Hands-On Prelim Exam	
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CPE212-CpE31S2	Engr. Robin Valenzuela

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. (Failure to submit will result in ZERO)

8. NO USE OF EXTERNAL WEBSITES SUCH AS , REDDIT, CHATGPT, GITHUB, GEMINI, CLAUDE, FORUMS, AND DOCUMENTATIONS. FAILURE TO COMPLY WITH RESULT IN ZERO.

Documentation

Python3 Playbook:


```
GNU nano 7.2                          install_python3.yml
---
- hosts: all
  become: true
  tasks:

  - name: install python3 package
    apt:
      name: python3
```

With the name python3 installed the correct package of python3 called it with name install python3 package witht the apt command


```
Control Node_Magboo [Running] - Oracle VirtualBox                    —    □    ×
File   Machine   View   Input   Devices   Help
                                                          Aug 29  09:42
        [+]           Magboo@LocalMachine: ~/CPE212_Magboo      Q  ≡  —  □  ×

Magboo@LocalMachine:~/CPE212_Magboo$ ansible-playbook --ask-become-pass install_
python3.yml
BECOME password:

PLAY [all] ***********************************************************************

TASK [Gathering Facts] **********************************************************
fatal: [192.168.56.111]: UNREACHABLE! => {"changed": false, "msg": "Failed to co
nnect to the host via ssh: no such identity: /home/Magboo/.ssh/ansible: No such
file or directory\r\nMagboo@192.168.56.111: Permission denied (publickey,passwor
d).", "unreachable": true}
ok: [192.168.56.109]
ok: [192.168.56.110]

TASK [install python3 package] **************************************************
ok: [192.168.56.109]
ok: [192.168.56.110]

PLAY RECAP **********************************************************************
192.168.56.109             : ok=2    changed=0    unreachable=0    failed=0    s
kipped=0    rescued=0    ignored=0
192.168.56.110             : ok=2    changed=0    unreachable=0    failed=0    s
kipped=0    rescued=0    ignored=0
192.168.56.111             : ok=0    changed=0    unreachable=1    failed=0    s
kipped=0    rescued=0    ignored=0

Magboo@LocalMachine:~/CPE212_Magboo$
```
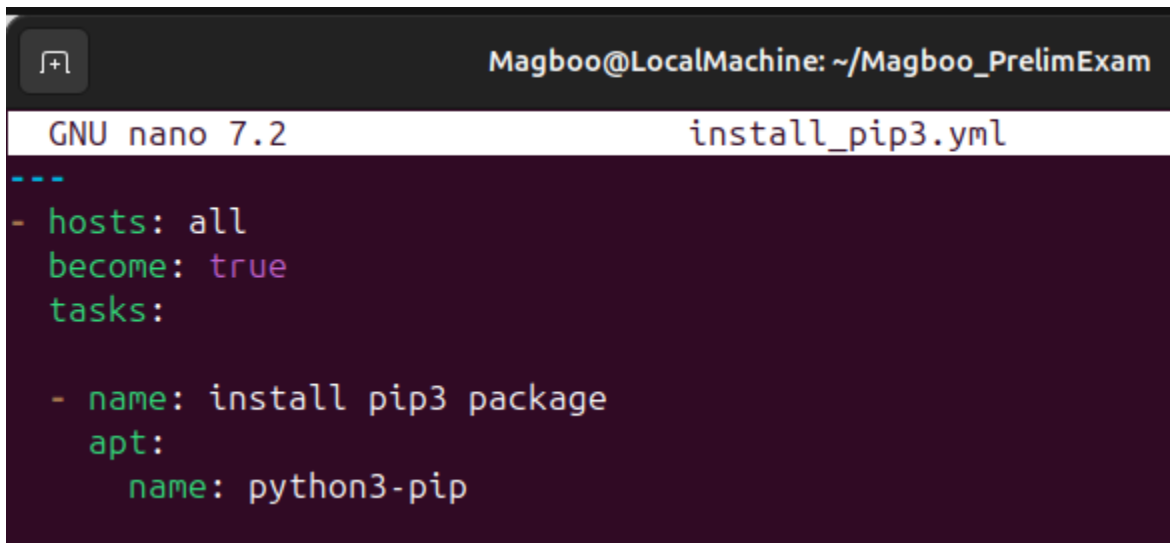
With the installation of python3 for both the servers it was confirmed ok with the play recap showing ok

