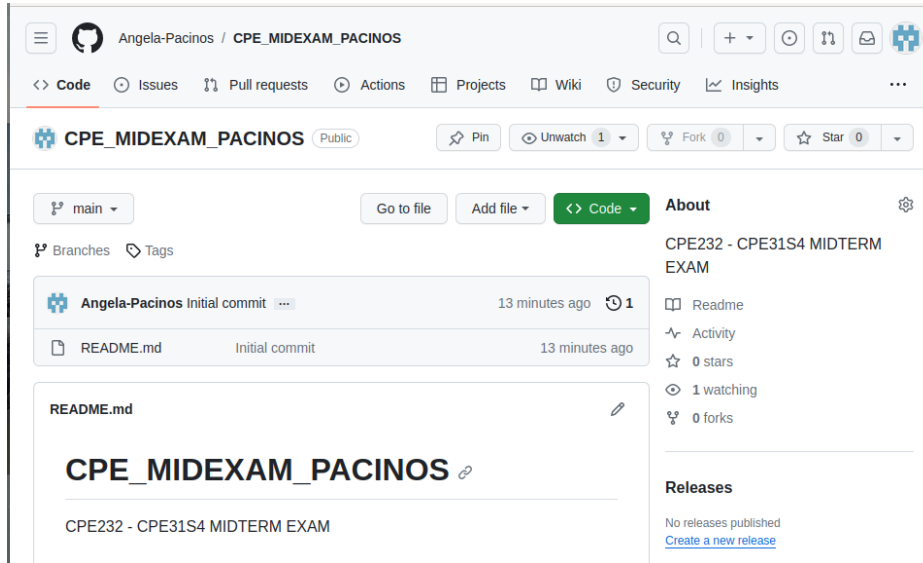


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Course/Section: CPE232 - CPE31S4	Date Submitted: 11-06-23
Instructor: Dr. Jonathan V. Taylar	Semester and SY: 1st Sem: '23 - '24
Midterm Skills Exam: Install, Configure, and Manage Log Monitoring tools	
1. Objectives	
Create and design a workflow that installs, configure and manage enterprise availability, performance and log monitoring tools using Ansible as an Infrastructure as Code (IaC) tool.	
2. Instructions	
<ol style="list-style-type: none"> 1. Create a repository in your GitHub account and label it CPE_MIDEXAM_SURNAME. 2. Clone the repository and do the following: <ol style="list-style-type: none"> 2.1. Create an Ansible playbook that does the following with an input of a config.yaml file and arranged Inventory file: 2.2. Install and configure Elastic Stack in separate hosts (Elastic Search, Kibana, Logstash) • Install Nagios in one host 2.3. Install Grafana,Prometheus and Influxdb in seperate hosts (Influxdb,Grafana,Prometheus) 2.4. Install Lamp Stack in separate hosts (Httpd + Php,Mariadb) 3. Document all your tasks using this document. Provide proofs of all the ansible playbooks codes and successful installations. 4. Document the push and commit from the local repository to GitHub. 5. Finally, paste also the link of your GitHub repository in the documentation. 	
3. Output (screenshots and explanations)	

INPUT

Clone the repository and create the needed files for the roles and playbook.

repository



ansible.cfg

```
angela@workstation: ~/CPE_MIDEXAM_PACINOS
File Edit View Search Terminal Tabs Help
angela@workstatio... x angela@workstatio... x
GNU nano 2.9.3 ansible.cfg

[defaults]

inventory = inventory
host_key_checking = False

deprecation_warning = False

remote_user = angela
private_key_file = ~/.ssh/
```

inventory

```
angela@workstation: ~/CPE_MIDEXAM_PACINOS
File Edit View Search Terminal Tabs Help
angela... x angela... x angela... x angela... x
GNU nano 2.9.3 inventory Modified

[nagios]
192.168.56.101

[elasticsearch]
192.168.56.101
192.168.56.104

[kibana]
192.168.56.101
192.168.56.104

[logstash]
192.168.56.101

[influxdb]
192.168.56.101
192.168.56.104

[grafana]
192.168.56.101
192.168.56.104

[prometheus]
192.168.56.101
192.168.56.104

[httpd_php]
192.168.56.101
192.168.56.104

[mariadb]
192.168.56.101
192.168.56.104
```

