

Combo, John Kenneth V.

June 09, 2022

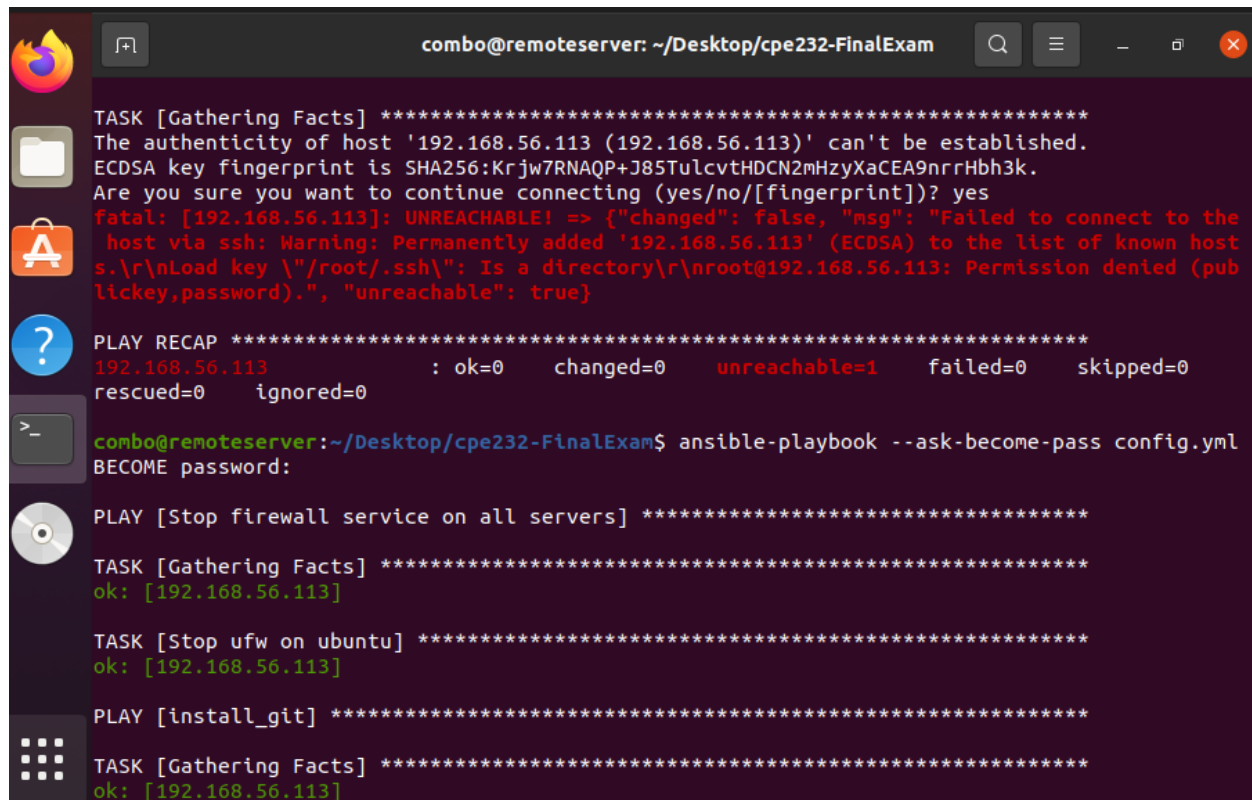
CPE232-CPE31S7

June 09, 2022

Engr. Jonathan Taylor

2ndSem-2021-22

Final Skills Exam

A terminal window titled 'combo@remoteserver: ~/Desktop/cpe232-FinalExam' with standard Ubuntu window controls. The terminal output shows an Ansible playbook execution. It starts with a 'TASK [Gathering Facts]' for host '192.168.56.113', which fails with a 'fatal: [192.168.56.113]: UNREACHABLE!' error. A 'PLAY RECAP' shows 'unreachable=1'. The user then runs 'ansible-playbook --ask-become-pass config.yml', which prompts for a password. The subsequent 'PLAY [Stop firewall service on all servers]' succeeds, with 'TASK [Gathering Facts]' and 'TASK [Stop ufw on ubuntu]' both showing 'ok: [192.168.56.113]'. The final 'PLAY [install_git]' also shows 'TASK [Gathering Facts]' as 'ok: [192.168.56.113]'.

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam

TASK [Gathering Facts] *****
The authenticity of host '192.168.56.113 (192.168.56.113)' can't be established.
ECDSA key fingerprint is SHA256:Krjw7RNAQP+J85TulcvthDCN2mHzyXaCEA9nrrHbh3k.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
fatal: [192.168.56.113]: UNREACHABLE! => {"changed": false, "msg": "Failed to connect to the
host via ssh: Warning: Permanently added '192.168.56.113' (ECDSA) to the list of known host
s.\r\nLoad key \"/root/.ssh/": Is a directory\r\nroot@192.168.56.113: Permission denied (pub
lickey,password).", "unreachable": true}

PLAY RECAP *****
192.168.56.113      : ok=0    changed=0    unreachable=1    failed=0    skipped=0
rescued=0    ignored=0

combo@remoteserver:~/Desktop/cpe232-FinalExam$ ansible-playbook --ask-become-pass config.yml
BECOME password:

