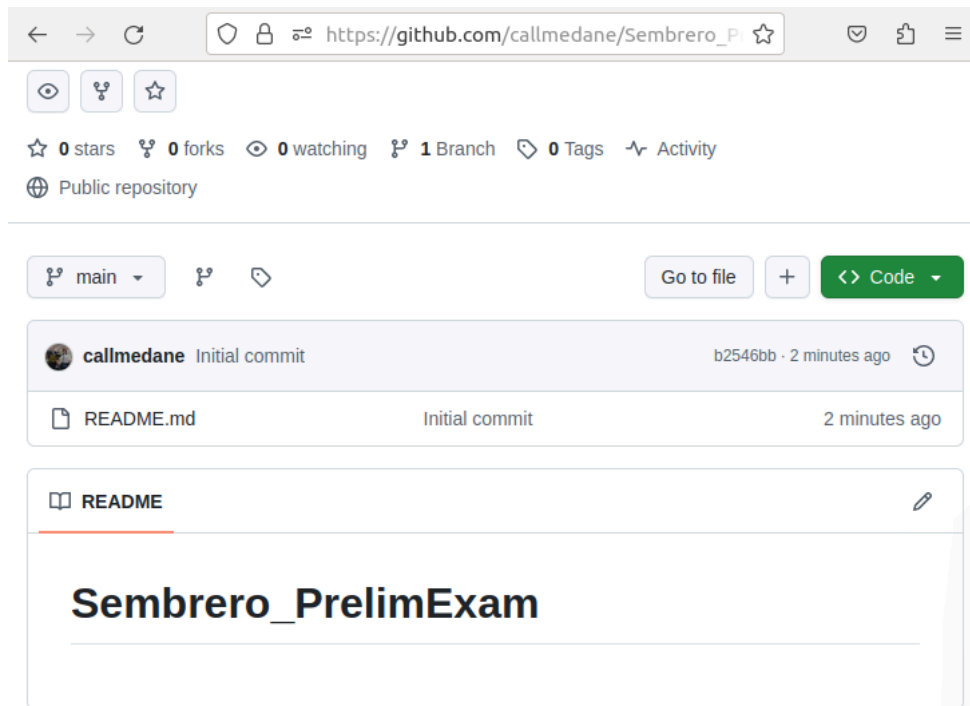


Tools Needed:

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



Created a repository in my github dashboard under my surname together with Prelim Exam

3. Clone your new repository in your CN.

```

root@Workstation:/home/vboxuser# sudo git clone git@github.com:callmedane/Sembrero_PrelimExam.git Sembrero_PrelimExam
Cloning into 'Sembrero_PrelimExam'...
git@github.com: Permission denied (publickey).
fatal: Could not read from remote repository.

Please make sure you have the correct access rights
and the repository exists.
root@Workstation:/home/vboxuser# sudo git clone https://github.com/callmedane/Sembrero_PrelimExam.git Sembrero_PrelimExam
Cloning into 'Sembrero_PrelimExam'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), done.
root@Workstation:/home/vboxuser# ls
CPE212  Documents  examples.desktop  Pictures  Sembrero_PrelimExam  Templates
Desktop  Downloads  Music             Public    snap                 Videos
root@Workstation:/home/vboxuser# cd Sembrero_PrelimExam
root@Workstation:/home/vboxuser/Sembrero_PrelimExam# ls
README.md
root@Workstation:/home/vboxuser/Sembrero_PrelimExam#

```

Successfully cloned the repository that I created in github to the directory in my ubuntu terminal (with the same name). I use the command `sudo git clone (repository link) (directory name)`. The repository link must be HTTPS.

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

```

root@Workstation:/home/vboxuser/Sembrero_PrelimExam# ls
ansible.cfg  inventory.ini  README.md
root@Workstation:/home/vboxuser/Sembrero_PrelimExam#

```

Created two files that contains content for `inventory.ini` and `ansible.cfg`

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

```

GNU nano 2.9.3                                config.yml
- name: Installing Python
  hosts: all

  become: yes
  tasks:
    - name: Install latest python
      apt:
        name: python
        state: present

```

```

root@Workstation:/home/vboxuser/CPE212# ansible-playbook -i inventory.yml config.yml
PLAY [Installing Python] *****
*

TASK [Gathering Facts] *****
*
The authenticity of host '192.168.56.111 (192.168.56.111)' can't be established
.
ECDSA key fingerprint is SHA256:8h16/K/f0s96nagnPy/WJ3scxPdGDqtS+/Fj2hdnJ/I.
Are you sure you want to continue connecting (yes/no)? fatal: [192.168.56.110]:
UNREACHABLE! => {"changed": false, "msg": "Failed to connect to the host via s
sh: no such identity: /home/vboxuser/CPE212/-.ssh/ansible: No such file or dir
ectory\r\nroot@192.168.56.110: Permission denied (publickey,password).\r\n", "u
nreachable": true}
fatal: [192.168.56.109]: UNREACHABLE! => {"changed": false, "msg": "Failed to c
onnect to the host via ssh: no such identity: /home/vboxuser/CPE212/-.ssh/ansi
ble: No such file or directory\r\nroot@192.168.56.109: Permission denied (publi
ckey,password).\r\n", "unreachable": true}

```

I am having a hard time debugging this, because I can't find the exact problem.

```

root@Workstation:/home/vboxuser# sudo apt install python3-pip
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically installed and is no longer required:
  libllvm7
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  build-essential dh-python dpkg-dev fakeroot g++ g++-7 gcc gcc-7
  libalgorithm-diff-perl libalgorithm-diff-xs-perl libalgorithm-merge-perl
  libasan4 libatomic1 libc-dev-bin libc6-dev libcilkrts5 libexpat1-dev
  libfakeroot libgcc-7-dev libitm1 liblsan0 libmpx2 libpython3-dev

```

Somehow my ubuntu has already the python3 installed, i think it is by default and after that I installed the pip3 for python. Unfortunately, the way I install this is the manual way, not the automated way like ansible playbook.

- use pip3 as default pip
- use python3 as default python

- Install Java open-jdk

```
root@Workstation:/home/vboxuser# sudo apt install openjdk-8-jdk
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically installed and is no longer required:
  libllvm7
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  ca-certificates-java fonts-dejavu-extra java-common libatk-wrapper-java
  libatk-wrapper-java-jni libgif7 libice-dev libpthread-stubs0-dev libsm-dev
  libx11-dev libx11-doc libxau-dev libxcb1-dev libxdmcp-dev libxt-dev
  openjdk-8-jdk-headless openjdk-8-jre openjdk-8-jre-headless
  x11proto-core-dev x11proto-dev xorg-sgml-doctools xtrans-dev
Suggested packages:
  default-jre libice-doc libsm-doc libxcb-doc libxt-doc openjdk-8-demo
  openjdk-8-source visualvm fonts-ipafont-gothic fonts-ipafont-mincho
  fonts-wqy-microhei fonts-wqy-zenhei
The following NEW packages will be installed:
  ca-certificates-java fonts-dejavu-extra java-common libatk-wrapper-java
  libatk-wrapper-java-jni libgif7 libice-dev libpthread-stubs0-dev libsm-dev
  libx11-dev libx11-doc libxau-dev libxcb1-dev libxdmcp-dev libxt-dev
```

Same as the installation of python3-pip. I installed open-JDK in the usual way. There seems to be a problem when I try installing a playbook. An issue with ansible.

- 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

[https://github.com/callmedane/Sembrero\\_PrelimExam](https://github.com/callmedane/Sembrero_PrelimExam)