site.yml

```
GNU nano 2.9.3 site.yml
--
- hosts: all
  become: true
  pre_tasks:
    - name: update repository index (CentOS)
      tags: always
      yum:
        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"
- hosts: nagios
  become: true
  roles:
    - nagios
- hosts: elasticsearch
  become: true
  roles:
    - elasticsearch
- hosts: kibana
  become: true
  roles:
    - kibana
- hosts: logstash
  become: true
  roles:
    - logstash
- hosts: httpd_php
  become: true
  roles:
    - httpd_php
- hosts: mariadb
  become: true
  roles:
    - mariadb
- hosts: prometheus
  become: true
  roles:
    - prometheus
- hosts: influxdb
  become: true
  roles:
    - influxdb
- hosts: grafana
  become: true
  roles:
    - grafana
```

Under the same directory, create a new directory and name it 'roles'. Enter the roles directory and create new directories: and name it similar to the groups that we created in inventory. In each directory, create a new directory and name it tasks.

```
angela@workstation:~/CPE_MIDEXAM_PACINOS$ tree
.
├── ansible.cfg
├── inventory
├── README.md
├── roles
│   ├── elasticsearch
│   │   ├── tasks
│   │   └── main.yml
│   ├── grafana
│   │   ├── tasks
│   │   └── main.yml
│   ├── httpd_php
│   │   ├── tasks
│   │   └── main.yml
│   ├── influxdb
│   │   ├── tasks
│   │   └── main.yml
│   ├── kibana
│   │   ├── tasks
│   │   └── main.yml
│   ├── logstash
│   │   ├── tasks
│   │   └── main.yml
│   ├── mariadb
│   │   ├── tasks
│   │   └── main.yml
│   ├── nagios
│   │   ├── tasks
│   │   └── main.yml
│   ├── prometheus
│   │   ├── tasks
│   │   └── main.yml
│   └── site.yml
└── 19 directories, 13 files
```

For Nagios

```
GNU nano 2.9.3 main.yml
- name: installation of nagios dependencies and libraries (Ubuntu)
  tags: dependencies, libraries
  apt:
    name:
      - autoconf
      - libc6
      - gcc
      - make
      - wget
      - unzip
      - apache2
      - php
      - libapache2-mod-php
      - libgd-dev
      - openssl
      - libssl-dev
      - bc
      - gawk
      - dc
      - build-essential
      - snmp
      - libnet-snmp-perl
      - gettext
      - python3
      - python3-pip
    state: latest
  when: ansible_distribution == "Ubuntu"
- name: installation of nagios dependencies and libraries (CentOS)
  tags:
    - dependencies
    - libraries
  yum:
    name:
      - gcc
      - glibc
      - glibc-common
      - perl
      - httpd
      - php
      - wget
      - gd
      - gd-devel
      - openssl-devel
      - gcc
      - glibc
      - glibc-common
      - make
      - gettext
      - automake
      - autoconf
      - wget
      - openssl-devel
      - net-snmp
      - net-snmp-utils
      - python
```

```

- python
- python2-pip
- python3-pip
state: latest
when: ansible_distribution == "CentOS"

- name: install passlib package
  pip:
    name: passlib

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

- name: download 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

- name: add users to nagios
  community.general.htpasswd:
    path: /usr/local/nagios/etc/htpasswd.users
    name: angela
    password: pacinos_tip

- name: start and enable nagios
  service:
    name: nagios
    state: started
    enabled: yes

- name: start and enable apache
  service:
    name: apache2
    state: restarted
    enabled: true
  when: ansible_distribution == "Ubuntu"

- name: start and enable httpd
  service:
    name: httpd
    state: restarted
    enabled: true
  when: ansible_distribution == "CentOS"

