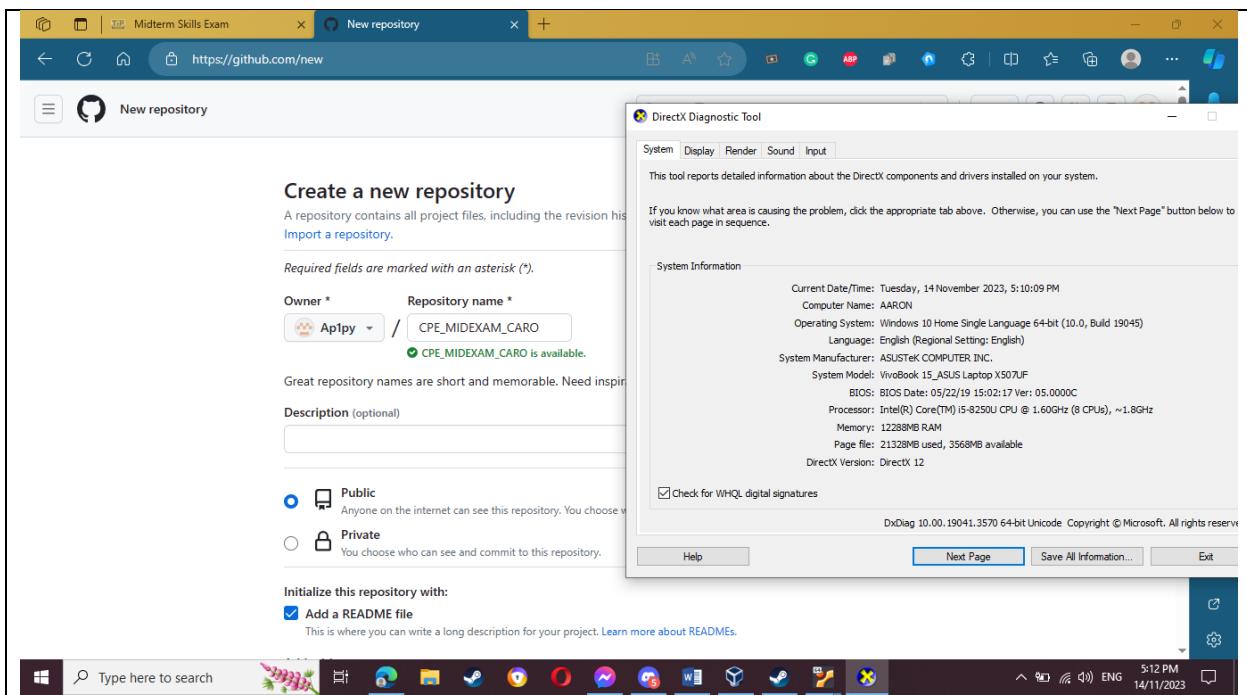


<b>Name: Aaron Martin P. Caro</b>	<b>Date Performed: 14/11/2023</b>
<b>Course/Section: CPE232/CPE31S5</b>	<b>Date Submitted: 14/11/2023</b>
<b>Instructor: Prof. Roman Richard</b>	<b>Semester and SY: 1<sup>st</sup> sem 2023-2024</b>
<b>Midterm Skills Exam: Install, Configure, and Manage Log Monitoring tools</b>	
<b>1. Objectives</b>	
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.	
<b>2. Instructions</b>	
<ol style="list-style-type: none"> <li>1. Create a repository in your GitHub account and label it CPE_MIDEXAM_SURNAME.</li> <li>2. Clone the repository and do the following:             <ol style="list-style-type: none"> <li>2.1. Create an Ansible playbook that does the following with an input of a config.yaml file and arranged Inventory file:</li> <li>2.2. Install and configure Elastic Stack in separate hosts (Elastic Search, Kibana, Logstash) • Install Nagios in one host</li> <li>2.3. Install Grafana, Prometheus and Influxdb in separate hosts (Influxdb, Grafana, Prometheus)</li> <li>2.4. Install Lamp Stack in separate hosts (Httpd + Php, Mariadb)</li> </ol> </li> <li>3. Document all your tasks using this document. Provide proofs of all the ansible playbooks codes and successful installations.</li> <li>4. Document the push and commit from the local repository to GitHub.</li> <li>5. Finally, paste also the link of your GitHub repository in the documentation.</li> </ol>	
<b>3. Output</b> (screenshots and explanations)	



## Creating the new repository

The screenshot shows a Windows 10 desktop with a terminal window open in the foreground displaying system logs. The logs include:

```
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...
Processing triggers for libgl1mb2.0:amd64 (2.72.4-0ubuntu2.2) ...
Processing triggers for libc-bin (2.35-0ubuntu3.4) ...
Setting up libbutter-10-0:amd64 (42.9-0ubuntu5) ...
Setting up gir1.2-nutter-10:amd64 (42.9-0ubuntu5) ...
Processing triggers for linux-image-6.2.0-36-generic (6.2.0-36.37-22.04.1)
/etc/kernel/postinst.d/initramfs-tools:
update-initramfs: Generating /boot/initrd.img-6.2.0-36-generic
/etc/kernel/postinst.d/dz-update-grub:
Sourcing file '/etc/default/grub'
Sourcing file '/etc/default/grub.d/init-select.cfg'
Generating grub configuration file ...
Found linux image: /boot/vmlinuz-6.2.0-36-generic
Found initrd image: /boot/initrd.img-6.2.0-36-generic
Found linux image: /boot/vmlinuz-6.2.0-35-generic
Found initrd image: /boot/initrd.img-6.2.0-35-generic
Found linux image: /boot/vmlinuz-6.2.0-33-generic
Found initrd image: /boot/initrd.img-6.2.0-33-generic
Found nentest86+ image: /boot/nentest86+.elf
Found nentest86+ image: /boot/nentest86+.bin
Warning: os-prober will not be executed to detect other bootable partitions
Systems on them will not be added to the GRUB boot configuration.
Check GRUB_DISABLE_OS_PROBER documentation entry.
done
Processing triggers for libc-bin (2.35-0ubuntu3.4) ...
aaron@workstation: $ git clone git@github.com:Apipy/CPE_MIDEXAM_CARO.git
Cloning into 'CPE_MIDEXAM_CARO'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.
aaron@workstation: $ cd CPE232_aaron
aaron@workstation: $ ls
aaron@workstation: $ cd
```

The background shows the DirectX Diagnostic Tool window, which provides detailed information about installed DirectX components and drivers. The System Information tab is selected, showing the following details:

- Current Date/Time: Tuesday, 14 November 2023, 5:10:09 PM
- Computer Name: AARON
- Operating System: Windows 10 Home Single Language 64-bit (10.0, Build 19045)
- Language: English (Regional Setting: English)
- System Manufacturer: ASUSTek COMPUTER INC.
- System Model: VivoBook 15\_A5US Laptop X507UF
- BIOS: BIOS Date: 05/22/19 15:02:17 Ver: 0.0.0000
- Processor: Intel(R) Core(TM) i5-8250U CPU @ 1.60GHz (8 CPUs), ~1.8GHz
- Memory: 12288MB RAM
- Page file: 2132MB used, 3568MB available
- DirectX Version: DirectX 12

At the bottom of the DXdiag window, there are buttons for Help, Next Page, and Save All Information... The taskbar at the bottom of the screen shows various pinned icons and the current date and time (14/11/2023, 6:23 PM).

## Cloning the repository

aaron@workstation:~/CPE\_MIDEXAM\_CARO\$ ansible-playbook --ask-become-pass config.yaml  
BECOME password:

```
PLAY [all] *****
TASK [Gathering Facts] *****
fatal: [192.168.56.112]: UNREACHABLE! => {"changed": 1, "msg": "Connection to 192.168.56.112:22 failed: Connection refused at <http://192.168.56.112:22> (port 22) from 192.168.56.111 (port 53514).", "unreachable": true}
ok: [192.168.56.111]

TASK [install updates Ubuntu] *****
skipping: [192.168.56.111]

TASK [install updates CentOS] *****
ok: [192.168.56.111]

PLAY [Ubuntu] *****
PLAY [CentOS] *****
TASK [Gathering Facts] *****
ok: [192.168.56.111]

TASK [CentOS : Install prerequisites] *****
ok: [192.168.56.111]

TASK [CentOS : Add Elasticsearch RPM repository] *****
changed: [192.168.56.111]

TASK [CentOS : Add Elasticsearch YUM repository] *****
ok: [192.168.56.111]

TASK [CentOS : Install Elasticsearch] *****
ok: [192.168.56.111]

TASK [CentOS : Install Kibana] *****
ok: [192.168.56.111]
```

DirectX Diagnostic Tool

System Information

Current Date/Time: Tuesday, 14 November 2023, 10:07:18 PM  
Computer Name: AARON  
Operating System: Windows 10 Home Single Language 64-bit (10.0, Build 19045)  
Language: English (Regional Setting: English)  
System Manufacturer: ASUSTEK COMPUTER INC.  
System Model: VivoBook 15\_ASUS Laptop X507UF  
BIOS: BIOS Date: 05/22/19 15:02:17 Ver: 05.0000C  
Processor: Intel(R) Core(TM) i5-8250U CPU @ 1.60GHz (8 CPUs), ~1.8GHz  
Memory: 12GB RAM  
Page file: 18341MB used, 3239MB available  
DirectX Version: DirectX 12

Check for WHQL digital signatures

DxDiag 10.00.19041.3570 64-bit Unicode Copyright © Microsoft. All rights reserved.

Help Next Page Save All Information... Exit

Type here to search 10:07 PM Right Ctrl ENG 14/11/2023

## The CentOS elstack installation play

aaron@workstation:~/CPE\_MIDEXAM\_CARO\$ ok: [192.168.56.111]

```
TASK [CentOS : Add Elasticsearch RPM repository] *****
changed: [192.168.56.111]

TASK [CentOS : Add Elasticsearch YUM repository] *****
ok: [192.168.56.111]

TASK [CentOS : Install Elasticsearch] *****
ok: [192.168.56.111]

TASK [CentOS : Install Kibana] *****
ok: [192.168.56.111]

TASK [CentOS : Install Logstash for CentOS] *****
ok: [192.168.56.111]

TASK [CentOS : Install php and httpd for CentOS] *****
ok: [192.168.56.111]

TASK [CentOS : install mariadb for CentOS] *****
ok: [192.168.56.111]

TASK [CentOS : Mariadb- Restarting/Enabling] *****
changed: [192.168.56.111]

TASK [CentOS : Prometheus PATH directory] *****
ok: [192.168.56.111]

TASK [CentOS : Creating directory for Prometheus file]
ok: [192.168.56.111]

TASK [CentOS : Prometheus config file duplicate] *****
ok: [192.168.56.111]

TASK [CentOS : Install Prometheus for CentOS] *****
ok: [192.168.56.111]
```

DirectX Diagnostic Tool

System Information

Current Date/Time: Tuesday, 14 November 2023, 10:07:18 PM  
Computer Name: AARON  
Operating System: Windows 10 Home Single Language 64-bit (10.0, Build 19045)  
Language: English (Regional Setting: English)  
System Manufacturer: ASUSTEK COMPUTER INC.  
System Model: VivoBook 15\_ASUS Laptop X507UF  
BIOS: BIOS Date: 05/22/19 15:02:17 Ver: 05.0000C  
Processor: Intel(R) Core(TM) i5-8250U CPU @ 1.60GHz (8 CPUs), ~1.8GHz  
Memory: 12GB RAM  
Page file: 18341MB used, 3239MB available  
DirectX Version: DirectX 12

