Ansible Playbook to configure docker, enable it's services and start the webserver

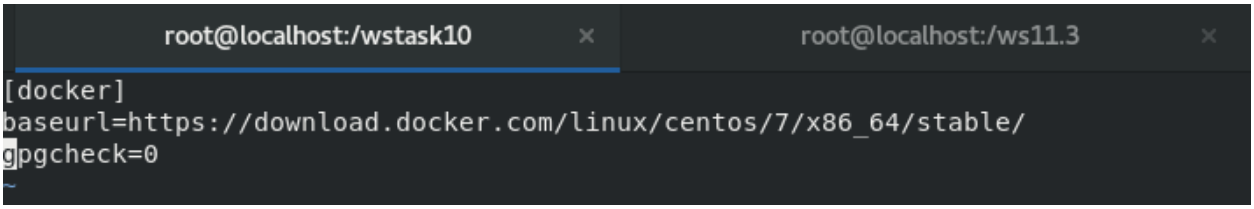
1. **First of all we will create a workspace**

   mkdir /wstask10

2. **Create a repo file for Docker:**

   vim docker.repo

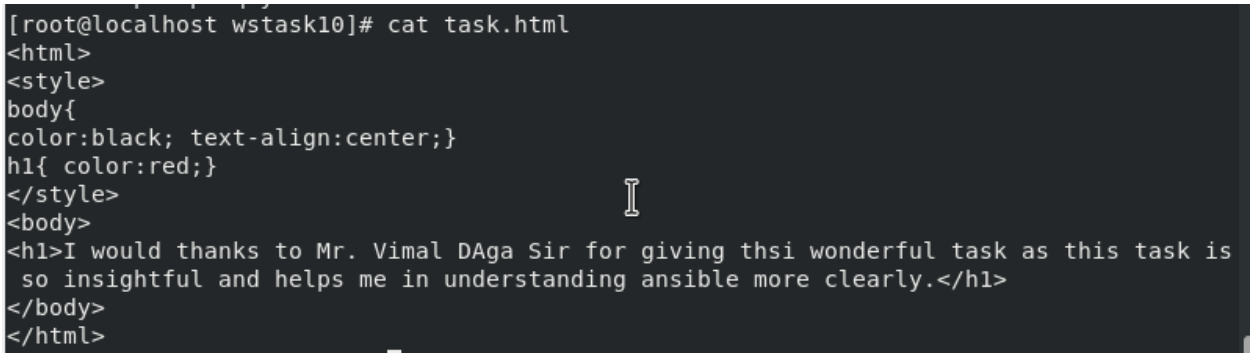
   It basically provides the path from where docker shall be pulled.



3. **Create a html file to copy to the Target Node and Host the webpage**

   vim task.html

   Content of html file is shown below:



4. **Now the most important thing left, which is playbook. As Ansible uses Playbook to perform the tasks sent from the Controller node to the Target Node.**
   So will write yml file used by ansible

   vim preq.yml

root@localhost:/wstask10 × root@localhost:/ws11.3

```
- hosts: all
  tasks:
          - copy:
                  dest: "/etc/yum.repos.d/docker.repo"
                  src: "docker.repo"

          - package:
                  name: "docker-ce-18.09.1-3.el7.x86_64"
                  state: present

          - service:
                  name: "docker"
                  state: started
                  enabled: yes

          - pip:
                  name: docker

          - name: " pulling docker image"
            docker_image:
                    name: "httpd"
                    source: pull
```

In this first we Copied the repo file of docker.

Then Confirm for the docker image to be pulled into that repo location.

After that starting the docker services.

Then finally pull docker image.

After this,

```
- name: "creating Docker container"
  community.general.docker_container:
          name: "honey"
          image: "httpd"
          state: started
          exposed_ports:
                  - "80"
          ports:
                  - "4001:80"

- name: "Allowing firewall for new port no."
  firewalld:
          port: "4001/tcp"
          state: enabled
          permanent: yes
          immediate: yes

- name: "Allowing firewall for new port no."
  firewalld:
          port: "80/tcp"
          state: enabled
          permanent: yes
          immediate: yes
```

After this we created Docker container with some syntax of Ansible.

Then, Firewall configuration for both port and exposed ports

```
- copy:
        dest: "/var/www/html"
        src: "task.html"
```

Finally I copied the html file in the Document root and I also shown the content of webpage above.

Now, here is the list of all the files in my workspace of this task.