```

For Elastic search

```

angela@workstation: ~/CPE_MIDEXAM_PACINOS/roles/elasticsearch/tasks
File Edit View Search Terminal Tabs Help
angela@workstation: ~ x angela@workstation: ~/CPE_MIDEXA... x
GNU nano 2.9.3 main.yml Modified

- name: install the prerequisites
  yum:
    name:
      - java-1.8.0-openjdk
      - epel-release
      - wget
      - which
    state: present
  when: ansible_distribution == "CentOS"

- name: add elastic search rpm repository
  shell: rpm --import https://artifacts.elastic.co/GPG-KEY-elasticsearch
  when: ansible_distribution == "CentOS"

- name: add elastic search repository
  copy:
    content: |
      [elasticsearch-7.x]
      name=Elasticsearch repository for 7.x packages
      baseurl=https://artifacts.elastic.co/packages/7.x/yum
      gpgcheck=1
      gpgkey=https://artifacts.elastic.co/GPG-KEY-elasticsearch
      enabled=1
      autorefresh=1
      type=rpm-md
      dest=/etc/yum.repos.d/elasticsearch.repo
  when: ansible_distribution == "CentOS"

- name: install elastic search (CentOS)
  yum:
    name: elasticsearch
    state: present
  when: ansible_distribution == "CentOS"

- name: elastic search restarting / enabling
  service:
    name: elasticsearch
    state: restarted
    enabled: true

```

For Kibana

```
angela@workstation: ~/CPE_MIDEXAM_PACINOS/roles/kibana/tasks
File Edit View Search Terminal Tabs Help
angela@workstation: ~ x angela@workstation: ~/CPE_MIDEXA... x
GNU nano 2.9.3 main.yml Modified
- name: install kibana (Ubuntu)
  apt:
    name: kibana
    state: present
    become: yes
    when: ansible_distribution == "Ubuntu"
- name: install kibana (CentOS)
  yum:
    name: kibana
    state: present
    become: yes
    when: ansible_distribution == "CentOS"
- name: kibana restarting / enabling
  systemd:
    name: kibana
    enabled: yes
    state: started
    become: yes
```

For Logstash

```
angela@workstation: ~/CPE_MIDEXAM_PACINOS/roles/logstash/tasks
File Edit View Search Terminal Tabs Help
angela@workstation: ~ x angela@workstation: ~/CPE_MIDEXA... x
GNU nano 2.9.3 main.yml Modified
- name: install logstash (Ubuntu)
  apt:
    name: logstash
    state: present
    become: yes
    when: ansible_distribution == "Ubuntu"
- name: install logstash (CentOS)
  yum:
    name: logstash
    state: present
    become: yes
    when: ansible_distribution == "CentOS"
- name: logstash restarting / enabling
  systemd:
    name: logstash
    enabled: yes
    state: started
    become: yes
```

For InfluxDB

```
angela@workstation: ~/CPE_MIDEXAM_PACINOS/roles/influxdb/tasks
File Edit View Search Terminal Tabs Help
angela@workstation: ~ x angela@workstation: ~/CPE_MIDEXA... x
GNU nano 2.9.3 main.yml Modified
- name: install influxdb
  apt:
    name: influxdb
    state: present
    become: yes
  when: ansible_distribution == "Ubuntu"
- name: install influxdb
  yum:
    name: influxdb
    state: present
    become: yes
  when: ansible_distribution == "CentOS"
- name: influxdb restarting / enabling
  service:
    name: influxdb
    state: restarted
    enabled: yes
    become: yes
```

