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Instructor: Engr. Robin Valenzuela	Date: /12/13/14

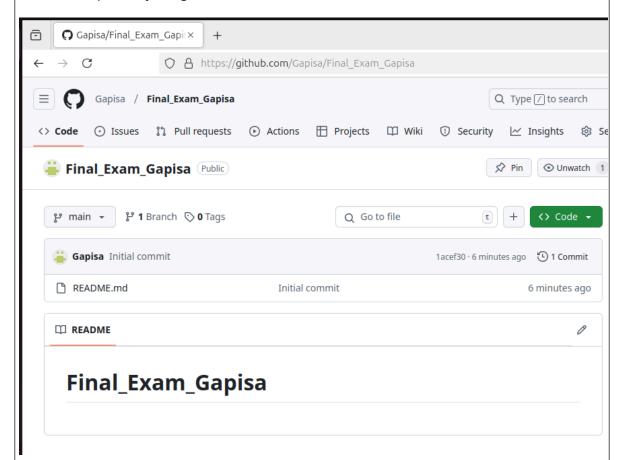| |
|---|
| Tools Needed: |
| 1. VM with Ubuntu, CentOS and Ansible installed

2. Web browser |
| Procedure: |
| 1. Create a repository and label it as "Final_Exam_Surname"

2. Clone your new repository in your VM

3. Create an Ansible playbook that does the following with an input of a config.yaml file and structure inventory file.

3.1 Install and configure one enterprise service that can be installed in Debian and Centos servers

3.2 Install and configure one monitoring tool that can be installed in Debian and Centos servers (if it is a stack there should be option of different host)

4.4 Change Motd as "Ansible Managed by <username>"

4. Push and commit your files in GitHub

5. Make sure to show evidence of input (codes) process (codes successfully running) and output (evidence of installation)

5. For your final exam to be counted, please paste your repository link as an answer in this exam.

Note: Extra points if you will implement the said services via containerization. |

Output:

Create a repository on github

Enterprise Service:

Ubuntu server:

```
TASK [ubuntu_server : install apache and php for Ubuntu servers]
ok: [server1]

TASK [ubuntu_server : start and enabale apache] *****************
changed: [server1]
```

```yaml
- name: install apache and php for Ubuntu servers
  apt:
    name:
      - apache2
      - libapache2-mod-php
    state: latest

- name: start and enabale apache
  service:
    name: apache2
    state: restarted
    enabled: yes
```

```
gapisa@server1:~$ systemctl status apache2
● apache2.service - The Apache HTTP Server
     Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: >
     Active: active (running) since Fri 2024-12-13 11:04:55 PST; 3min 58s ago
       Docs: https://httpd.apache.org/docs/2.4/
   Process: 55418 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/S>
  Main PID: 55423 (apache2)
      Tasks: 6 (limit: 4551)
     Memory: 10.6M (peak: 11.3M)
        CPU: 59ms
     CGroup: /system.slice/apache2.service
             ├─55423 /usr/sbin/apache2 -k start
             ├─55425 /usr/sbin/apache2 -k start
             ├─55426 /usr/sbin/apache2 -k start
             ├─55427 /usr/sbin/apache2 -k start
             ├─55428 /usr/sbin/apache2 -k start
             └─55429 /usr/sbin/apache2 -k start

Dec 13 11:04:55 server1 systemd[1]: Starting apache2.service - The Apache HTTP >
Dec 13 11:04:55 server1 apachectl[55422]: AH00558: apache2: Could not reliably >
Dec 13 11:04:55 server1 systemd[1]: Started apache2.service - The Apache HTTP S>
lines 1-20/20 (END)
```

