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Course/Section: CPE31S6	**Date Submitted:** October 2, 2023
Instructor: Dr. Jonathan V. Taylar	**Semester and SY:** 1st Sem: SY 2023 - 2024

Activity 7: Managing Files and Creating Roles in Ansible

1. **Objectives:**

1.1 Manage files in remote servers

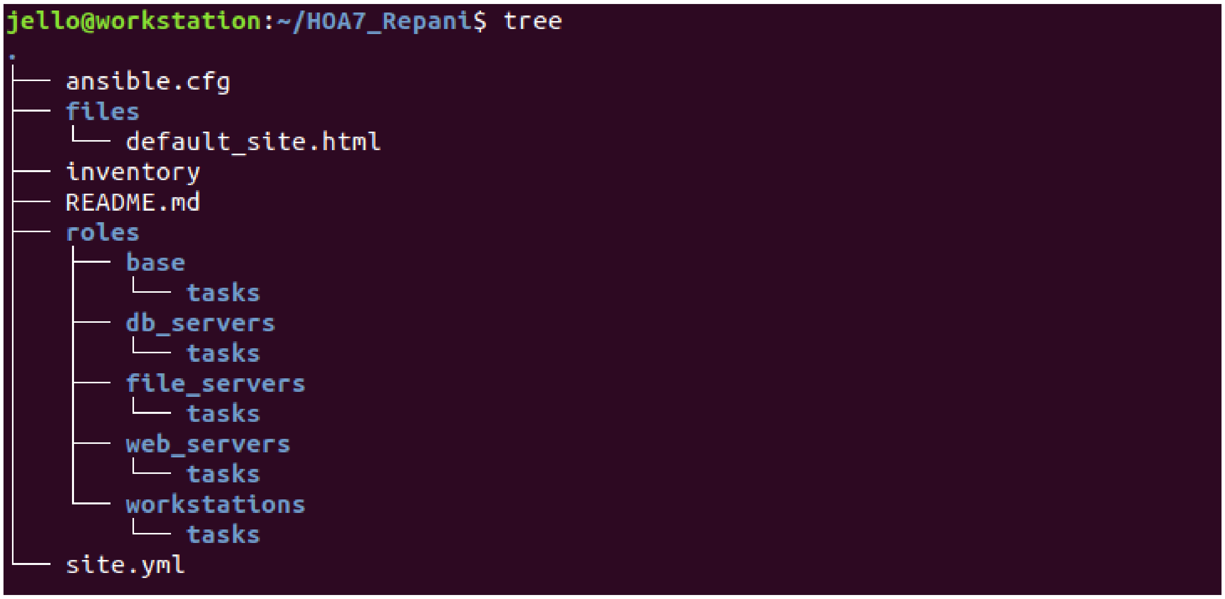
1.2 Implement roles in ansible

2. **Discussion**:

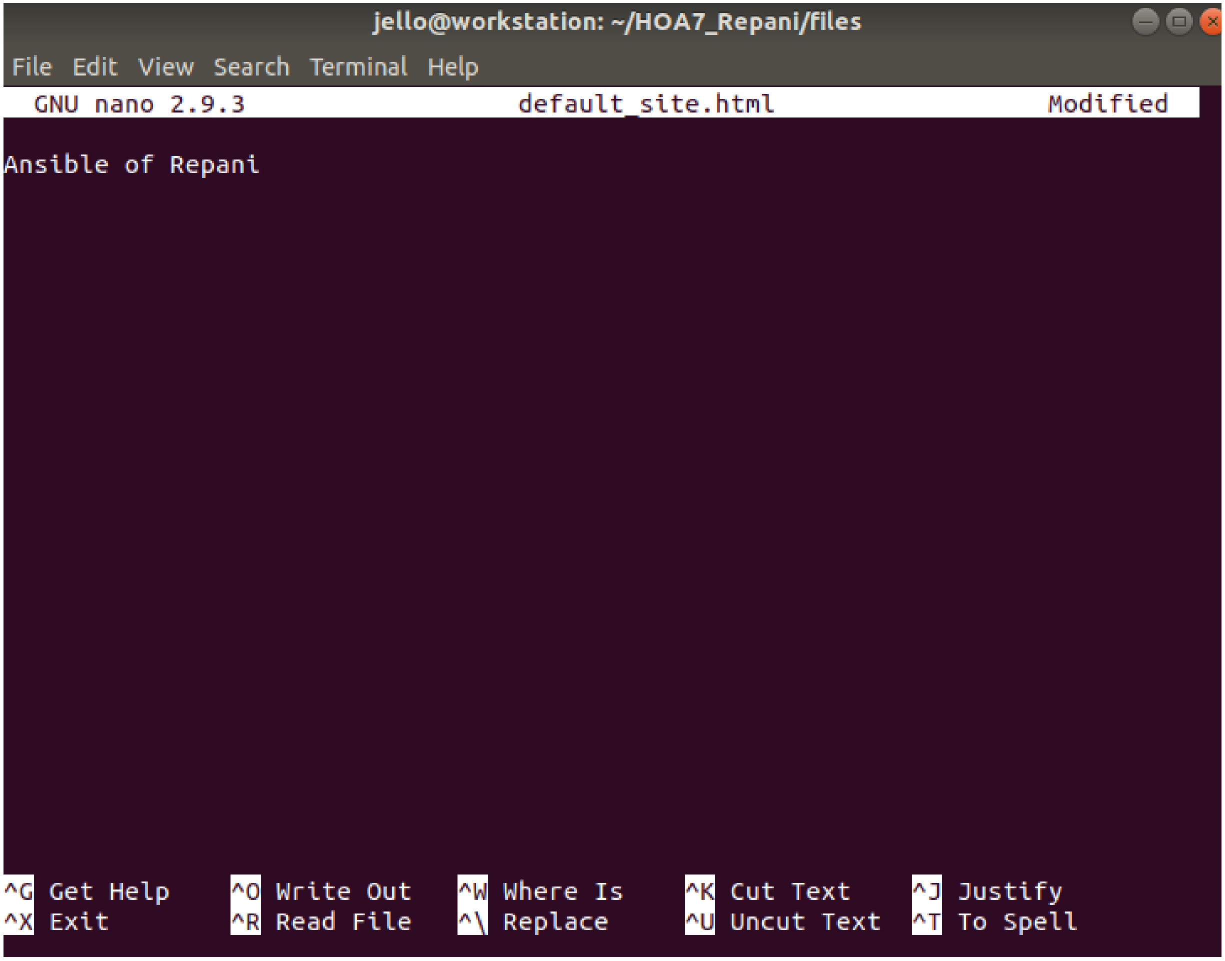
In this activity, we look at the concept of copying a file to a server. We are going to create a file into our git repository and use Ansible to grab that file and put it into a particular place so that we could do things like customize a default website, or maybe install a default configuration file. We will also implement roles to consolidate plays.

Task 1: Create a file and copy it to remote servers

1. Using the previous directory we created, create a directory, and named it "*files*." Create a file inside that directory and name it "*default_site.html*." Edit the file and put basic HTML syntax. Any content will do, as long as it will display text later. Save the file and exit.



```
jello@workstation:~/HOA7_Repani$ tree
.
├── ansible.cfg
├── files
│   └── default_site.html
├── inventory
├── README.md
├── roles
│   ├── base
│   │   └── tasks
│   ├── db_servers
│   │   └── tasks
│   ├── file_servers
│   │   └── tasks
│   ├── web_servers
│   │   └── tasks
│   └── workstations
│       └── tasks
└── site.yml
```

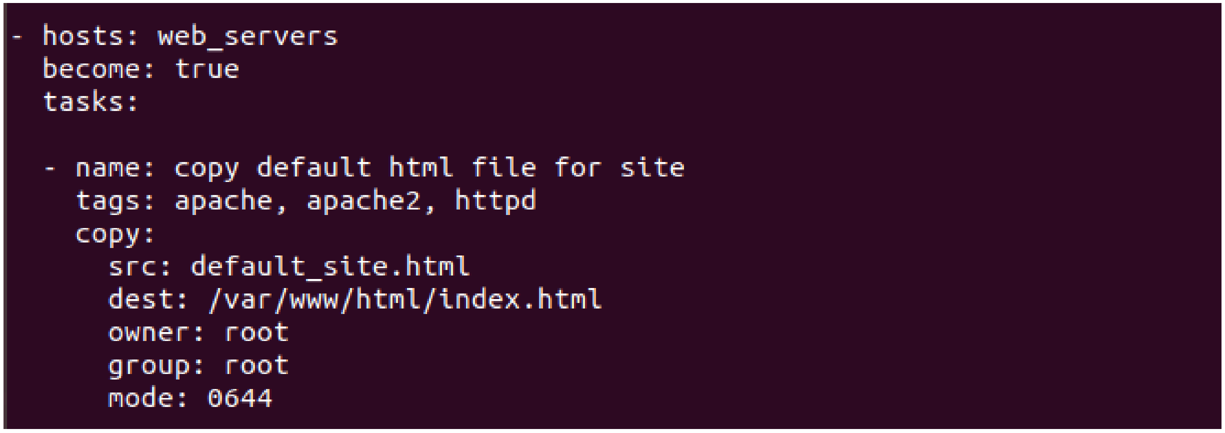


jello@workstation: ~/HOA7_Repani/files
File Edit View Search Terminal Help

```
  GNU nano 2.9.3              default_site.html              Modified

Ansible of Repani
```

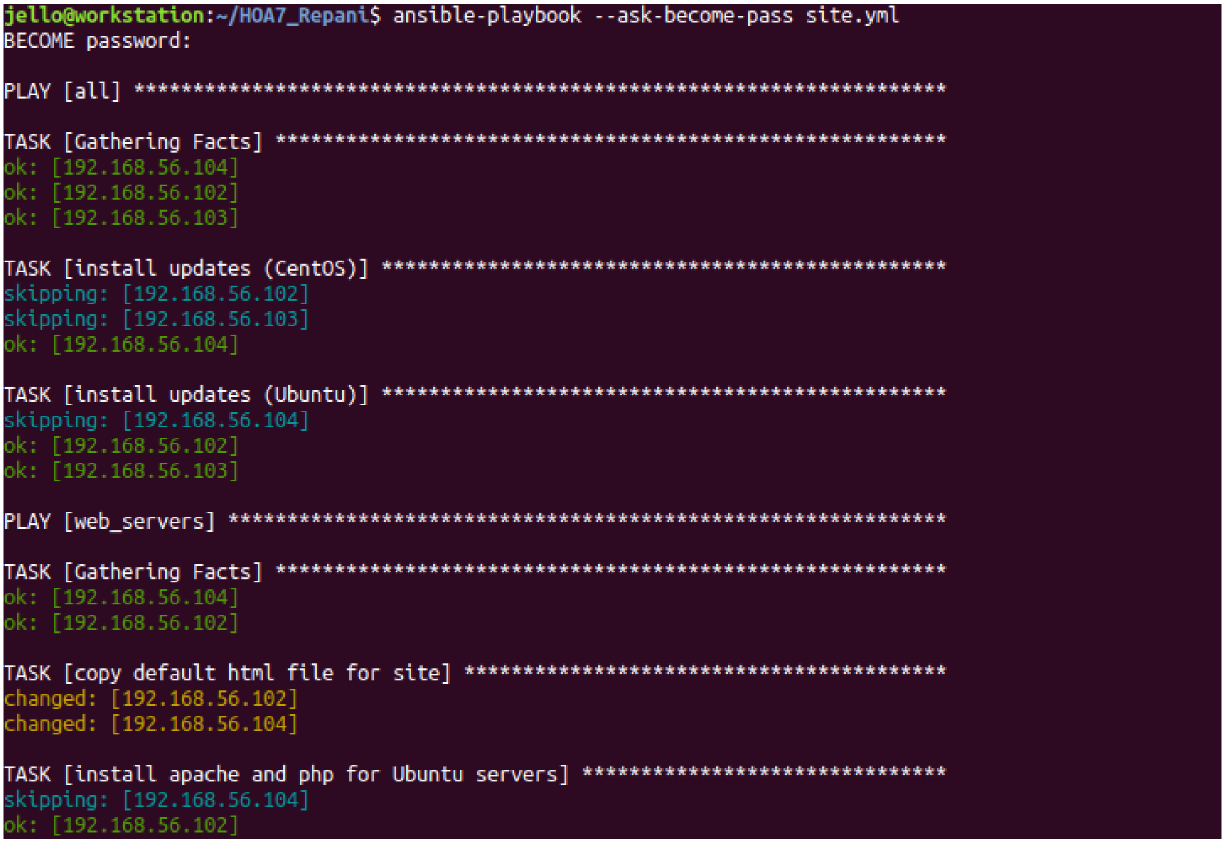
2. Edit the *site.yml* file and just below the *web_servers* play, create a new file to copy the default html file for site:
   - name: copy default html file for site

     tags: apache, apache2, httpd
     copy:
        src: default_site.html
        dest: /var/www/html/index.html
        owner: root
        group: root
        mode: 0644