For Grafana

```
angela@workstation: ~/CPE_MIDEXAM_PACINOS/roles/grafana/tasks
File Edit View Search Terminal Tabs Help
angela@workstation: ~ x angela@workstation: ~/CPE_MIDEXA... x
GNU nano 2.9.3 main.yml Modified
- name: install the prerequisite
  apt:
    name:
      - gnupg2
      - curl
      - software-properties-common
    when: ansible_distribution == "Ubuntu"
- name: Add Grafana APT GPG key
  apt_key:
    url: https://packages.grafana.com/gpg.key
    state: present
    when: ansible_distribution == "Ubuntu"
- name: add grafana repository
  apt_repository:
    repo: "deb https://packages.grafana.com/oss/deb stable main"
    state: present
    when: ansible_distribution == "Ubuntu"
- name: add grafana gpg key
  get_url:
    url: https://packages.grafana.com/gpg.key
    state: present
    when: ansible_distribution == "CentOS"
- name: add grafana repository
  yum_repository:
    url: https://packages.grafana.com/oss/rpm
    enabled: yes
    when: ansible_distribution == "CentOS"
- name: install grafana
  package:
    name: grafana
    state: present
- name: grafana restarting / enabling
  service:
    name: grafana-server
    state: started
    enabled: yes
```


For Prometheus

```
angela@workstation: ~/CPE_MIDEXAM_PACINOS/roles/prometheus/tasks
File Edit View Search Terminal Tabs Help
angela@workstation: ~ x angela@workstation: ~/CPE_MIDEXA... x
GNU nano 2.9.3 main.yml

- name: Install prometheus (Ubuntu)
  apt:
    name: prometheus
    state: latest
    when: ansible_distribution == "Ubuntu"

- name: Creating a directory (where the downloaded files will be stored)
  tags: directory
  file:
    path: ~/prometheus
    state: directory

- name: Downloading and extracting Prometheus
  tags: source
  unarchive:
    src: https://github.com/prometheus/prometheus/releases/download/v2.8.1/prometheus-2.8.1.linux-amd64.tar.gz
    dest: ~/prometheus
    remote_src: yes
    mode: 0777
    owner: root
    group: root

- name: Adding the Prometheus executables to a PATH
  tags: executables
  shell: |
    cd ~/prometheus/prometheus*
    cp -r . /usr/local/bin/prometheus

- name: Copying the Prometheus service file
  tags: servicefile
  copy:
    src: prometheus.service
    dest: /etc/systemd/system/
    owner: root
    group: root
    mode: 777

- name: Prometheus restarting / enabling
  tags: serviceon
  service:
    name: prometheus
    state: restarted
    enabled: yes
```

For Httpd + PHP

```
angela@workstation: ~/CPE_MIDEXAM_PACINOS/roles/httpd_php/tasks
File Edit View Search Terminal Tabs Help
angela@workstation: ~ x angela@workstation: ~/CPE_MIDEXA... x
GNU nano 2.9.3 main.yml

- name: install apache and php for Ubuntu servers
  tags: apache,apache2,ubuntu
  apt:
    name:
      - apache2
      - libapache2-mod-php
    state: latest
    when: ansible_distribution == "Ubuntu"

- name: install apache and php for CentOS servers
  tags: apache,centos,httpd
  yum:
    name:
      - httpd
      - php
    state: latest
    when: ansible_distribution == "CentOS"

- name: start httpd (CentOS)
  tags: apache,centos,httpd
  service:
    name: httpd
    state: started
    when: ansible_distribution == "CentOS"

- name: copy default html file for site
  tags: apache,apache2,httpd
  copy:
    src: default_site.html
    dest: /var/www/html/index.html
    owner: root
    group: root
    mode: 0644
```

For Mariadb

```
angela@workstation: ~/CPE_MIDEXAM_PACINOS/roles/mariadb/tasks
File Edit View Search Terminal Tabs Help
angela@workstation: ~ x angela@workstation: ~/CPE_MIDEXA... x
GNU nano 2.9.3 main.yml Modified
- name: install mariadb package (CentOS)
  tags: centos,db,mariadb
  yum:
    name: mariadb-server
    state: latest
  when: ansible_distribution == "CentOS"

- name: install mariadb package (Ubuntu)
  tags: db,mariadb,ubuntu
  apt:
    name: mariadb-server
    state: latest
  when: ansible_distribution == "Ubuntu"

- name: "Mariadb- Restarting/Enabling"
  tags: db,mariadb,ubuntu
  service:
    name: mariadb
    state: restarted
    enabled: true
```