Check for WHQL digital signatures

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Help Next Page Save All Information... Exit

Type here to search 10:08 PM Right Ctrl ENG 14/11/2023

## The CentOS installation play

```

workstation [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
changed: [192.168.56.111]

TASK [CentOS : Prometheus PATH directory] ****
ok: [192.168.56.111]

TASK [CentOS : Creating directory for Prometheus file]
ok: [192.168.56.111]

TASK [CentOS : Prometheus config file duplicate] ****
ok: [192.168.56.111]

TASK [CentOS : Install Prometheus for CentOS] ****
ok: [192.168.56.111]

TASK [CentOS : Configuring Prometheus] ****
changed: [192.168.56.111]

TASK [CentOS : Check SELinux status]
changed: [192.168.56.111]

TASK [CentOS : Disable SELinux if enabled] ****
changed: [192.168.56.111]

TASK [CentOS : Modify SELinux configurations]
changed: [192.168.56.111]

TASK [CentOS : Reboot system if SELinux was disabled]
fatal: [192.168.56.111]: UNREACHABLE! => {"changed": "168.56.111 closed.", "unreachable": true}

PLAY RECAP ****
192.168.56.111      : ok=20   changed=6   untried=12
192.168.56.112      : ok=0    changed=0   untried=0

aaron@workstation:~/CPE_MIDEXAM_CARO$ ansible-playbook --ask-become-pass config.yaml
BECOME password:

```

DirectX Diagnostic Tool

System Information

Current Date/Time: Tuesday, 14 November 2023, 10:07:18 PM  
Computer Name: AARON  
Operating System: Windows 10 Home Single Language 64-bit (10.0, Build 19045)  
Language: English (Regional Setting: English)  
System Manufacturer: ASUSTEK COMPUTER INC.  
System Model: VivoBook 15\_ASUS Laptop X507UF  
BIOS: BIOS Date: 05/22/19 15:02:17 Ver: 05.0000C  
Processor: Intel(R) Core(TM) i5-8250U CPU @ 1.60GHz (8 CPUs), ~1.8GHz  
Memory: 12288MB RAM  
Page file: 18341MB used, 3239MB available  
DirectX Version: DirectX 12

Check for WHQL digital signatures

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Help Next Page Save All Information... Exit

After the selinux is disabled the CentOS will be rebooting so be sure to turn it on again to finish the play.

```

workstation [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
OK: [192.168.56.111]

TASK [Install updates Ubuntu] ****
skipping: [192.168.56.111]

TASK [Install updates CentOS] ****
ok: [192.168.56.111]

PLAY [Ubuntu] ****
PLAY [CentOS] ****
TASK [Gathering Facts]
ok: [192.168.56.111]

TASK [CentOS : Check SELinux status]
changed: [192.168.56.111]

TASK [CentOS : Disable SELinux if enabled]
skipping: [192.168.56.111]

TASK [CentOS : Modify SELinux configurations]
skipping: [192.168.56.111]

TASK [CentOS : Reboot system if SELinux was disabled]
skipping: [192.168.56.111]

TASK [CentOS : Create Grafana YUM repository file]
ok: [192.168.56.111]

TASK [CentOS : Install Grafana]
changed: [192.168.56.111]

TASK [CentOS : Start and enable Grafana service]
changed: [192.168.56.111]

TASK [CentOS : Add InfluxDB repository]
****
```

DirectX Diagnostic Tool

System Information

Current Date/Time: Tuesday, 14 November 2023, 10:07:18 PM  
Computer Name: AARON  
Operating System: Windows 10 Home Single Language 64-bit (10.0, Build 19045)  
Language: English (Regional Setting: English)  
System Manufacturer: ASUSTEK COMPUTER INC.  
System Model: VivoBook 15\_ASUS Laptop X507UF  
BIOS: BIOS Date: 05/22/19 15:02:17 Ver: 05.0000C  
Processor: Intel(R) Core(TM) i5-8250U CPU @ 1.60GHz (8 CPUs), ~1.8GHz  
Memory: 12288MB RAM  
Page file: 18341MB used, 3239MB available  
DirectX Version: DirectX 12

Check for WHQL digital signatures

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Help Next Page Save All Information... Exit

The CentOS grafana installation play

```

workstation [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
aaron@workstation:/~$ sudo nano influxdb.repo
aaron@workstation:/~$ cd ..
aaron@workstation:/~$ ansible-playbook --ask-become-pass config.yaml
BECOME password:

PLAY [all] *****
TASK [Gathering Facts] *****
fatal: [192.168.56.112]: UNREACHABLE! => {"changed": 1, "msg": "No route to host", "unreachable": true}
ok: [192.168.56.111]

TASK [Install updates Ubuntu] *****
skipping: [192.168.56.111]

TASK [Install updates CentOS] *****
ok: [192.168.56.111]

PLAY [Ubuntu] *****
PLAY [CentOS] *****
TASK [Gathering Facts] *****
ok: [192.168.56.111]

TASK [CentOS : Copying the Influxdb repository file] *****
changed: [192.168.56.111]

TASK [CentOS : Adding the executables to the PATH] *****
changed: [192.168.56.111]

PLAY RECAP *****
192.168.56.111 : ok=5    changed=2    unrc=0
192.168.56.112 : ok=0    changed=0    unrc=0
aaron@workstation:/~$ 

```

DirectX Diagnostic Tool

System Information

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DirectX Version: DirectX 12

Check for WHQL digital signatures

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## The Centos Influxdb installation play

```

centos [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
aaron@centos:~$ Applications Places Terminal
Tue 09:55
aaron@centos:~$ systemctl status elasticsearch.service
● elasticsearch.service - Elasticsearch
   Loaded: loaded (/usr/lib/systemd/system/elasticsearch.service)
   Active: active (running) since Tue 2023-11-14 08:03:06
     Docs: https://www.elastic.co
 Main PID: 1185 (java)
    Tasks: 71
   CGroup: /system.slice/elasticsearch.service
           └─1185 /usr/share/elasticsearch/jdk/bin/java -Xms365m -Xmx365m /usr/share/elasticsearch/modules/x-pac...
[centos@aaron: ~]$ systemctl status kibana.service
● kibana.service - Kibana
   Loaded: loaded (/etc/systemd/system/kibana.service; ena...
     Active: active (running) since Tue 2023-11-14 08:00:18
       Docs: https://www.elastic.co
 Main PID: 1186 (node)
    Tasks: 11
   CGroup: /system.slice/kibana.service
           └─1186 /usr/share/kibana/bin/.../node/bin/node /[centos@aaron: ~]$ systemctl status logstash.service
● logstash.service - logstash
   Loaded: loaded (/etc/systemd/system/logstash.service; e...
     Active: active (running) since Tue 2023-11-14 09:54:31
       Docs: https://www.elastic.co
 Main PID: 1186 /usr/share/kibana/bin/.../node/bin/node /[centos@aaron: ~]$ 

```

DirectX Diagnostic Tool

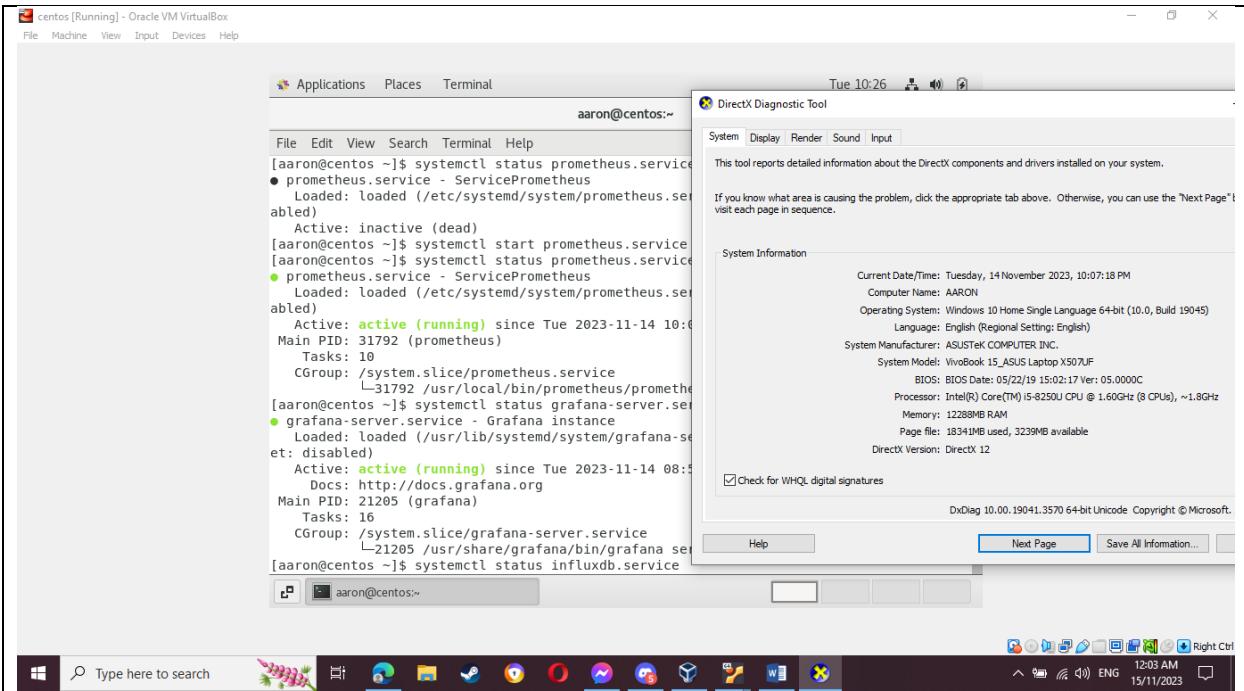
System Information

Current Date/Time: Tuesday, 14 November 2023, 10:07:18 PM  
Computer Name: AARON  
Operating System: Windows 10 Home Single Language 64-bit (10.0, Build 19045)  
Language: English (Regional Setting: English)  
System Manufacturer: ASUSTeK COMPUTER INC.  
System Model: VivoBook 15\_ASUS Laptop X507UF  
BIOS: BIOS Date: 05/22/19 15:02:17 Ver: 05.0000C  
Processor: Intel(R) Core(TM) i5-8250U CPU @ 1.60GHz (8 CPUs), ~1.8GHz  
Memory: 12288MB RAM  
Page file: 18341MB used, 3239MB available  
DirectX Version: DirectX 12