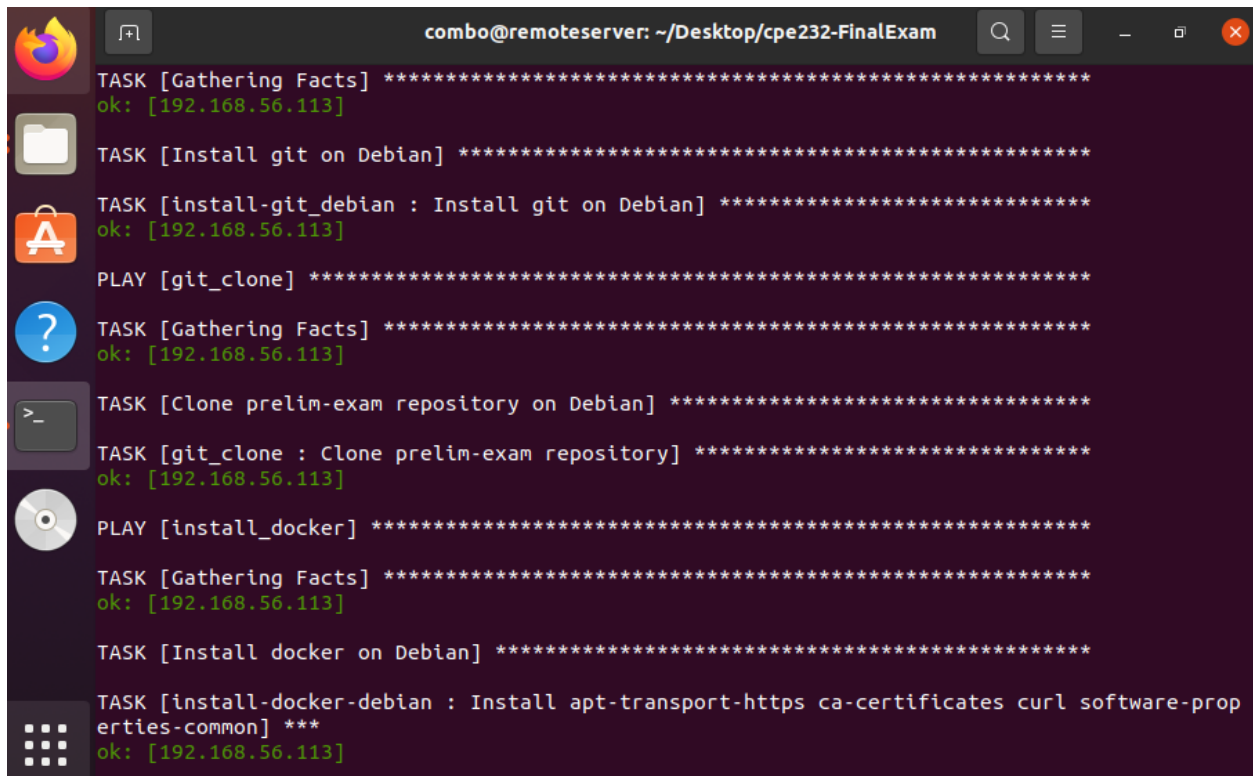
PLAY [Stop firewall service on all servers] *****

TASK [Gathering Facts] *****
ok: [192.168.56.113]

TASK [Stop ufw on ubuntu] *****
ok: [192.168.56.113]

PLAY [install_git] *****

TASK [Gathering Facts] *****
ok: [192.168.56.113]
```



A terminal window titled 'combo@remoteserver: ~/Desktop/cpe232-FinalExam'. The left sidebar contains icons for a file manager, an application store, a help icon, a terminal, and a CD icon. The main area shows a series of tasks and their successful completion:

```
TASK [Gathering Facts] *****
ok: [192.168.56.113]

TASK [Install git on Debian] *****

TASK [install-git_debian : Install git on Debian] *****
ok: [192.168.56.113]

PLAY [git_clone] *****

TASK [Gathering Facts] *****
ok: [192.168.56.113]

TASK [Clone prelim-exam repository on Debian] *****

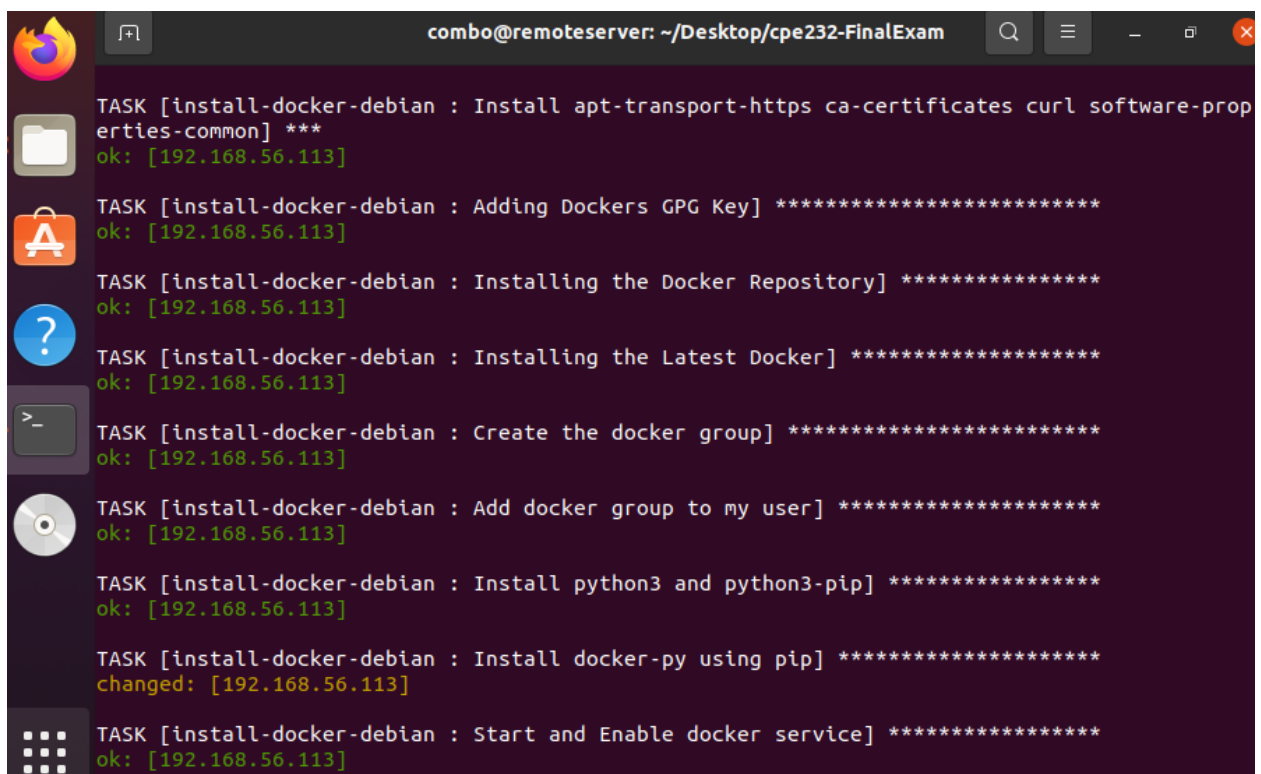
TASK [git_clone : Clone prelim-exam repository] *****
ok: [192.168.56.113]

PLAY [install_docker] *****

TASK [Gathering Facts] *****
ok: [192.168.56.113]

TASK [Install docker on Debian] *****

TASK [install-docker-debian : Install apt-transport-https ca-certificates curl software-prop
erties-common] ***
ok: [192.168.56.113]
```



The same terminal window continues with the Docker installation tasks:

```
TASK [install-docker-debian : Install apt-transport-https ca-certificates curl software-prop
erties-common] ***
ok: [192.168.56.113]

TASK [install-docker-debian : Adding Dockers GPG Key] *****
ok: [192.168.56.113]

TASK [install-docker-debian : Installing the Docker Repository] *****
ok: [192.168.56.113]

TASK [install-docker-debian : Installing the Latest Docker] *****
ok: [192.168.56.113]

TASK [install-docker-debian : Create the docker group] *****
ok: [192.168.56.113]