Make sure that the repository is sync in the Github

```
angela@workstation:~/CPE_MIDEXAM_PACINOS$ git add *
angela@workstation:~/CPE_MIDEXAM_PACINOS$ git commit -m "MIDTERM EXAM"
[main 34e17de] MIDTERM EXAM
14 files changed, 496 insertions(+)
create mode 100644 ansible.cfg
create mode 100644 inventory
create mode 100644 roles/elasticsearch/tasks/main.yml
create mode 100644 roles/grafana/tasks/main.yml
create mode 100644 roles/httpd_php/tasks/main.yml
create mode 100644 roles/influxdb/tasks/main.yml
create mode 100644 roles/kibana/tasks/main.yml
create mode 100644 roles/logstash/tasks/main.yml
create mode 100644 roles/mariadb/tasks/main.yml
create mode 100644 roles/nagios/tasks/main.yml
create mode 100644 roles/prometheus/tasks/main.yml
create mode 100644 roles/prometheus/tasks/prometheus.service
create mode 100644 roles/prometheus/tasks/prometheus.services
create mode 100644 site.yml
angela@workstation:~/CPE_MIDEXAM_PACINOS$ git push origin main
Username for 'https://github.com': Angela-Pacinos
Password for 'https://Angela-Pacinos@github.com':
Counting objects: 35, done.
Delta compression using up to 3 threads.
Compressing objects: 100% (18/18), done.
Writing objects: 100% (35/35), 5.32 KiB | 1.06 MiB/s, done.
Total 35 (delta 0), reused 0 (delta 0)
To https://github.com/Angela-Pacinos/CPE_MIDEXAM_PACINOS.git
b4e39db..34e17de main -> main
```

PROCESS

run the site.yml playbook and show the result.

```
angela@workstation: ~/CPE_MIDEXAM_PACINOS
File Edit View Search Terminal Tabs Help
angela@worksta... x angela@worksta... x angela@worksta... x

angela@workstation:~/CPE_MIDEXAM_PACINOS$ ansible-playbook --ask-become-pass site.yml
[DEPRECATION WARNING]: Ansible will require Python 3.8 or newer on the controller starting
with Ansible 2.12. Current version: 3.6.9 (default, Mar 10 2023, 16:46:09) [GCC 8.4.0].
This feature will be removed from ansible-core in version 2.12. Deprecation warnings can be
disabled by setting deprecation_warnings=False in ansible.cfg.
BECOME password:

PLAY [all] *****

TASK [Gathering Facts] *****
[DEPRECATION WARNING]: Distribution Ubuntu 18.04 on host 192.168.56.101 should use
/usr/bin/python3, but is using /usr/bin/python for backward compatibility with prior
Ansible releases. A future Ansible release will default to using the discovered platform
python for this host. See https://docs.ansible.com/ansible-
core/2.11/reference_appendices/interpreter_discovery.html for more information. This
feature will be removed in version 2.12. Deprecation warnings can be disabled by setting
deprecation_warnings=False in ansible.cfg.
ok: [192.168.56.101]
ok: [192.168.56.104]

TASK [update repository index (CentOS)] *****
skipping: [192.168.56.101]
ok: [192.168.56.104]

TASK [install updates (Ubuntu)] *****
skipping: [192.168.56.104]
ok: [192.168.56.101]

PLAY [nagios] *****

TASK [Gathering Facts] *****
ok: [192.168.56.101]

TASK [nagios : nagios libraries and dependencies (Ubuntu)] *****
ok: [192.168.56.101]

TASK [nagios : passlib package] *****
ok: [192.168.56.101]

TASK [nagios : nagios directory PATH] *****
ok: [192.168.56.101]

TASK [nagios : downloading nagios] *****
ok: [192.168.56.101]

TASK [nagios : downloading nagios plugins] *****
ok: [192.168.56.101]

TASK [nagios : install, compile, adding users and groups] *****
changed: [192.168.56.101]

TASK [nagios : compile and install plugins] *****
changed: [192.168.56.101]

TASK [nagios : nagios restarting / enabling] *****
changed: [192.168.56.101]

TASK [nagios : apache restarting / enabling] *****
changed: [192.168.56.101]

PLAY [elasticsearch] *****

TASK [Gathering Facts] *****
TASK [elasticsearch : adding elastic search repository key] *****
skipping: [192.168.56.104]
ok: [192.168.56.101]

TASK [elasticsearch : installing apt repository] *****
skipping: [192.168.56.104]
ok: [192.168.56.101]

TASK [elasticsearch : add elastic search repository] *****
skipping: [192.168.56.104]
ok: [192.168.56.101]

TASK [elasticsearch : install elastic search (Ubuntu)] *****
skipping: [192.168.56.104]
ok: [192.168.56.101]

TASK [elasticsearch : updating the configuration file to allow outside access] *
**
skipping: [192.168.56.104]
ok: [192.168.56.101]

TASK [elasticsearch : updating port in configuration file] *****
skipping: [192.168.56.104]
ok: [192.168.56.101]

TASK [elasticsearch : updating the config file to allow outside access] *****
skipping: [192.168.56.104]
ok: [192.168.56.101]

TASK [elasticsearch : install the prerequisites] *****
skipping: [192.168.56.101]
ok: [192.168.56.104]

TASK [elasticsearch : add elastic search rpm repository] *****
skipping: [192.168.56.101]
changed: [192.168.56.104]

TASK [elasticsearch : add elastic search repository] *****
skipping: [192.168.56.101]
ok: [192.168.56.104]

TASK [elasticsearch : install elastic search (CentOS)] *****
skipping: [192.168.56.101]
ok: [192.168.56.104]

TASK [elasticsearch : elastic search restarting / enabling] *****
changed: [192.168.56.101]
changed: [192.168.56.104]

PLAY [kibana] *****

TASK [Gathering Facts] *****
ok: [192.168.56.101]
ok: [192.168.56.104]

TASK [kibana : install kibana (Ubuntu)] *****
skipping: [192.168.56.104]
ok: [192.168.56.101]

TASK [kibana : install kibana (CentOS)] *****
skipping: [192.168.56.101]
ok: [192.168.56.104]

TASK [kibana : kibana restarting / enabling] *****
ok: [192.168.56.104]
ok: [192.168.56.101]
```

