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FINAL EXAM

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Final_Exam_Valencia



avalencia@workstation: ~/Final_Exam_Valencia

GNU nano 6.2

Finals_Playbook.yaml *

```
--
- hosts: all
  become: true
  vars_files:
    - config.yaml
  tasks:
    - name: Install Apache (Ubuntu) or HTTPD (CentOS)
      package:
        name: "{{ apache_ubuntu }}"
        state: present
      when: ansible_distribution == "Ubuntu"

    - name: Install Apache (CentOS)
      package:
        name: "{{ apache_centos }}"
        state: present
      when: ansible_distribution == "CentOS"

    - name: Start and enable Apache/HTTPD service
      service:
        name: "{{ apache_ubuntu }}"
        state: started
        enabled: true
      when: ansible_distribution == "Ubuntu"

    - name: Start Apache service (CentOS)
      service:
        name: "{{ apache_centos }}"
        state: started
        enabled: true
      when: ansible_distribution == "CentOS"

    - name: Download Prometheus
      get_url:
        url: "https://github.com/prometheus/prometheus/releases/download/v{{ prometheus }}"
        dest: /tmp/prometheus.tar.gz
```

```

- name: Extract Prometheus
  unarchive:
    src: /tmp/prometheus.tar.gz
    dest: /opt/
    remote_src: yes

- name: Create Prometheus user
  user:
    name: prometheus
    system: yes

- name: Set Prometheus directories
  file:
    path: "/opt/prometheus-{{ prometheus_version }}.linux-amd64"
    owner: prometheus
    group: prometheus
    state: directory
    recurse: yes

- name: Create systemd service file
  copy:
    dest: /etc/systemd/system/prometheus.service
    content: |
      [Unit]
      Description=Prometheus
      Wants=network-online.target
      After=network-online.target

      [Service]
      User=prometheus
      Group=prometheus
      ExecStart=/opt/prometheus-{{ prometheus_version }}.linux-amd64/prometheus \
        --config.file=/opt/prometheus-{{ prometheus_version }}.linux-amd64/promethe
        --storage.tsdb.path=/opt/prometheus-{{ prometheus_version }}.linux-amd64/da

```

```

[Install]
WantedBy=multi-user.target

```

```

- name: Reload systemd and start Prometheus
  shell: |
    systemctl daemon-reload
    systemctl enable prometheus
    systemctl start prometheus

- name: Create custom MOTD script
  copy:
    dest: /etc/update-motd.d/99-custom
    content: |
      #!/bin/bash
      echo "Ansible Managed by {{ username }}"
    mode: '0755'

