Jefferson Langbid
CPE232-CPE31S23

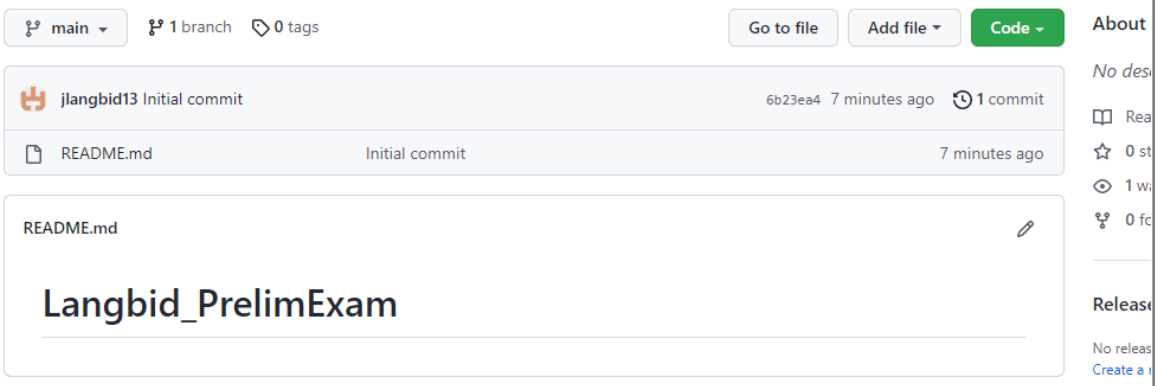
Hands-on Prelim Exam

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



I created a new Repository in github named Langbid_PrelimExam

3. Clone your new repository in your CN.

```
jefferson@LocalMachine-VirtualBox:~$ git clone git@github.com:jlangbid13/Langbi
d_PrelimExam.git
Cloning into 'Langbid_PrelimExam'...
The authenticity of host 'github.com (140.82.113.4)' can't be established.
ED25519 key fingerprint is SHA256:+DiY3wvvV6TuJJhbpZisF/zLDA0zPMSvHdkr4UvCOqU.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'github.com' (ED25519) 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.
jefferson@LocalMachine-VirtualBox:~$ ls
CPE_Ansible_Langbid  Downloads           Music     snap
Desktop              get-pip.py          Pictures  Templates
Documents            Langbid_PrelimExam  Public    Videos
jefferson@LocalMachine-VirtualBox:~$ cd Langbid_PrelimExam
jefferson@LocalMachine-VirtualBox:~/Langbid_PrelimExam$
```