TASK [install-docker-debian : Add docker group to my user] *****
ok: [192.168.56.113]

TASK [install-docker-debian : Install python3 and python3-pip] *****
ok: [192.168.56.113]

TASK [install-docker-debian : Install docker-py using pip] *****
changed: [192.168.56.113]

TASK [install-docker-debian : Start and Enable docker service] *****
ok: [192.168.56.113]
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam
changed: [192.168.56.113]

TASK [install-docker-debian : Start and Enable docker service] *****
ok: [192.168.56.113]

PLAY [httpd] *****

TASK [Gathering Facts] *****
ok: [192.168.56.113]

TASK [Install httpd in a docker containerization] *****

TASK [install-httpd-docker : Pull image of httpd] *****
ok: [192.168.56.113]

TASK [install-httpd-docker : Restart Docker] *****
skipping: [192.168.56.113]

TASK [install-httpd-docker : Create Docker Volume] *****
ok: [192.168.56.113]

TASK [install-httpd-docker : Create symbolic link] *****
ok: [192.168.56.113]

TASK [install-httpd-docker : Copy index-docker.html to /var/lib/docker/volumes/apache-data/_
data/] ***
ok: [192.168.56.113]
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam

TASK [install-httpd-docker : Copy index-docker.html to /var/lib/docker/volumes/apache-data/_
data/] ***
ok: [192.168.56.113]

TASK [install-httpd-docker : Run httpd container] *****
changed: [192.168.56.113]

PLAY [elasticsearch] *****

TASK [Gathering Facts] *****
ok: [192.168.56.113]

TASK [Install ElasticStack in a docker containerization] *****

TASK [install-ElasticStack-docker : Pull image of Elasticsearch] *****
ok: [192.168.56.113] => (item=elasticsearch:7.10.1)
ok: [192.168.56.113] => (item=kibana:7.10.1)
ok: [192.168.56.113] => (item=logstash:7.10.1)

TASK [install-ElasticStack-docker : Restart Docker] *****
skipping: [192.168.56.113]

TASK [install-ElasticStack-docker : Run elasticsearch container] *****
changed: [192.168.56.113]

TASK [install-ElasticStack-docker : Create /logstash directory] *****
ok: [192.168.56.113]
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam

TASK [install-ElasticStack-docker : Create /logstash directory] *****
ok: [192.168.56.113]

TASK [install-ElasticStack-docker : copy logstash.conf] *****
ok: [192.168.56.113]

TASK [install-ElasticStack-docker : Run logstash container] *****
changed: [192.168.56.113]

TASK [install-ElasticStack-docker : Run kibana container] *****
changed: [192.168.56.113]

PLAY [motd] *****

TASK [Gathering Facts] *****
ok: [192.168.56.113]

TASK [Change Motd on Debian] *****

TASK [motd : Change Motd] *****
ok: [192.168.56.113]

PLAY [enterprise_service] *****

TASK [Gathering Facts] *****
ok: [192.168.56.113]
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam

TASK [Gathering Facts] *****
ok: [192.168.56.113]

TASK [Install and Configure Apache2 on Debian] *****

TASK [apache2_debian : Install apache2] *****
ok: [192.168.56.113]

TASK [apache2_debian : Copy from config_files/index.html to /var/www/html/index.html] ***
ok: [192.168.56.113]

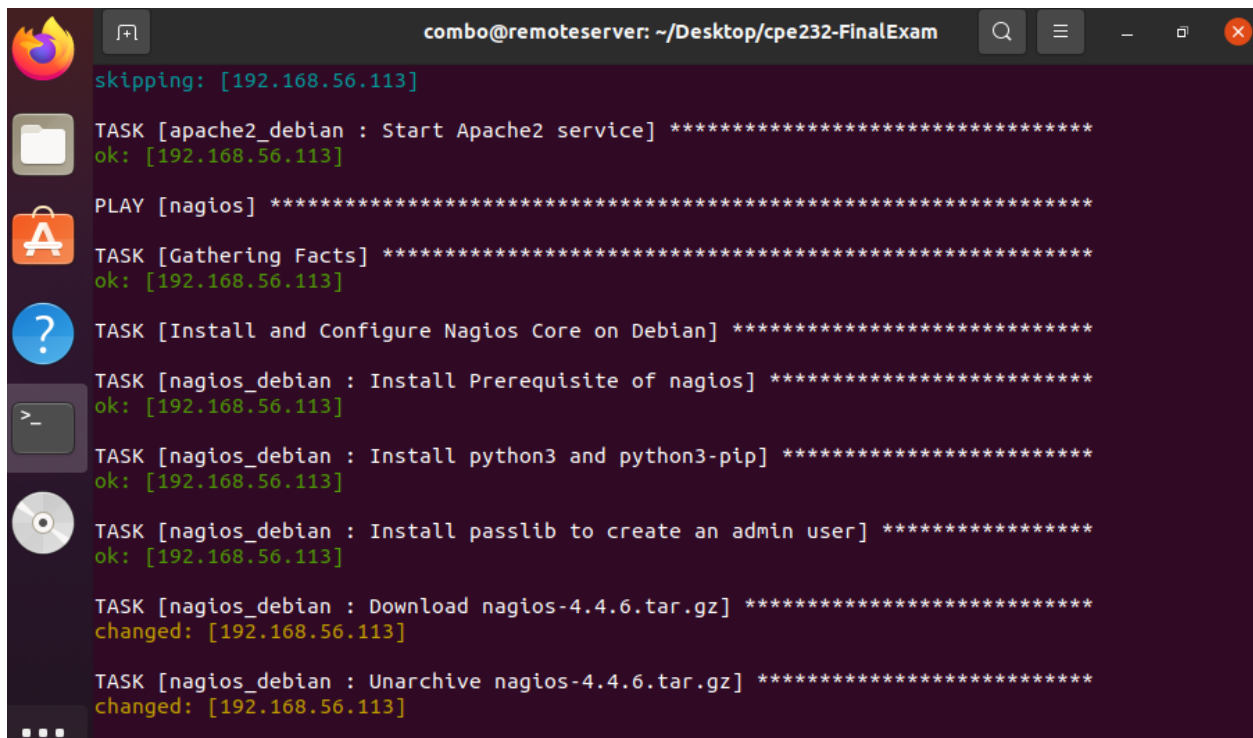
TASK [apache2_debian : Create folder named combo_debian.com] *****
ok: [192.168.56.113]

TASK [apache2_debian : Copy from config_files/index_debian.html to /var/www/html/combo_debian.com/index.html] ***
ok: [192.168.56.113]

TASK [apache2_debian : Copy from config_files/combo_debian.com.conf to /etc/apache2/sites-available/combo_debian.com.conf] ***
ok: [192.168.56.113]