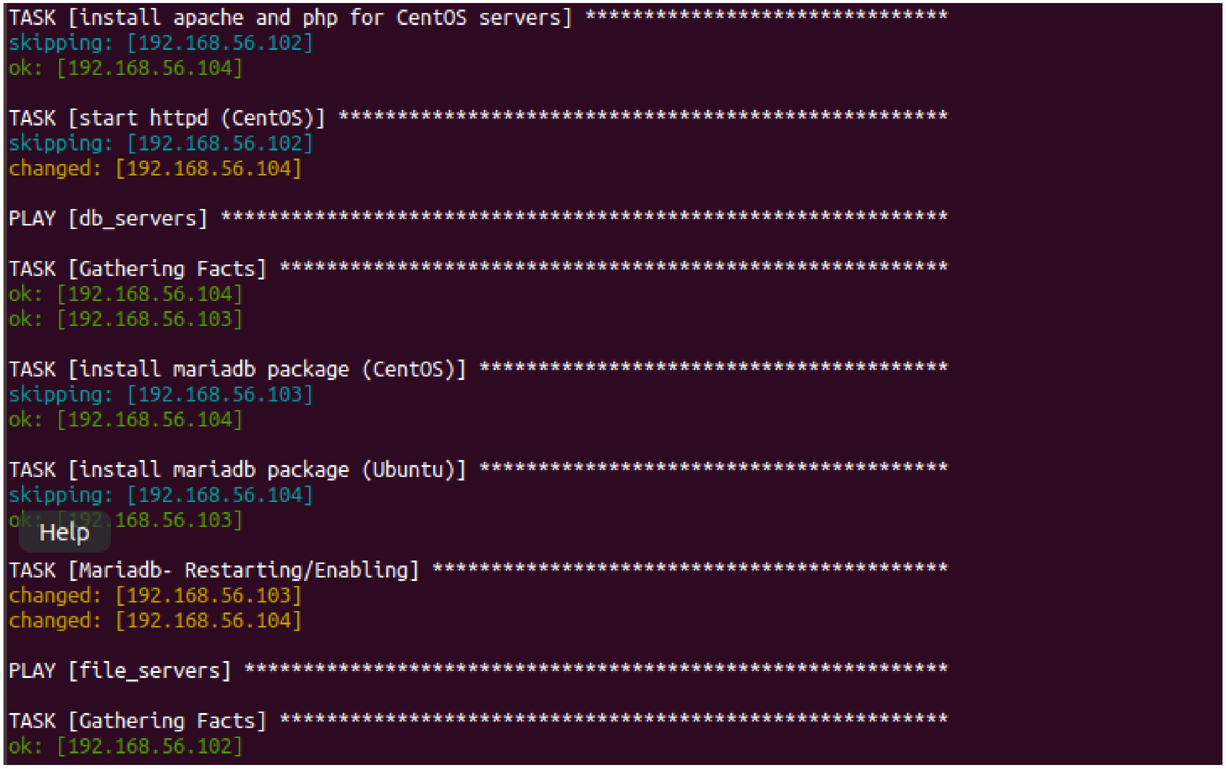


```
- hosts: web_servers
  become: true
  tasks:

  - name: copy default html file for site
    tags: apache, apache2, httpd
    copy:
      src: default_site.html
      dest: /var/www/html/index.html
      owner: root
      group: root
      mode: 0644
```

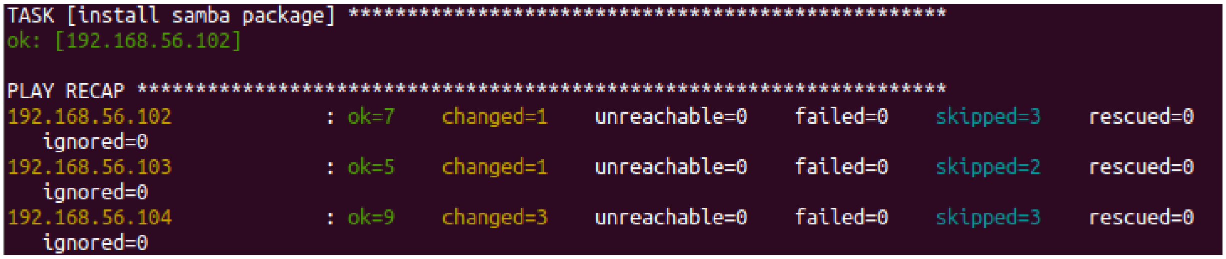
3. Run the playbook *site.yml*. Describe the changes.
    - For the copy default html file for site the result are two changed



```
jello@workstation:~/HOA7_Repani$ ansible-playbook --ask-become-pass site.yml
BECOME password:

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

TASK [Gathering Facts] *********************************************************
ok: [192.168.56.104]
ok: [192.168.56.102]
ok: [192.168.56.103]

TASK [install updates (CentOS)] ************************************************
skipping: [192.168.56.102]
skipping: [192.168.56.103]
ok: [192.168.56.104]

TASK [install updates (Ubuntu)] ************************************************
skipping: [192.168.56.104]
ok: [192.168.56.102]
ok: [192.168.56.103]

PLAY [web_servers] *************************************************************

TASK [Gathering Facts] *********************************************************
ok: [192.168.56.104]
ok: [192.168.56.102]

TASK [copy default html file for site] *****************************************
changed: [192.168.56.102]
changed: [192.168.56.104]

TASK [install apache and php for Ubuntu servers] *******************************
skipping: [192.168.56.104]
ok: [192.168.56.102]
```

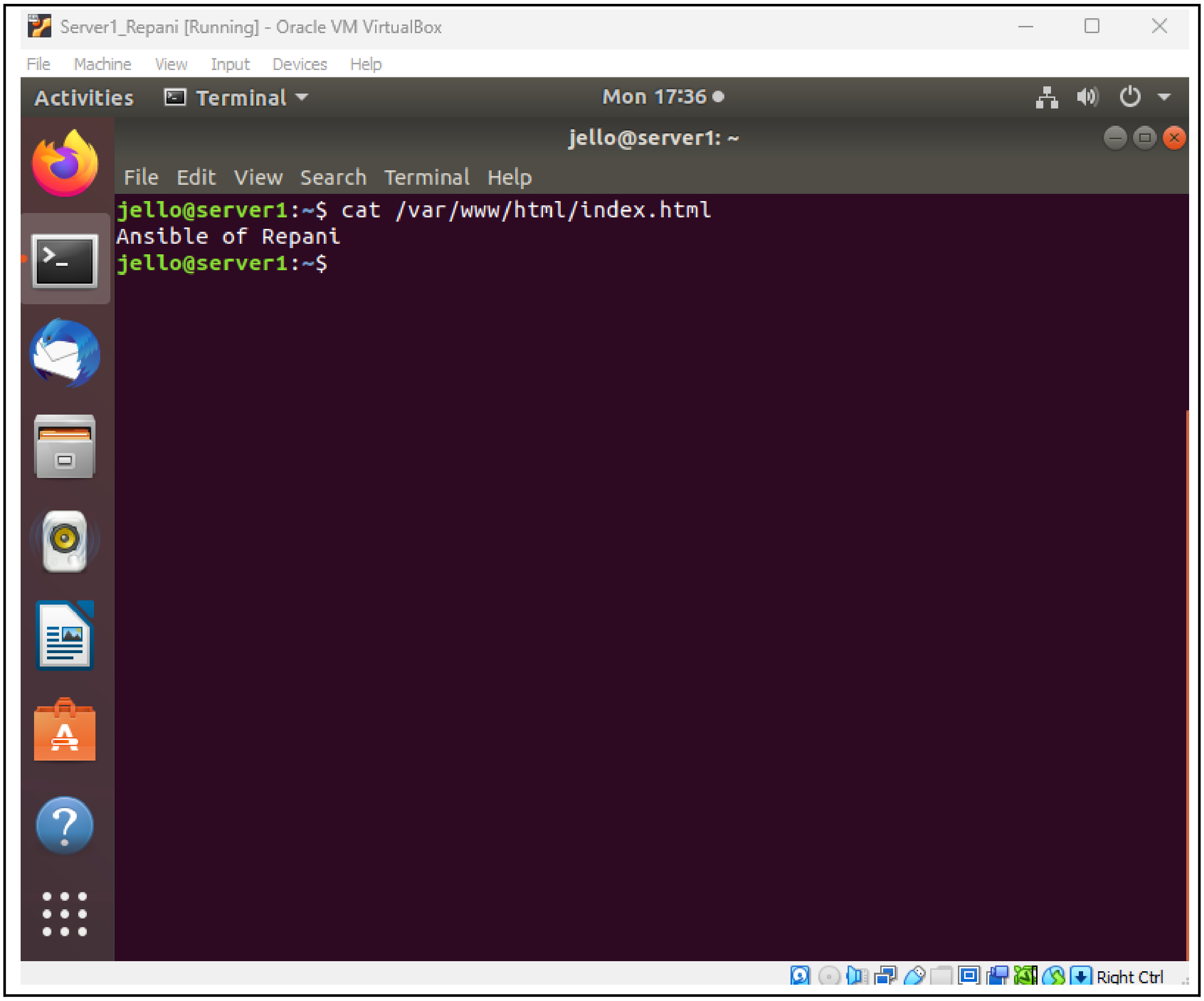


```
TASK [install apache and php for CentOS servers] *******************************
skipping: [192.168.56.102]
ok: [192.168.56.104]

TASK [start httpd (CentOS)] ****************************************************
skipping: [192.168.56.102]
changed: [192.168.56.104]

PLAY [db_servers] **************************************************************

TASK [Gathering Facts] *********************************************************
ok: [192.168.56.104]
ok: [192.168.56.103]

TASK [install mariadb package (CentOS)] ****************************************
skipping: [192.168.56.103]
ok: [192.168.56.104]

TASK [install mariadb package (Ubuntu)] ****************************************
skipping: [192.168.56.104]
ok: [192.168.56.103]

TASK [Mariadb- Restarting/Enabling] ********************************************
changed: [192.168.56.103]
changed: [192.168.56.104]

PLAY [file_servers] ************************************************************

TASK [Gathering Facts] *********************************************************
ok: [192.168.56.102]
```



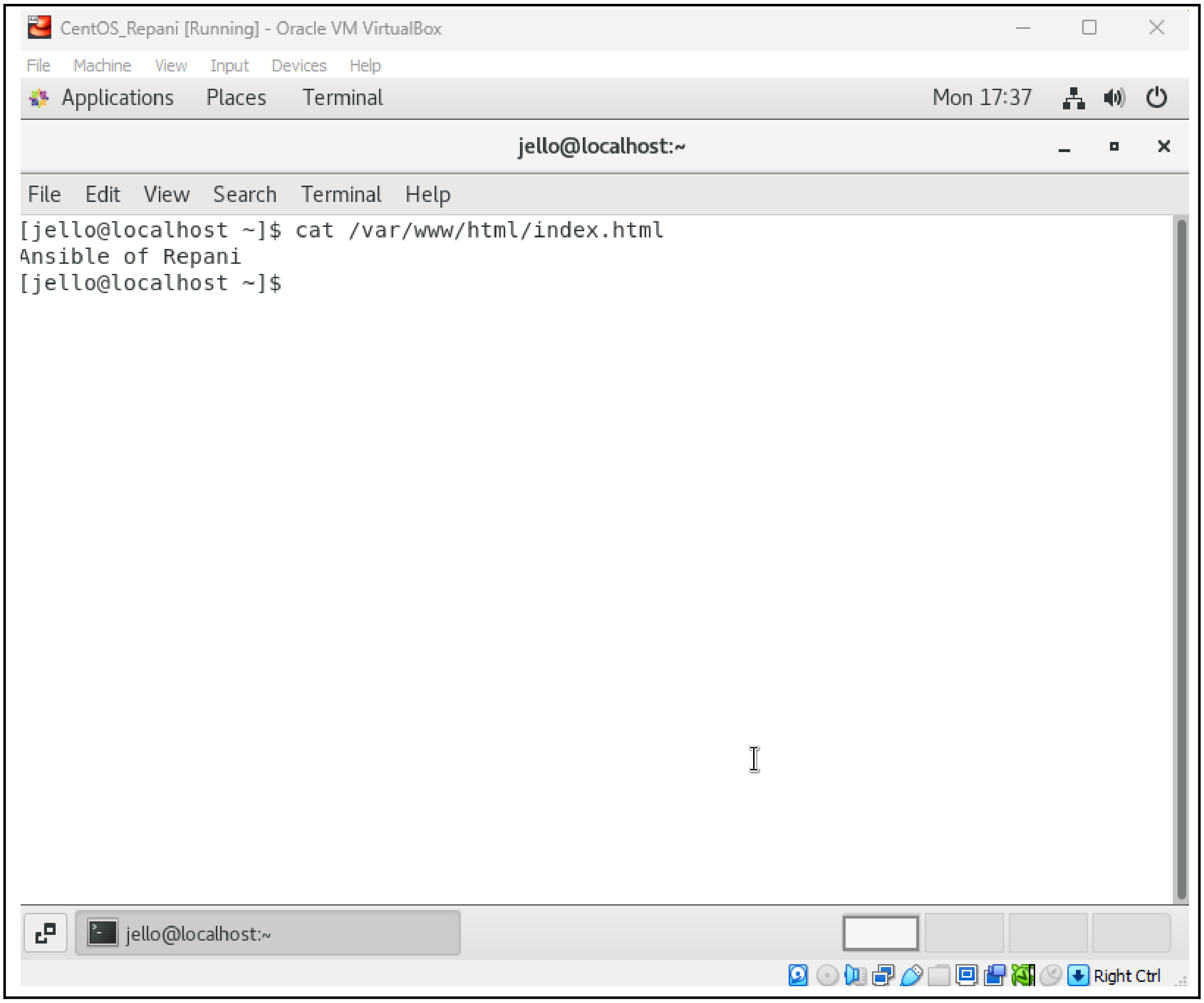
```
TASK [install samba package] ***************************************************
ok: [192.168.56.102]

PLAY RECAP *********************************************************************
192.168.56.102             : ok=7    changed=1    unreachable=0    failed=0    skipped=3    rescued=0
   ignored=0
192.168.56.103             : ok=5    changed=1    unreachable=0    failed=0    skipped=2    rescued=0
   ignored=0
192.168.56.104             : ok=9    changed=3    unreachable=0    failed=0    skipped=3    rescued=0
   ignored=0
```

4. Go to the remote servers (*web_servers*) listed in your inventory. Use cat command to check if the index.html is the same as the local repository file (*default_site.html*). Do both for Ubuntu and CentOS servers. On the CentOS server, go to the browser and type its IP address. Describe the output.
    - The index.html files on both Ubuntu and CentOS now contains the text added from the workstation. When the IP address is entered on the CentOS server the text that displayed is no longer the apache screen, but the text entered from the workstation html file.