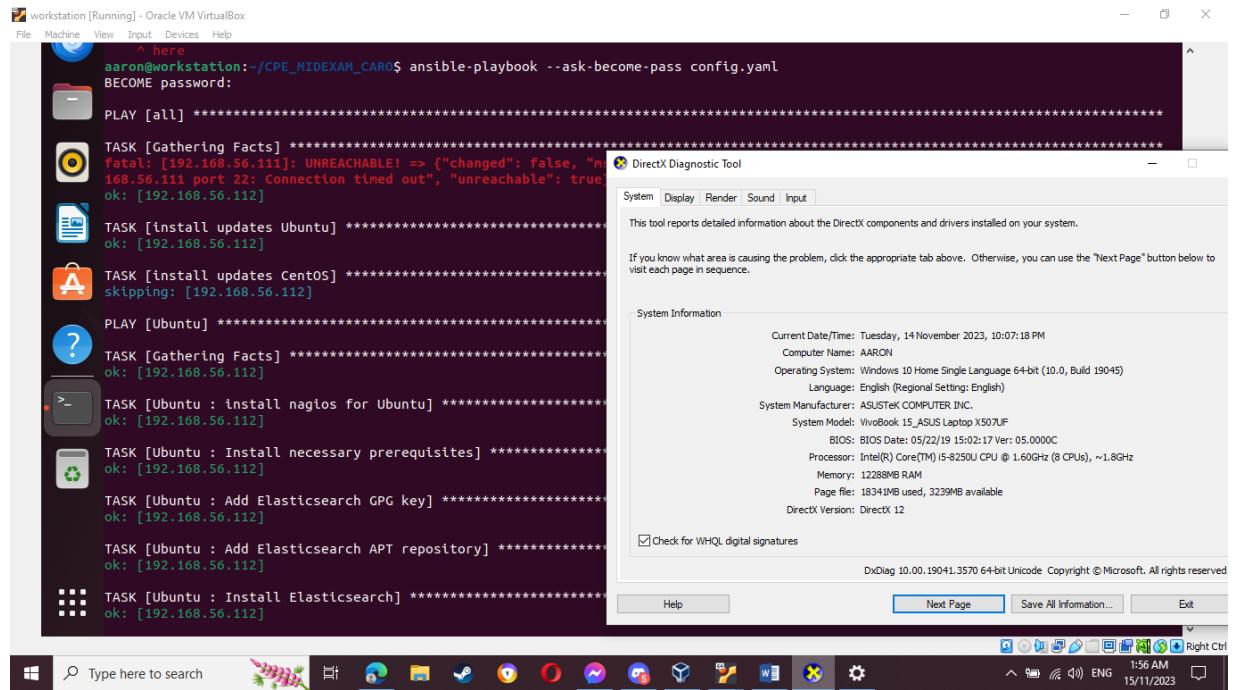
Check for WHQL digital signatures

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## Confirming the Elastic stack in centos



## Confirming the prometheus, grafana, influxdb in centos



## The Ubuntu Nagios installation play

```

workstation [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
ok: [192.168.56.112]
TASK [Ubuntu : Install Elasticsearch] *****
ok: [192.168.56.112]
TASK [Ubuntu : Install Kibana] *****
ok: [192.168.56.112]
TASK [Ubuntu : Install Logstash] *****
ok: [192.168.56.112]
TASK [Ubuntu : install apache2 and php packages for Ubuntu] *****
ok: [192.168.56.112]
TASK [Ubuntu : install mariadb package Ubuntu] *****
ok: [192.168.56.112]
TASK [Ubuntu : Mariadb- Restarting/Enabling] *****
changed: [192.168.56.112]
TASK [Ubuntu : Install Prometheus for Ubuntu] *****
ok: [192.168.56.112]
TASK [Ubuntu : Prometheus Start service] *****
changed: [192.168.56.112]
TASK [Ubuntu : Install dependencies] *****
ok: [192.168.56.112]
TASK [Ubuntu : Add Grafana APT repository key] *****
changed: [192.168.56.112]
TASK [Ubuntu : Add Grafana APT repository] *****
changed: [192.168.56.112]
TASK [Ubuntu : Install Grafana] *****
changed: [192.168.56.112]
TASK [Ubuntu : Start and enable Grafana service] *****
changed: [192.168.56.112]
TASK [Ubuntu : Installing dependencies] *****
changed: [192.168.56.112]
TASK [Ubuntu : Adding Influxdb in the repository] *****
changed: [192.168.56.112]
TASK [Ubuntu : Installing Influxdb] *****
changed: [192.168.56.112]
TASK [Ubuntu : Making sure that the Influxd is enabled and start]
ok: [192.168.56.112]
PLAY [CentOS] *****
PLAY RECAP *****
192.168.56.111      : ok=0    changed=0    unreachable=0    errors=0
192.168.56.112      : ok=24   changed=8    unreachable=0    errors=0

```

**DirectX Diagnostic Tool**

System Display Render Sound Input

This tool reports detailed information about the DirectX components and drivers installed on your system.

If you know what area is causing the problem, click the appropriate tab above. Otherwise, you can use the "Next Page" button below to visit each page in sequence.

**System Information**

Current Date/Time: Tuesday, 14 November 2023, 10:07:18 PM  
Computer Name: AARON  
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System Model: VivoBook 15\_ASUS Laptop X507UF  
BIOS: BIOS Date: 05/22/19 15:02:17 Ver: 05.0000C  
Processor: Intel(R) Core(TM) i5-8250U CPU @ 1.60GHz (8 CPUs), ~1.8GHz  
Memory: 12288MB RAM  
Page file: 18341MB used, 3239MB available  
DirectX Version: DirectX 12

Check for WHQL digital signatures

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Help Next Page Save All Information... Exit

## The Ubuntu Elstack , Prometheus and Grafana installation play

```

workstation [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
changed: [192.168.56.112]
TASK [Ubuntu : Install dependencies] *****
ok: [192.168.56.112]
TASK [Ubuntu : Add Grafana APT repository key] *****
changed: [192.168.56.112]
TASK [Ubuntu : Add Grafana APT repository] *****
changed: [192.168.56.112]
TASK [Ubuntu : Install Grafana] *****
changed: [192.168.56.112]
TASK [Ubuntu : Start and enable Grafana service] *****
changed: [192.168.56.112]
TASK [Ubuntu : Installing dependencies] *****
ok: [192.168.56.112]
TASK [Ubuntu : Adding Influxdb in the repository] *****
changed: [192.168.56.112]
TASK [Ubuntu : Installing Influxdb] *****
changed: [192.168.56.112]
TASK [Ubuntu : Making sure that the Influxd is enabled and start]
ok: [192.168.56.112]
PLAY [CentOS] *****
PLAY RECAP *****
192.168.56.111      : ok=0    changed=0    unreachable=0    errors=0
192.168.56.112      : ok=24   changed=8    unreachable=0    errors=0

```

**DirectX Diagnostic Tool**

System Display Render Sound Input

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**System Information**

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Processor: Intel(R) Core(TM) i5-8250U CPU @ 1.60GHz (8 CPUs), ~1.8GHz  
Memory: 12288MB RAM  
Page file: 18341MB used, 3239MB available  
DirectX Version: DirectX 12

Check for WHQL digital signatures

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Help Next Page Save All Information... Exit

## The Ubuntu influxdb installation play

```

server3 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Active: Inactive (dead)
Docs: man:nagios4
aaron@server3:~$ systemctl start nagios4.service
aaron@server3:~$ systemctl status nagios4.service
● nagios4.service - nagios4
   Loaded: loaded (/lib/systemd/system/nagios4.service; disabled; vendor preset: enabled)
   Active: active (running) since Wed 2023-11-15 02:03:40 +08; 6s ago
     Docs: man:nagios4
    Process: 28307 ExecStartPre=sh -c nagiospipe=$(sed -n "s/
Main PID: 28310 (nagios4)
Tasks: 6 (limit: 4599)
Memory: 3.2M
CPU: 255ms
CGroup: /system.slice/nagios4.service
└─28310 /usr/sbin/nagios4 /etc/nagios4/nagios.cfg

[1]+ Stopped                  systemctl status nagios4.service
aaron@server3:~$ systemctl status elasticsearch.service
● elasticsearch.service - Elasticsearch
   Loaded: loaded (/lib/systemd/system/elasticsearch.service; disabled; vendor preset: enabled)
   Active: active (running) since Wed 2023-11-15 00:57:36 +08
     Docs: https://www.elastic.co
Main PID: 1140 (java)
Tasks: 78 (limit: 4599)
Memory: 805.6M
CPU: 6min 51.543s
CGroup: /system.slice/elasticsearch.service
└─1140 /usr/share/elasticsearch/jdk/bin/java -Xshare.heap
    └─3123 /usr/share/elasticsearch/modules/x-pack-ml

Warning: some journal files were not opened due to insufficient
lines 1-13/13 (END)

aaron@server3:~$ 

```

DirectX Diagnostic Tool

System Information

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Computer Name: AARON  
Operating System: Windows 10 Home Single Language 64-bit (10.0, Build 19045)  
Language: English (Regional Setting: English)  
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DirectX Version: DirectX 12

Check for WHQL digital signatures

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## Confirmation of installation Nagios and elasticsearch

```

server3 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Okibana.service - Kibana
   Loaded: loaded (/etc/systemd/system/kibana.service; enabled; vendor preset: enabled)
   Active: inactive (dead) since Wed 2023-11-15 01:03:44 +08; 1h 2min ago
     Docs: https://www.elastic.co
Main PID: 1147 (code-exited, status=0/SUCCESS)
   CPU: 1min 48.137s

Warning: some journal files were not opened due to insufficient
aaron@server3:~$ systemctl start kibana.service
aaron@server3:~$ systemctl status kibana.service
● kibana.service - Kibana
   Loaded: loaded (/etc/systemd/system/kibana.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2023-11-15 02:06:25 +08
     Docs: https://www.elastic.co
Main PID: 28582 (node)
   Tasks: 7 (limit: 4599)
   Memory: 82.6M
   CPU: 3.983s
   CGroup: /system.slice/kibana.service
└─28582 /usr/share/kibana/bin/.../node/bin/node /u

[3]+ Stopped                  systemctl status kibana.service
aaron@server3:~$ systemctl status logstash.service
● logstash.service - logstash
   Loaded: loaded (/etc/systemd/system/logstash.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2023-11-15 02:06:29 +08
     Docs: https://www.elastic.co
Main PID: 28598 (java)
   Tasks: 14 (limit: 4599)
   Memory: 230.4M
   CPU: 23.255s
   CGroup: /system.slice/logstash.service
└─28598 /usr/share/logstash/jdk/bin/java -Xms1g -Xmx1g -XX:MaxPermSize=128m -Dlogstash.log.level=info -Dlogstash.config.reload.on迶
lines 1-9/9 (END)

[4]+ Stopped                  systemctl status logstash.service
aaron@server3:~$ 

aaron@server3:~$ 

```

DirectX Diagnostic Tool

System Information

Current Date/Time: Tuesday, 14 November 2023, 10:07:18 PM  
Computer Name: AARON  
Operating System: Windows 10 Home Single Language 64-bit (10.0, Build 19045)  
Language: English (Regional Setting: English)  
System Manufacturer: ASUSTeK COMPUTER INC.  
System Model: VivoBook 15\_ASUS Laptop X507UF  
BIOS: BIOS Date: 05/22/19 15:02:17 Ver: 05.0000C  
Processor: Intel(R) Core(TM) i5-8250U CPU @ 1.60GHz (8 CPUs), ~1.8GHz  
Memory: 12288MB RAM  
Page file: 18341MB used, 3239MB available  
DirectX Version: DirectX 12

Check for WHQL digital signatures

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## Kibana ang logstash installation confirmation

```

server3 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
grafana-server.service - Grafana instance
  Loaded: loaded (/lib/systemd/system/grafana-server.service; enabled; vendor preset: enabled)
  Active: active (running) since Wed 2023-11-15 01:54:13 +08; 16min ago
    Docs: http://docs.grafana.org
  Main PID: 27223 (grafana)
    Tasks: 17 (limit: 4599)
      Memory: 75.5M
        CPU: 46.829s
      CGroup: /system.slice/grafana-server.service
              └─27223 /usr/share/grafana/bin/grafana server --config /etc/grafana/grafana.conf

[5]+  Stopped                  systemctl status grafana-server.
aaron@server3:~$ systemctl status influxdb.service
● influxdb.service - InfluxDB is an open-source, distributed, time-series database
  Loaded: loaded (/lib/systemd/system/influxdb.service; enabled; vendor preset: enabled)
  Active: active (running) since Wed 2023-11-15 01:55:33 +08:00
    Docs: http://docs.influxdata.com/influxdb/v2.0/installation/linux/
  Main PID: 27553 (influxd)
    Tasks: 9 (limit: 4599)
      Memory: 7.6M
        CPU: 8.111s
      CGroup: /system.slice/influxdb.service
              └─27553 /usr/bin/influxd -config /etc/influxdb/influxdb.conf

aaron@server3:~$ systemctl status mariadb.service
● mariadb.service - MariaDB 10.6.12 database server
  Loaded: loaded (/lib/systemd/system/mariadb.service; enabled; vendor preset: enabled)
  Active: active (running) since Wed 2023-11-15 01:49:34 +08:00
    Docs: man:mariadb(8)
          https://mariadb.com/kb/en/library/systemd/
  Main PID: 25271 (mariadb)
    Status: "Taking your SQL requests now..."
    Tasks: 9 (limit: 4599)
      Memory: 71.0M
        CPU: 6.334s
      CGroup: /system.slice/mariadb.service
              └─25271 /usr/sbin/mariadb

aaron@server3:~$ 

```

DirectX Diagnostic Tool

This tool reports detailed information about the DirectX components and drivers installed on your system.