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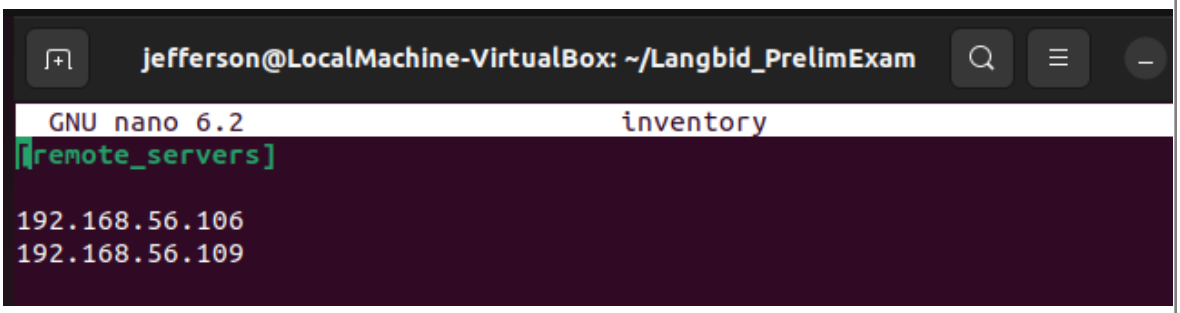
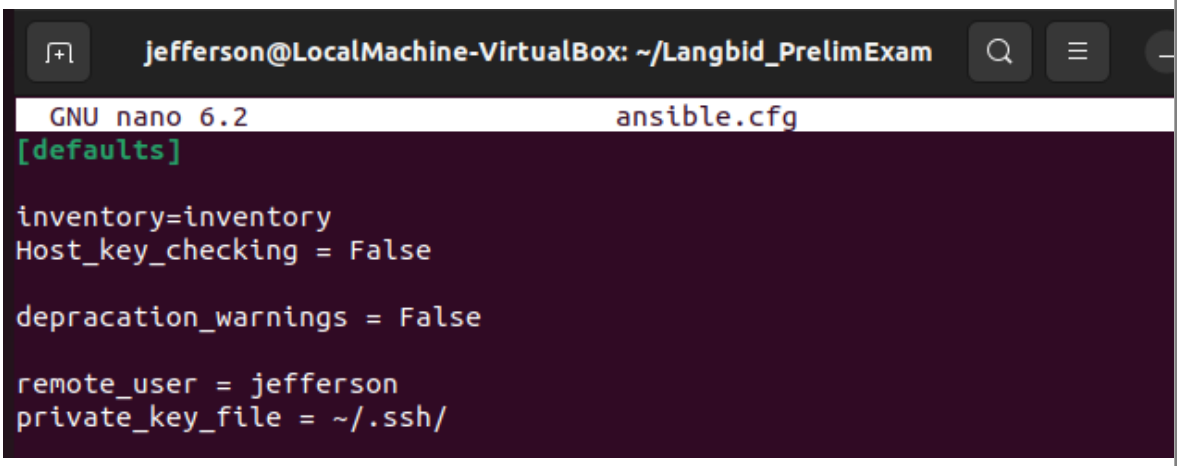
After creating a repository, I cloned it in my CN.

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





The inputted command is the ip address of the manage nodes and the default ansible file

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

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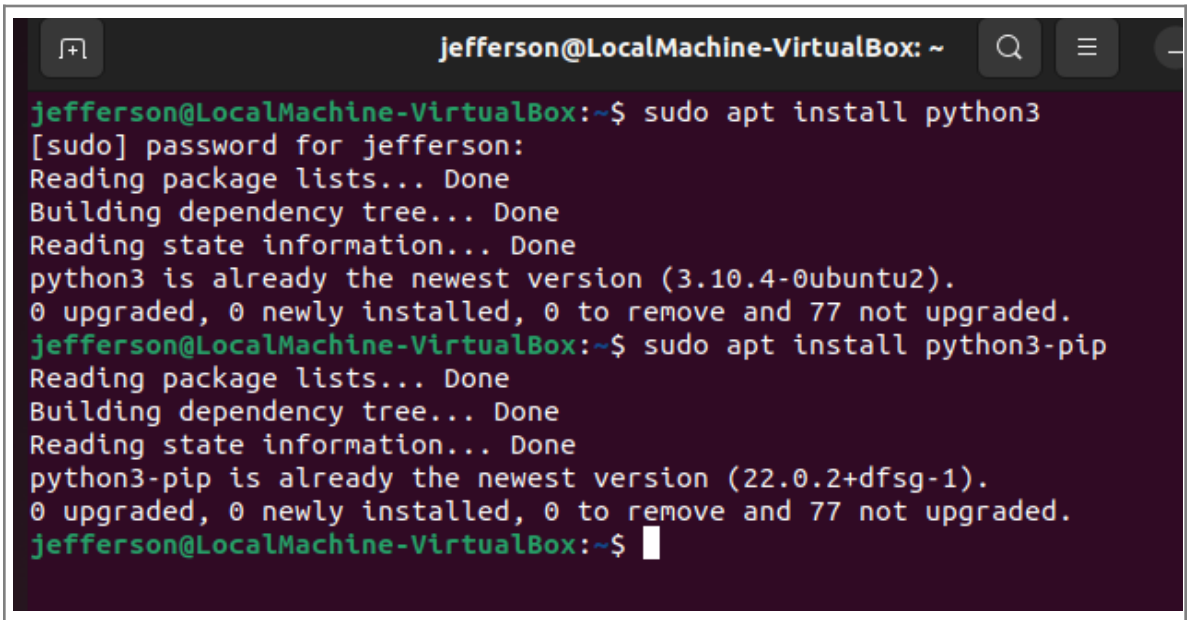