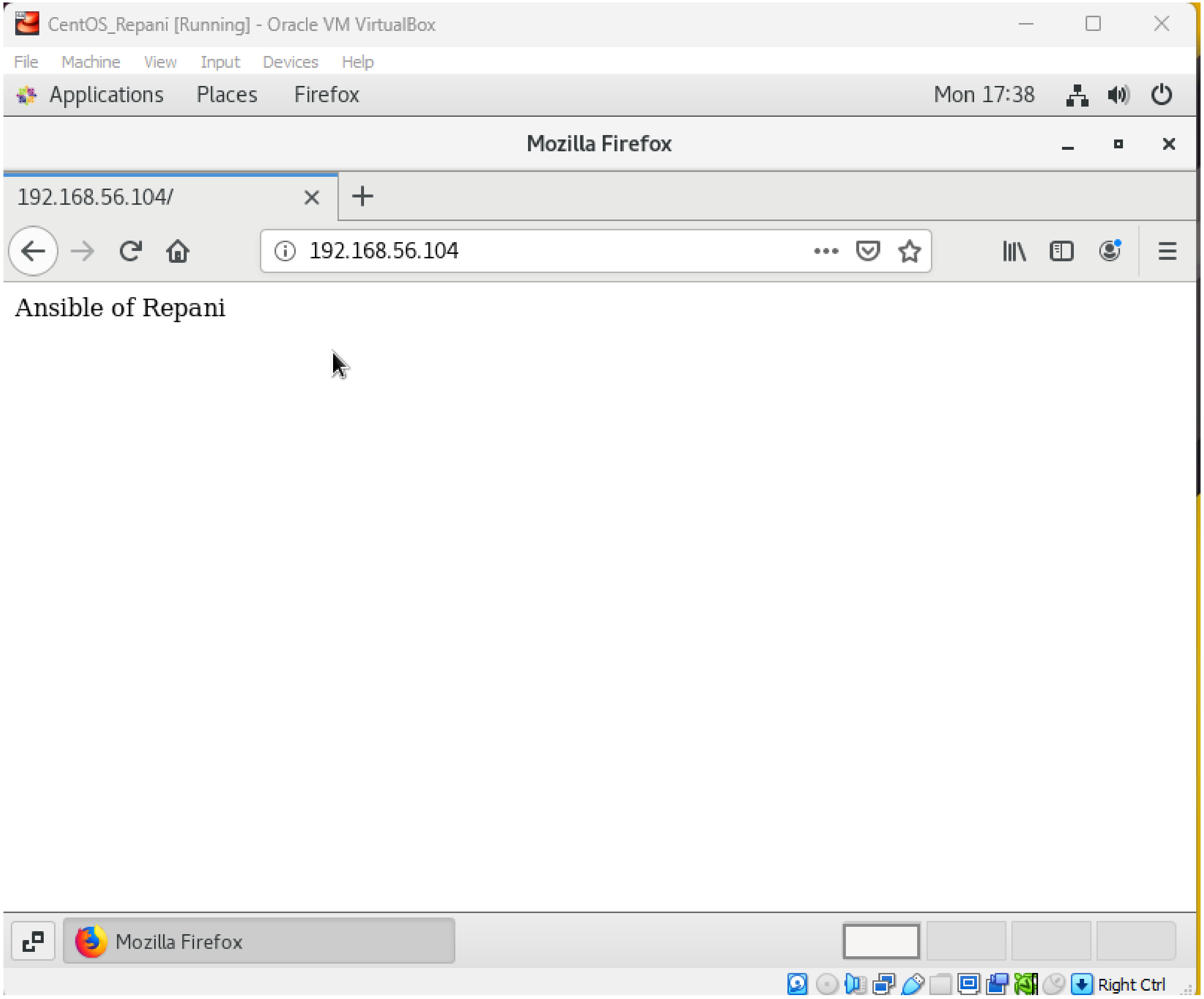


Server1_Repani [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities
Terminal
Mon 17:36
jello@server1: ~
File Edit View Search Terminal Help
Right Ctrl

```
jello@server1:~$ cat /var/www/html/index.html
Ansible of Repani
jello@server1:~$
```

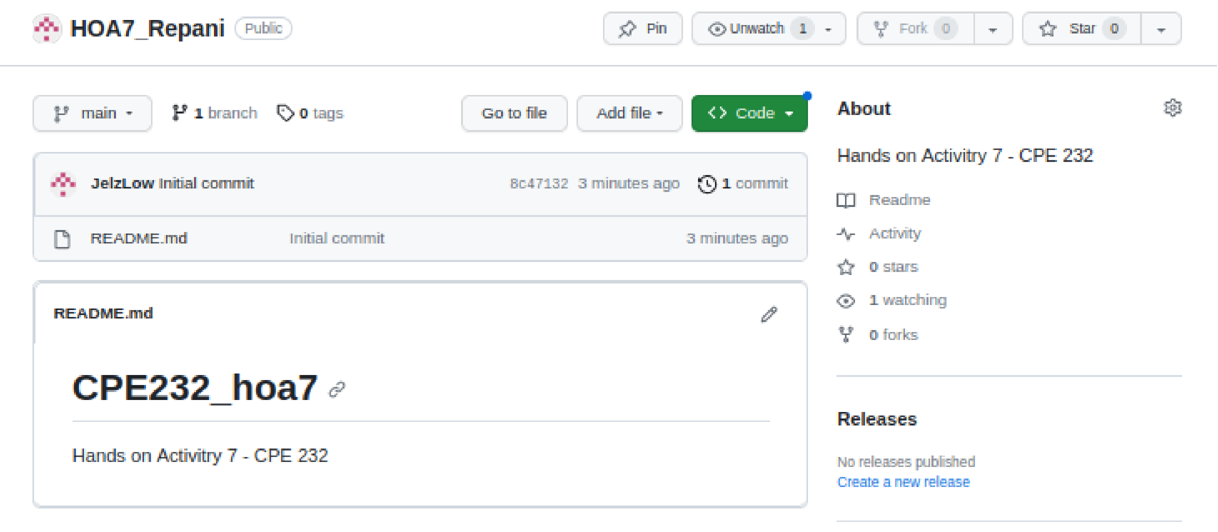

CentOS_Repani [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places Terminal
Mon 17:37
jello@localhost:~
File Edit View Search Terminal Help
jello@localhost:~
Right Ctrl

```
[jello@localhost ~]$ cat /var/www/html/index.html
Ansible of Repani
[jello@localhost ~]$
```



Ansible of Repani

5. Sync your local repository with GitHub and describe the changes.
    - The files added are now in the cloud of Git



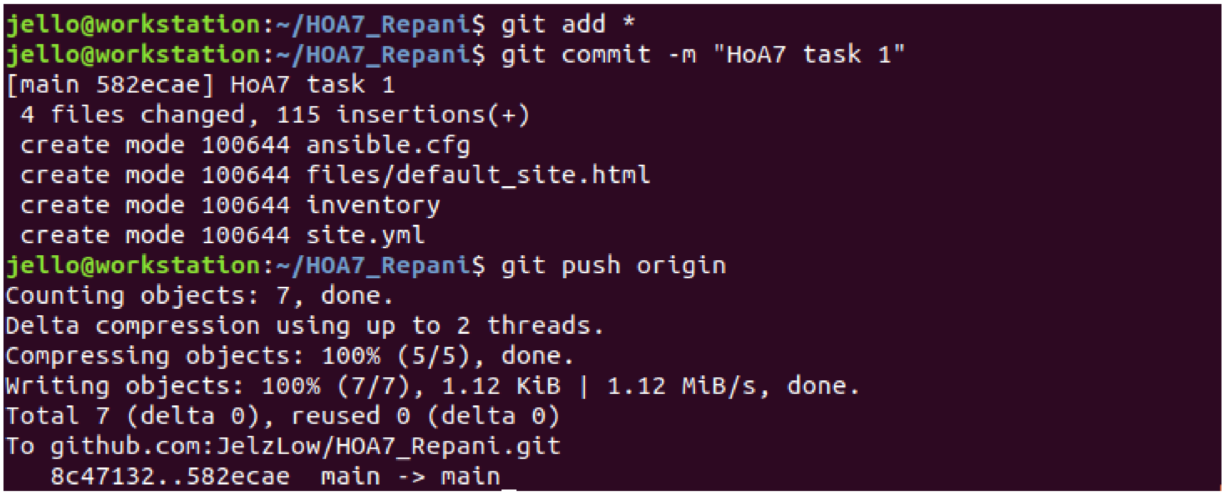
JelzLow Initial commit 8c47132 3 minutes ago 1 commit

README.md Initial commit 3 minutes ago

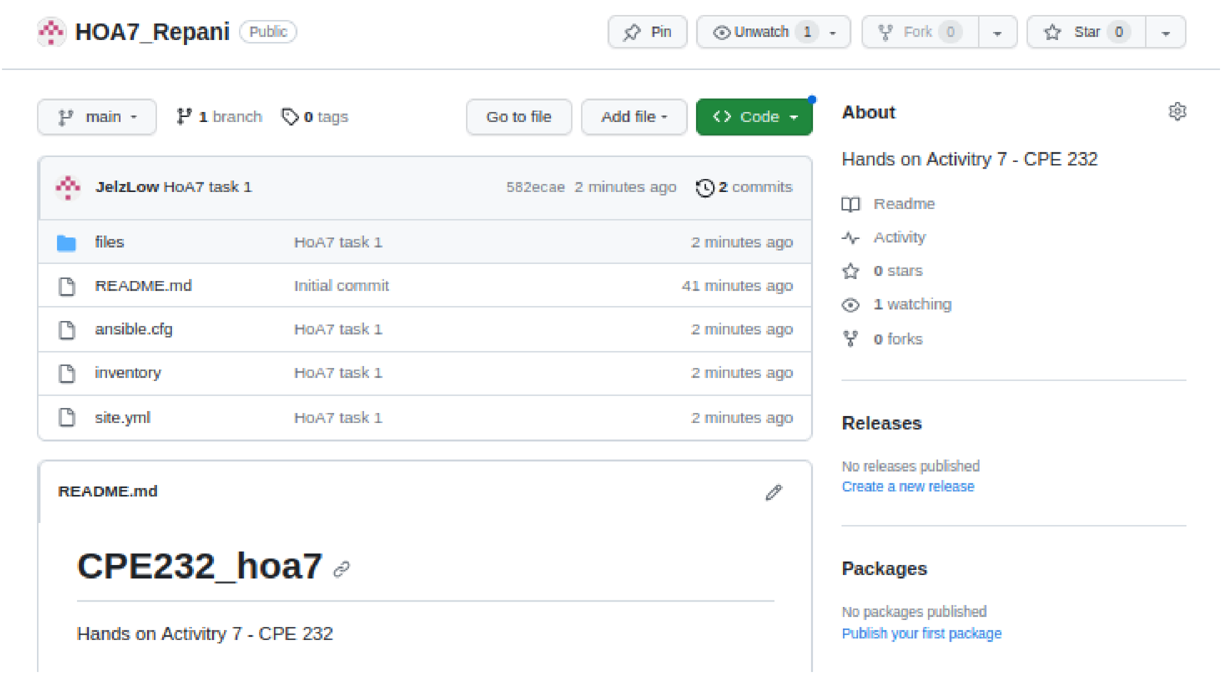
README.md

CPE232_hoa7

Hands on Activitry 7 - CPE 232



```
jello@workstation:~/HOA7_Repani$ git add *
jello@workstation:~/HOA7_Repani$ git commit -m "HoA7 task 1"
[main 582ecae] HoA7 task 1
 4 files changed, 115 insertions(+)
 create mode 100644 ansible.cfg
 create mode 100644 files/default_site.html
 create mode 100644 inventory
 create mode 100644 site.yml
jello@workstation:~/HOA7_Repani$ git push origin
Counting objects: 7, done.
Delta compression using up to 2 threads.
Compressing objects: 100% (5/5), done.
Writing objects: 100% (7/7), 1.12 KiB | 1.12 MiB/s, done.
Total 7 (delta 0), reused 0 (delta 0)
To github.com:JelzLow/HOA7_Repani.git
   8c47132..582ecae  main -> main
```



JelzLow HoA7 task 1 582ecae 2 minutes ago 2 commits

files	HoA7 task 1	2 minutes ago
README.md	Initial commit	41 minutes ago
ansible.cfg	HoA7 task 1	2 minutes ago
inventory	HoA7 task 1	2 minutes ago
site.yml	HoA7 task 1	2 minutes ago

Hands on Activitry 7 - CPE 232

No releases published
Create a new release

No packages published
Publish your first package

README.md

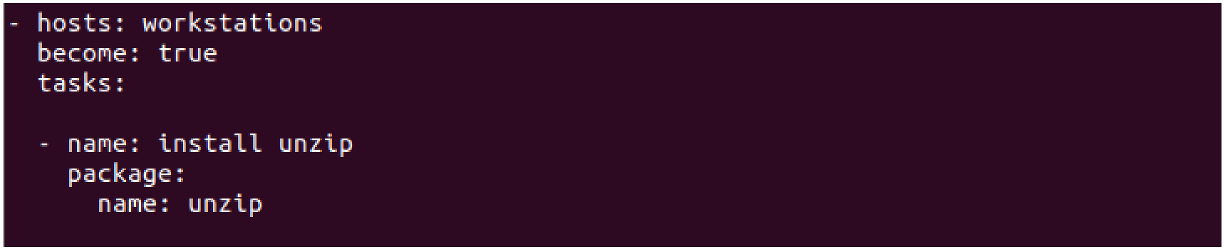
CPE232_hoa7

Hands on Activitry 7 - CPE 232

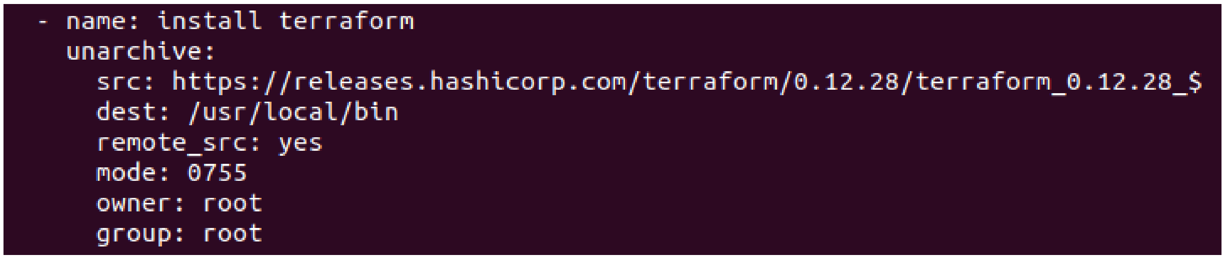
Task 2: Download a file and extract it to a remote server