Centos_server

```yaml
---

- name: Install httpd and php on centos
  dnf:
    name:
      - httpd
      - php
    state: present

- name: start and enable httpd
  service:
    name: httpd
    state: started
    enabled: yes
```

```
PLAY [Centos server] ********************************

TASK [Gathering Facts] ******************************
ok: [centosserver]

TASK [centos_server : Install httpd and php on centos]
ok: [centosserver]

TASK [centos_server : start and enable httpd] *********
ok: [centosserver]
```

```
[gapisa@centosserver ~]$ systemctl status httpd
● httpd.service - The Apache HTTP Server
     Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; preset: di>
    Drop-In: /usr/lib/systemd/system/httpd.service.d
             └─php-fpm.conf
     Active: active (running) since Fri 2024-12-13 10:25:26 PST; 46min ago
       Docs: man:httpd.service(8)
   Main PID: 5866 (httpd)
     Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes>
      Tasks: 177 (limit: 22696)
     Memory: 27.9M
        CPU: 5.481s
     CGroup: /system.slice/httpd.service
             ├─5866 /usr/sbin/httpd -DFOREGROUND
             ├─5868 /usr/sbin/httpd -DFOREGROUND
             ├─5869 /usr/sbin/httpd -DFOREGROUND
             ├─5870 /usr/sbin/httpd -DFOREGROUND
             └─5871 /usr/sbin/httpd -DFOREGROUND

Dec 13 10:25:26 centosserver systemd[1]: Starting The Apache HTTP Server...
Dec 13 10:25:26 centosserver httpd[5866]: AH00558: httpd: Could not reliably de>
Dec 13 10:25:26 centosserver httpd[5866]: Server configured, listening on: port>
Dec 13 10:25:26 centosserver systemd[1]: Started The Apache HTTP Server.
lines 1-22/22 (END)
```

Monitoring tools:

Ubuntu server:

```yaml
- name: Add Elastic GPG Key
  apt_key:
    url: "https://artifacts.elastic.co/GPG-KEY-elasticsearch"

- name: Install APT Transport
  apt:
    name: apt-transport-https
    state: present

- name: Add Elasticsearch Repo
  apt_repository:
    repo: "deb https://artifacts.elastic.co/packages/7.x/apt stable main"
    state: present
  become: yes
```

```
- name: Install monitoring tool  Kibana
  apt:
    name: kibana
    state: present
    update_cache: yes

- name: Start Kibana
  service:
    name: kibana
    state: started
    enabled: yes
```

```
TASK [ubuntu_server : Add Elastic GPG Key] *************
ok: [server1]

TASK [ubuntu_server : Install APT Transport] ***********
ok: [server1]

TASK [ubuntu_server : Add Elasticsearch Repo] **********
ok: [server1]

TASK [ubuntu_server : Install monitoring tool  Kibana] 
ok: [server1]

TASK [ubuntu_server : Start Kibana] *******************
ok: [server1]
```

```
gapisa@server1:~$ systemctl status kibana
● kibana.service - Kibana
     Loaded: loaded (/etc/systemd/system/kibana.service; enabled; preset: enabl>
     Active: active (running) since Fri 2024-12-13 09:46:56 PST; 21min ago
       Docs: https://www.elastic.co
   Main PID: 30840 (node)
      Tasks: 11 (limit: 4551)
     Memory: 243.6M (peak: 294.9M)
        CPU: 23.363s
     CGroup: /system.slice/kibana.service
             └─30840 /usr/share/kibana/bin/../node/bin/node /usr/share/kibana/b>

Dec 13 09:46:56 server1 systemd[1]: Started kibana.service - Kibana.
Dec 13 09:46:56 server1 kibana[30840]: Kibana is currently running with legacy >
lines 1-13/13 (END)
```

Centos_server

Github

Final_Exam_Gapisa /		Add file ···
File successfully deleted.		

Gapisa Delete Final_Exam_Gapisa.pdf   536f9d3 · 7 minutes ago   History

Name	Last commit message	Last commit date
roles	Update main.yml	23 minutes ago
README.md	Initial commit	2 hours ago
ansible.cfg	updated	43 minutes ago
config.yml	updated	43 minutes ago
inventory	updated	43 minutes ago

README.md

Final_Exam_Gapisa

Github link: Gapisa/Final_Exam_Gapisa