TASK [apache2_debian : Enable the Apache2 combo_debian.com and disable 000-default.conf] ***
skipping: [192.168.56.113]

TASK [apache2_debian : Start Apache2 service] *****
ok: [192.168.56.113]
```



A terminal window titled 'combo@remoteserver: ~/Desktop/cpe232-FinalExam' with a dark purple background. The left sidebar contains icons for a web browser, file manager, application store, help, terminal, and CD. The terminal output shows the following tasks:

```
skipping: [192.168.56.113]

TASK [apache2_debian : Start Apache2 service] *****
ok: [192.168.56.113]

PLAY [nagios] *****

TASK [Gathering Facts] *****
ok: [192.168.56.113]

TASK [Install and Configure Nagios Core on Debian] *****

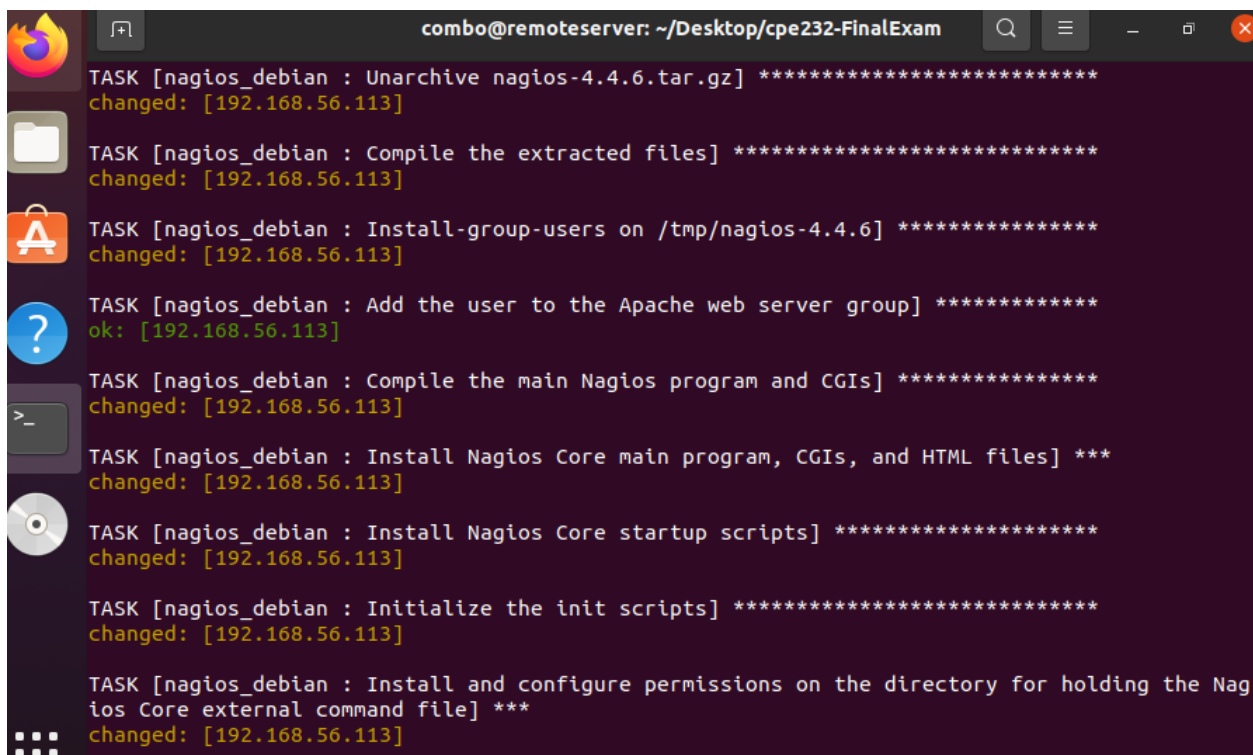
TASK [nagios_debian : Install Prerequisite of nagios] *****
ok: [192.168.56.113]

TASK [nagios_debian : Install python3 and python3-pip] *****
ok: [192.168.56.113]

TASK [nagios_debian : Install passlib to create an admin user] *****
ok: [192.168.56.113]

TASK [nagios_debian : Download nagios-4.4.6.tar.gz] *****
changed: [192.168.56.113]

TASK [nagios_debian : Unarchive nagios-4.4.6.tar.gz] *****
changed: [192.168.56.113]
```



A terminal window titled 'combo@remoteserver: ~/Desktop/cpe232-FinalExam' with a dark purple background. The left sidebar contains icons for a web browser, file manager, application store, help, terminal, and CD. The terminal output shows the following tasks:

```
TASK [nagios_debian : Unarchive nagios-4.4.6.tar.gz] *****
changed: [192.168.56.113]

TASK [nagios_debian : Compile the extracted files] *****
changed: [192.168.56.113]

TASK [nagios_debian : Install-group-users on /tmp/nagios-4.4.6] *****
changed: [192.168.56.113]

TASK [nagios_debian : Add the user to the Apache web server group] *****
ok: [192.168.56.113]

TASK [nagios_debian : Compile the main Nagios program and CGIs] *****
changed: [192.168.56.113]

TASK [nagios_debian : Install Nagios Core main program, CGIs, and HTML files] ***
changed: [192.168.56.113]

TASK [nagios_debian : Install Nagios Core startup scripts] *****
changed: [192.168.56.113]

TASK [nagios_debian : Initialize the init scripts] *****
changed: [192.168.56.113]

TASK [nagios_debian : Install and configure permissions on the directory for holding the Nag
ios Core external command file] ***
changed: [192.168.56.113]
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam

TASK [nagios_debian : Install and configure permissions on the directory for holding the Nag
ios Core external command file] ***
changed: [192.168.56.113]

TASK [nagios_debian : Install Nagios Core sample configuration files in /usr/local/nagios/et
c] ***
changed: [192.168.56.113]

TASK [nagios_debian : Install Apache configuration file for the Nagios web interface] ***
changed: [192.168.56.113]

TASK [nagios_debian : Enable apache2 rewrite] *****
ok: [192.168.56.113] => (item=rewrite)
ok: [192.168.56.113] => (item=cgi)

TASK [nagios_debian : Configure Nagios Core Web Interface basic authentication] ***
changed: [192.168.56.113]

TASK [nagios_debian : Give appropriate permissions to the (/usr/local/nagios/etc/htpasswd.us
ers) file] ***
changed: [192.168.56.113]

TASK [nagios_debian : Download nagios plugins] *****
changed: [192.168.56.113]

TASK [nagios_debian : Extract the nagios plugins] *****
changed: [192.168.56.113]
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam

TASK [nagios_debian : Extract the nagios plugins] *****
changed: [192.168.56.113]

TASK [nagios_debian : Compile nagios plugins] *****
changed: [192.168.56.113]

TASK [nagios_debian : build the default nagios plugins] *****
changed: [192.168.56.113]

TASK [nagios_debian : install in nagios plugins] *****
changed: [192.168.56.113]

TASK [nagios_debian : Enable and Start nagios] *****
ok: [192.168.56.113]

TASK [nagios_debian : Restart and Enabled apache2] *****
changed: [192.168.56.113]

PLAY RECAP *****
192.168.56.113      : ok=64   changed=24   unreachable=0   failed=0   skipped=3
rescued=0   ignored=0

combo@remoteserver:~/Desktop/cpe232-FinalExam$ git status
On branch main
Your branch is up to date with 'origin/main'.
```



```
combo@remoteserver: ~/Desktop/cpe232-FinalExam

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)
        ansible.cfg
        config.yml
        config_files/
        inventory
        roles/

nothing added to commit but untracked files present (use "git add" to track)
combo@remoteserver:~/Desktop/cpe232-FinalExam$ git add .
combo@remoteserver:~/Desktop/cpe232-FinalExam$ git commit -m "my commit5"
[main 1c0469d] my commit5
 81 files changed, 1699 insertions(+)
 create mode 100644 ansible.cfg
 create mode 100644 config.yml
 create mode 100644 config_files/combo_debian.com.conf
 create mode 100644 config_files/combo_opensuse.com.conf
 create mode 100644 config_files/index.html
 create mode 100644 config_files/index_debian.html
 create mode 100644 config_files/index_docker.html
 create mode 100644 config_files/logstash.conf
 create mode 100644 inventory
 create mode 100644 roles/apache2_debian/.travis.yml
 create mode 100644 roles/apache2_debian/README.md
```

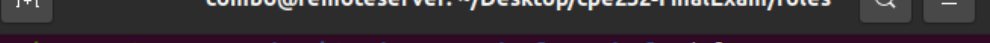
```
combo@remoteserver: ~/Desktop/cpe232-FinalExam

create mode 100644 roles/apache2_debian/.travis.yml
create mode 100644 roles/apache2_debian/README.md
create mode 100644 roles/apache2_debian/defaults/main.yml
create mode 100644 roles/apache2_debian/handlers/main.yml
create mode 100644 roles/apache2_debian/meta/main.yml
create mode 100644 roles/apache2_debian/tasks/main.yml
create mode 100644 roles/apache2_debian/tests/inventory
create mode 100644 roles/apache2_debian/tests/test.yml
create mode 100644 roles/apache2_debian/vars/main.yml
create mode 100644 roles/git_clone/.travis.yml
create mode 100644 roles/git_clone/README.md
create mode 100644 roles/git_clone/defaults/main.yml
create mode 100644 roles/git_clone/handlers/main.yml
create mode 100644 roles/git_clone/meta/main.yml
create mode 100644 roles/git_clone/tasks/main.yml
create mode 100644 roles/git_clone/tests/inventory
create mode 100644 roles/git_clone/tests/test.yml
create mode 100644 roles/git_clone/vars/main.yml
create mode 100644 roles/install-ElasticStack-docker/.travis.yml
create mode 100644 roles/install-ElasticStack-docker/README.md
create mode 100644 roles/install-ElasticStack-docker/defaults/main.yml
create mode 100644 roles/install-ElasticStack-docker/handlers/main.yml
create mode 100644 roles/install-ElasticStack-docker/meta/main.yml
create mode 100644 roles/install-ElasticStack-docker/tasks/main.yml
create mode 100644 roles/install-ElasticStack-docker/tests/inventory
create mode 100644 roles/install-ElasticStack-docker/tests/test.yml
create mode 100644 roles/install-ElasticStack-docker/vars/main.yml
create mode 100644 roles/install-docker-debian/.travis.yml
create mode 100644 roles/install-docker-debian/README.md
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam
create mode 100644 roles/install-docker-debian/.travis.yml
create mode 100644 roles/install-docker-debian/README.md
create mode 100644 roles/install-docker-debian/defaults/main.yml
create mode 100644 roles/install-docker-debian/handlers/main.yml
create mode 100644 roles/install-docker-debian/meta/main.yml
create mode 100644 roles/install-docker-debian/tasks/main.yml
create mode 100644 roles/install-docker-debian/tests/inventory
create mode 100644 roles/install-docker-debian/tests/test.yml
create mode 100644 roles/install-docker-debian/vars/main.yml
create mode 100644 roles/install-git_debian/.travis.yml
create mode 100644 roles/install-git_debian/README.md
create mode 100644 roles/install-git_debian/defaults/main.yml
create mode 100644 roles/install-git_debian/handlers/main.yml
create mode 100644 roles/install-git_debian/meta/main.yml
create mode 100644 roles/install-git_debian/tasks/main.yml
create mode 100644 roles/install-git_debian/tests/inventory
create mode 100644 roles/install-git_debian/tests/test.yml
create mode 100644 roles/install-git_debian/vars/main.yml
create mode 100644 roles/install-httpd-docker/.travis.yml
create mode 100644 roles/install-httpd-docker/README.md
create mode 100644 roles/install-httpd-docker/defaults/main.yml
create mode 100644 roles/install-httpd-docker/handlers/main.yml
create mode 100644 roles/install-httpd-docker/meta/main.yml
create mode 100644 roles/install-httpd-docker/tasks/main.yml
create mode 100644 roles/install-httpd-docker/tests/inventory
create mode 100644 roles/install-httpd-docker/tests/test.yml
create mode 100644 roles/install-httpd-docker/vars/main.yml
create mode 100644 roles/motd/.travis.yml
create mode 100644 roles/motd/README.md
```