1. Edit the site.yml. Just before the web_servers play, create a new play:

```
- hosts: workstations
  become: true
  tasks:

  - name: install unzip
    package:
       name: unzip

  - name: install terraform
    unarchive:
      src: https://releases.hashicorp.com/terraform/0.12.28/terraform_0.12.28_linux_amd64.zip
      dest: /usr/local/bin
      remote_src: yes
      mode: 0755
      owner: root
      group: root
```

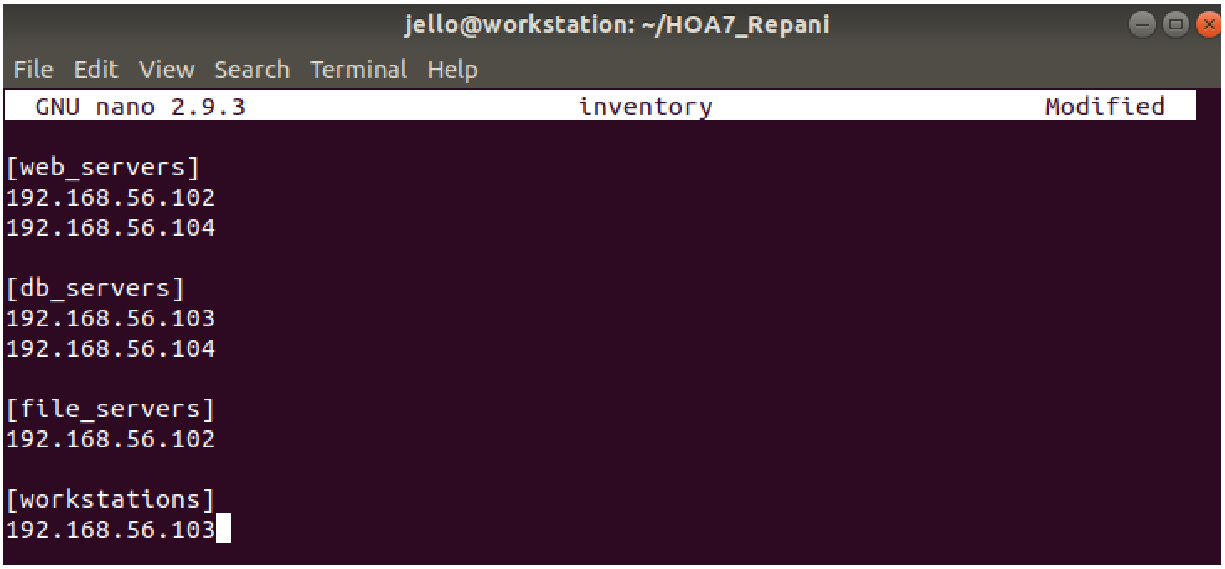


```
- hosts: workstations
  become: true
  tasks:

  - name: install unzip
    package:
      name: unzip
```



```
  - name: install terraform
    unarchive:
      src: https://releases.hashicorp.com/terraform/0.12.28/terraform_0.12.28_$
      dest: /usr/local/bin
      remote_src: yes
      mode: 0755
      owner: root
      group: root
```

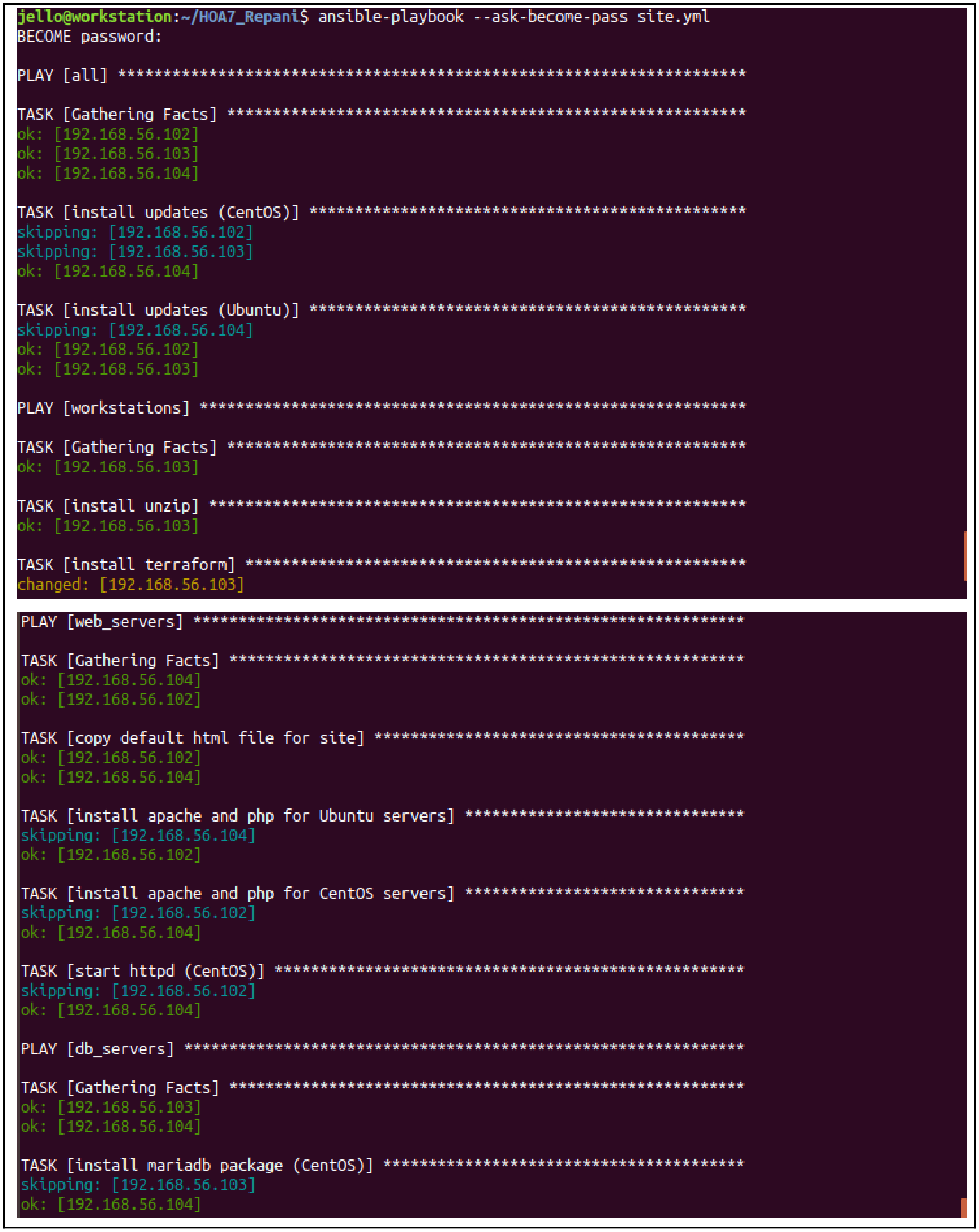
2. Edit the inventory file and add workstations group. Add any Ubuntu remote server. Make sure to remember the IP address.



jello@workstation: ~/HOA7_Repani
File Edit View Search Terminal Help

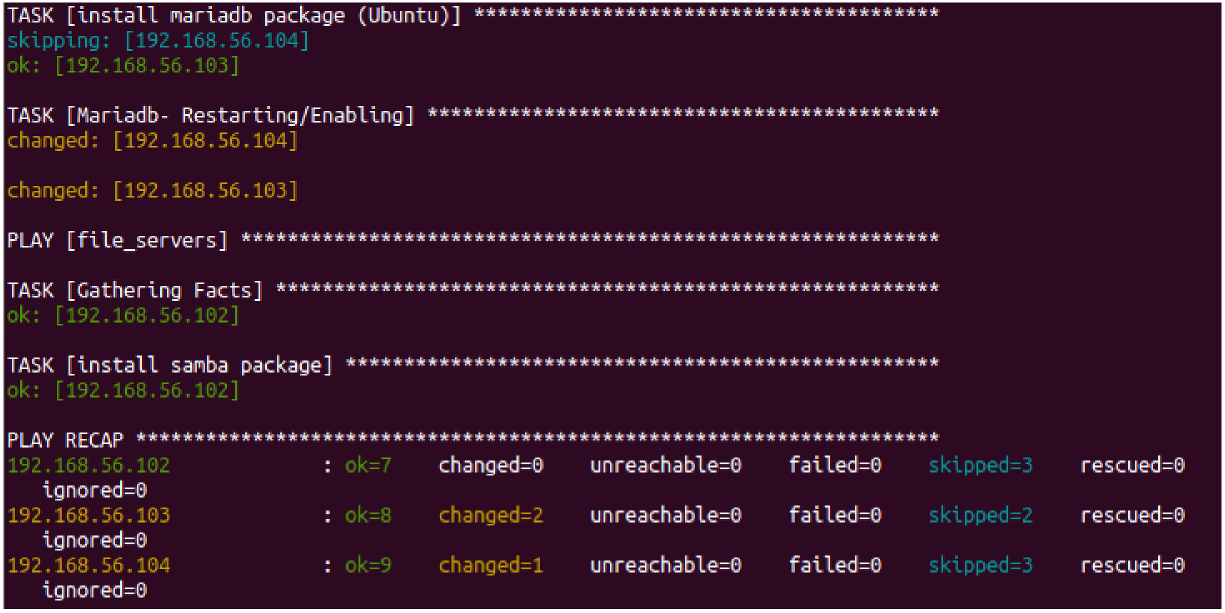
```
  GNU nano 2.9.3                      inventory                       Modified

[web_servers]
192.168.56.102
192.168.56.104

[db_servers]
192.168.56.103
192.168.56.104

[file_servers]
192.168.56.102

[workstations]
192.168.56.103
```

3. Run the playbook. Describe the output.
   - The playbook ran and the status for the installation of unzip is ok and the status for the installation of terraform 0.12.28 is changed. This is because terraform might have already existed back then and the command changed the version.



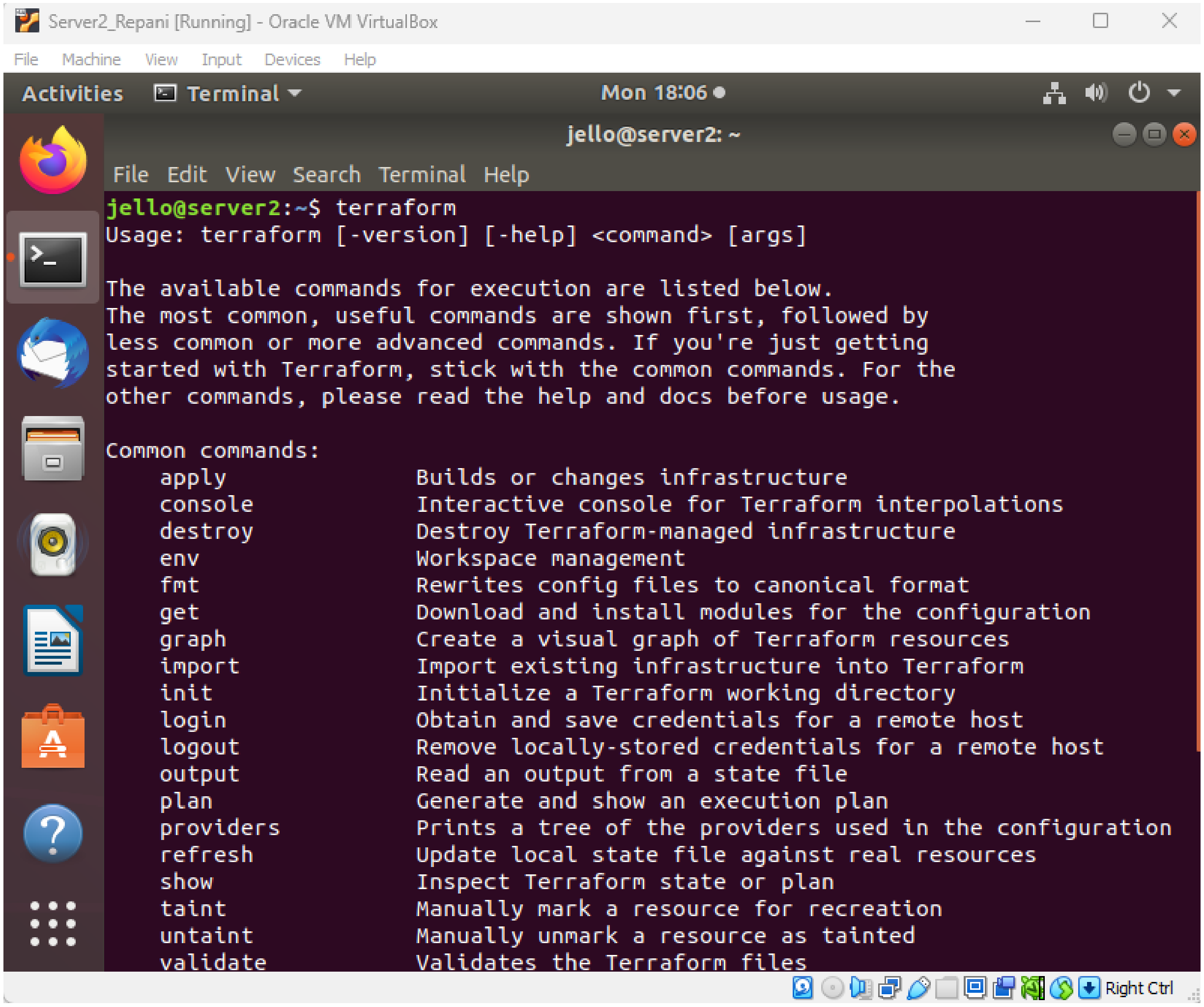
```
jello@workstation:~/HOA7_Repani$ ansible-playbook --ask-become-pass site.yml
BECOME password:

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

TASK [Gathering Facts] *********************************************************
ok: [192.168.56.102]
ok: [192.168.56.103]
ok: [192.168.56.104]

TASK [install updates (CentOS)] ************************************************
skipping: [192.168.56.102]
skipping: [192.168.56.103]
ok: [192.168.56.104]

TASK [install updates (Ubuntu)] ************************************************
skipping: [192.168.56.104]
ok: [192.168.56.102]
ok: [192.168.56.103]

PLAY [workstations] ************************************************************

TASK [Gathering Facts] *********************************************************
ok: [192.168.56.103]

TASK [install unzip] ***********************************************************
ok: [192.168.56.103]

TASK [install terraform] *******************************************************
changed: [192.168.56.103]
```

```
PLAY [web_servers] *************************************************************

TASK [Gathering Facts] *********************************************************
ok: [192.168.56.104]
ok: [192.168.56.102]

TASK [copy default html file for site] *****************************************
ok: [192.168.56.102]
ok: [192.168.56.104]

TASK [install apache and php for Ubuntu servers] *******************************
skipping: [192.168.56.104]
ok: [192.168.56.102]

TASK [install apache and php for CentOS servers] *******************************
skipping: [192.168.56.102]
ok: [192.168.56.104]

TASK [start httpd (CentOS)] ****************************************************
skipping: [192.168.56.102]
ok: [192.168.56.104]

PLAY [db_servers] **************************************************************

TASK [Gathering Facts] *********************************************************
ok: [192.168.56.103]
ok: [192.168.56.104]

TASK [install mariadb package (CentOS)] ****************************************
skipping: [192.168.56.103]
ok: [192.168.56.104]
```