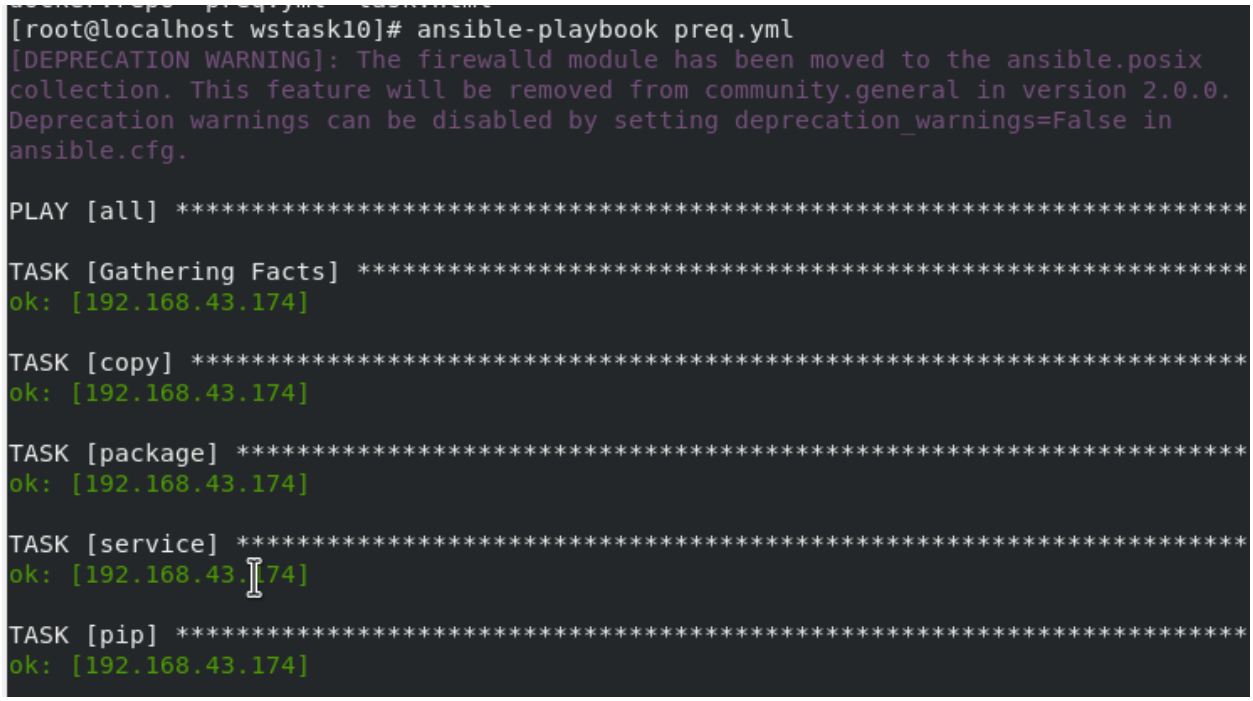
```
[root@localhost wstask10]# ls
docker.repo  preq.yml  task.html
[root@localhost wstask10]#
```

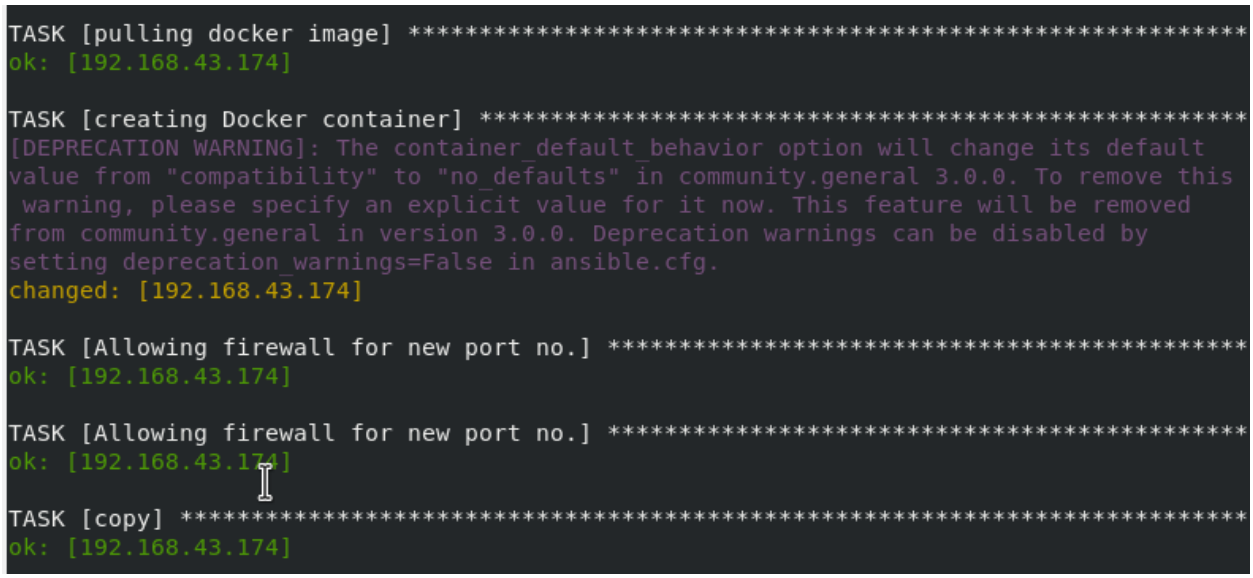
Finally, We have to Run the Playbook and this can be done by

Ansible-playbook <filename>.yml

Anyone can also use verbose(-v) for more details in between filename and playbook.

So here is the result of running playbook.





Finally Our work for control Node is over.

Now we can go to Target Nodes and check about the Port numbers running their. Webpage copied in document root or not and many more which is needed to verify you.

Just use

tcpdump – tnlp

to catch all the running ports.

I am running the Webpage hosted by target node. So I will use

IP/filename in the browser.

Here, 192.168.43.174/task.html