```



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<> **Code**

⊙ Issues

🔗 Pull requests

▶ Actions

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Final_Exam_Valencia

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a-valenc Done



Dockerfile

Done



Finals_Playbook.yaml

Done



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ansible.cfg

Done



config.yaml

Done



inventory.yaml

Done



avalencia@workstation: ~/Final_Exam_Valencia

```
TASK [Gathering Facts] *****
ok: [Ubuntu]
ok: [CentOS]

TASK [Install Apache (Ubuntu) or HTTPD (CentOS)] *****
ok: [Ubuntu]
ok: [CentOS]

TASK [Start and enable Apache/HTTPD service] *****
ok: [CentOS]
changed: [Ubuntu]

TASK [Install prerequisites for Prometheus] *****
ok: [CentOS]
ok: [Ubuntu]

TASK [Download Prometheus tarball] *****
ok: [CentOS]
changed: [Ubuntu]

TASK [Extract Prometheus] *****
changed: [Ubuntu]
changed: [CentOS]

TASK [Create Prometheus user] *****
changed: [Ubuntu]
changed: [CentOS]

TASK [Set ownership for Prometheus directories] *****
changed: [Ubuntu]
changed: [CentOS]

TASK [Create Prometheus systemd service file] *****
changed: [Ubuntu]
changed: [CentOS]

TASK [Reload systemd and start Prometheus] *****
changed: [Ubuntu]
changed: [CentOS]
```

```
TASK [Update MOTD to "Ansible Managed by <username>"] *****
changed: [Ubuntu]
changed: [CentOS]

TASK [Verify Apache/HTTPD service is running] *****
changed: [CentOS]
changed: [Ubuntu]
```

```
avalencia@server2:~$ sudo systemctl status apache2
[sudo] password for avalencia:
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset:
   Drop-In: /lib/systemd/system/apache2.service.d
            └─apache2-systemd.conf
   Active: active (running) since Wed 2024-12-04 08:52:43 +08; 51min ago
 Main PID: 5643 (apache2)
    Tasks: 9 (limit: 2318)
   CGroup: /system.slice/apache2.service
           └─5643 /usr/sbin/apache2 -k start
             5668 /usr/sbin/apache2 -k start
             5669 /usr/sbin/apache2 -k start
             5670 /usr/sbin/apache2 -k start
             5671 /usr/sbin/apache2 -k start
             5672 /usr/sbin/apache2 -k start
             6602 /usr/sbin/apache2 -k start
             6620 /usr/sbin/apache2 -k start
             6621 /usr/sbin/apache2 -k start

Dec 04 08:52:42 server2 systemd[1]: Starting The Apache HTTP Server...
Dec 04 08:52:43 server2 apachectl[5600]: AH00558: apache2: Could not reliably d
Dec 04 08:52:43 server2 systemd[1]: Started The Apache HTTP Server.
```

```
avalencia@server2: ~
Firefox Web Browser
File Edit View Search Terminal Help
avalencia@server2:~$ sudo systemctl status prometheus
[sudo] password for avalencia:
● prometheus.service - Prometheus
   Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; vendor pres
   Active: active (running) since Wed 2024-12-04 08:53:49 +08; 34min ago
 Main PID: 6065 (prometheus)
    Tasks: 7 (limit: 2318)
   CGroup: /system.slice/prometheus.service
           └─6065 /opt/prometheus-2.46.0.linux-amd64/prometheus --config.file=/

Dec 04 08:53:49 server2 prometheus[6065]: ts=2024-12-04T00:53:49.822Z caller=tl
Dec 04 08:53:49 server2 prometheus[6065]: ts=2024-12-04T00:53:49.823Z caller=tl
Dec 04 08:53:49 server2 prometheus[6065]: ts=2024-12-04T00:53:49.823Z caller=he
Dec 04 08:53:49 server2 prometheus[6065]: ts=2024-12-04T00:53:49.823Z caller=he
Dec 04 08:53:49 server2 prometheus[6065]: ts=2024-12-04T00:53:49.823Z caller=ma
Dec 04 08:53:49 server2 prometheus[6065]: ts=2024-12-04T00:53:49.825Z caller=ma
Dec 04 08:53:49 server2 prometheus[6065]: ts=2024-12-04T00:53:49.825Z caller=ma
Dec 04 08:53:49 server2 prometheus[6065]: ts=2024-12-04T00:53:49.826Z caller=ma
Dec 04 08:53:49 server2 prometheus[6065]: ts=2024-12-04T00:53:49.826Z caller=ma
Dec 04 08:53:49 server2 prometheus[6065]: ts=2024-12-04T00:53:49.827Z caller=ma

[1]+  Stopped                  sudo systemctl status prometheus
avalencia@server2:~$
```

```

[avalencia@localhost ~]$ sudo systemctl status httpd
[sudo] password for avalencia:
• httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; preset: disabled)
   Drop-In: /usr/lib/systemd/system/httpd.service.d
            └─php-fpm.conf
   Active: active (running) since Wed 2024-12-04 08:50:21 PST; 55min ago
     Docs: man:httpd.service(8)
  Main PID: 3733 (httpd)
    Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes>
      Tasks: 177 (limit: 10949)
     Memory: 12.3M
        CPU: 1.354s
     CGroup: /system.slice/httpd.service
            └─3733 /usr/sbin/httpd -DFOREGROUND
              └─3740 /usr/sbin/httpd -DFOREGROUND
                └─3741 /usr/sbin/httpd -DFOREGROUND
                  └─3742 /usr/sbin/httpd -DFOREGROUND
                    └─3743 /usr/sbin/httpd -DFOREGROUND

Dec 04 08:50:20 localhost.localdomain systemd[1]: Starting The Apache HTTP Serv>
Dec 04 08:50:21 localhost.localdomain httpd[3733]: AH00558: httpd: Could not re>
Dec 04 08:50:21 localhost.localdomain systemd[1]: Started The Apache HTTP Serve>
```

```

avalencia@localhost:~
[avalencia@localhost ~]$ sudo systemctl status prometheus
● prometheus.service - Prometheus
   Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; preset: d
   Active: active (running) since Wed 2024-12-04 08:53:49 PST; 52min ago
   Main PID: 6381 (prometheus)
     Tasks: 7 (limit: 10949)
    Memory: 42.4M
       CPU: 751ms
    CGroup: /system.slice/prometheus.service
           └─6381 /opt/prometheus-2.46.0.linux-amd64/prometheus --config.file>

Dec 04 08:53:49 localhost.localdomain prometheus[6381]: ts=2024-12-04T00:53:49.>
Dec 04 08:53:49 localhost.localdomain prometheus[6381]: ts=2024-12-04T00:53:49.>
Dec 04 08:53:49 localhost.localdomain prometheus[6381]: ts=2024-12-04T00:53:49.>
Dec 04 08:53:49 localhost.localdomain prometheus[6381]: ts=2024-12-04T00:53:49.>
Dec 04 08:53:49 localhost.localdomain prometheus[6381]: ts=2024-12-04T00:53:49.>
Dec 04 08:53:49 localhost.localdomain prometheus[6381]: ts=2024-12-04T00:53:49.>
Dec 04 08:53:49 localhost.localdomain prometheus[6381]: ts=2024-12-04T00:53:49.>
Dec 04 08:53:49 localhost.localdomain prometheus[6381]: ts=2024-12-04T00:53:49.>
Dec 04 08:53:49 localhost.localdomain prometheus[6381]: ts=2024-12-04T00:53:49.>
Dec 04 08:53:49 localhost.localdomain prometheus[6381]: ts=2024-12-04T00:53:49.>
lines 1-20/20 (END)

```





