

Final Practical Examination	
Course Code: CPE212	Program: BSCPE
Course Title: Automating Server Management	Date Performed: November 14th/20th, 2025
Section: CPE31S4	Date Submitted: November 14th/20th, 2025
Name: Alexis Neil D.Deniega	Instructor: Engr. Robin Valenzuela

3. Procedure

1. Create a repository and label it as "Final_Exam_Surname"

A screenshot of a GitHub repository page. The repository is named "Final_Exam_Deniega". It contains three files: "README.md", "final.yml", and "inventory.ini". The "README.md" file has an update timestamp of "48 minutes ago". The "final.yml" and "inventory.ini" files both have "Current progress" status and were updated "21 minutes ago". There are edit and more options icons next to each file.

File	Last Update	Status
README.md	48 minutes ago	Update README.md
final.yml	21 minutes ago	Current progress
inventory.ini	21 minutes ago	Current progress

Final_Exam_Deniega

FOR FINAL PRACTICAL EXAM (DONE BETWEEN NOVEMBER 14TH AND 20TH, 2025)

2. Clone your new repository in your VM

```
programmy@workstation: ~/Final_Exam_Deniega
programmy@workstation:~/Final_Exam_Deniega... x programmy@workstation:~/Final_Exam_Deniega... x
programmy@workstation:~$ git clone git@github.com:Alexis-acad/Final_Exam_Deniega.git
Cloning into 'Final_Exam_Deniega'...
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 6 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (6/6), done.
programmy@workstation:~$ cd
programmy@workstation:~$ ls
CPE232_Deniega dockerdeniega Downloads Music Public Templates
Desktop Documents Final_Exam_Deniega Pictures snap Videos
programmy@workstation:~$ cd Final_Exam_Deniega
programmy@workstation:~/Final_Exam_Deniega$ code
programmy@workstation:~/Final_Exam_Deniega$
```

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

```
- name: install Postgresql (ubuntu)
  tags: postgresql
  apt:
    name:
      - postgresql
      - python3-psycopg2
    state: latest
  when: ansible_distribution == "Ubuntu"

- name: install Postgresql (CentOS)
  tags: postgresql
  dnf:
    name:
      - postgresql-server
      - python3-psycopg2
    state: latest
  when: ansible_distribution == "CentOS"
```

```
- name: initialize postgresql database (centos)
  tags: postgresql
  shell: postgresql-setup initdb
  when: ansible_distribution == "CentOS"

- name: start and enable postgresql
  tags: postgresql
  systemd:
    name: postgresql
    state: started
    enabled: yes

- name: change motd
  tags: always
  copy:
    content: "Ansible Managed by alexis-acad (Deniega)\n"
    dest: /etc/motd
```

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)

```
# Nagios
- hosts: monitoring
  become: true
  tasks:

    - name: install nagios prerequisites (ubuntu)
      tags: nagios
      apt:
        name:
          - apache2
          - php
          - gcc
          - make
          - wget
        state: latest
      when: ansible_distribution == "Ubuntu"

    - name: install nagios prerequisites (centos)
      tags: nagios
      dnf:
        name:
          - httpd
          - php
          - gcc
          - make
          - wget
        state: latest
      when: ansible_distribution == "CentOS"
```

```
- name: start and enable apache (ubuntu)
  tags: nagios
  systemd:
    name: apache2
    state: started
    enabled: yes
  when: ansible_distribution == "Ubuntu"

- name: start and enable apache (centos)
  tags: nagios
  systemd:
    name: httpd
    state: started
    enabled: yes
  when: ansible_distribution == "CentOS"

- name: change motd
  tags: always
  copy:
    content: "Ansible Managed by alexis-acad (Deniega)\n"
    dest: /etc/motd
```

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

4. Push and commit your files in GitHub

GRAPH Auto ⌂ ⌄ ⌅ ⌆ ⌇ ⌈ ⌉ ⌋ ...

Completed Exam alexis-acad (main)

settings.json .vscode	A
README.md	M
ansible.cfg	A
final.yml	M
inventory.ini	M
Current progress Alexis-acad	
final.yml	A
inventory.ini	A
Update README.md Alexis-acad	

README

Final_Exam_Deniega

FOR FINAL PRACTICAL EXAM (DONE BETWEEN NOVEMBER 14TH AND 20TH, 2025)

Procedures (directly copied)

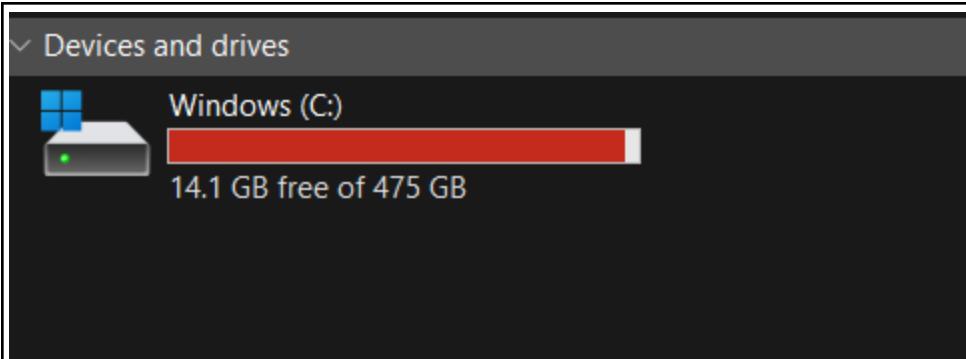
1. Create a repository and label it as "Final_Exam_Surname" **DONE**
2. Clone your new repository in your VM **DONE**
3. Create an Ansible playbook that does the following with an input of a config.yaml file and structure inventory file. **DONE**
 - Install and configure one enterprise service that can be installed in Debian and Centos servers **DONE**
 - 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) **DONE**
 - Change Motd as "Ansible Managed by" **DONE**
4. Push and commit your files in GitHub [here?](#)
5. Make sure to show evidence of input (codes) process (codes successfully running) and output (evidence of installation) **partially, can't do it due to hardware constraints. Laptop is genuinely suffering.**
6. 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. *Yeah, I am not doing this lol*

Pipeline Plan:

- Download MySQL **DONE**
- Download Nagios **DONE**
 - Dependencies (Ubuntu): Apache 2, PHP, GCC Compiler, LibGD **DONE**

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

Unfortunately, I genuinely cannot do this.



this is my pc after installing ONE UBUNTU VM.

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

https://github.com/Alexis-acad/Final_Exam_Deniega

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