If you know what area is causing the problem, click the appropriate tab above. Otherwise, you can use the "Next Page" button below to visit each page in sequence.

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Memory: 12288MB RAM  
Page file: 18341MB used, 3239MB available  
DirectX Version: DirectX 12

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Type here to search 2:12 AM ENG 15/11/2023 Right Ctrl

## Grafana, influxdb and mariadb installation confirmation

```

workstation [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
tasks

5 directories, 5 files
aaron@workstation:/~$ cd roles/CentOS/tasks/
aaron@workstation:/~$ sudo nano main.yml
aaron@workstation:/~$ sudo nano grafana.repo.j2
[sudo] password for aaron:
aaron@workstation:/~$ sudo nano main.yml
[sudo] password for aaron:
aaron@workstation:/~$ sudo nano main.yml
[sudo] password for aaron:
aaron@workstation:/~$ cd ..
aaron@workstation:/~$ cd Ubuntu/tasks/
aaron@workstation:/~$ sudo nano main.yml
[sudo] password for aaron:
aaron@workstation:/~$ cd ..
aaron@workstation:/~$ cd ..
aaron@workstation:/~$ cd ..
aaron@workstation:/~$ git add .
aaron@workstation:/~$ git commit -m "okay na ron matulog"
[main 65123bb] okay na ron matulog kana
 2 files changed, 137 insertions(+)
 delete mode 100644 roles/CentOS/tasks/.main.yml.swp
 create mode 100644 roles/Ubuntu/tasks/main.yml
aaron@workstation:/~$ git push origin main
Enumerating objects: 12, done.
Counting objects: 100% (12/12), done.
Delta compression using up to 3 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (8/8), 1.44 KiB | 739.00 KiB/s, done.
Total 8 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:apiy/CPE_MIDEXAM_CARO.git
  91f23fc..65123bb main -> main
aaron@workstation:/~$ 

```

DirectX Diagnostic Tool

This tool reports detailed information about the DirectX components and drivers installed on your system.

If you know what area is causing the problem, click the appropriate tab above. Otherwise, you can use the "Next Page" button below to visit each page in sequence.

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## Pushing everything to the repository

workstation [Running] - Oracle VM VirtualBox

```
aaron@workstation:/CPE_MIDEXAM_CARO$ git add *
[aaron@workstation:/CPE_MIDEXAM_CARO$ git commit -m "okay na ron matulog kana"
[main 65123bb] okay na ron matulog kana
 2 files changed, 137 insertions(+)
 delete mode 100644 roles/CentOS/tasks/.main.yml.swp
 create mode 100644 roles/Ubuntu/tasks/main.yml
aaron@workstation:/CPE_MIDEXAM_CARO$ git push origin main
Enumerating objects: 12, done.
Counting objects: 100% (12/12), done.
Delta compression using up to 3 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (8/8), 1.44 kB | 739.00 kB/s, done.
Total 8 (delta 0), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:Apipy/CPE_MIDEXAM_CARO.git
 91f23fc..65123bb main -> main
aaron@workstation:/CPE_MIDEXAM_CARO$ tree
.
├── ansible.cfg
├── config.yaml
└── files
    ├── influxdb.repo
    ├── prometheus.service
    └── hosts
        └── README.md
└── roles
    ├── CentOS
    │   └── tasks
    │       └── grafana.repo.j2
    │           └── main.yml
    └── Ubuntu
        └── tasks
            └── main.yml

6 directories, 9 files
aaron@workstation:/CPE_MIDEXAM_CARO$
```

Type here to search

DirectX Diagnostic Tool

System Information

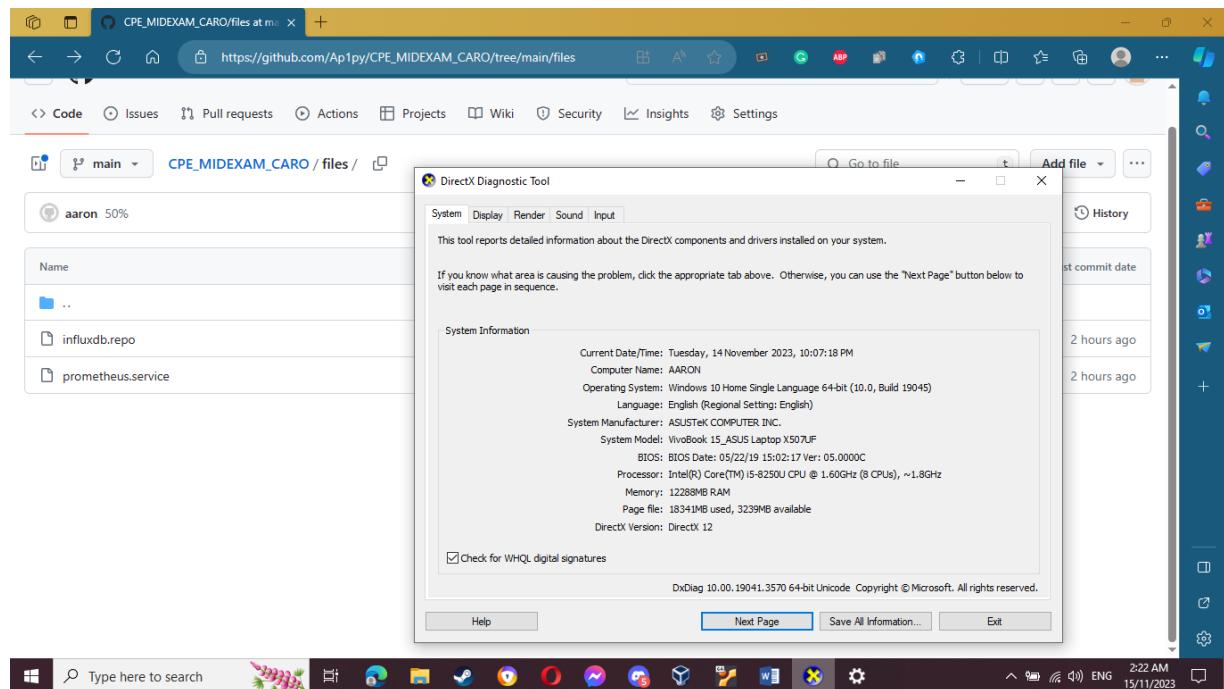
Current Date/Time: Tuesday, 14 November 2023, 10:07:18 PM  
Computer Name: AARON  
Operating System: Windows 10 Home Single Language 64-bit (10.0, Build 19045)  
Language: English (Regional Setting: English)  
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Check for WHQL digital signatures

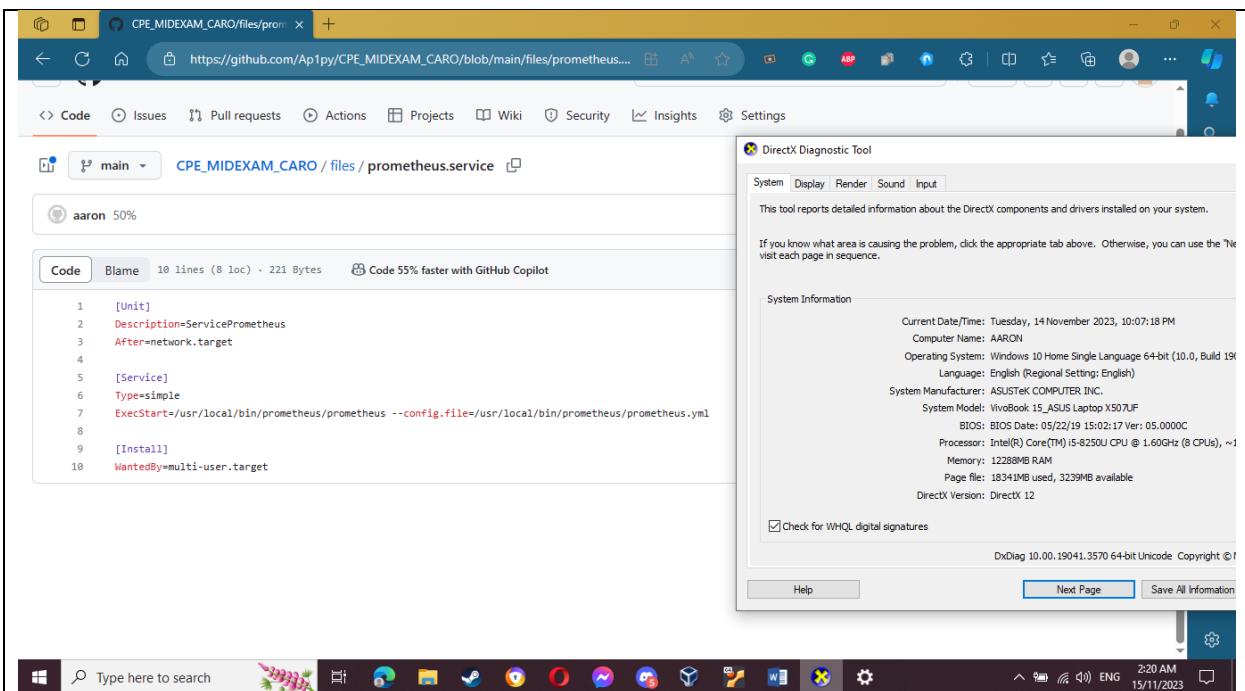
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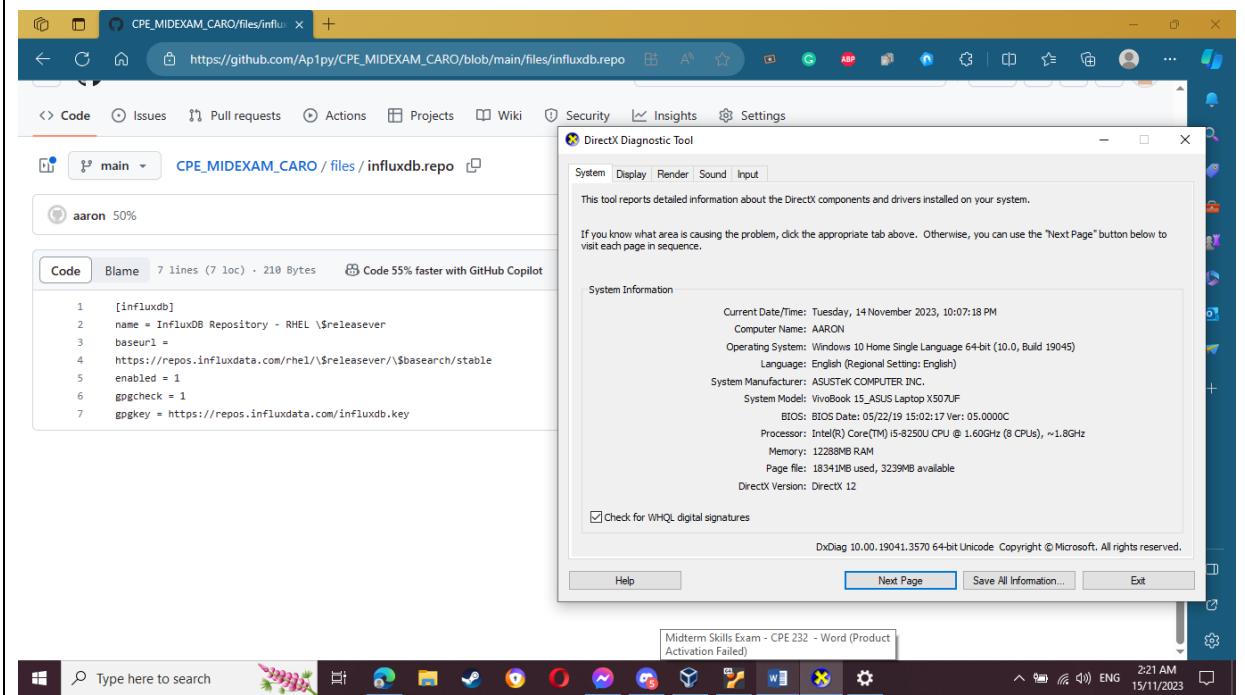
## The structure



