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Course/Section: CPE212 - CPE31S4	Date Submitted: 29/08/25
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Hands-on Prelim Exam

Tools Needed:

1. Control Node (CN) - 1
2. Manage Node (MN) - 1 Ubuntu
3. Manage Node (MN) - 1 CentOS

Procedure

1. Note: You are required to create a document report of the steps you will do for this exam. All screenshots should be labeled and explained properly. LABELED AND EXPLAIN EACH CODE (PLAYBOOK) No explanation = Minus Points
2. Create a repository in your GitHub account and label it as Surname_PrelimExam
3. Clone your new repository in your CN.
4. In your CN, create an inventory file and ansible.cfg files.
5. Create an Ansible playbook that does the following with an input of a config.yaml file for both Manage Nodes
   - Installs the latest python3 and pip3
   - use pip3 as default pip
   - use python3 as default python
   - Install Java open-jdk
   - Install MariaDB as well as starting the server, create a database and a table using mariaDB and input one record into a table USING ANSIBLE ONLY
   - Create Motd containing the text defined by a variable defined in config.yaml file and if there is no variable input the default motd is "Ansible Managed node by (your user name)"
   - Create a user with a variable defined in config.yaml

5. PUSH and COMMIT your PrelimExam in your GitHub repo
6. Your document report should be submitted here.
7. For your prelim exam to be counted, please paste your repository link here. (https://github.com/moussecake22/Bacong_PrelimExam.git)
8. NO USE OF EXTERNAL WEBSITES SUCH AS , REDDIT, CHATGPT, GITHUB, GEMINI, CLAUDE, FORUMS, AND DOCUMENTATIONS. FAILURE TO COMPLY WITH RESULT IN ZERO.

Output

1. Note: You are required to create a document report of the steps you will do for this exam. All screenshots should be labeled and explained properly. LABELED AND EXPLAIN EACH CODE (PLAYBOOK) No explanation = Minus Points

2.

I created a repository in github.

3.

```
cidee@workstation:~$ git clone git@github.com:moussecake22/Bacong_PrelimExam.gi
t
Cloning into 'Bacong_PrelimExam'...
Warning: Permanently added the ECDSA host key for IP address '20.87.245.0' to t
he list of known hosts.
warning: You appear to have cloned an empty repository.
```

I cloned my github repository into my CN server by using git clone.

4.

```
cidee@workstation:~$ sudo mkdir PrelimExam
cidee@workstation:~$ ls
Bacong_PrelimExam  Desktop      examples.desktop  Music      Public      Videos
CPE212             Documents    id_rsa            Pictures   README.md
CPE212_elcid       Downloads    id_rsa.pub        PrelimExam Templates
cidee@workstation:~$ cd PrelimExam
cidee@workstation:~/PrelimExam$ ls
cidee@workstation:~/PrelimExam$ sudo nano inventory.ini
cidee@workstation:~/PrelimExam$ █
```

5.

```
cidee@workstation:~/Bacong_PrelimExam$ ls
inventory.ini  playbook.retry  playbook.yaml  project.txt
cidee@workstation:~/Bacong_PrelimExam$ █
```

```
GNU nano 2.9.3                          playboo
- name: My Prelim Exam
  hosts: webserver
  become: true
  tasks:
    - name: Ansible install python3
      apt:
        name: python3
        state: present
```

```
cidee@workstation:~/Bacong_PrelimExam$ ansible dbserver -m ping -i inventory.in
i
192.168.56.106 | SUCCESS => {
    "changed": false,
    "ping": "pong"
}
cidee@workstation:~/Bacong_PrelimExam$ ansible webserver -m ping -i inventory.i
ni
192.168.56.106 | SUCCESS => {
    "changed": false,
    "ping": "pong"
}
192.168.56.105 | SUCCESS => {
    "changed": false,
    "ping": "pong"
}
```

cidee@workstation: ~/Bacong_PrelimExam

File Edit View Search Terminal Help

GNU nano 2.9.3   playbook.yaml

```
- name: My exam
  hosts: all
  become: true
  tasks:
    - name: Ansible apt-get to install pip3
      apt:
       name: python3-pip
       state: present
       force_apt_get: yes
```

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GNU nano 2.9.3   playbook.yaml

```
- name: My exam
  hosts: all
  become: true
  tasks:
    - name: Ansible apt-get to install mariadb
      apt:
       name: mariadb-server
       state: present
       force_apt_get: yes
```

```
  GNU nano 2.9.3                    playbook.yaml

- name: My exam
  hosts: all
  become: true
  tasks:
    - name: Ansible apt-get to install java open-jdk█
      apt:
       name: openjdk-21-jdk
       state: present
       force_apt_get: yes
```

```
cidee@workstation:~/Bacong_PrelimExam$ ansible-playbook -i inventory.ini playbo
ok.yaml

PLAY [My exam] *****************************************************************
*

TASK [Gathering Facts] ********************************************************
*
fatal: [192.168.56.106]: FAILED! => {"changed": false, "module_stderr": "Shared
 connection to 192.168.56.106 closed.\r\n", "module_stdout": "sudo: a password
is required\r\n", "msg": "MODULE FAILURE", "rc": 1}
fatal: [192.168.56.105]: FAILED! => {"changed": false, "module_stderr": "Shared
 connection to 192.168.56.105 closed.\r\n", "module_stdout": "sudo: a password
is required\r\n", "msg": "MODULE FAILURE", "rc": 1}
        to retry, use: --limit @/home/cidee/Bacong_PrelimExam/playbook.retry

PLAY RECAP ********************************************************************
*
192.168.56.105              : ok=0    changed=0    unreachable=0    failed=1
192.168.56.106              : ok=0    changed=0    unreachable=0    failed=1
```

7. https://github.com/moussecake22/Bacong_PrelimExam.git