Pip3 playbook:

```
Magboo@LocalMachine: ~/Magboo_PrelimExam

GNU nano 7.2                          install_pip3.yml
---
- hosts: all
  become: true
  tasks:

  - name: install pip3 package
    apt:
      name: python3-pip
```

<u>I showed here my ansible playbook for installing pip3 package from python3</u>

```
Magboo@LocalMachine:~/Magboo_PrelimExam$ ansible-playbook --ask-become-pass inst
all_pip3.yml
BECOME password:

PLAY [all] ***********************************************************************

TASK [Gathering Facts] **********************************************************
fatal: [192.168.56.111]: UNREACHABLE! => {"changed": false, "msg": "Failed to co
nnect to the host via ssh: no such identity: /home/Magboo/.ssh/ansible: No such
file or directory\r\nMagboo@192.168.56.111: Permission denied (publickey,passwor
d).", "unreachable": true}
ok: [192.168.56.109]
ok: [192.168.56.110]

TASK [install pip3 package] *****************************************************
ok: [192.168.56.109]
ok: [192.168.56.110]

PLAY RECAP **********************************************************************
192.168.56.109             : ok=2    changed=0    unreachable=0    failed=0    s
kipped=0    rescued=0    ignored=0
192.168.56.110             : ok=2    changed=0    unreachable=0    failed=0    s
kipped=0    rescued=0    ignored=0
192.168.56.111             : ok=0    changed=0    unreachable=1    failed=0    s
kipped=0    rescued=0    ignored=0

Magboo@LocalMachine:~/Magboo_PrelimExam$
```

**Here i successfully installed the pip3 on 2 servers with the other one is already
installed on my first attempt then on the other attempt it changed because it just
reused the ansible to call the pip3 on the other server**

MariaDB playbook:

```
GNU nano 7.2                         install_mariadb.yml
---
- hosts: all
  become: true
  tasks:

  - name: install MariaDB package
    apt:
      name: mariadb-server
```

Called out mariadb using mariadb-server with all the hosts

```
Magboo@LocalMachine:~/Magboo_PrelimExam$ ansible-playbook --ask-become-pass inst
all_mariadb.yml
BECOME password:

PLAY [all] ******************************************************************

TASK [Gathering Facts] ******************************************************
fatal: [192.168.56.111]: UNREACHABLE! => {"changed": false, "msg": "Failed to co
nnect to the host via ssh: no such identity: /home/Magboo/.ssh/ansible: No such
file or directory\r\nMagboo@192.168.56.111: Permission denied (publickey,passwor
d).", "unreachable": true}
ok: [192.168.56.109]
ok: [192.168.56.110]

TASK [install MariaDB package] **********************************************
ok: [192.168.56.109]
ok: [192.168.56.110]

PLAY RECAP ******************************************************************
192.168.56.109             : ok=2    changed=0    unreachable=0    failed=0    s
kipped=0    rescued=0    ignored=0
192.168.56.110             : ok=2    changed=0    unreachable=0    failed=0    s
kipped=0    rescued=0    ignored=0
192.168.56.111             : ok=0    changed=0    unreachable=1    failed=0    s
kipped=0    rescued=0    ignored=0

Magboo@LocalMachine:~/Magboo_PrelimExam$
```

Here the installation of mariadb is ok because i received no error means it installed perfectly

Github link: MagbooMattClemence/Magboo_PrelimExam