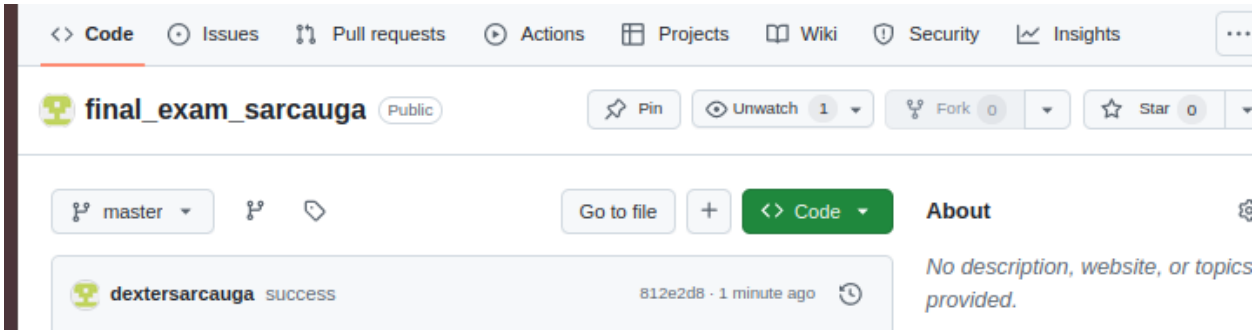
FINAL EXAM - CPE 212 - CPE31S21

DEXTER P. SARCAUGA

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.

SCREENSHOTS:




```
  GNU nano 2.9.3                          inventory

[ubuntu]
server1 ansible_host=192.168.56.132 ansible_user=dexter

[centos]
centos ansible_host=192.168.56.133 ansible_user=dsarcauga
```

```
dexter@workstation: ~/final_exam_sarcauga
File  Edit  View  Search  Terminal  Help
  GNU nano 2.9.3                        install.yml

---
- name: Install and configure services
  hosts: all
  become: yes
  vars:
    config: "{{ lookup('file', 'config.yml') | from_yaml }}"
    username: "{{ config.username }}"

  tasks:
    - name: Install enterprise service
      package:
        name: "{{config. enterprise_service.name }}"
        state: present
      when: ansible_os_family in ['Debian', 'CentOS']

    - name: Configure enterprise service
      template:
        src: temp/nginx.j2
        dest: /etc/nginx/nginx.conf
      when: config.enterprise_service.name == "nginx"

    - name: Install monitoring tool
      package:
                              [ Read 38 lines ]
^G Get Help    ^O Write Out   ^W Where Is    ^K Cut Text    ^J Justify
^X Exit        ^R Read File   ^\ Replace     ^U Uncut Text  ^T To Spell
```

Ansible Playbook for installing and configuring enterprises and monitoring tools.

```
TASK [Install enterprise service] ******************************************
*
ok: [192.168.56.132]

TASK [Configure enterprise service] ****************************************
*
ok: [192.168.56.132]

TASK [Install monitoring tool] *********************************************
*
ok: [192.168.56.132]

TASK [Configure monitoring tool] *******************************************
*
ok: [192.168.56.132]

TASK [Change MOTD] *********************************************************
*
ok: [192.168.56.132]
        to retry, use: --limit @/home/dexter/final_exam_sarcauga/install.retry

PLAY RECAP *****************************************************************
*
192.168.56.132             : ok=6    changed=0    unreachable=0    failed=0
```

```
TASK [Print enterprise service details] ************************************
*
ok: [192.168.56.132] => {
    "msg": "Service: nginx, Version: 1.18.0"
}
ok: [192.168.56.133] => {
    "msg": "Service: nginx, Version: 1.18.0"
}

TASK [Print monitoring tool details] ***************************************
*
ok: [192.168.56.132] => {
    "msg": "Monitoring Tool: prometheus, Version: 2.30.3, Host: monitoring.exam
ple.com"
}
ok: [192.168.56.133] => {
    "msg": "Monitoring Tool: prometheus, Version: 2.30.3, Host: monitoring.exam
ple.com"
}

PLAY RECAP *****************************************************************
*
192.168.56.132             : ok=2    changed=0    unreachable=0    failed=0
192.168.56.133             : ok=2    changed=0    unreachable=0    failed=0
```

Figure 1: This is the installation and configuration of the enterprise service and monitoring tool.

