
 2        apt:
 3          name:
 4            - apache2
 5            - php
 6            - libapache2-mod-php
 7            - wget
 8          state: present
 9
10    - name: Download Nagios tarball
11      get_url:
12        url: https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.4.6.tar.gz
13        dest: /tmp/nagios.tar.gz
14
15    - name: Extract Nagios tarball
16      unarchive:
17        src: /tmp/nagios.tar.gz
18        dest: /opt/
19        remote_src: yes
20
21    - name: Configure Nagios
22      command: ./configure --with-httpd-conf=/etc/apache2/sites-enabled/
23      args:
24        chdir: /opt/nagios-4.4.6
25
26    - name: Build Nagios
27      command: make all
28      args:
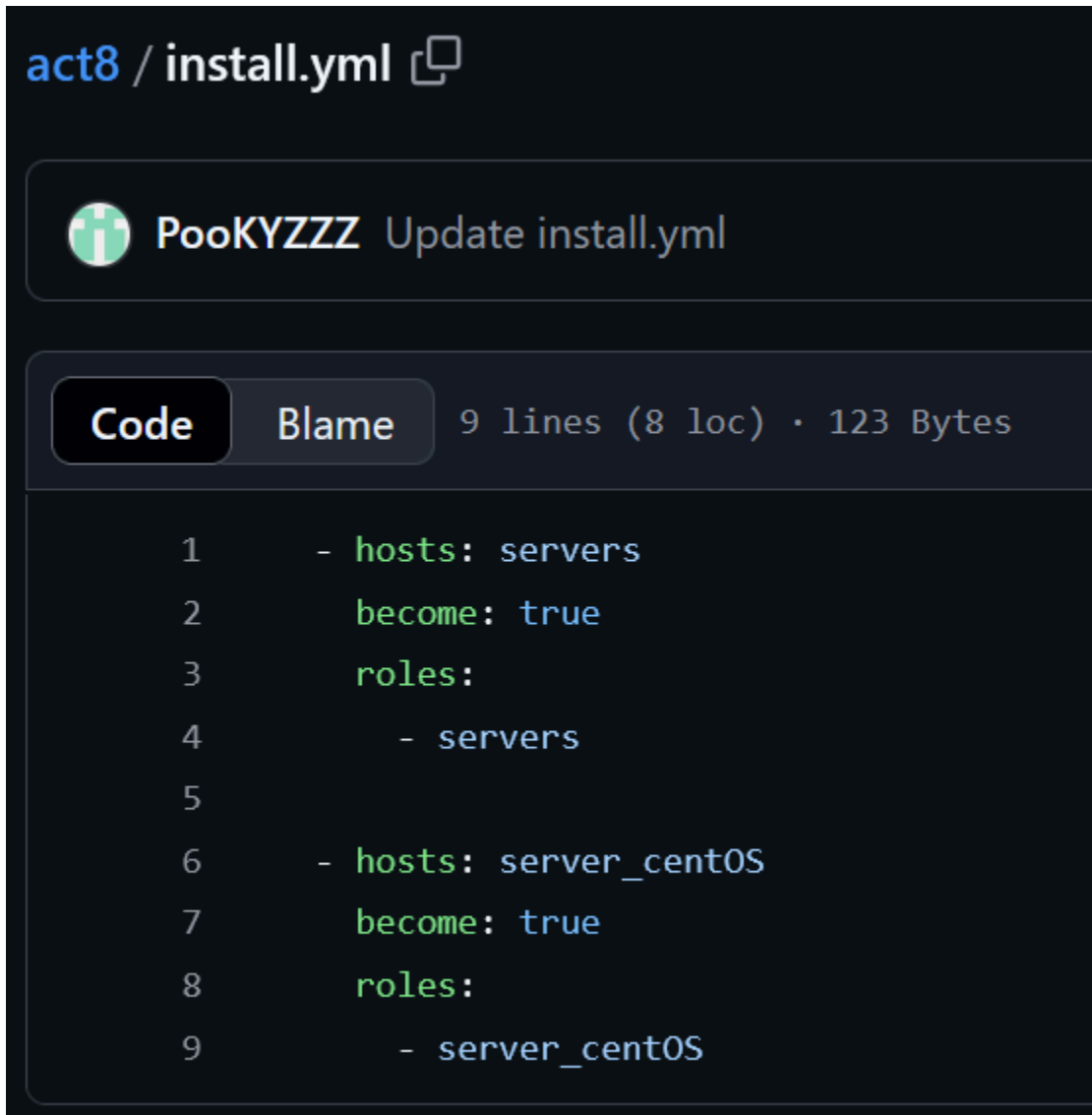```

```
28          args:
29            chdir: /opt/nagios-4.4.6
30
31      - name: Install Nagios
32        command: make install
33        args:
34            chdir: /opt/nagios-4.4.6
35
36      - name: Install Nagios init scripts
37        command: make install-init
38        args:
39            chdir: /opt/nagios-4.4.6
40
41      - name: Install Nagios config
42        command: make install-config
43        args:
44            chdir: /opt/nagios-4.4.6
45
46      - name: Install Nagios command mode
47        command: make install-commandmode
48        args:
49            chdir: /opt/nagios-4.4.6
50
51      - name: Install Nagios web configuration
52        command: make install-webconf
53        args:
54            chdir: /opt/nagios-4.4.6
55
56      - name: Configure Nagios Admin User
57        command: htpasswd -b -c /usr/local/nagios/etc/htpasswd.users nagiosadmin password
58
59      - name: Enable and Start Apache
60        systemd:
61            name: apache2
62            enabled: yes
63            state: started
```

