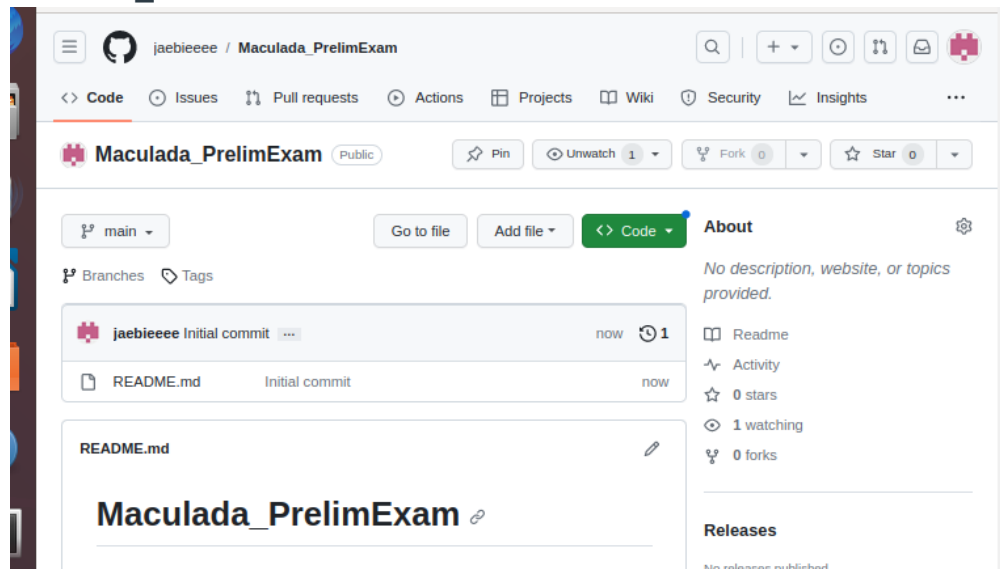


Prelim Exam	
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Course/Section: CpE31S6	Instructor: Dr. Jonathan V. Taylar

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.
2. Create a repository in your GitHub account and label it as Surname_PrelimExam



(I made a new repository in this part of this activity and in order to clone it in my workstation, I copied the ssh of this repository.)

3. Clone your new repository in your CN.

```
jai@workstation:~$ git clone git@github.com:jaebieeee/Maculada_PrelimExam.git
Cloning into 'Maculada_PrelimExam'...
The authenticity of host 'github.com (192.30.255.112)' can't be established.
ECDSA key fingerprint is SHA256:p2QAMXNIC1TJYWeIOttrVc98/R1BUFWu3/LiyKgUfQM.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'github.com,192.30.255.112' (ECDSA) to the list of
known hosts.
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.
jai@workstation:~$ ls
CPE232_Maculada  Desktop  examples.desktop  Music  Public  Videos
Downloads        Maculada_PrelimExam  Pictures  Templates
```

4. In your CN, create an inventory file and ansible.cfg files.

```
jai@workstation:~/Maculada_PrelimExam$ touch ansible.cfg inventory
jai@workstation:~/Maculada_PrelimExam$ ls
ansible.cfg  inventory  README.md
```

```
jai@workstation: ~/Maculada_PrelimExam
File Edit View Search Terminal Help
GNU nano 2.9.3 inventory Modified

192.168.56.102 ansible_python_interpreter=/usr/bin/python3
192.168.56.102 apache_package=apache2 php_package=libapache2-mod-php

192.168.56.103 ansible_python_interpreter=/usr/bin/python3
192.168.56.103 apache_package=apache2 php_package=libapache2-mod-php

192.168.56.105 ansible_python_interpreter=/usr/bin/python3
192.168.56.105 apache_package=httpd php_package=php
```

```
File Edit View Search Terminal Help
GNU nano 2.9.3 ansible.cfg Moc

[defaults]

inventory = inventory
host_key_checking = False

deprecation_warnings = False

remote_user = jai
private_key_file = ~/.ssh/

LibreOffice Writer
```

(In this part, I created two files using the touch command. In the inventory, I stored all the ip addresses of workstation and CentOS. While in the ansible, I stored the script from the previous HOA so that it won't be time consuming.)