```
Firefox Web Browser
combo@remoteserver: ~/Desktop/cpe232-FinalExam
create mode 100644 roles/motd/.travis.yml
create mode 100644 roles/motd/README.md
create mode 100644 roles/motd/defaults/main.yml
create mode 100644 roles/motd/handlers/main.yml
create mode 100644 roles/motd/meta/main.yml
create mode 100644 roles/motd/tasks/main.yml
create mode 100644 roles/motd/tests/inventory
create mode 100644 roles/motd/tests/test.yml
create mode 100644 roles/motd/vars/main.yml
create mode 100644 roles/nagios_debian/.travis.yml
create mode 100644 roles/nagios_debian/README.md
create mode 100644 roles/nagios_debian/defaults/main.yml
create mode 100644 roles/nagios_debian/handlers/main.yml
create mode 100644 roles/nagios_debian/meta/main.yml
create mode 100644 roles/nagios_debian/tasks/main.yml
create mode 100644 roles/nagios_debian/tests/inventory
create mode 100644 roles/nagios_debian/tests/test.yml
create mode 100644 roles/nagios_debian/vars/main.yml
combo@remoteserver:~/Desktop/cpe232-FinalExam$ git push
Enumerating objects: 107, done.
Counting objects: 100% (107/107), done.
Delta compression using up to 2 threads
Compressing objects: 100% (50/50), done.
Writing objects: 100% (106/106), 13.14 KiB | 517.00 KiB/s, done.
Total 106 (delta 4), reused 0 (delta 0)
remote: Resolving deltas: 100% (4/4), done.
To github.com:jkvcombo-tip/cpe232-FinalExam.git
 2d42c57..1c0469d main -> main
combo@remoteserver:~/Desktop/cpe232-FinalExam$
```

ROLES DIRECTORY



A terminal window titled 'combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles'. The prompt is 'combo@remoteserver:~/Desktop/cpe232-FinalExam/roles\$'. The user has entered 'ls', and the output is a two-line listing of files and directories: 'apache2_debian', 'install-docker-debian', 'install-git_debian', 'motd', 'git_clone', 'install-ElasticStack-docker', 'install-httpd-docker', and 'nagios_debian'. The user then enters 'cd cpe232-FinalExam/' and the prompt changes to 'combo@remoteserver:~/Desktop/cpe232-FinalExam\$'.

```

combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles
combo@remoteserver:~/Desktop/cpe232-FinalExam/roles$ ls
apache2_debian  install-docker-debian      install-git_debian    motd
git_clone      install-ElasticStack-docker  install-httpd-docker  nagios_debian
combo@remoteserver:~/Desktop/cpe232-FinalExam/roles$ cd cpe232-FinalExam/
combo@remoteserver:~/Desktop/cpe232-FinalExam$

```

```

---
# tasks file for apache2_debian

- name: Install apache2
  apt:
    name: apache2
    state: present
    update_cache: yes

#- name: Check if there is a default index.html file
#  stat:
#    path: /var/www/html/index.html
#  register: index_file
#

#- name: Create a backup file for default index.html file
#  command: "mv /var/www/html/index.html /var/www/html/index.html.bak"
#  when: index_file.stat.exists

- name: Copy from config_files/index.html to /var/www/html/index.html
  copy:
    src: config_files/index.html
    dest: /var/www/html/index.html
    backup: yes

"apache2_debian/tasks/main.yml" 54L, 1455C

```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles

backup: yes

- name: Create folder named combo_debian.com
  file:
    path: /var/www/html/combo_debian.com
    state: directory
    owner: combo
    group: combo
    mode: '0755'
  register: create_host

- name: Copy from config_files/index_debian.html to /var/www/html/combo_debian.com/index.html
  copy:
    src: config_files/index_debian.html
    dest: /var/www/html/combo_debian.com/index.html

- name: Copy from config_files/combo_debian.com.conf to /etc/apache2/sites-available/combo_debian.com.conf
  copy:
    src: config_files/combo_debian.com.conf
    dest: /etc/apache2/sites-available/combo_debian.com.conf

- name: Enable the Apache2 combo_debian.com and disable 000-default.conf
  shell: "a2ensite combo_debian.com && a2dissite 000-default.conf"

42,1 77%
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles

group: combo
mode: '0755'
register: create_host

- name: Copy from config_files/index_debian.html to /var/www/html/combo_debian.com/index.html
  copy:
    src: config_files/index_debian.html
    dest: /var/www/html/combo_debian.com/index.html

- name: Copy from config_files/combo_debian.com.conf to /etc/apache2/sites-available/combo_debian.com.conf
  copy:
    src: config_files/combo_debian.com.conf
    dest: /etc/apache2/sites-available/combo_debian.com.conf

- name: Enable the Apache2 combo_debian.com and disable 000-default.conf
  shell: "a2ensite combo_debian.com && a2dissite 000-default.conf"
  when: create_host.changed

- name: Start Apache2 service
  systemd:
    name: apache2
    state: started
    enabled: yes

54,1 Bot
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles
--
# tasks file for git_clone

- name: Clone prelim-exam repository
  repo: https://github.com/jkvcombo-tip/combo_PrelimExamm.git'
  dest: /srv/checkout
  version: prelim-exam
  clone: yes

"git_clone/tasks/main.yml" 11L, 208C 1,1 All
```