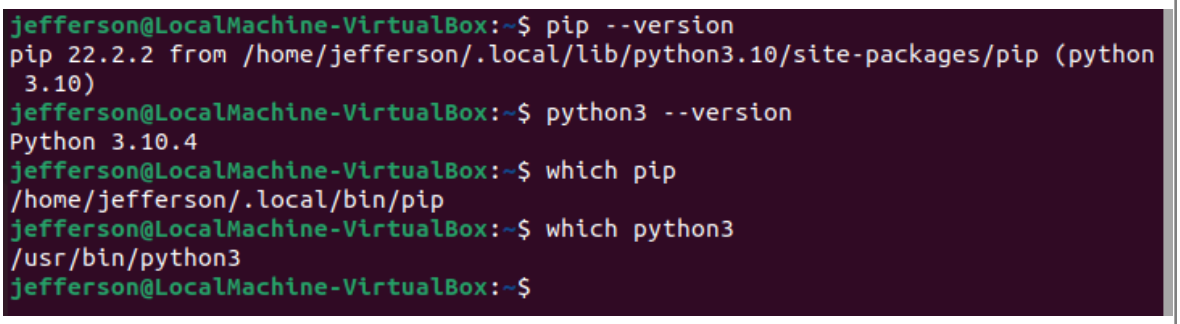

Python 3 and pip3 is installed and it is set as default.

- Install Java open-jdk

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jefferson@LocalMachine-VirtualBox: ~/Langbid_PrelimExam

GNU nano 6.2 config.yaml

```
---
- hosts: all
  become: true
  tasks:

  - name: install python3, pip3, and java package in Ubuntu
    apt:
      name:
        - python3
        - python3-pip
        - openjdk-11-jdk
      state: latest
      update_cache: yes
    when: ansible_distribution == "Ubuntu"

  - name: install python3 and pip3  package in CentOS
    dnf:
      name:
        - python3
        - python3-pip
      state: latest
      update_cache: yes
    when: ansible_distribution == "CentOS"
```

```
- name: install java package in CentOS
  package:
    name: java
    state: present
  vars:
   packages:
    - openjdk-11-jdk
  when: ansible_distribution == "CentOS"
```

Python3, pip3, and java are installed via playbook.