OUTPUT

Check the control nodes if the packages are successfully installed. Show the output.

Nagios

```
angela@server1: ~  
File Edit View Search Terminal Help  
angela@server1:~$ systemctl status nagios  
● nagios.service - Nagios Core 4.4.6  
   Loaded: loaded (/lib/systemd/system/nagios.service; enabled; vendor preset: enabled)  
   Active: active (running) since Mon 2023-11-06 12:03:12 PST; 1min 2s ago  
     Docs: https://www.nagios.org/documentation  
   Main PID: 20709 (nagios)  
     Tasks: 6 (limit: 3438)  
   CGroup: /system.slice/nagios.service  
           └─20709 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg  
             └─20710 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh  
               └─20711 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh  
                 └─20712 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh  
                   └─20713 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh  
                     └─20745 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg  
  
Nov 06 12:03:12 server1 nagios[20709]: qh: Socket '/usr/local/nagios/var/rw/nagios.qh' successfully initialized  
Nov 06 12:03:12 server1 nagios[20709]: qh: core query handler registered  
Nov 06 12:03:12 server1 nagios[20709]: qh: echo service query handler registered  
Nov 06 12:03:12 server1 nagios[20709]: qh: help for the query handler registered  
Nov 06 12:03:12 server1 nagios[20709]: wproc: Successfully registered manager as @wproc with query handler  
Nov 06 12:03:12 server1 nagios[20709]: wproc: Registry request: name=Core Worker 20712;pid=20712  
Nov 06 12:03:12 server1 nagios[20709]: wproc: Registry request: name=Core Worker 20713;pid=20713  
Nov 06 12:03:12 server1 nagios[20709]: wproc: Registry request: name=Core Worker 20710;pid=20710  
Nov 06 12:03:12 server1 nagios[20709]: wproc: Registry request: name=Core Worker 20711;pid=20711  
Nov 06 12:03:12 server1 nagios[20709]: Successfully launched command file worker with pid 20745
```