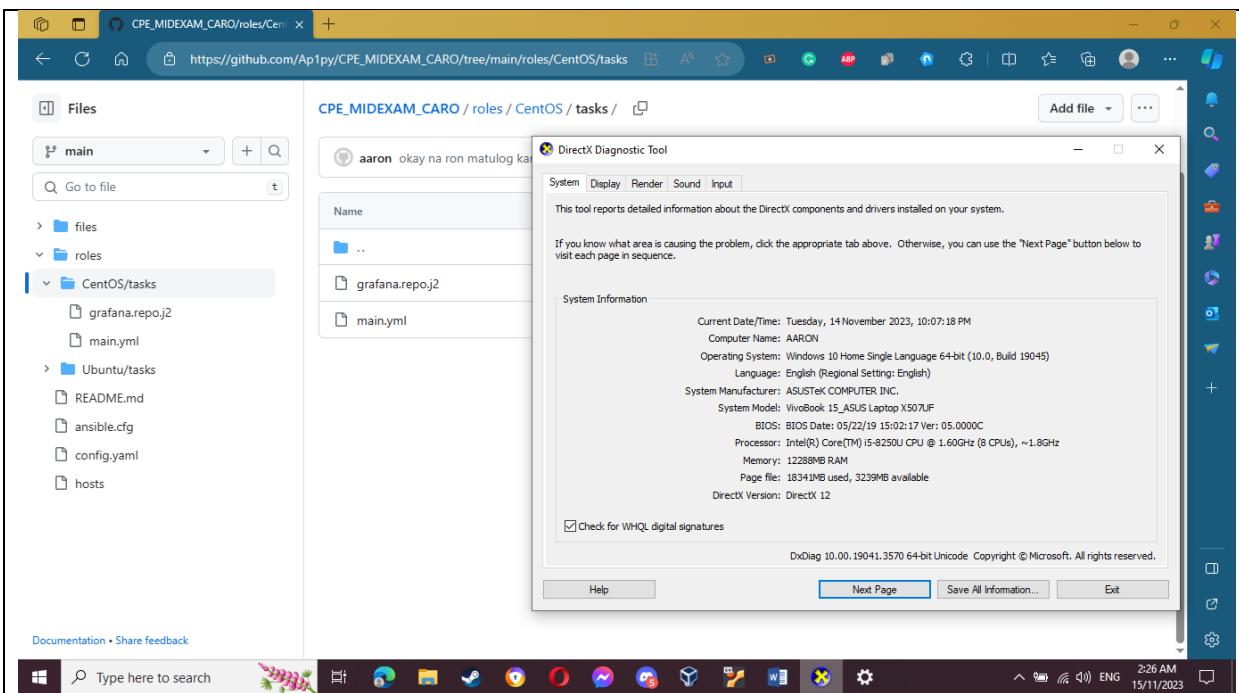
## The file directory set up



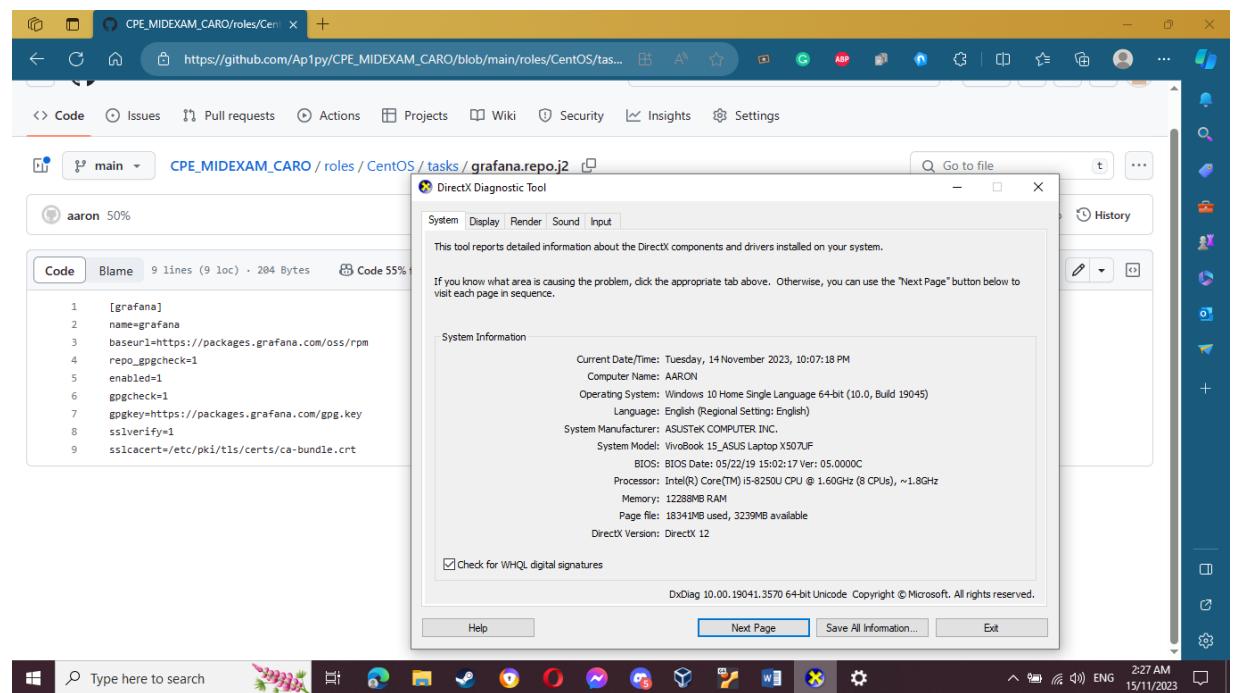
## The service file for the Prometheus installation or the pre installation set up