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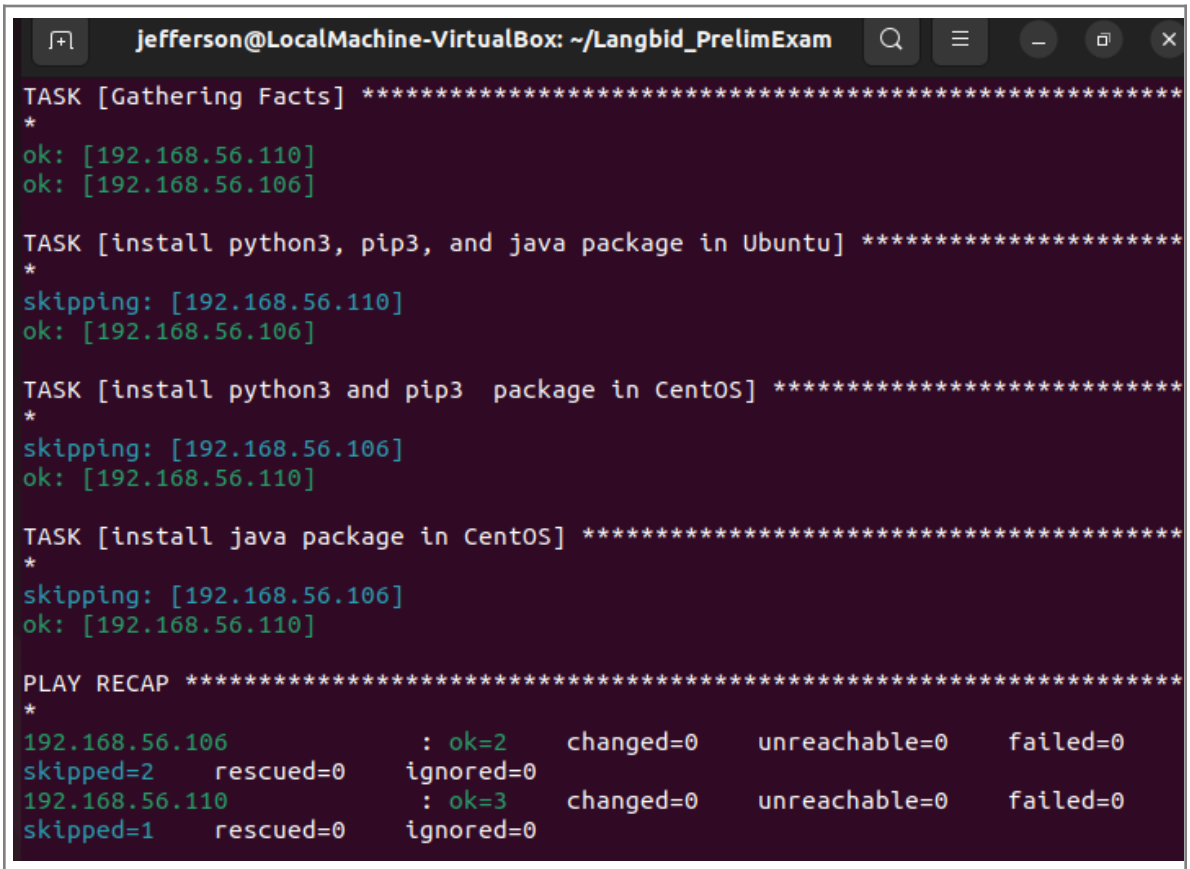
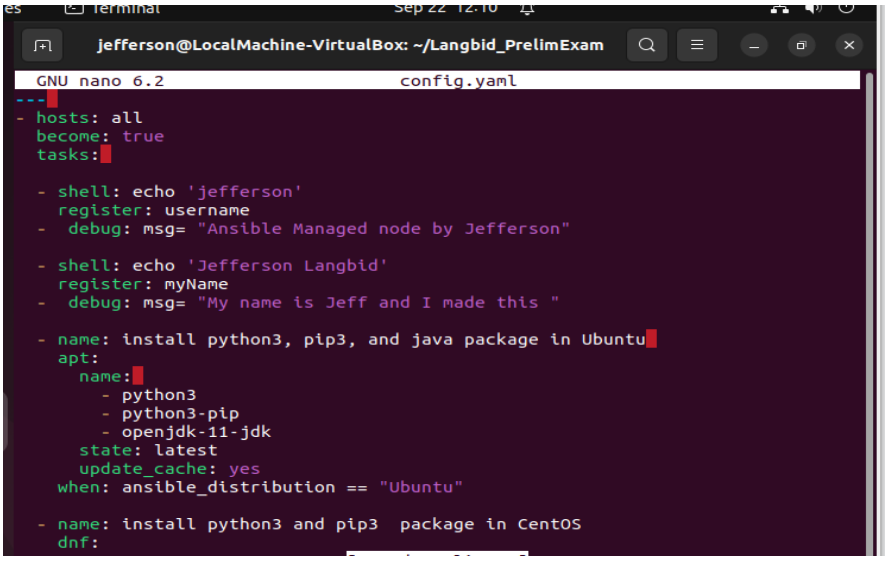


The output is successful.