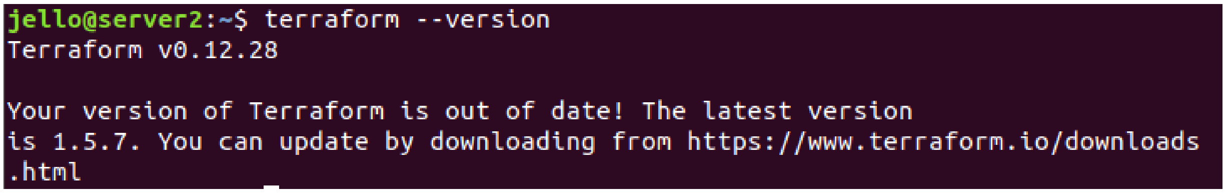


```
TASK [install mariadb package (Ubuntu)] ****************************************
skipping: [192.168.56.104]
ok: [192.168.56.103]

TASK [Mariadb- Restarting/Enabling] ********************************************
changed: [192.168.56.104]

changed: [192.168.56.103]

PLAY [file_servers] ************************************************************

TASK [Gathering Facts] *********************************************************
ok: [192.168.56.102]

TASK [install samba package] ***************************************************
ok: [192.168.56.102]

PLAY RECAP *********************************************************************
192.168.56.102             : ok=7    changed=0    unreachable=0    failed=0    skipped=3    rescued=0
   ignored=0
192.168.56.103             : ok=8    changed=2    unreachable=0    failed=0    skipped=2    rescued=0
   ignored=0
192.168.56.104             : ok=9    changed=1    unreachable=0    failed=0    skipped=3    rescued=0
   ignored=0
```

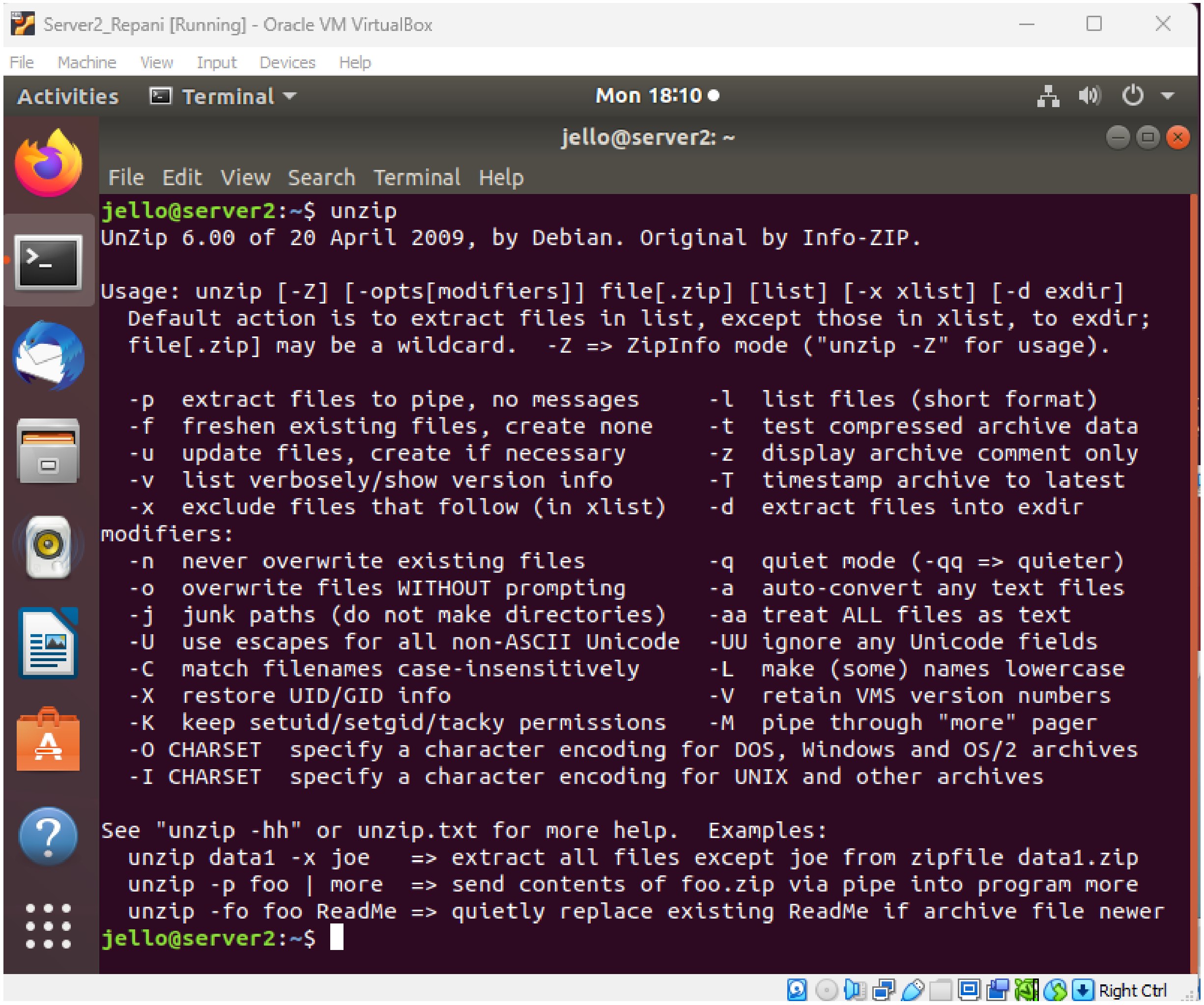
4. On the Ubuntu remote workstation, type terraform to verify installation of terraform. Describe the output.
   - Running the terraform command confirms that terraform has been installed, using the option –version shows that the downloaded version is exactly like the one in the playbook and a warning message appears that terraform is out of date. Running the command unzip also shows that unzip has been saved.


Server2_Repani [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities
Terminal
Mon 18:06
jello@server2: ~
File Edit View Search Terminal Help
Right Ctrl

```
jello@server2:~$ terraform
Usage: terraform [-version] [-help] <command> [args]

The available commands for execution are listed below.
The most common, useful commands are shown first, followed by
less common or more advanced commands. If you're just getting
started with Terraform, stick with the common commands. For the
other commands, please read the help and docs before usage.

Common commands:
    apply              Builds or changes infrastructure
    console            Interactive console for Terraform interpolations
    destroy            Destroy Terraform-managed infrastructure
    env                Workspace management
    fmt                Rewrites config files to canonical format
    get                Download and install modules for the configuration
    graph              Create a visual graph of Terraform resources
    import             Import existing infrastructure into Terraform
    init               Initialize a Terraform working directory
    login              Obtain and save credentials for a remote host
    logout             Remove locally-stored credentials for a remote host
    output             Read an output from a state file
    plan               Generate and show an execution plan
    providers          Prints a tree of the providers used in the configuration
    refresh            Update local state file against real resources
    show               Inspect Terraform state or plan
    taint              Manually mark a resource for recreation
    untaint            Manually unmark a resource as tainted
    validate           Validates the Terraform files
```



```
jello@server2:~$ terraform --version
Terraform v0.12.28

Your version of Terraform is out of date! The latest version
is 1.5.7. You can update by downloading from https://www.terraform.io/downloads
.html
```

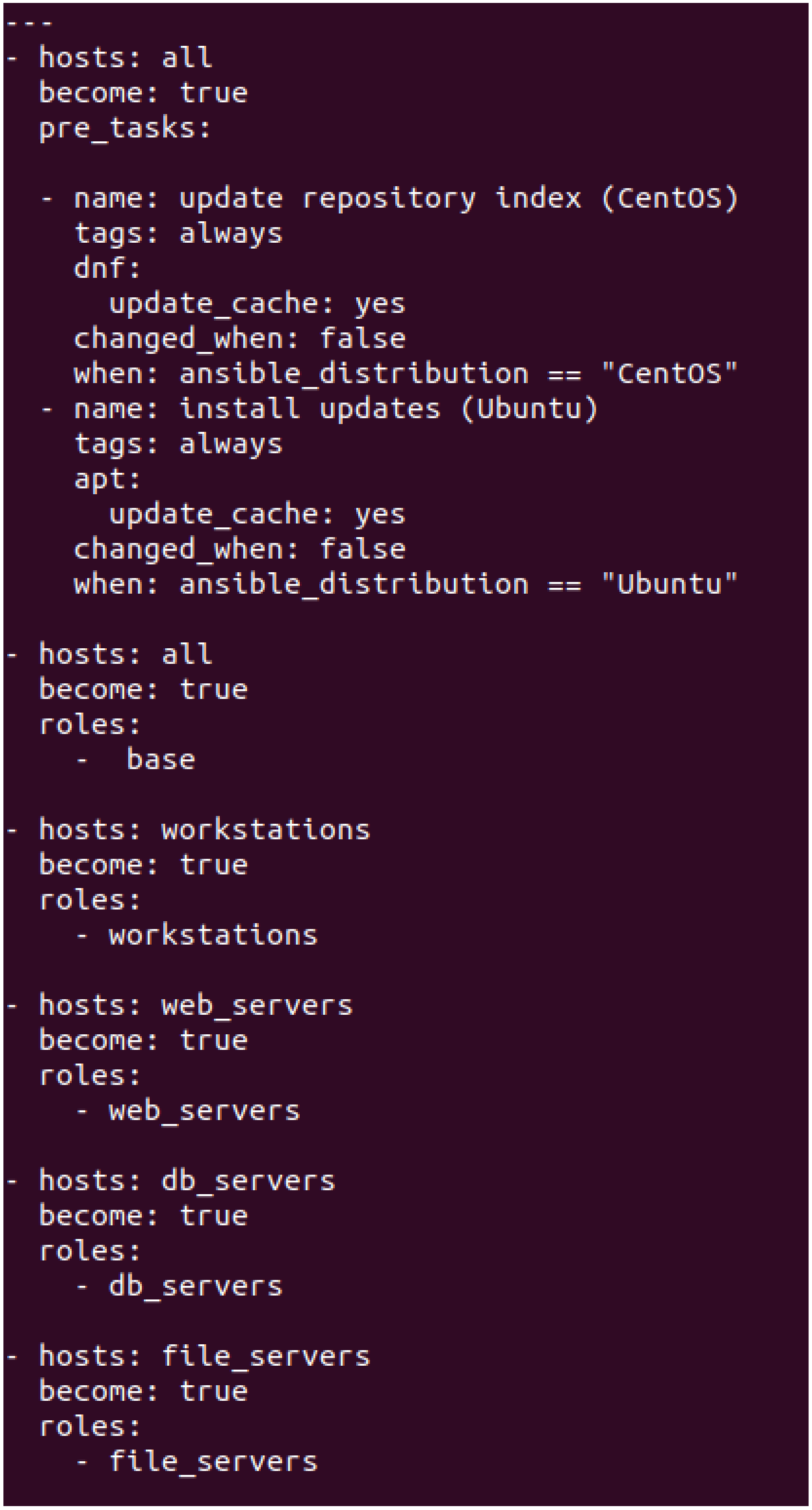


Server2_Repani [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities Terminal
Mon 18:10
jello@server2: ~
File Edit View Search Terminal Help
Right Ctrl

```
jello@server2:~$ unzip
UnZip 6.00 of 20 April 2009, by Debian. Original by Info-ZIP.

Usage: unzip [-Z] [-opts[modifiers]] file[.zip] [list] [-x xlist] [-d exdir]
  Default action is to extract files in list, except those in xlist, to exdir;
  file[.zip] may be a wildcard.  -Z => ZipInfo mode ("unzip -Z" for usage).

  -p  extract files to pipe, no messages     -l  list files (short format)
  -f  freshen existing files, create none    -t  test compressed archive data
  -u  update files, create if necessary      -z  display archive comment only
  -v  list verbosely/show version info       -T  timestamp archive to latest
  -x  exclude files that follow (in xlist)   -d  extract files into exdir
modifiers:
  -n  never overwrite existing files         -q  quiet mode (-qq => quieter)
  -o  overwrite files WITHOUT prompting      -a  auto-convert any text files
  -j  junk paths (do not make directories)   -aa treat ALL files as text
  -U  use escapes for all non-ASCII Unicode  -UU ignore any Unicode fields
  -C  match filenames case-insensitively     -L  make (some) names lowercase
  -X  restore UID/GID info                   -V  retain VMS version numbers
  -K  keep setuid/setgid/tacky permissions   -M  pipe through "more" pager
  -O CHARSET  specify a character encoding for DOS, Windows and OS/2 archives
  -I CHARSET  specify a character encoding for UNIX and other archives

See "unzip -hh" or unzip.txt for more help.  Examples:
  unzip data1 -x joe   => extract all files except joe from zipfile data1.zip
  unzip -p foo | more  => send contents of foo.zip via pipe into program more
  unzip -fo foo ReadMe => quietly replace existing ReadMe if archive file newer
jello@server2:~$
```