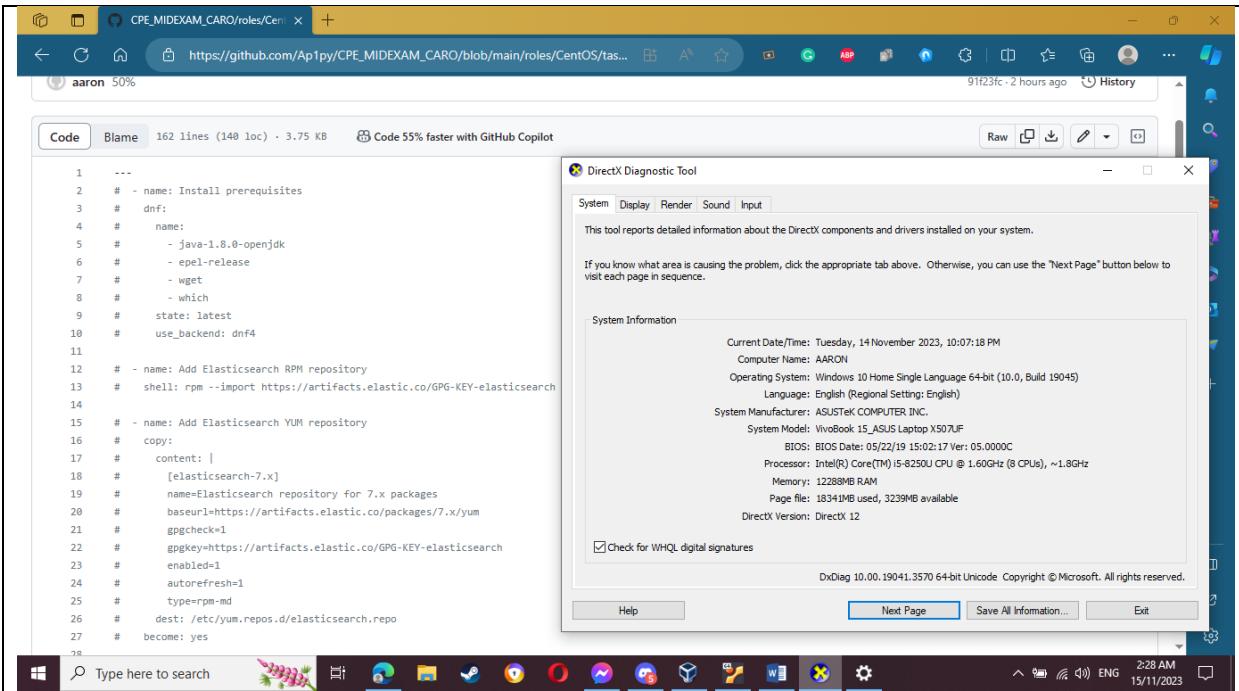
## The repository set up for influxdb



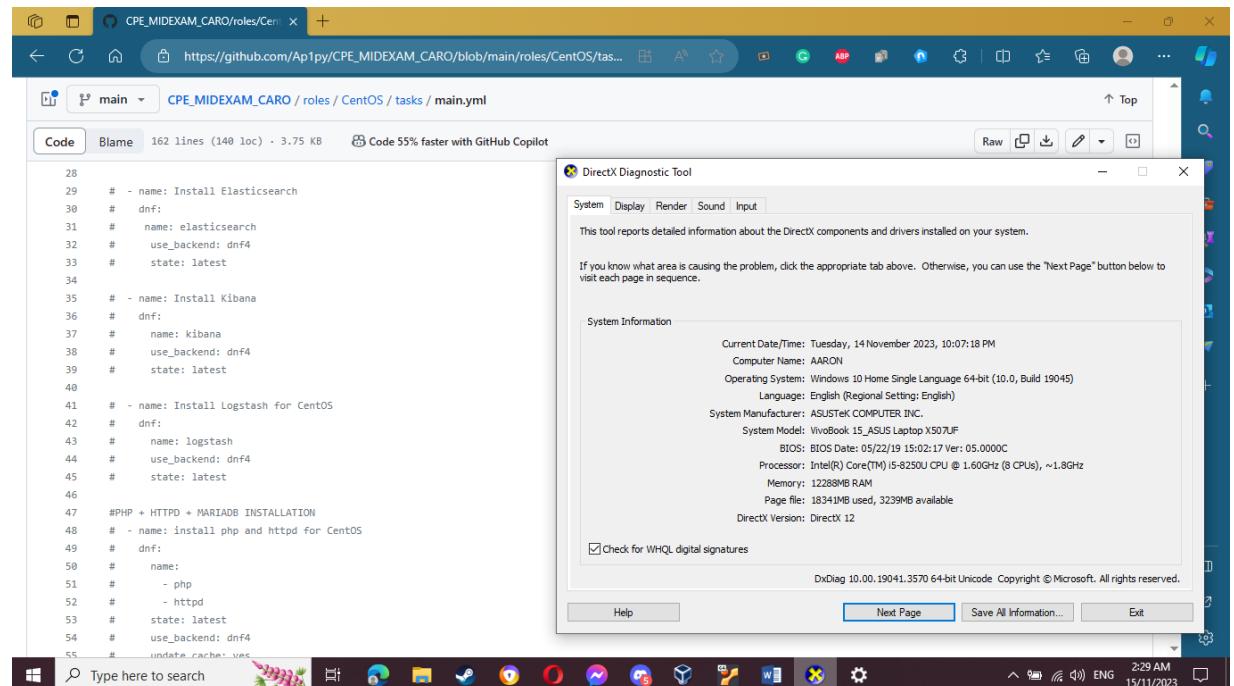
## The role centos task configuration



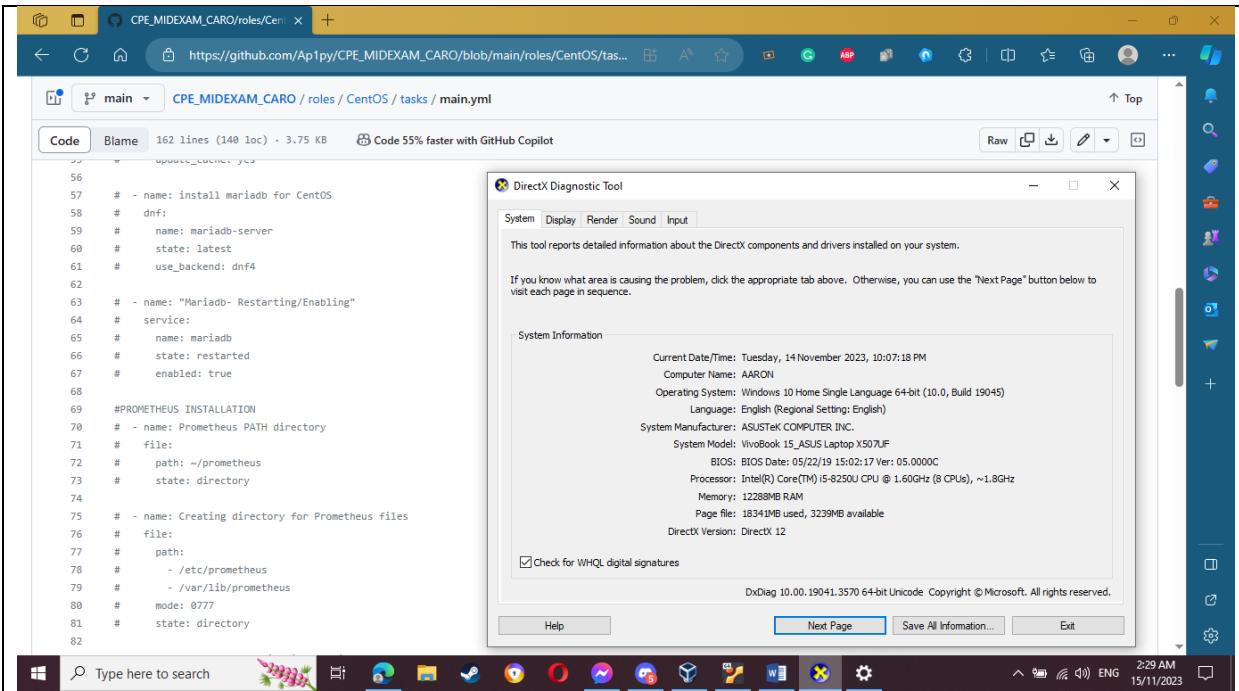
## The grafana repo configuration



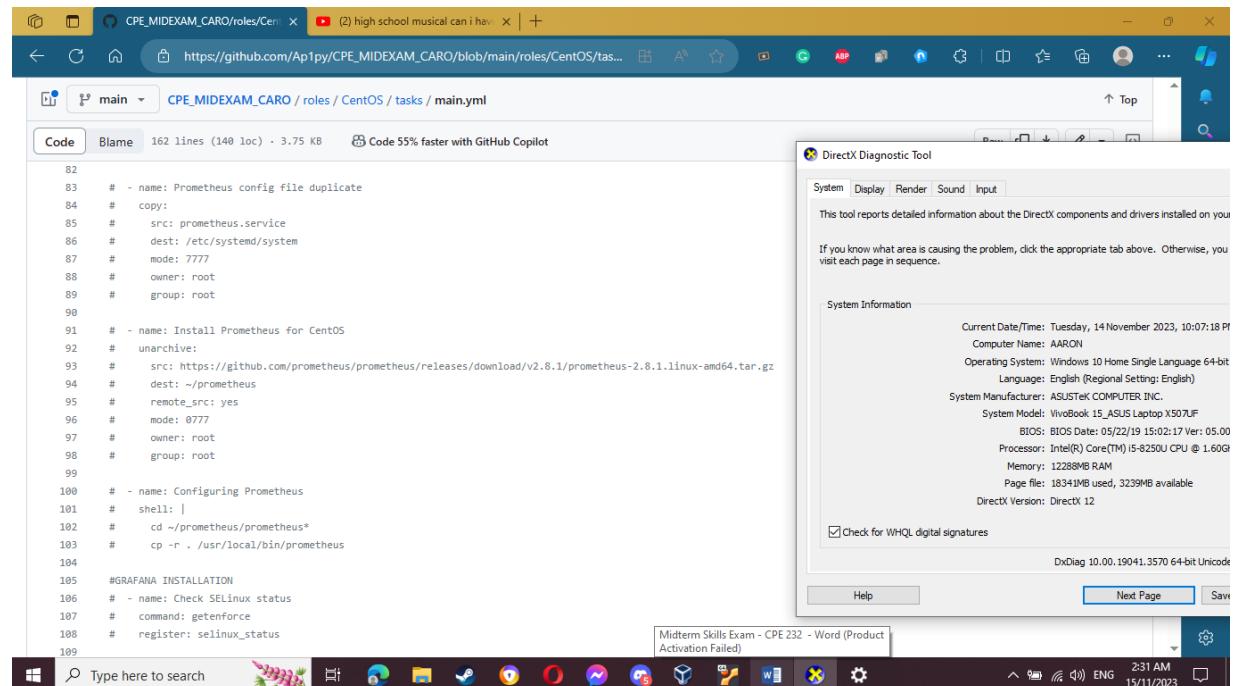
Centos playbook configuration if the pc is slowing down I recommend to comment out the finished installations to hasten the process



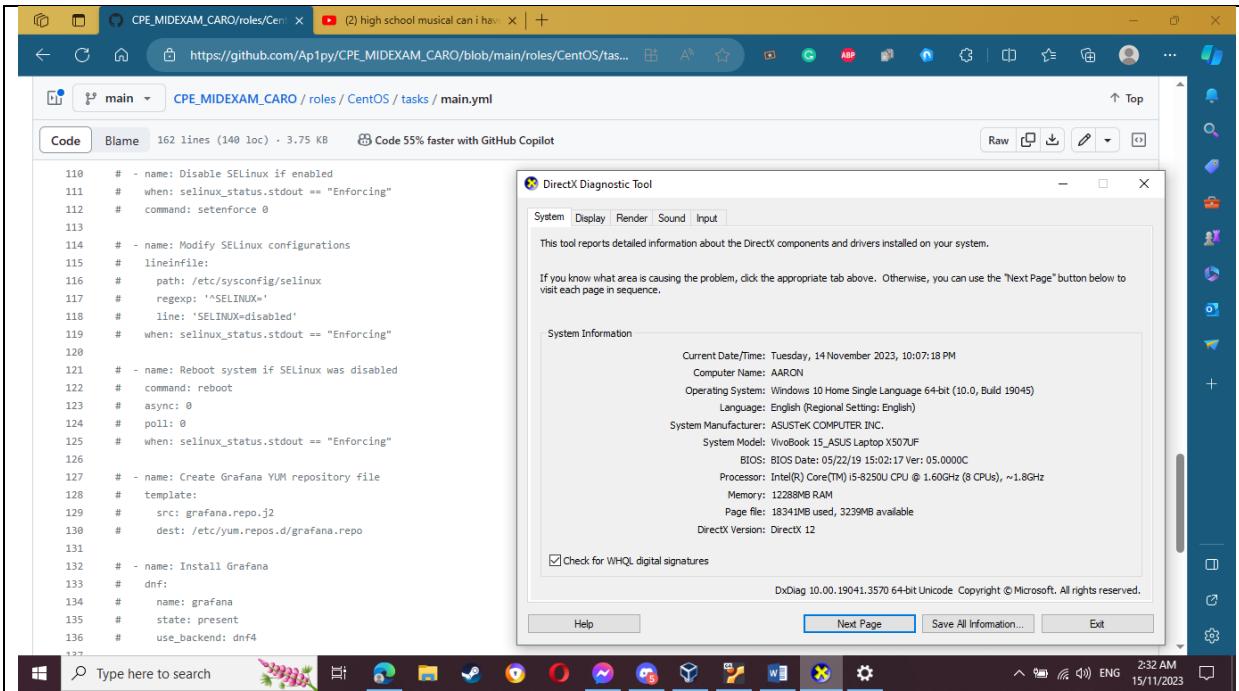
Centos playbook configuration if the pc is slowing down I recommend to comment out the finished installations to hasten the process