- 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

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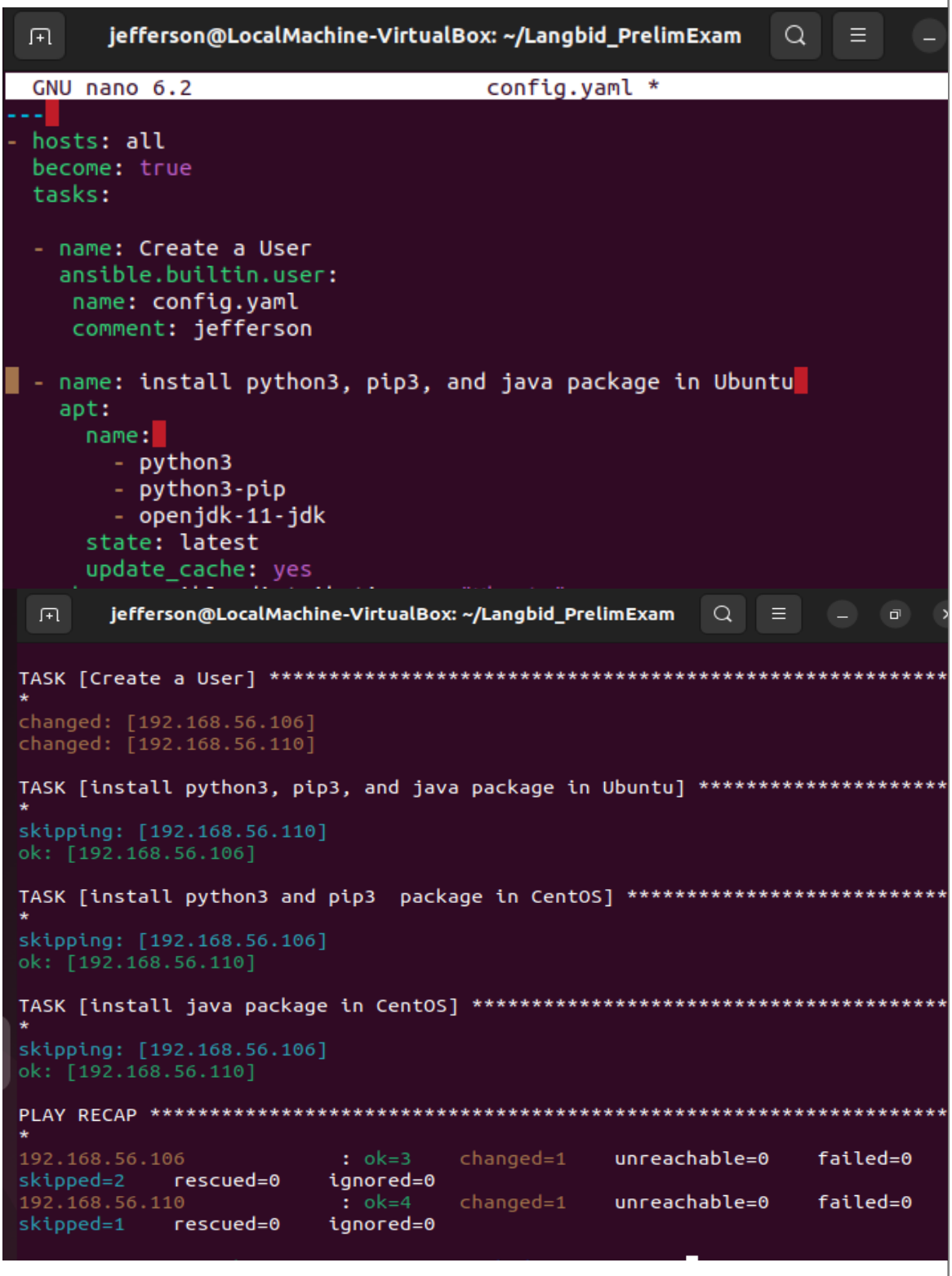