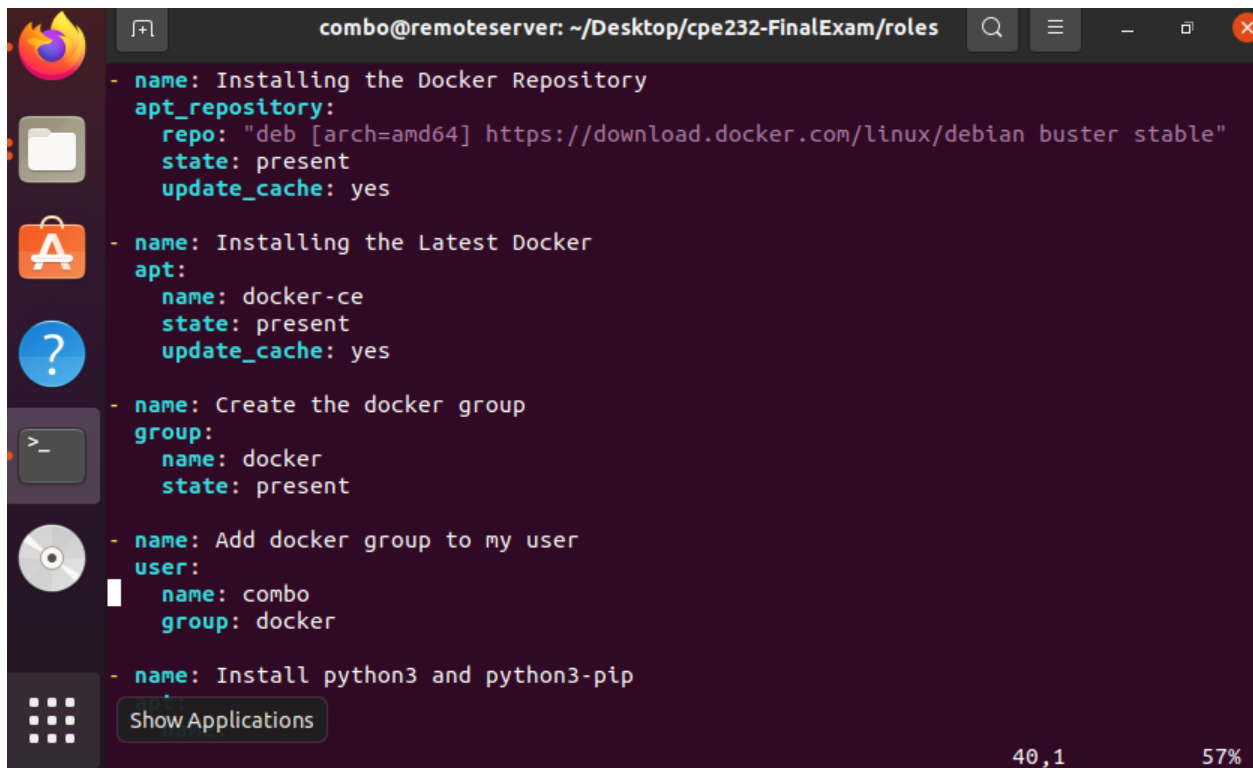
```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles
---
# tasks file for install-docker-debian

- name: Install apt-transport-https ca-certificates curl software-properties-common
  apt:
    name:
      - apt-transport-https
      - ca-certificates
      - curl
      - software-properties-common
    state: present
    update_cache: yes

- name: Adding Dockers GPG Key
  apt_key:
    url: https://download.docker.com/linux/debian/gpg
    state: present

- name: Installing the Docker Repository
  apt_repository:
    repo: "deb [arch=amd64] https://download.docker.com/linux/debian buster stable"
    state: present
    update_cache: yes

"install-docker-debian/tasks/main.yml" 60L, 1189C 1,1 Top
```



```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles
- name: Installing the Docker Repository
  apt_repository:
    repo: "deb [arch=amd64] https://download.docker.com/linux/debian buster stable"
    state: present
    update_cache: yes

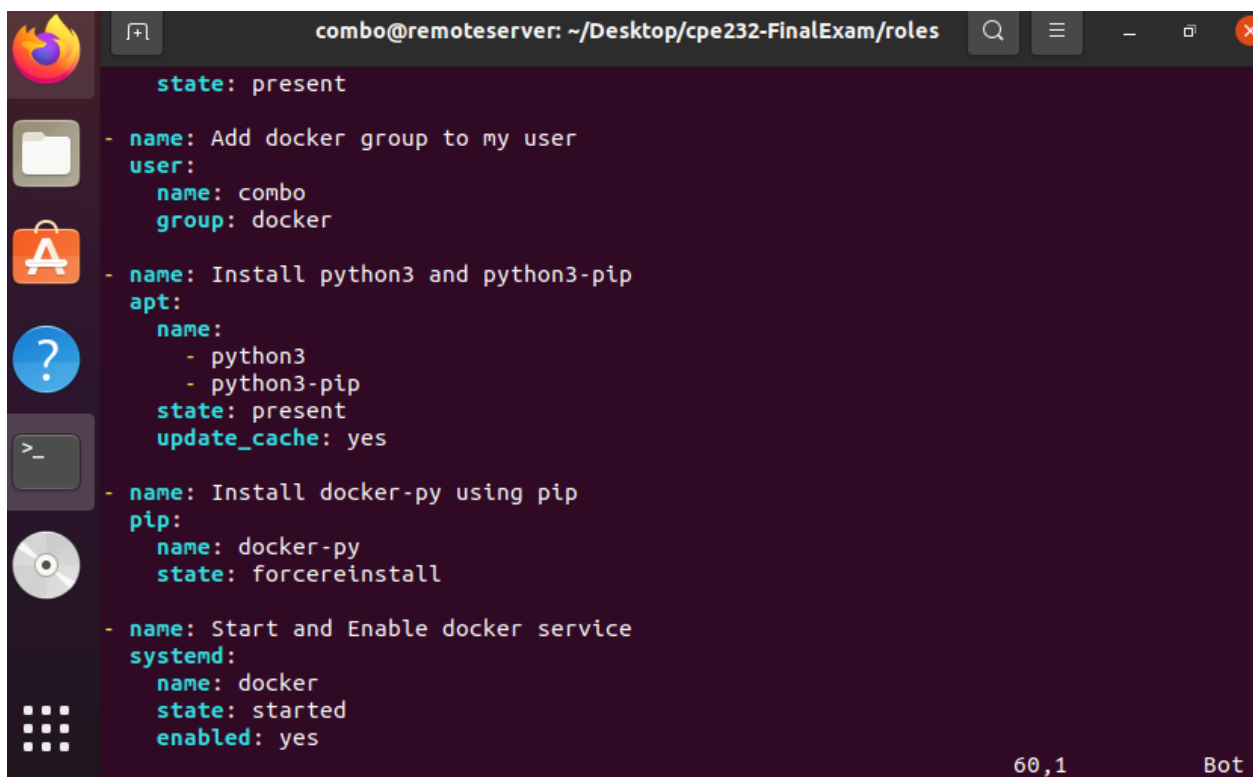
- name: Installing the Latest Docker
  apt:
    name: docker-ce
    state: present
    update_cache: yes

- name: Create the docker group
  group:
    name: docker
    state: present

- name: Add docker group to my user
  user:
    name: combo
    group: docker

- name: Install python3 and python3-pip
  Show Applications
```

40,1 57%



```
state: present

- name: Add docker group to my user
  user:
    name: combo
    group: docker

- name: Install python3 and python3-pip
  apt:
    name:
      - python3
      - python3-pip
    state: present
    update_cache: yes

- name: Install docker-py using pip
  pip:
    name: docker-py
    state: forcereinstall

- name: Start and Enable docker service
  systemd:
    name: docker
    state: started
    enabled: yes
```

60,1 Bot

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles
--
# tasks file for install-ElasticStack-docker

#- name: Create network
#   docker_network:
#     name: elk_network

- name: Pull image of Elasticsearch
  docker_image:
    name: "{{ item }}"
    source: pull
  loop:
    - "elasticsearch:7.10.1"
    - "kibana:7.10.1"
    - "logstash:7.10.1"
  register: pull_image

- name: Restart Docker
  systemd:
    name: docker
    state: restarted
    when: pull_image.changed

"install-ElasticStack-docker/tasks/main.yml" 69L, 1374C      1,1      Top
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles

systemd:
  name: docker
  state: restarted
  when: pull_image.changed

- name: Run elasticsearch container
  docker_container:
    name: elasticsearch
    image: "elasticsearch:7.10.1"
    networks:
      - name: elk_network
    purge_networks: yes
    published_ports:
      - 9200:9200
      - 9300:9300
    env:
      discovery.type: "single-node"

- name: Create /logstash directory
  file:
    path: /logstash
    state: directory

