

ANSIBLE – LAB1

First create docker image and build it.

```
Dockerfile > ...
1  FROM ubuntu:latest
2
3  RUN apt-get update && apt-get install ssh sudo -y
4
5  RUN adduser iti
6
7  RUN echo 'iti:1234' | chpasswd
8
9  RUN usermod -aG sudo iti
10
11 ENTRYPOINT service ssh start && bash
12
13
```

```
• [ahamdi@localhost ~/ansible/lab]$ docker build -t ansible-test .
[+] Building 109.2s (9/9) FINISHED
```

```
• [ahamdi@localhost ~/ansible/lab]$ docker container run -itd ansible-test
02f2b568bela2496f702a838721b3224a500830cf41e419cb4c932a0daeec9da
• [ahamdi@localhost ~/ansible/lab]$ docker container ls
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS          NAMES
02f2b568bela   ansible-test   "/bin/sh -c 'service..." 7 seconds ago  Up 6 seconds          dreamy_jennings
○ [ahamdi@localhost ~/ansible/lab]$
```

```
• [ahamdi@localhost ~/ansible/lab]$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/ahamdi/.ssh/id_rsa): /home/ahamdi/.ssh/key
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/ahamdi/.ssh/key
Your public key has been saved in /home/ahamdi/.ssh/key.pub
```

```

[ahamdi@localhost ~/ansible/lab]$ ssh-copy-id -i ~/.ssh/key iti@172.17.0.2
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/ahamdi/.ssh/key.pub"
The authenticity of host '172.17.0.2 (172.17.0.2)' can't be established.
ED25519 key fingerprint is SHA256:lxchC5xSkiwSKAbtLv8rMuT5h5AkMEvYMgmsiVy9YQ.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys
iti@172.17.0.2's password:

Number of key(s) added: 1

Now try logging into the machine, with:  "ssh 'iti@172.17.0.2'"
and check to make sure that only the key(s) you wanted were added.

[ahamdi@localhost ~/ansible/lab]$

```

```

[ahamdi@localhost ~/ansible/lab]$ ansible all -i 172.17.0.2, --private-key ~/.ssh/key -u iti -m ping
bash: ansible: command not found...
Install package 'ansible-core' to provide command 'ansible'? [N/y] y

```

```

172.17.0.2 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}

```

```

[ahamdi@localhost ~/ansible/lab]$

```

```

❄ inventory
1  [web_servers]
2  172.17.0.2
3
4  [hosts]
5  172.17.0.2
6

```

```

[ahamdi@localhost ~/ansible/lab]$ ansible all -i inventory --private-key ~/.ssh/key -u iti -m ping
172.17.0.2 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}

```

```

❯ ansible.cfg
1  [defaults]
2  inventory = ./inventory
3  private_key_file = ~/.ssh/key
4  remote_user = iti
5
6  [privilege_escalation]
7  become = True
8

```

```

• [ahamdi@localhost ~/ansible/lab]$ ansible all -m command -a "whoami" --become --ask-become-pass
BECOME password:
172.17.0.2 | CHANGED | rc=0 >>
root
❯ [ahamdi@localhost ~/ansible/lab]$

```

```

! playbook.yml
1  - name: Update nginx, copy index.html and restart nginx
2    hosts: all
3    become: true
4    tasks:
5      - name: Update cache
6        ansible.builtin.apt:
7          update_cache: yes
8
9      - name: Install latest nginx
10     ansible.builtin.apt:
11       name: nginx
12       state: latest
13
14     - name: Copy index.html from controller to host1
15       ansible.builtin.copy:
16         src: index.html
17         dest: /var/www/html/index.html
18         owner: www-data
19         group: www-data
20         mode: '0644'
21
22     - name: Restart nginx service
23       ansible.builtin.service:
24         name: nginx
25         state: restarted
26

```

Update cache
Install latest nginx
Copy index.html from controller to host 1
Restart nginx service

```
[ahamdi@localhost ~/ansible/lab]$ ansible-playbook playbook.yml --ask-become-pass
BECOME password:

PLAY [Update nginx, copy index.html, and restart nginx] *****

TASK [Gathering Facts] *****
ok: [172.17.0.2]

TASK [Update apt cache] *****
ok: [172.17.0.2]

TASK [Install the latest version of nginx] *****
ok: [172.17.0.2]

TASK [Copy index.html from controller to host] *****
ok: [172.17.0.2]

TASK [restart nginx] *****
changed: [172.17.0.2]

PLAY RECAP *****
172.17.0.2      : ok=5    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

[ahamdi@localhost ~/ansible/lab]$
```

```
[ahamdi@localhost ~/ansible/lab]$ curl 172.17.0.2
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Home Page</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <div class="container">
    <h1>Ahmed Hamdi</h1>
  </div>
</body>
</html>
[ahamdi@localhost ~/ansible/lab]$
```

GITHUB REPO LINK:

<https://github.com/AhmedHamdi2/my-ansible-playbook>