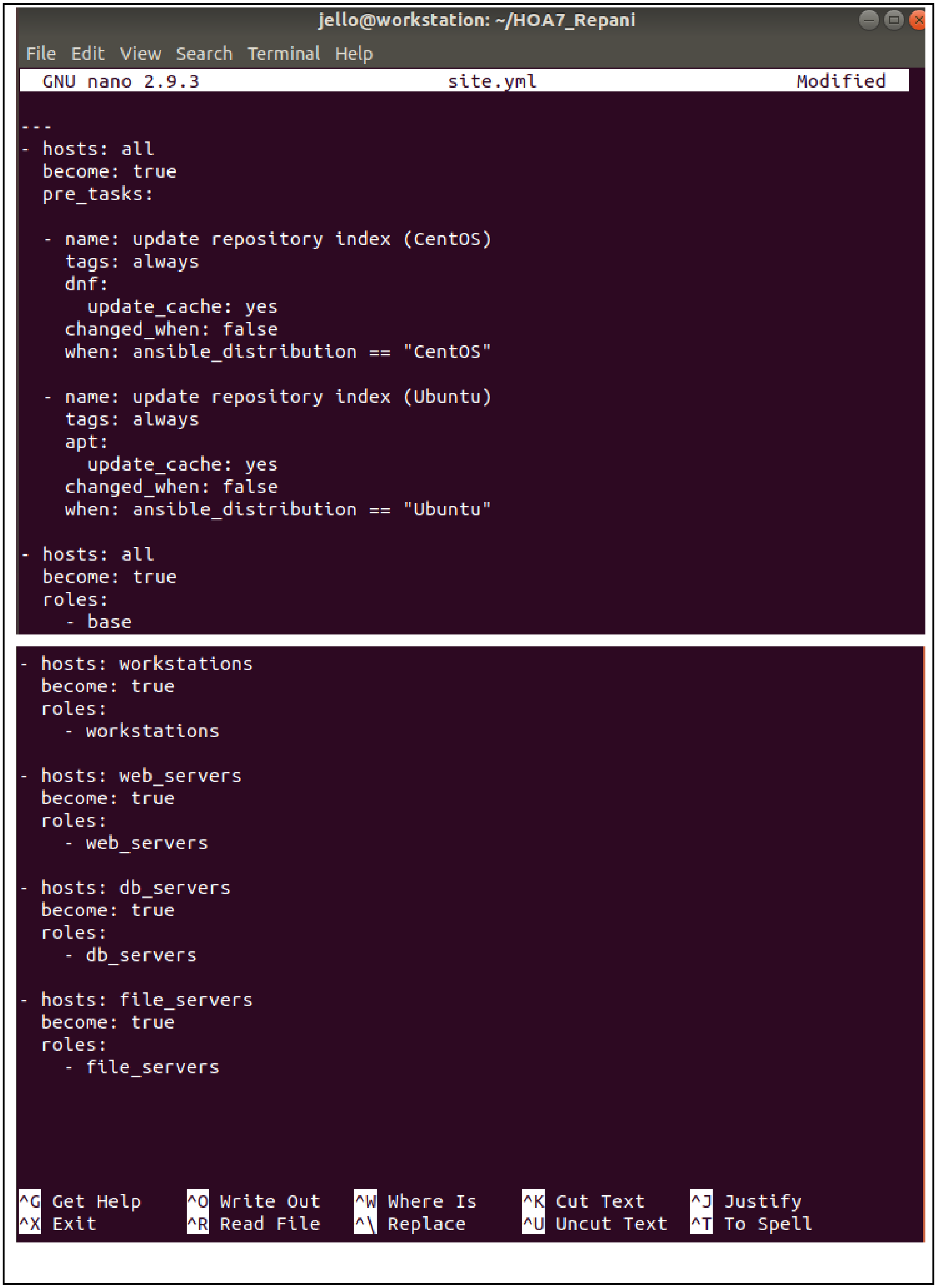
Task 3: Create roles

1. Edit the site.yml. Configure roles as follows: (make sure to create a copy of the old site.yml file because you will be copying the specific plays for all groups)



```
---
- hosts: all
  become: true
  pre_tasks:

  - name: update repository index (CentOS)
    tags: always
    dnf:
      update_cache: yes
    changed_when: false
    when: ansible_distribution == "CentOS"
  - name: install updates (Ubuntu)
    tags: always
    apt:
      update_cache: yes
    changed_when: false
    when: ansible_distribution == "Ubuntu"

- hosts: all
  become: true
  roles:
    -  base

- hosts: workstations
  become: true
  roles:
    - workstations

- hosts: web_servers
  become: true
  roles:
    - web_servers

- hosts: db_servers
  become: true
  roles:
    - db_servers

- hosts: file_servers
  become: true
  roles:
    - file_servers
```

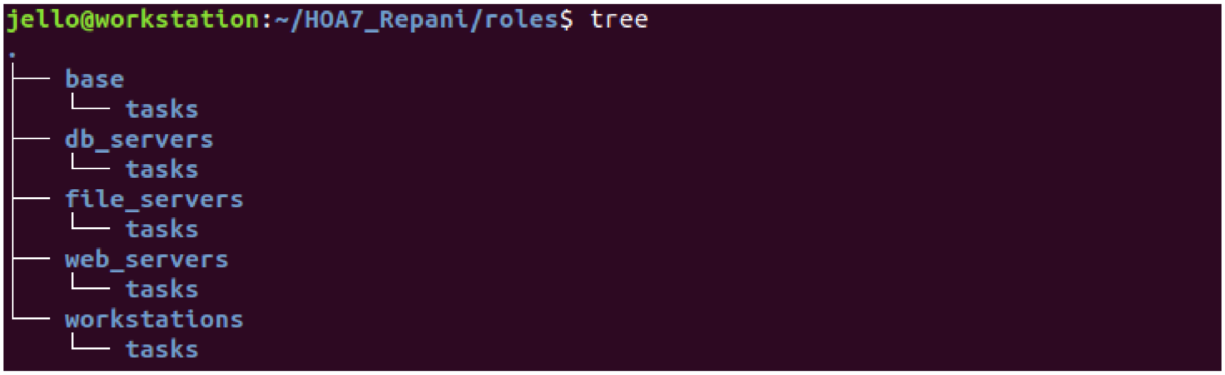
Save the file and exit.


jello@workstation: ~/HOA7_Repani
File Edit View Search Terminal Help

```
  GNU nano 2.9.3                    site.yml                    Modified

---
- hosts: all
  become: true
  pre_tasks:

  - name: update repository index (CentOS)
    tags: always
    dnf:
      update_cache: yes
    changed_when: false
    when: ansible_distribution == "CentOS"

  - name: update repository index (Ubuntu)
    tags: always
    apt:
      update_cache: yes
    changed_when: false
    when: ansible_distribution == "Ubuntu"

- hosts: all
  become: true
  roles:
    - base
```

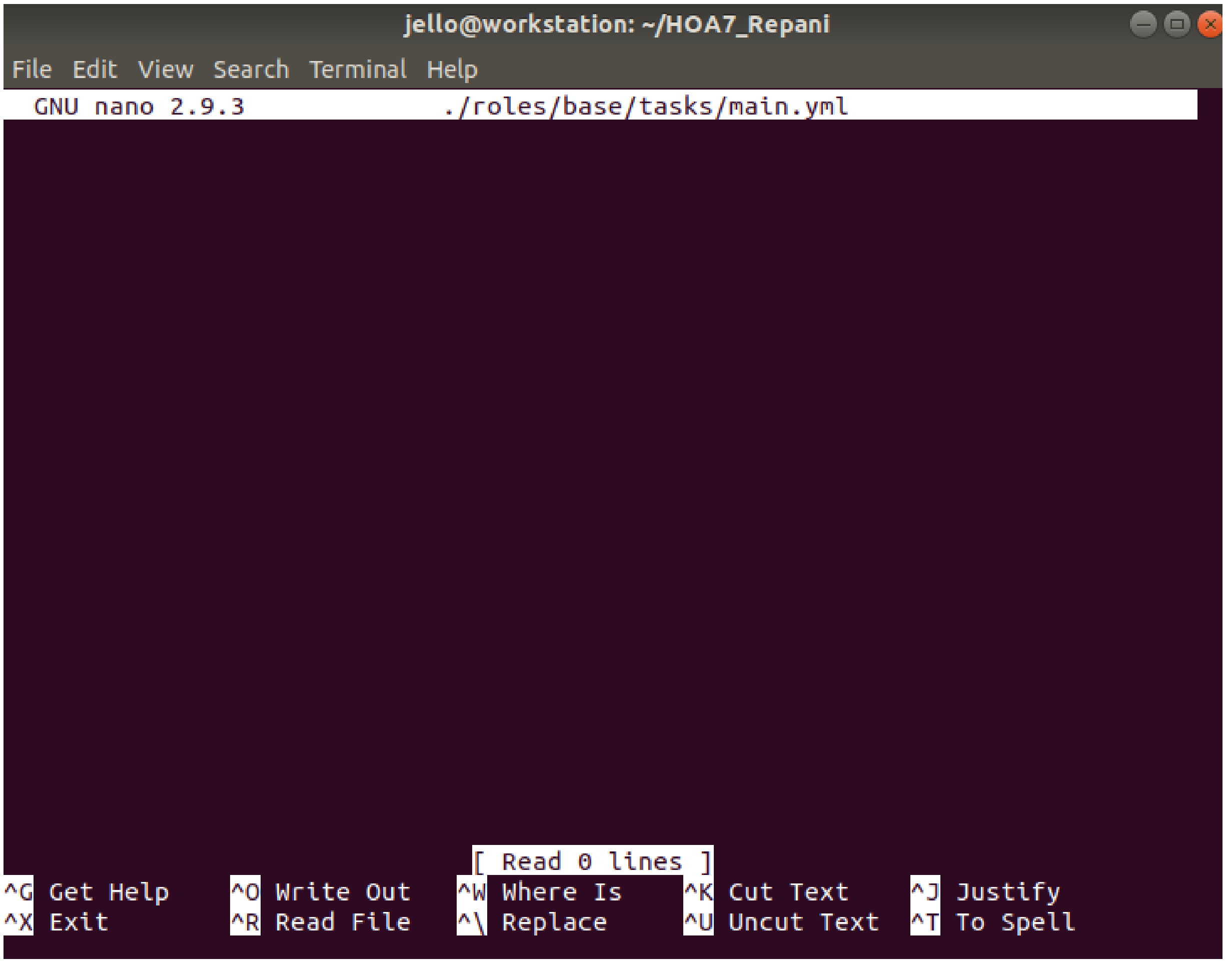
```
- hosts: workstations
  become: true
  roles:
    - workstations

- hosts: web_servers
  become: true
  roles:
    - web_servers

- hosts: db_servers
  become: true
  roles:
    - db_servers

- hosts: file_servers
  become: true
  roles:
    - file_servers




^G Get Help     ^O Write Out    ^W Where Is     ^K Cut Text     ^J Justify
^X Exit         ^R Read File    ^\ Replace      ^U Uncut Text   ^T To Spell
```

2. Under the same directory, create a new directory and name it roles. Enter the roles directory and create new directories: base, web_servers, file_servers, db_servers and workstations. For each directory, create a directory and name it tasks.



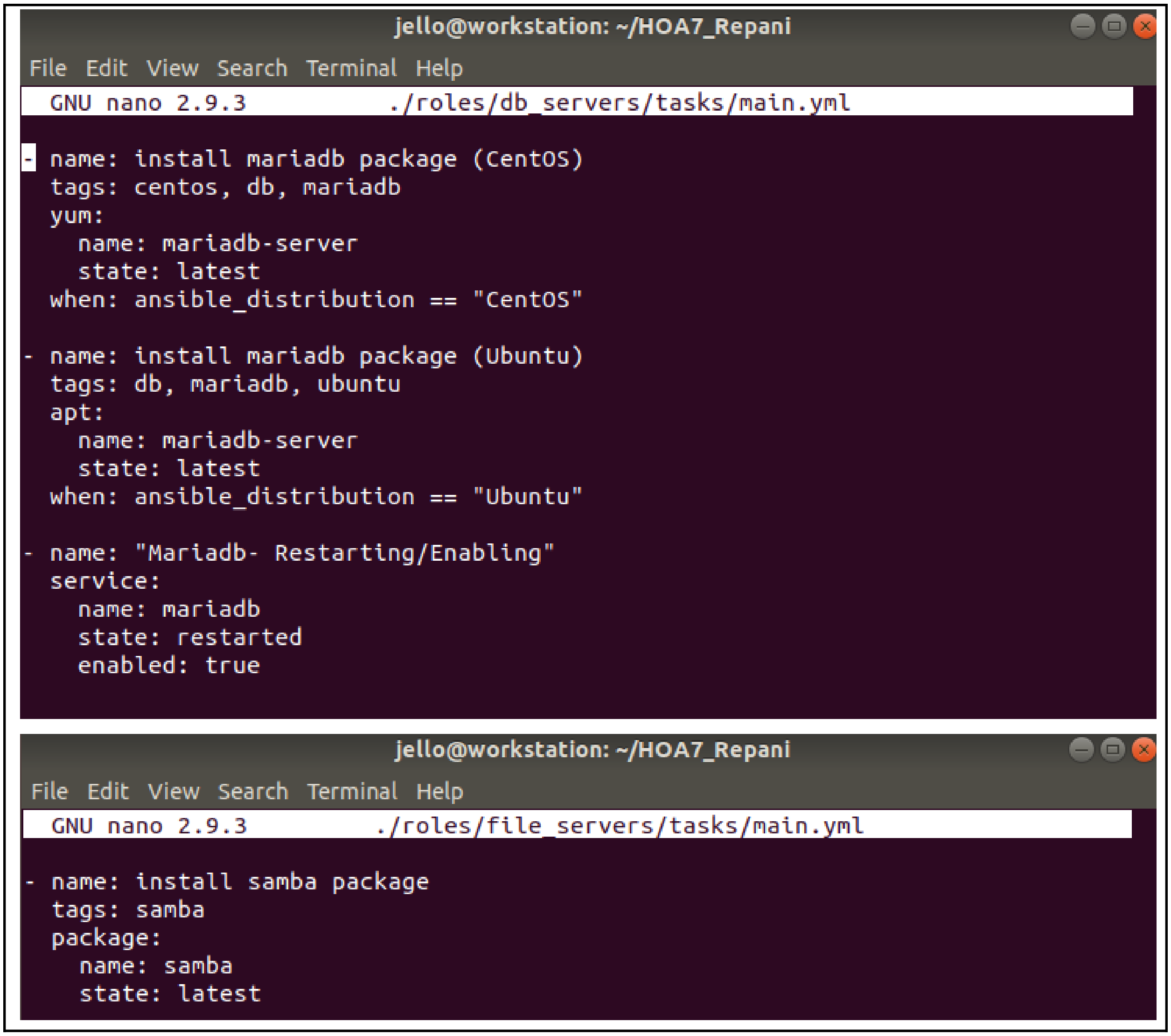
```
jello@workstation:~/HOA7_Repani/roles$ tree
.
├── base
│   └── tasks
├── db_servers
│   └── tasks
├── file_servers
│   └── tasks
├── web_servers
│   └── tasks
└── workstations
    └── tasks
```