- name: copy logstash.conf
  copy:
```

40,1 45%


```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles

state: directory
- name: copy logstash.conf
  copy:
    src: config_files/logstash.conf
    dest: /logstash/logstash.conf
- name: Run logstash container
  docker_container:
    name: logstash
    image: "logstash:7.10.1"
    # networks:
    #   - name: elk_network
    #   purge_networks: yes
    published_ports: 5055:5055
    links: elasticsearch:elasticsearch
    volumes:
      - /logstash/logstash.conf
- name: Run kibana container
  docker_container:
    name: kibana
    image: "kibana:7.10.1"
    # networks:
    #   - name: elk_network
    #   purge_networks: yes
    published_ports: 5606:5606
    links: elasticsearch:elasticsearch
    volumes:
      - /logstash/logstash.conf
# Show Applications lk_network

61.1 93%
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles

copy:
  src: config_files/logstash.conf
  dest: /logstash/logstash.conf
- name: Run logstash container
  docker_container:
    name: logstash
    image: "logstash:7.10.1"
    # networks:
    #   - name: elk_network
    #   purge_networks: yes
    published_ports: 5055:5055
    links: elasticsearch:elasticsearch
    volumes:
      - /logstash/logstash.conf
- name: Run kibana container
  docker_container:
    name: kibana
    image: "kibana:7.10.1"
    # networks:
    #   - name: elk_network
    #   purge_networks: yes
    published_ports:
      - 5606:5606

69.1 Bot
```



```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles
--
# tasks file for nagios_debian

- name: Install Prerequisite of nagios
  apt:
    name:
      - vim
      - wget
      - curl
      - build-essential
      - unzip
      - openssl
      - libssl-dev
      - apache2
      - php
      - libapache2-mod-php
      - php-gd
      - libgd-dev
    state: present
    update_cache: yes

- name: Install python3 and python3-pip
  apt:
    name:
      - python3
      - python3-pip
    state: present
    update_cache: yes

"nagios_debian/tasks/main.yml" 173L, 4057C 1,1 Top
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles

- name: Install python3 and python3-pip
  apt:
    name:
      - python3
      - python3-pip
    state: present
    update_cache: yes

- name: Install passlib to create an admin user
  pip:
    name: passlib

- name: Download nagios-4.4.6.tar.gz
  get_url:
    url: https://github.com/NagiosEnterprises/nagioscore/releases/download/nagios-4.4.6/nagios-4.4.6.tar.gz
    dest: /tmp/nagios-4.4.6.tar.gz

- name: Unarchive nagios-4.4.6.tar.gz
  unarchive:
    src: /tmp/nagios-4.4.6.tar.gz
    dest: /tmp/
    remote_src: yes
    register: unarchive_nagios

28,1 14%
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles

remote_src: yes
register: unarchive_nagios

- name: Compile the extracted files
  shell:
    chdir: /tmp/nagios-4.4.6
    cmd: "./configure --with-httpd-conf=/etc/apache2/sites-enabled"
  when: unarchive_nagios.changed

- name: Install-group-users on /tmp/nagios-4.4.6
  make:
    chdir: /tmp/nagios-4.4.6
    target: install-groups-users
  when: unarchive_nagios.changed

- name: Add the user to the Apache web server group
  user:
    name: debian-nagios-ervs
    comment: New user for nagios
    group: www-data
    append: yes

- name: Compile the main Nagios program and CGIs
  make:
    chdir: /tmp/nagios-4.4.6
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles

- name: Compile the main Nagios program and CGIs
  make:
    chdir: /tmp/nagios-4.4.6
    target: all
  when: unarchive_nagios.changed

- name: Install Nagios Core main program, CGIs, and HTML files
  make:
    chdir: /tmp/nagios-4.4.6
    target: install
  when: unarchive_nagios.changed

- name: Install Nagios Core startup scripts
  make:
    chdir: /tmp/nagios-4.4.6
    target: install-init
  when: unarchive_nagios.changed

- name: Initialize the init scripts
  make:
    chdir: /tmp/nagios-4.4.6
    target: install-daemoninit
  when: unarchive_nagios.changed
```

85,1 43%


```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles

target: install-daemoninit
when: unarchive_nagios.changed

- name: Install and configure permissions on the directory for holding the Nagios Core external command file
  make:
    chdir: /tmp/nagios-4.4.6
    target: install-commandmode
    when: unarchive_nagios.changed

- name: Install Nagios Core sample configuration files in /usr/local/nagios/etc
  make:
    chdir: /tmp/nagios-4.4.6
    target: install-config
    when: unarchive_nagios.changed

- name: Install Apache configuration file for the Nagios web interface
  make:
    chdir: /tmp/nagios-4.4.6
    target: install-webconf
    when: unarchive_nagios.changed

- name: Enable apache2 rewrite
  apache2_module:
    state: present
```

106,1 58%

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles

- name: Enable apache2 rewrite
  apache2_module:
    state: present
    name: "[{ item }]"
  loop:
    - rewrite
    - cgi

- name: Configure Nagios Core Web Interface basic authentication
  httpasswd:
    path: /usr/local/nagios/etc/httpasswd.users
    name: combo-admin-debian
    password: comboadmin
    # crypt_scheme: md5_crypt
    register: config_auth

- name: Give appropriate permissions to the (/usr/local/nagios/etc/httpasswd.users) file
  file:
    path: /usr/local/nagios/etc/httpasswd.users
    owner: www-data
    group: www-data
    mode: '0640'

- name: Download nagios plugins
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles

mode: '0640'

- name: Download nagios plugins
  get_url:
    url: https://github.com/nagios-plugins/nagios-plugins/releases/download/release-2.3.3/nagios-plugins-2.3.3.tar.gz
    dest: /tmp/
    register: download_plugins

- name: Extract the nagios plugins
  unarchive:
    src: /tmp/nagios-plugins-2.3.3.tar.gz
    dest: /tmp/
    remote_src: yes
    when: download_plugins.changed

- name: Compile nagios plugins
  shell:
    chdir: /tmp/nagios-plugins-2.3.3
    cmd: "./configure"
    when: download_plugins.changed

- name: build the default nagios plugins
  make:
    chdir: /tmp/nagios-plugins-2.3.3/

148,1 86%
```

```
combo@remoteserver: ~/Desktop/cpe232-FinalExam/roles

when: download_plugins.changed

- name: build the default nagios plugins
  make:
    chdir: /tmp/nagios-plugins-2.3.3/
    when: download_plugins.changed

- name: install in nagios plugins
  make:
    chdir: /tmp/nagios-plugins-2.3.3/
    target: install
    when: download_plugins.changed

- name: Enable and Start nagios
  systemd:
    name: nagios
    state: started
    enabled: yes

- name: Restart and Enabled apache2
  systemd:
    name: apache2
    state: restarted
    enabled: yes
    when: config_auth.changed

169,1 Bot
```