Elasticsearch

```
angela@server1: ~  
File Edit View Search Terminal Help  
angela@server1:~$ systemctl status elasticsearch  
● elasticsearch.service - Elasticsearch  
   Loaded: loaded (/usr/lib/systemd/system/elasticsearch.service; enabled; vendor preset: enabled)  
   Active: active (running) since Mon 2023-11-06 12:06:34 PST; 2min 32s ago  
     Docs: https://www.elastic.co  
   Main PID: 23361 (java)  
     Tasks: 59 (limit: 3438)  
   CGroup: /system.slice/elasticsearch.service  
           └─23361 /usr/share/elasticsearch/jdk/bin/java -Xshare:auto -Des.networkaddress.cache.ttl=60 -Des.net  
             └─23567 /usr/share/elasticsearch/modules/x-pack-ml/platform/linux-x86_64/bin/controller  
  
Nov 06 12:05:41 server1 systemd[1]: Starting Elasticsearch...  
Nov 06 12:05:52 server1 systemd-entrypoint[23361]: Nov 06, 2023 12:05:52 PM sun.util.locale.provider.LocaleProv  
Nov 06 12:05:52 server1 systemd-entrypoint[23361]: WARNING: COMPAT locale provider will be removed in a future  
Nov 06 12:06:34 server1 systemd[1]: Started Elasticsearch.
```

```

angela@localhost:~
File Edit View Search Terminal Help
[angela@localhost ~]$ systemctl status elasticsearch
● elasticsearch.service - Elasticsearch
   Loaded: loaded (/usr/lib/systemd/system/elasticsearch.service; enabled; vendor preset: disabled)
   Active: active (running) since Mon 2023-11-06 12:06:19 PST; 16min ago
     Docs: https://www.elastic.co
   Main PID: 7610 (java)
     Tasks: 65
    CGroup: /system.slice/elasticsearch.service
            └─7610 /usr/share/elasticsearch/jdk/bin/java -Xshare:auto -Des.net...
              └─7804 /usr/share/elasticsearch/modules/x-pack-ml/platform/linux-x...

Nov 06 12:05:41 localhost.localdomain systemd[1]: Starting Elasticsearch...
Nov 06 12:05:47 localhost.localdomain systemd-entrypoint[7610]: Nov 06, 2023 ...
Nov 06 12:05:47 localhost.localdomain systemd-entrypoint[7610]: WARNING: COMP...
Nov 06 12:06:19 localhost.localdomain systemd[1]: Started Elasticsearch.
Hint: Some lines were ellipsized, use -l to show in full.

```

Kibana

```

angela@server1: ~
File Edit View Search Terminal Help
angela@server1:~$ systemctl status kibana
● kibana.service - Kibana
   Loaded: loaded (/etc/systemd/system/kibana.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2023-11-06 12:10:17 PST; 36s ago
     Docs: https://www.elastic.co
   Main PID: 24290 (node)
     Tasks: 11 (limit: 3438)
    CGroup: /system.slice/kibana.service
            └─24290 /usr/share/kibana/bin/./node/bin/node /usr/share/kibana/bin/./src/cli/dist --logging.dest=

Nov 06 12:10:17 server1 systemd[1]: Started Kibana.
Nov 06 12:10:18 server1 kibana[24290]: Kibana is currently running with legacy OpenSSL providers enabled! For d

```

```

angela@localhost:~
File Edit View Search Terminal Help
[angela@localhost ~]$ systemctl status kibana
● kibana.service - Kibana
   Loaded: loaded (/etc/systemd/system/kibana.service; enabled; vendor preset: disabled)
   Active: active (running) since Mon 2023-11-06 12:10:17 PST; 17min ago
     Docs: https://www.elastic.co
   Main PID: 8409 (node)
     Tasks: 11
    CGroup: /system.slice/kibana.service
            └─8409 /usr/share/kibana/bin/./node/bin/node /usr/share/kibana/bin/./src/cli/dist -...

Nov 06 12:10:17 localhost.localdomain systemd[1]: Started Kibana.
Nov 06 12:10:18 localhost.localdomain kibana[8409]: Kibana is currently running with legacy Op...er
Hint: Some lines were ellipsized, use -l to show in full.