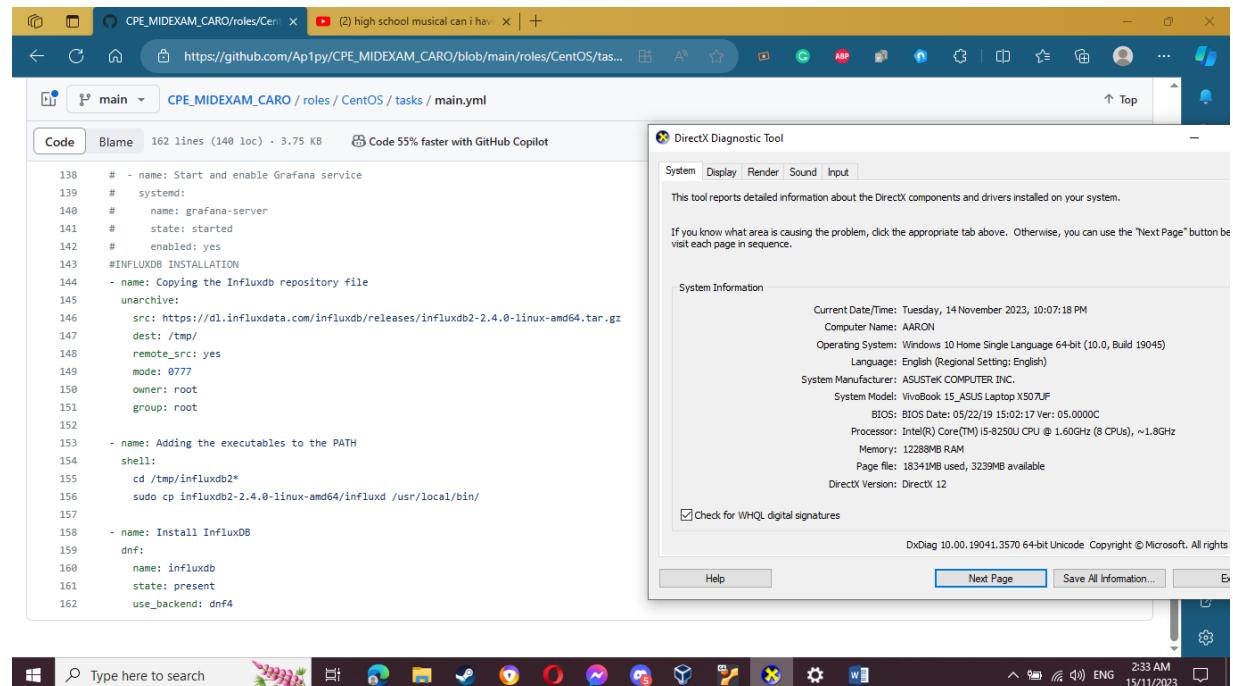
Centos playbook configuration if the pc is slowing down I recommend to comment out the finished installations to hasten the process



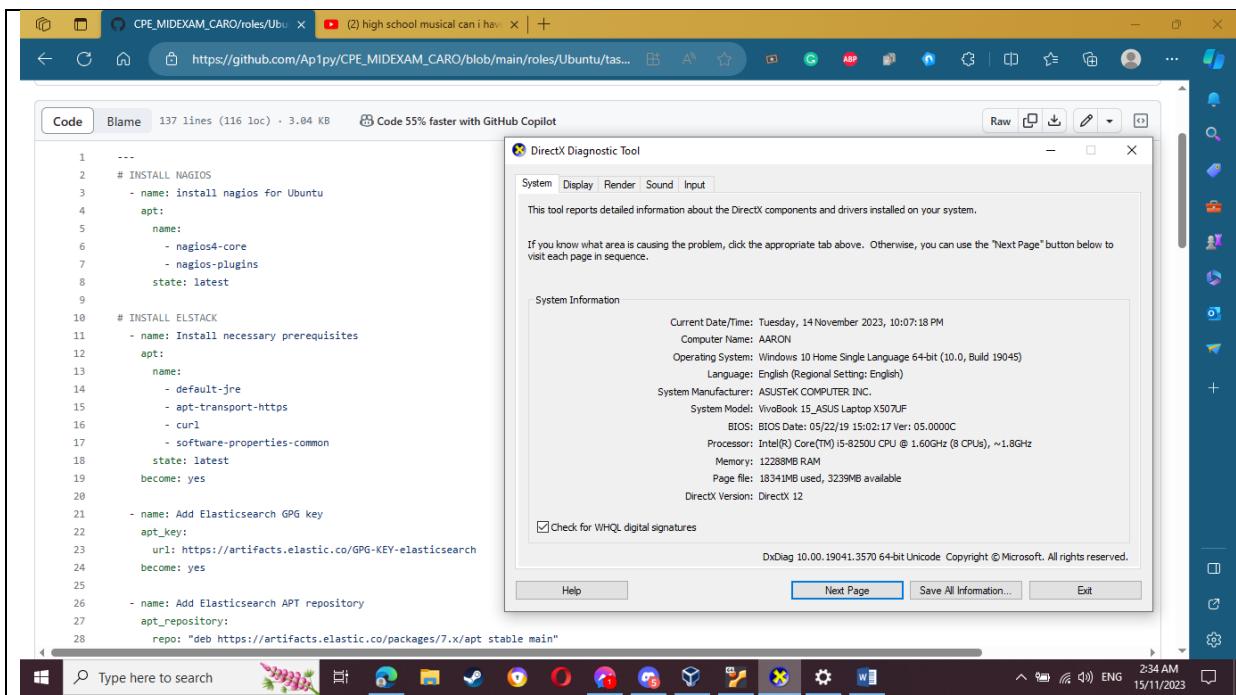
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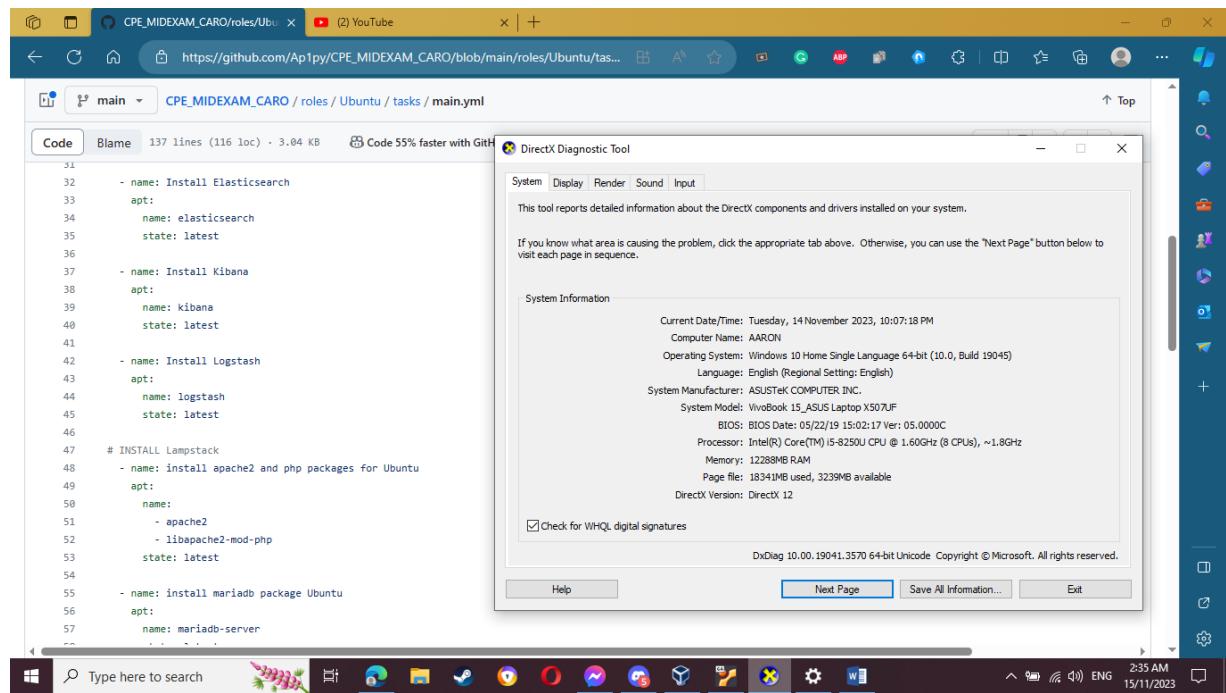
Centos playbook configuration if the pc is slowing down I recommend to comment out the finished installations to hasten the process



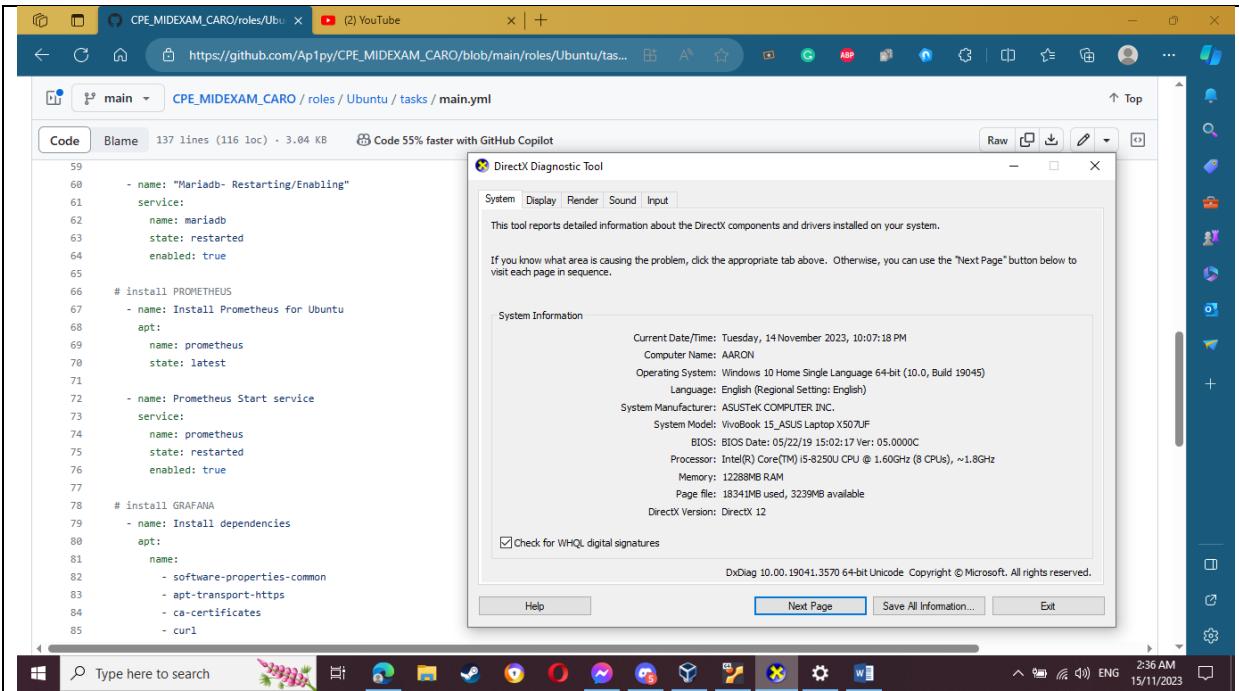
Centos playbook configuration if the pc is slowing down I recommend to comment out the finished installations to hasten the process