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

INPUT	<pre> File Edit View Search Terminal Help GNU nano 2.9.3 config.yaml --- - hosts: all become: true tasks: - name: Update package cache package: update_cache: yes - name: Install Python3 and Pip3 package: name: "{{ item }}" state: latest with_items: - python3 - python3-pip </pre>
PROCESS	<pre> TASK [Install Python3 and Pip3] ***** * ok: [192.168.56.103] => (item=python3) ok: [192.168.56.102] => (item=python3) ok: [192.168.56.103] => (item=python3-pip) ok: [192.168.56.102] => (item=python3-pip) ok: [192.168.56.105] => (item=python3) ok: [UbuntuSoftware:105] => (item=python3-pip) </pre>
OUTPUT	<pre> jai@server1:~\$ python3 --version Python 3.6.9 jai@server1:~\$ pip3 --version pip 9.0.1 from /usr/lib/python3/dist-packages (python 3.6) jai@server1:~\$ jai@server2:~\$ python3 --version Python 3.6.9 jai@server2:~\$ pip3 --version pip 9.0.1 from /usr/lib/python3/dist-packages (python 3.6) jai@server2:~\$ [jai@localhost ~]\$ python3 --version Python 3.6.8 [jai@localhost ~]\$ pip3 --version pip 9.0.3 from /usr/lib/python3.6/site-packages (python 3.6) </pre>

- use pip3 as default pip

INPUT	<pre> - name: Set pip3 as the default python for Ubuntu command: "ln -sf /usr/bin/pip3 /usr/bin/pip" when: ansible_distribution == "Ubuntu" - name: Set pip3 as the default python for CentOS command: "ln -sf /usr/bin/pip3 /usr/bin/pip" when: ansible_distribution == "CentOS" </pre>
PROCESS	<pre> TASK [Set pip3 as the default python for Ubuntu] ***** * skipping: [192.168.56.105] changed: [192.168.56.102] changed: [192.168.56.103] Files TASK [Set pip3 as the default python for CentOS] ***** * skipping: [192.168.56.102] skipping: [192.168.56.103] changed: [192.168.56.105] </pre>
OUTPUT	<pre> [jai@localhost ~]\$ which pip3 /usr/bin/pip3 </pre>

	<pre> jai@server1:~\$ which pip3 /usr/bin/pip3 jai@server2:~\$ which pip3 /usr/bin/pip3 </pre>
--	---

- use python3 as default python

INPUT	<pre> - name: Set python3 as the default python for Ubuntu command: "ln -sf /usr/bin/python3 /usr/bin/python" when: ansible_distribution == "Ubuntu" - name: Set python3 as the default python for CentOS command: "ln -sf /usr/bin/python3 /usr/bin/python" when: ansible_distribution == "CentOS" </pre>
PROCESS	<pre> TASK [Set python3 as the default python for Ubuntu] ***** skipping: [192.168.56.105] changed: [192.168.56.103] LibreOffice Writer changed: [192.168.56.102] TASK [Set python3 as the default python for CentOS] ***** skipping: [192.168.56.102] skipping: [192.168.56.103] changed: [192.168.56.105] </pre>
OUTPUT	<pre> [jai@localhost ~]\$ which python3 /usr/bin/python3 jai@server1:~\$ which python3 /usr/bin/python3 jai@server2:~\$ which python3 /usr/bin/python3 </pre>

- Install Java open-jdk

INPUT	
PROCESS	
OUTPUT	

- 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

```
jai@workstation:~/Maculada_PrelimExam$ git add *
jai@workstation:~/Maculada_PrelimExam$ git commit -m "Ansible basic commands"
[main 6aa3e1e] Ansible basic commands
3 files changed, 69 insertions(+)
create mode 100644 ansible.cfg
create mode 100644 config.yaml
create mode 100644 inventory
jai@workstation:~/Maculada_PrelimExam$ git push origin
Counting objects: 5, done.
Delta compression using up to 2 threads.
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 992 bytes | 992.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0)
To github.com:jaebieeee/Maculada_PrelimExam.git
  72c1744..6aa3e1e  main -> main
```

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/jaebieeee/Maculada_PrelimExam.git