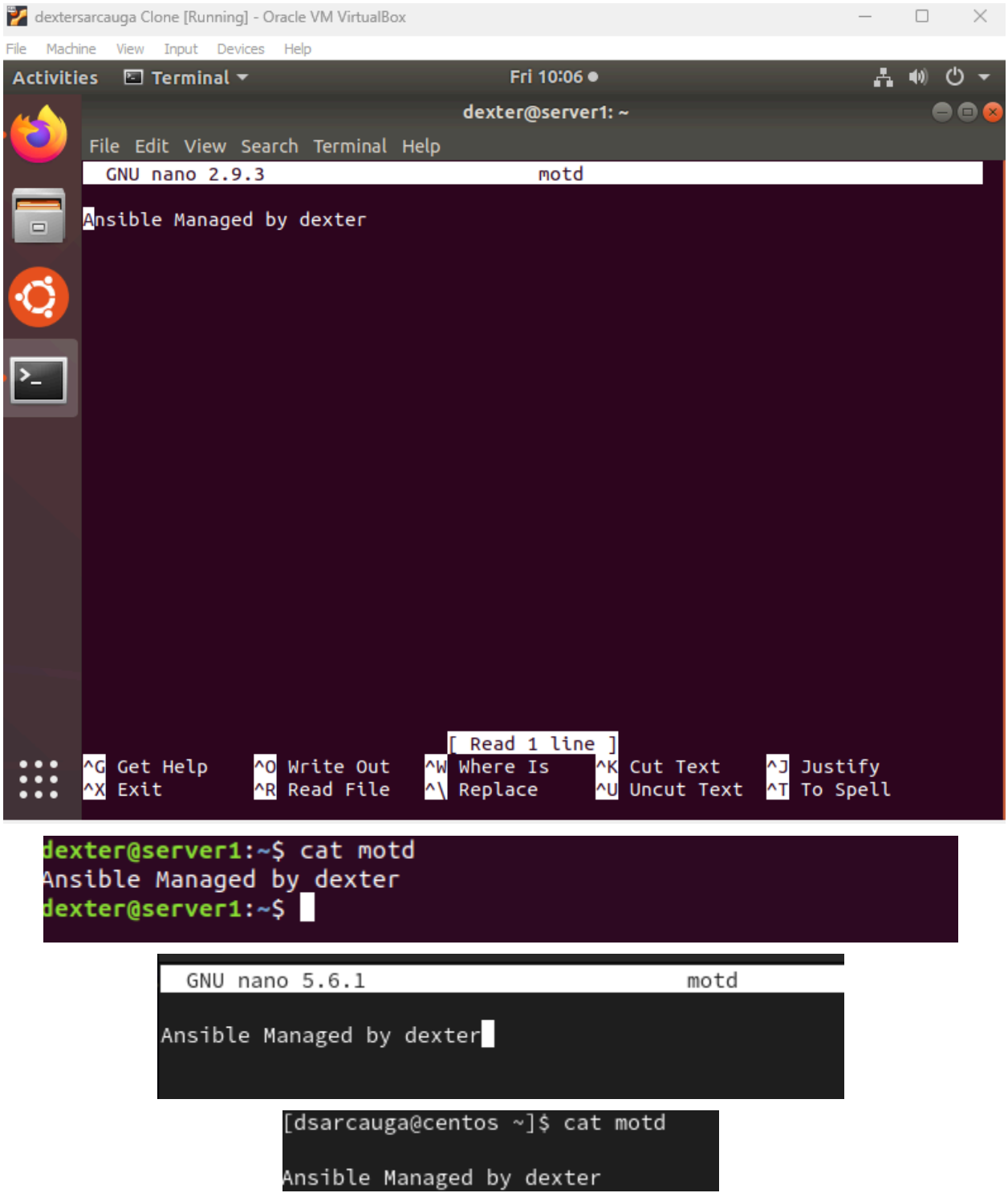


Figure: Motd Banner from the main workstation through servers.