3. Go to tasks for all directory and create a file. Name it main.yml. In each of the tasks for all directories, copy and paste the code from the old site.yml file.



jello@workstation: ~/HOA7_Repani
File Edit View Search Terminal Help

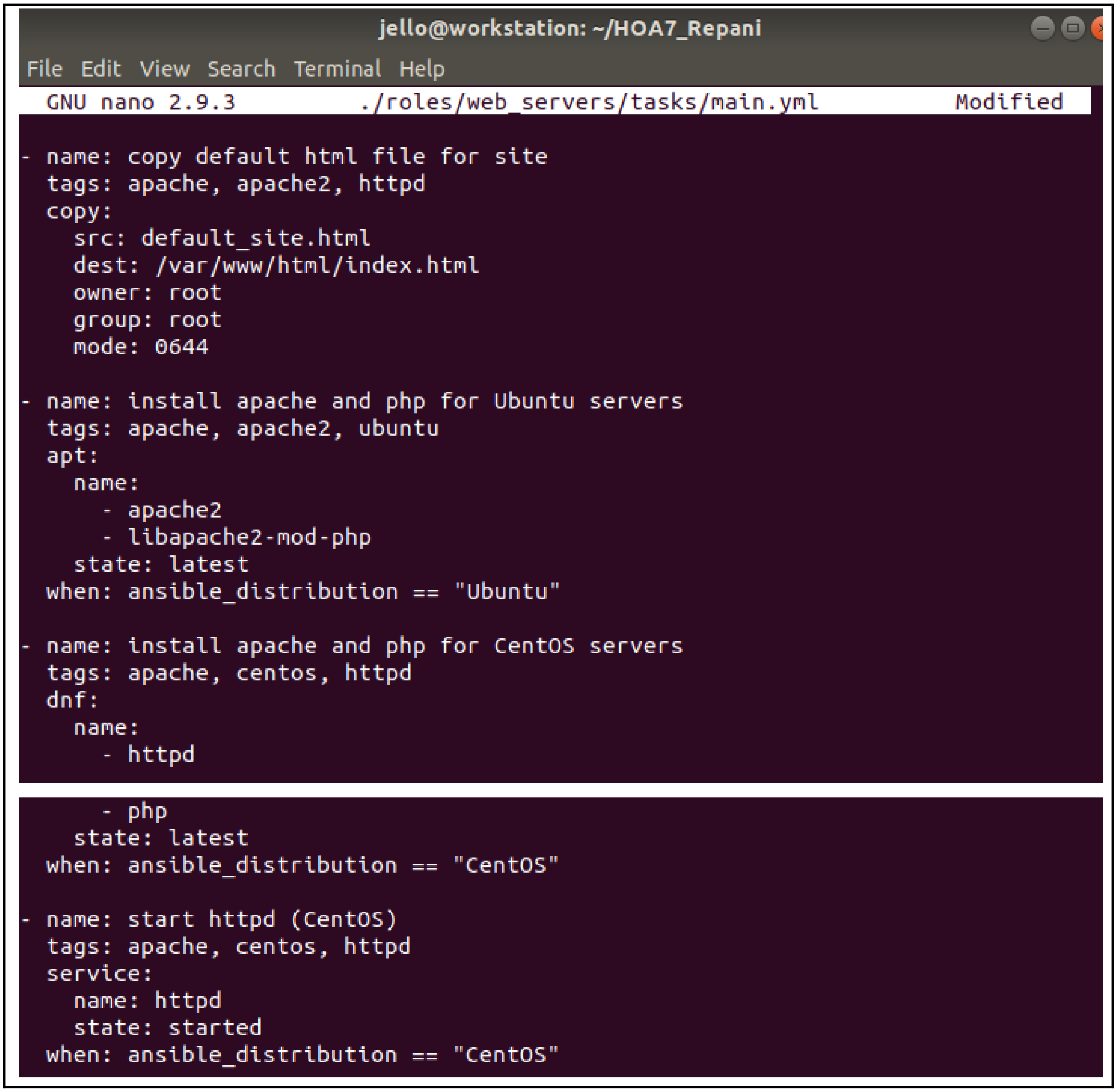
```
  GNU nano 2.9.3              ./roles/base/tasks/main.yml

                           [ Read 0 lines ]
^G Get Help     ^O Write Out    ^W Where Is     ^K Cut Text     ^J Justify
^X Exit         ^R Read File    ^\ Replace      ^U Uncut Text   ^T To Spell
```


jello@workstation: ~/HOA7_Repani
File Edit View Search Terminal Help

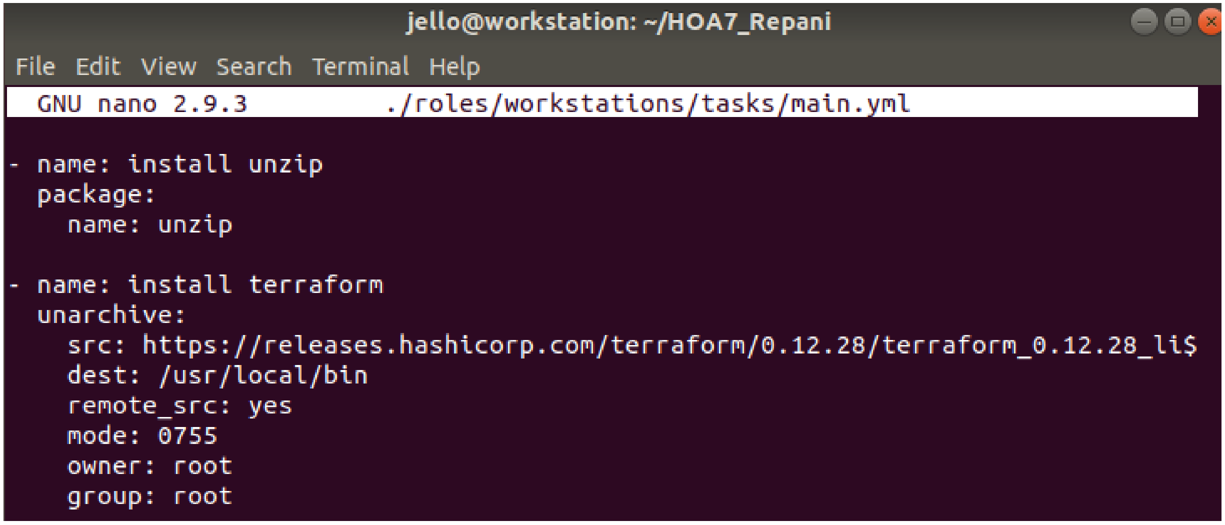
```
  GNU nano 2.9.3           ./roles/db_servers/tasks/main.yml

- name: install mariadb package (CentOS)
  tags: centos, db, mariadb
  yum:
    name: mariadb-server
    state: latest
  when: ansible_distribution == "CentOS"

- name: install mariadb package (Ubuntu)
  tags: db, mariadb, ubuntu
  apt:
    name: mariadb-server
    state: latest
  when: ansible_distribution == "Ubuntu"

- name: "Mariadb- Restarting/Enabling"
  service:
    name: mariadb
    state: restarted
    enabled: true
```

jello@workstation: ~/HOA7_Repani
File Edit View Search Terminal Help

```
  GNU nano 2.9.3          ./roles/file_servers/tasks/main.yml

- name: install samba package
  tags: samba
  package:
    name: samba
    state: latest
```


jello@workstation: ~/HOA7_Repani
File Edit View Search Terminal Help

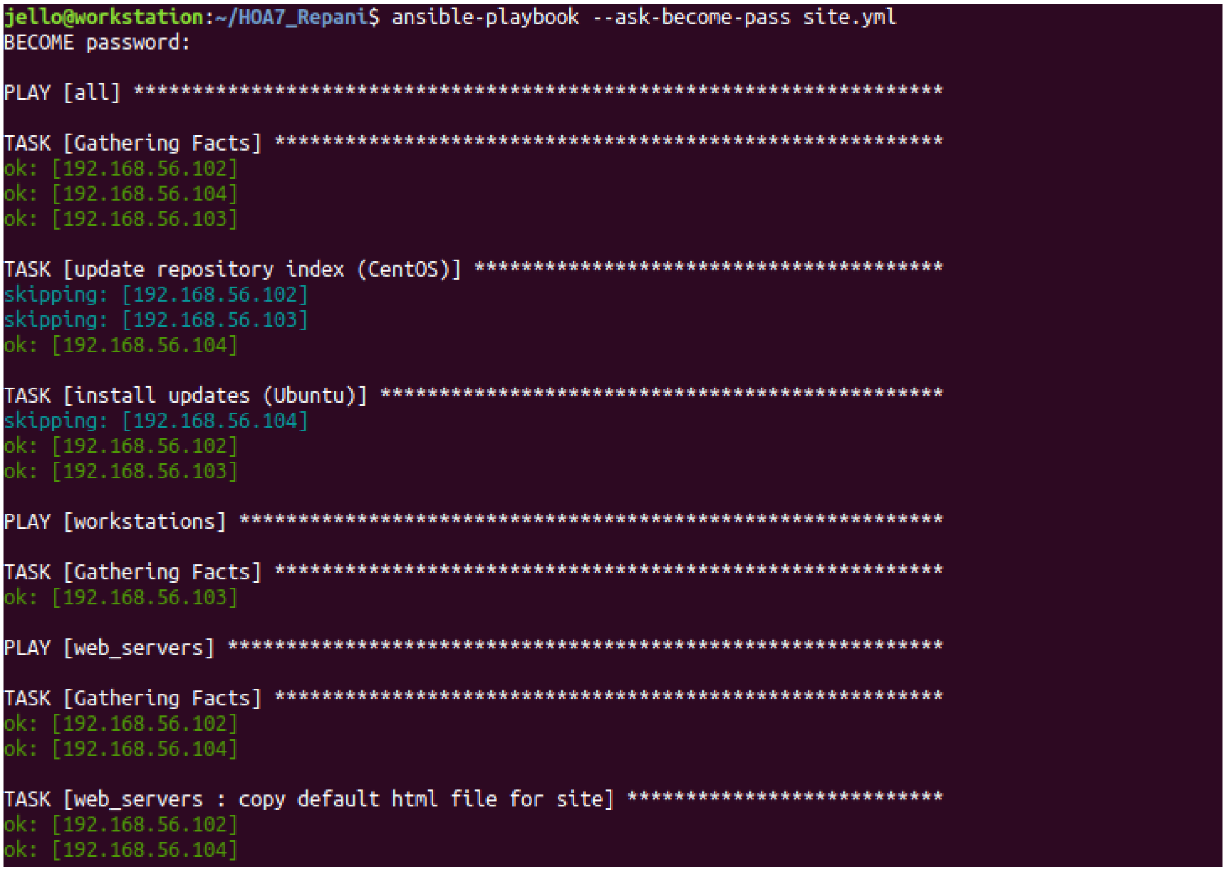
```
  GNU nano 2.9.3          ./roles/web_servers/tasks/main.yml          Modified

- name: copy default html file for site
  tags: apache, apache2, httpd
  copy:
    src: default_site.html
    dest: /var/www/html/index.html
    owner: root
    group: root
    mode: 0644

- name: install apache and php for Ubuntu servers
  tags: apache, apache2, ubuntu
  apt:
    name:
      - apache2
      - libapache2-mod-php
    state: latest
  when: ansible_distribution == "Ubuntu"

- name: install apache and php for CentOS servers
  tags: apache, centos, httpd
  dnf:
    name:
      - httpd
      - php
    state: latest
  when: ansible_distribution == "CentOS"

- name: start httpd (CentOS)
  tags: apache, centos, httpd
  service:
    name: httpd
    state: started
  when: ansible_distribution == "CentOS"
```


jello@workstation: ~/HOA7_Repani
File Edit View Search Terminal Help

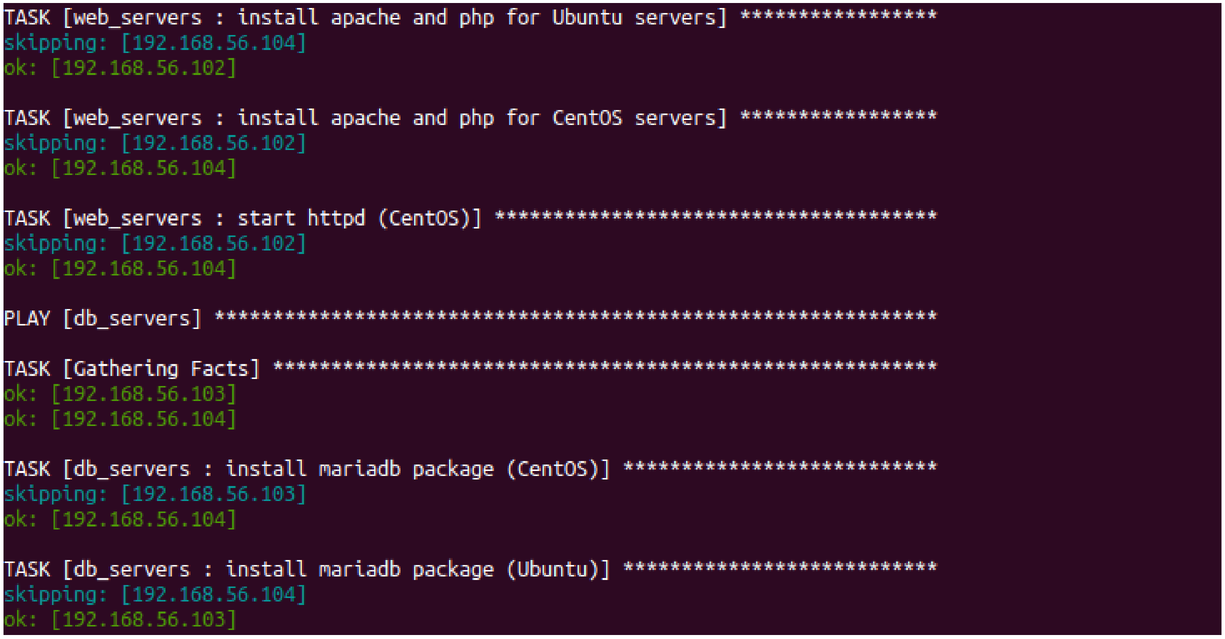
```
  GNU nano 2.9.3            ./roles/workstations/tasks/main.yml

- name: install unzip
  package:
    name: unzip

- name: install terraform
  unarchive:
    src: https://releases.hashicorp.com/terraform/0.12.28/terraform_0.12.28_li$
    dest: /usr/local/bin
    remote_src: yes
    mode: 0755
    owner: root
    group: root
```