Creating A user using ansible command

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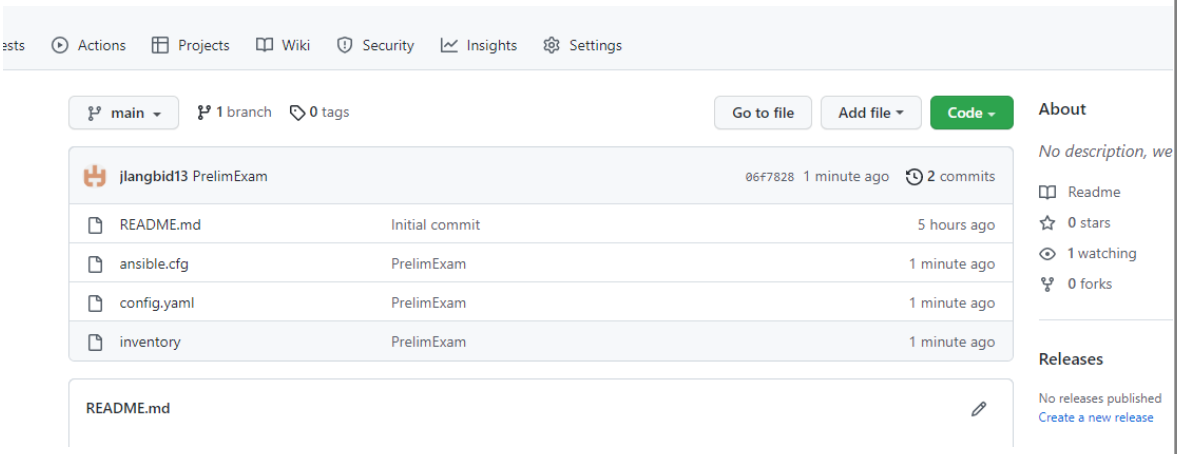
5. PUSH and COMMIT your PrelimExam in your GitHub repo

```
jefferson@LocalMachine-VirtualBox:~/Langbid_PrelimExam$ sudo nano config.yaml
jefferson@LocalMachine-VirtualBox:~/Langbid_PrelimExam$ git status
On branch main
Your branch is up to date with 'origin/main'.

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .installJava11.yml.swo
        .installJava11.yml.swp
        ansible.cfg
        config.yaml
        configg.yaml
        inventory
        roles/

nothing added to commit but untracked files present (use "git add" to track)
jefferson@LocalMachine-VirtualBox:~/Langbid_PrelimExam$ git add ansible.cfg
jefferson@LocalMachine-VirtualBox:~/Langbid_PrelimExam$ git add config.yaml
jefferson@LocalMachine-VirtualBox:~/Langbid_PrelimExam$ git add inventory
jefferson@LocalMachine-VirtualBox:~/Langbid_PrelimExam$
```

```
jefferson@LocalMachine-VirtualBox:~/Langbid_PrelimExam$ git commit -m "PrelimEx
am"
[main 06f7828] PrelimExam
 3 files changed, 56 insertions(+)
 create mode 100644 ansible.cfg
 create mode 100644 config.yaml
 create mode 100644 inventory
jefferson@LocalMachine-VirtualBox:~/Langbid_PrelimExam$ git push origin
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Compressing objects: 100% (4/4), done.
Writing objects: 100% (5/5), 851 bytes | 851.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:jlangbid13/Langbid_PrelimExam.git
   6b23ea4..06f7828  main -> main
```



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The files are pushed to the origin which is the PrelimExam repository.

6. Your document report should be submitted here.

7. For your prelim exam to be counted, please paste your repository link here.

jlangbid13/Langbid_PrelimExam (github.com)