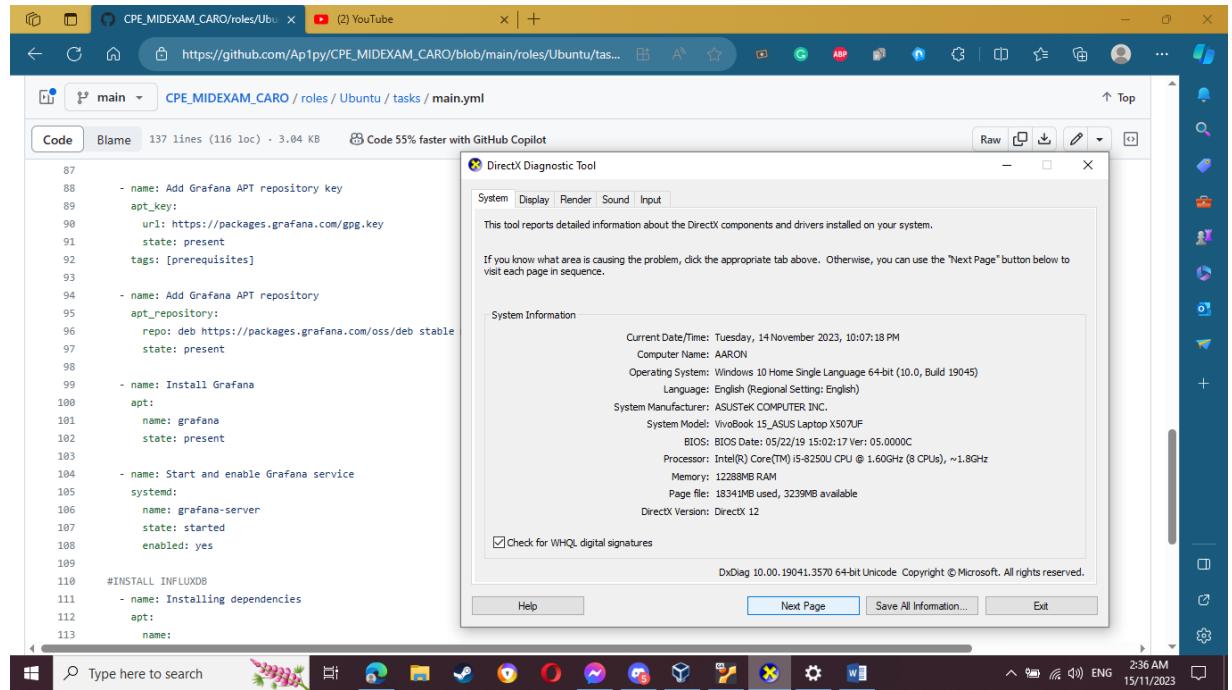
## Ubuntu playbook configuration



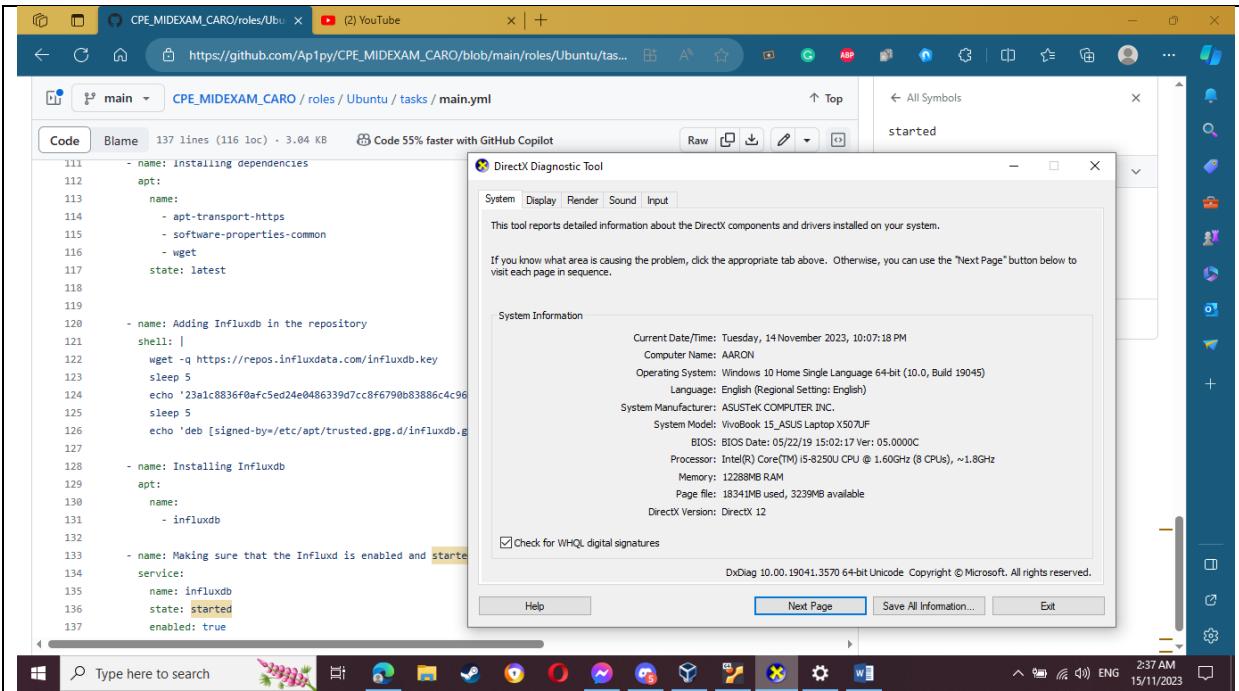
## Ubuntu playbook configuration



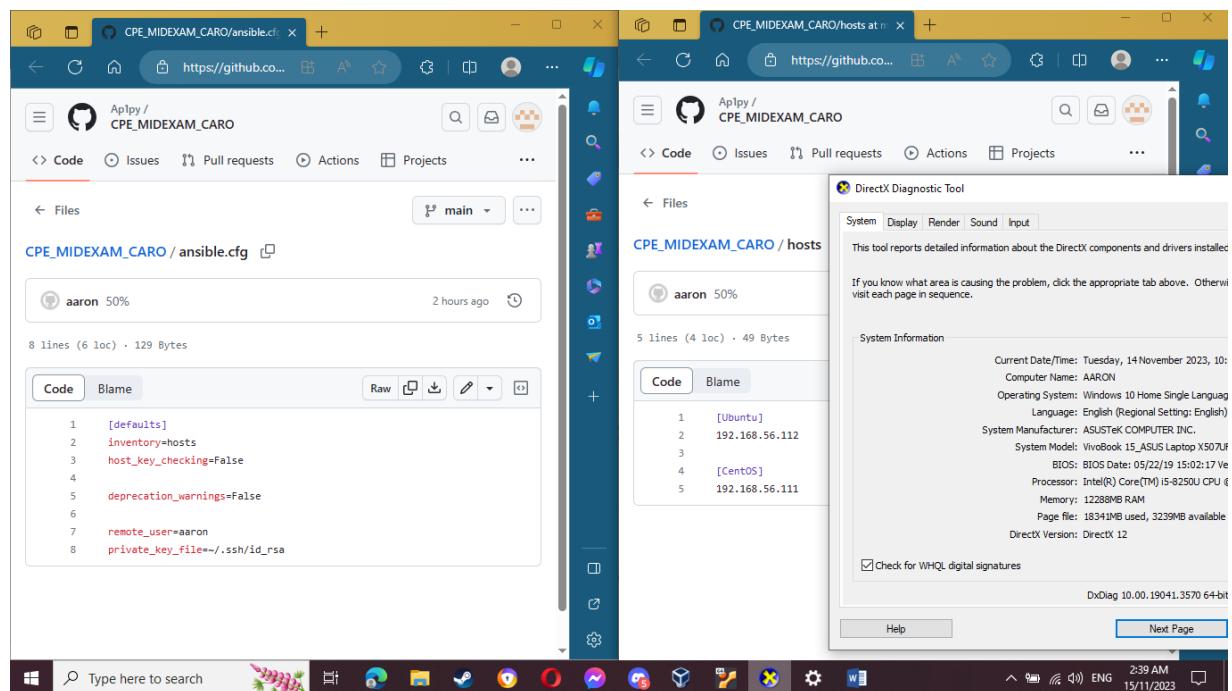
## Ubuntu playbook configuration



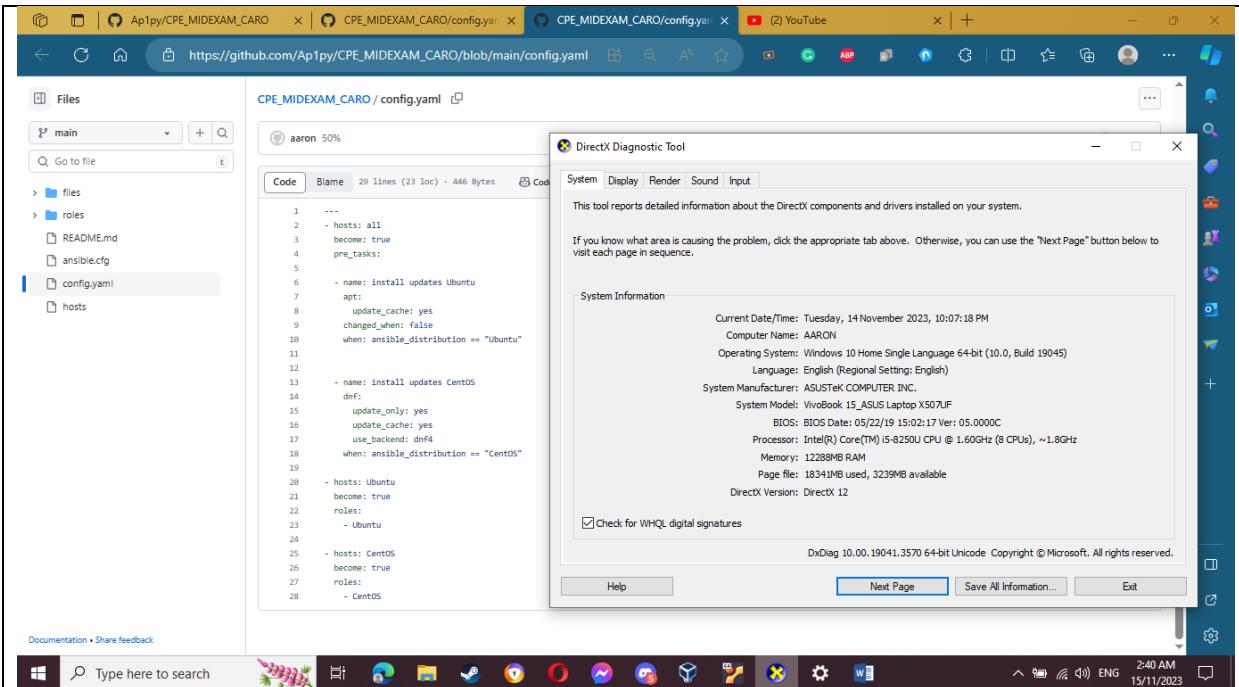
## Ubuntu playbook configuration



## Ubuntu playbook configuration



## The cfg. And host configuration



## The config.yaml configuration

### GitHub link:

[https://github.com/Ap1py/CPE\\_MIDEXAM\\_CARO](https://github.com/Ap1py/CPE_MIDEXAM_CARO)

### Conclusions: (link your conclusion from the objective)

All in all, the implementation of a workflow utilizing Ansible as an Infrastructure as Code tool for the installation, design, and the board of big business accessibility, execution, and log-checking devices addresses an essential jump toward smoothed-out and mechanized IT tasks. This extensive methodology not only guarantees the quick sending of observing arrangements yet in addition cultivates consistency and repeatability in the administration of assorted foundation parts. By regarding foundation as code, associations can upgrade nimbleness, diminish manual blunders, and work with simpler adaptability. The mix of Ansible into this work process enables overseers to characterize and computerize complex errands, advancing a more productive and responsive observing climate. Eventually, this IaC-driven technique holds the possibility to essentially improve the dependability, execution, and generally speaking adequacy of big business IT biological systems.