4. Run the site.yml playbook and describe the output.

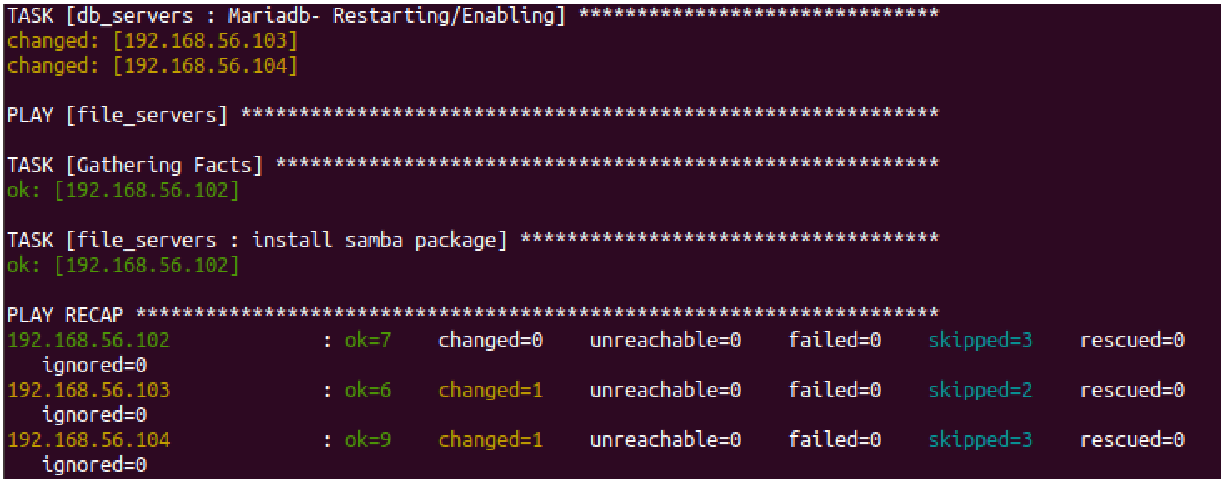
    - The output is the same as the old site.yml file despite having way different syntax and code layout



```
jello@workstation:~/HOA7_Repani$ ansible-playbook --ask-become-pass site.yml
BECOME password:

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

TASK [Gathering Facts] **********************************************************
ok: [192.168.56.102]
ok: [192.168.56.104]
ok: [192.168.56.103]

TASK [update repository index (CentOS)] *****************************************
skipping: [192.168.56.102]
skipping: [192.168.56.103]
ok: [192.168.56.104]

TASK [install updates (Ubuntu)] *************************************************
skipping: [192.168.56.104]
ok: [192.168.56.102]
ok: [192.168.56.103]

PLAY [workstations] *************************************************************

TASK [Gathering Facts] **********************************************************
ok: [192.168.56.103]

PLAY [web_servers] **************************************************************

TASK [Gathering Facts] **********************************************************
ok: [192.168.56.102]
ok: [192.168.56.104]

TASK [web_servers : copy default html file for site] ****************************
ok: [192.168.56.102]
ok: [192.168.56.104]
```

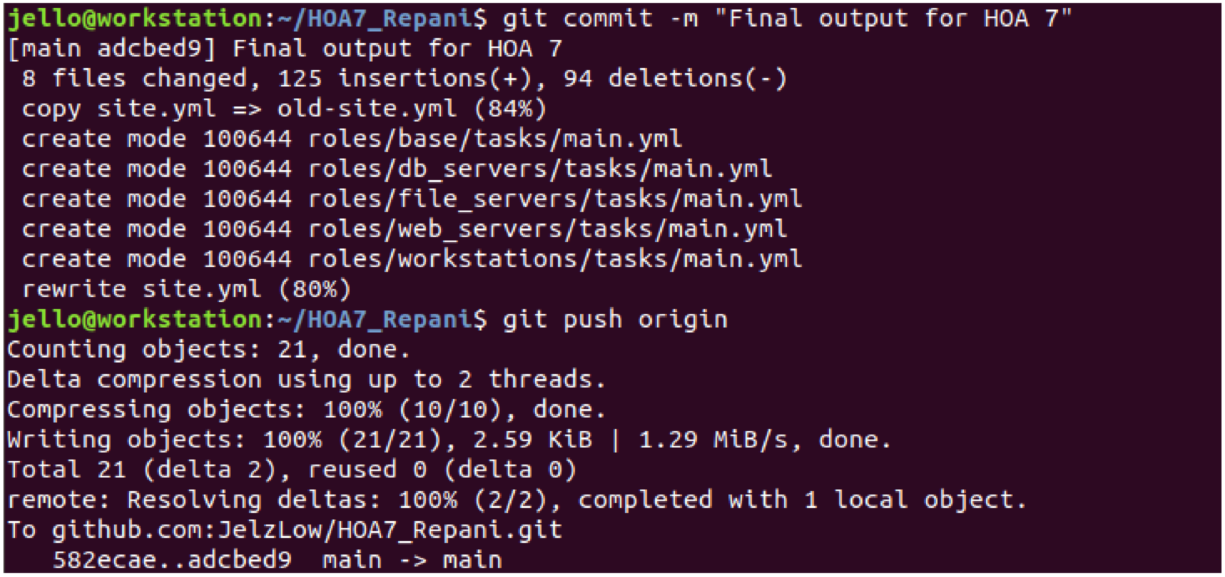


```
TASK [web_servers : install apache and php for Ubuntu servers] *****************
skipping: [192.168.56.104]
ok: [192.168.56.102]

TASK [web_servers : install apache and php for CentOS servers] *****************
skipping: [192.168.56.102]
ok: [192.168.56.104]

TASK [web_servers : start httpd (CentOS)] **************************************
skipping: [192.168.56.102]
ok: [192.168.56.104]

PLAY [db_servers] **************************************************************

TASK [Gathering Facts] *********************************************************
ok: [192.168.56.103]
ok: [192.168.56.104]

TASK [db_servers : install mariadb package (CentOS)] ***************************
skipping: [192.168.56.103]
ok: [192.168.56.104]

TASK [db_servers : install mariadb package (Ubuntu)] ***************************
skipping: [192.168.56.104]
ok: [192.168.56.103]
```

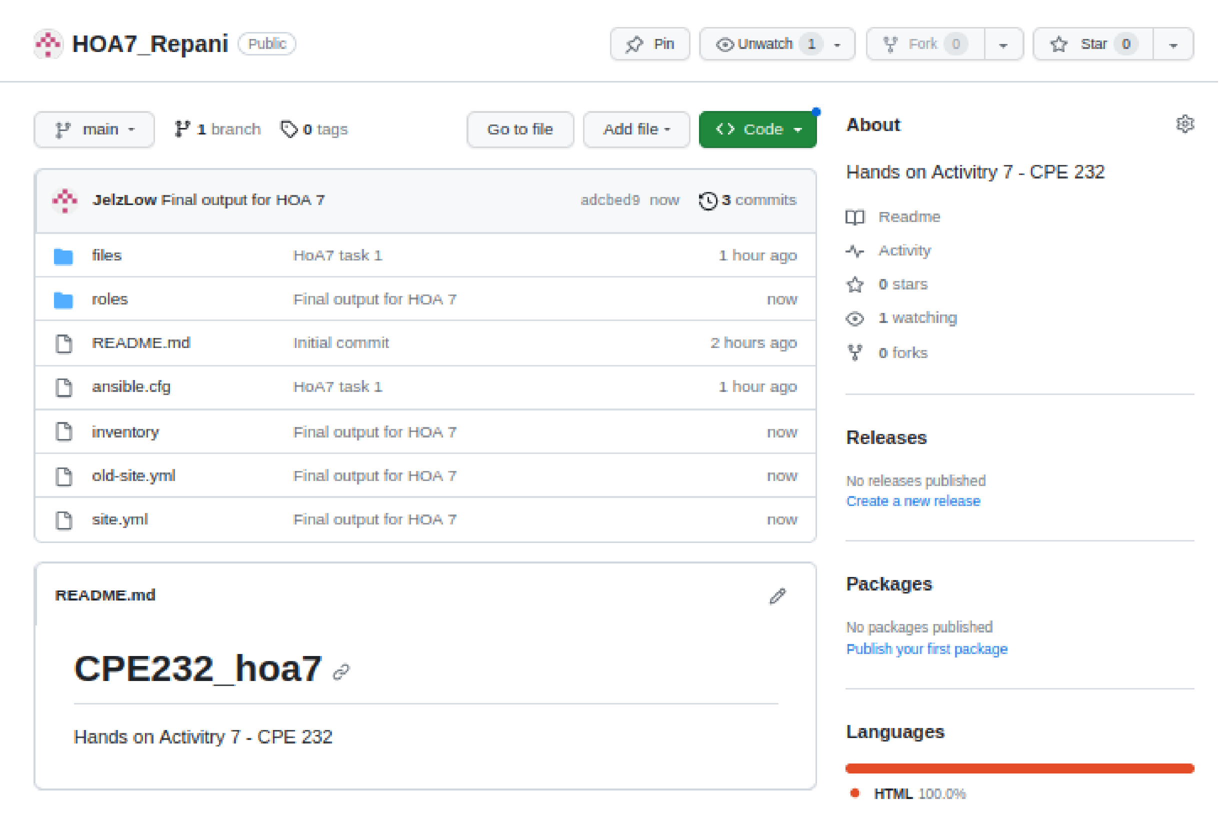


```
TASK [db_servers : Mariadb- Restarting/Enabling] *******************************
changed: [192.168.56.103]
changed: [192.168.56.104]

PLAY [file_servers] ************************************************************

TASK [Gathering Facts] *********************************************************
ok: [192.168.56.102]

TASK [file_servers : install samba package] ************************************
ok: [192.168.56.102]

PLAY RECAP *********************************************************************
192.168.56.102             : ok=7    changed=0    unreachable=0    failed=0    skipped=3    rescued=0
   ignored=0
192.168.56.103             : ok=6    changed=1    unreachable=0    failed=0    skipped=2    rescued=0
   ignored=0
192.168.56.104             : ok=9    changed=1    unreachable=0    failed=0    skipped=3    rescued=0
   ignored=0
```

Git Repository



```
jello@workstation:~/HOA7_Repani$ git commit -m "Final output for HOA 7"
[main adcbed9] Final output for HOA 7
 8 files changed, 125 insertions(+), 94 deletions(-)
 copy site.yml => old-site.yml (84%)
 create mode 100644 roles/base/tasks/main.yml
 create mode 100644 roles/db_servers/tasks/main.yml
 create mode 100644 roles/file_servers/tasks/main.yml
 create mode 100644 roles/web_servers/tasks/main.yml
 create mode 100644 roles/workstations/tasks/main.yml
 rewrite site.yml (80%)
jello@workstation:~/HOA7_Repani$ git push origin
Counting objects: 21, done.
Delta compression using up to 2 threads.
Compressing objects: 100% (10/10), done.
Writing objects: 100% (21/21), 2.59 KiB | 1.29 MiB/s, done.
Total 21 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 1 local object.
To github.com:JelzLow/HOA7_Repani.git
   582ecae..adcbed9  main -> main
```



Hands on Activirty 7 - CPE 232

JelzLow Final output for HOA 7 adcbed9 now 3 commits

files	HoA7 task 1	1 hour ago
roles	Final output for HOA 7	now
README.md	Initial commit	2 hours ago
ansible.cfg	HoA7 task 1	1 hour ago
inventory	Final output for HOA 7	now
old-site.yml	Final output for HOA 7	now
site.yml	Final output for HOA 7	now

README.md

CPE232_hoa7

Hands on Activirty 7 - CPE 232

Reflections:

Answer the following:

1. What is the importance of creating roles?
   - Creating roles is important because it allows us to classify the different users into categories which greatly helps in simplifying the process of managing multiple remote servers. With the use of roles, we can specify the intended purpose of remote servers and run commands specifically targeted at one or

multiple roles, allowing for more efficient running of commands without having to add codes irrelevant to the specific role.

2. What is the importance of managing files?
    - Managing files is important because it is one of the foundational skills required in order to run a system. Being able to manage files remotely enables us to create, edit, and manage files and directories without having to manually operate the physical unit.

Conclusion

In this hands-on activity 7, we made use of the ssh remote servers in order to manage files similar to how we would usually manage files directly in the unit. Being able to manage files remotely is a huge help in managing remote servers. The other topic discussed in this activity is creating roles in ansible. Roles in ansible are basically giving different categories to the remote servers allowing us to have a separate code for each of the roles. This helps in efficiency and organizing since the roles can tell us what the remote server specifically is for and helps us avoid having long codes by only adding the necessary syntax for the specific remote server.

Honor Pledge

“I affirm that I have not given or received any unauthorized help on this assignment, and that this work is my own.”