```

Logstash

```
angela@server1: ~  
File Edit View Search Terminal Help  
angela@server1:~$ systemctl status logstash  
● logstash.service - logstash  
   Loaded: loaded (/etc/systemd/system/logstash.service; enabled; vendor preset: enabled)  
   Active: active (running) since Mon 2023-11-06 12:28:03 PST; 7min ago  
     Main PID: 13844 (java)  
       Tasks: 26 (limit: 3438)  
    CGroup: /system.slice/logstash.service  
            └─13844 /usr/share/logstash/jdk/bin/java -Xms1g -Xmx1g -XX:+UseConcMarkSweepGC -XX:CMSInitiatingOccu  
Nov 06 12:28:03 server1 systemd[1]: Started logstash.  
Nov 06 12:28:03 server1 logstash[13844]: Using bundled JDK: /usr/share/logstash/jdk  
Nov 06 12:28:04 server1 logstash[13844]: OpenJDK 64-Bit Server VM warning: Option UseConcMarkSweepGC was deprec  
Nov 06 12:35:49 server1 logstash[13844]: Sending Logstash logs to /var/log/logstash which is now configured via  
Nov 06 12:35:51 server1 logstash[13844]: [2023-11-06T12:35:51,467][INFO ][logstash.runner          ] Log4j conf  
Nov 06 12:35:51 server1 logstash[13844]: [2023-11-06T12:35:51,575][INFO ][logstash.runner          ] Starting L  
lines 1-14...skipping...
```

InfluxDB

Grafana

Prometheus

angela@server1: ~

Prometheus Time × My Drive - Google × Midterm Skills Ex ×

192.168.56.101:9090/graph

Prometheus Alerts Graph Status ▾ Help

☐ Enable query history

Expression (press Shift+Enter for newlines)

Execute - insert metric at cursor - ▾

Graph Console

Element	Value
no data	

Remove Graph

Add Graph

```
angela@localhost:~  
File Edit View Search Terminal Help  
[angela@localhost ~]$ systemctl status prometheus  
● prometheus.service - Prometheus  
   Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; vendor preset: disabled)  
   Active: active (running) since Mon 2023-11-06 13:20:07 PST; 57ms ago  
     Docs: https://prometheus.io/docs/introduction/overview/  
  Main PID: 15219 ((ometheus))  
    Tasks: 0  
   CGroup: /system.slice/prometheus.service  
           └─15219 ((ometheus))  
  
Nov 06 13:20:07 localhost.localdomain systemd[1]: prometheus.service holdoff time over, schedu...t.  
Nov 06 13:20:07 localhost.localdomain systemd[1]: Stopped Prometheus.  
Nov 06 13:20:07 localhost.localdomain systemd[1]: Started Prometheus.  
Hint: Some lines were ellipsized, use -l to show in full.
```

Httpd + PHP

MariaDB

GitHub link: https://github.com/Angela-Pacinos/CPE_MIDEXAM_PACINOS.git

Conclusions:

For this Midterm exam we were tasked to install similar packages as we have already tried to do them, and some new packages, into our Ubuntu and Centos. Since there are familiar packages, what I did to not waste time is I copied the codes from what I previously did and modified it a little bit. For the new packages that I need to install, I searched on how to install them but only a little information was given. What I did is build the structure of the installation based on the information that there is. As for the roles I separated each package into each role just like what we did in HOA7. I had a lot of problems with the main.yml codes because the indentation for the codes should be correct if it wont even start running the playbook. I consumed so much of the time going back and forth to those files just to correct the indentations. It was kind of nerve wracking since there is only limited time, there are a lot to install, plus the internet speed to run the playbook was so slow.