- this is the main task that will run for my all of my ubuntu server which will install the nagiOS

- I create a roles file to organize the code and to perform its own specific function

**act8 / install.yml**

PooKYZZZ Update install.yml

Code | Blame  9 lines (8 loc) · 123 Bytes

```
1    - hosts: servers
2      become: true
3      roles:
4        - servers
5
6    - hosts: server_centOS
7      become: true
8      roles:
9        - server_centOS
```

- I made a new playbook which will call all roles that will perform their specific tasks I made earlier.

```
TASK [server_centOS : Configure Nagios] *******************************************************
changed: [centOS]

TASK [server_centOS : Build Nagios] ***********************************************************
changed: [centOS]

TASK [server_centOS : Install Nagios] *********************************************************
changed: [centOS]

TASK [server_centOS : Install Nagios init scripts] ********************************************
changed: [centOS]

TASK [server_centOS : Install Nagios config] **************************************************
changed: [centOS]

TASK [server_centOS : Install Nagios command mode] ********************************************
changed: [centOS]

TASK [server_centOS : Install Nagios web configuration] ***************************************
changed: [centOS]

TASK [server_centOS : Configure Nagios Admin User] ********************************************
changed: [centOS]

TASK [server_centOS : Enable and Start Apache] ***********************************************
changed: [centOS]

PLAY RECAP ***********************************************************************************
Server1                    : ok=8    changed=4    unreachable=0    failed=1    skipped=0    rescued=0    ignored=0
Server2                    : ok=13   changed=8    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
centOS                     : ok=13   changed=10   unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

mark@workstation:~/activities/actR$ cd
```

- I use the playbook to install Nagios on both Ubuntu and CentOS, and it calls for the codes in both files that are in roles.

**General**

**Home**
Documentation

**Current Status**

**Tactical Overview**
Map    (Legacy)
**Hosts**
**Services**
**Host Groups**
Summary
Grid
**Service Groups**
Summary
Grid
**Problems**
Services (Unhandled)
Hosts (Unhandled)
Network Outages

Quick Search:

**Reports**

Availability
Trends    (Legacy)
Alerts
History
Summary
Histogram (Legacy)
Notifications
Event Log

**System**

Comments
Downtime
Process Info
Performance Info
Scheduling Queue
Configuration

**Nagios® Core™**

Nagios® Core™
Version 4.4.6
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**Reflections:**

Answer the following:

1. What are the benefits of having an availability monitoring tool?
   - Availability monitoring tools like Nagios ensure the systems are operational and accessible in which they help to prevent damage. It also provides a monitoring uptime which allows for quick identification of issues, improving overall system performance and reducing unexpected downtimes.

**Conclusions:**

   - In this activity, I used the playbook to install and manage nagiOS on both my Ubuntu and CentOS. By using roles, it organized my code efficiently, making the debugging of the playbook and installation process smoother.

## https://github.com/PooKYZZZ/act8