Sukhvir Singh
Shawn Darrel Suarez
Xueli Yang

HW 1 - Ansible

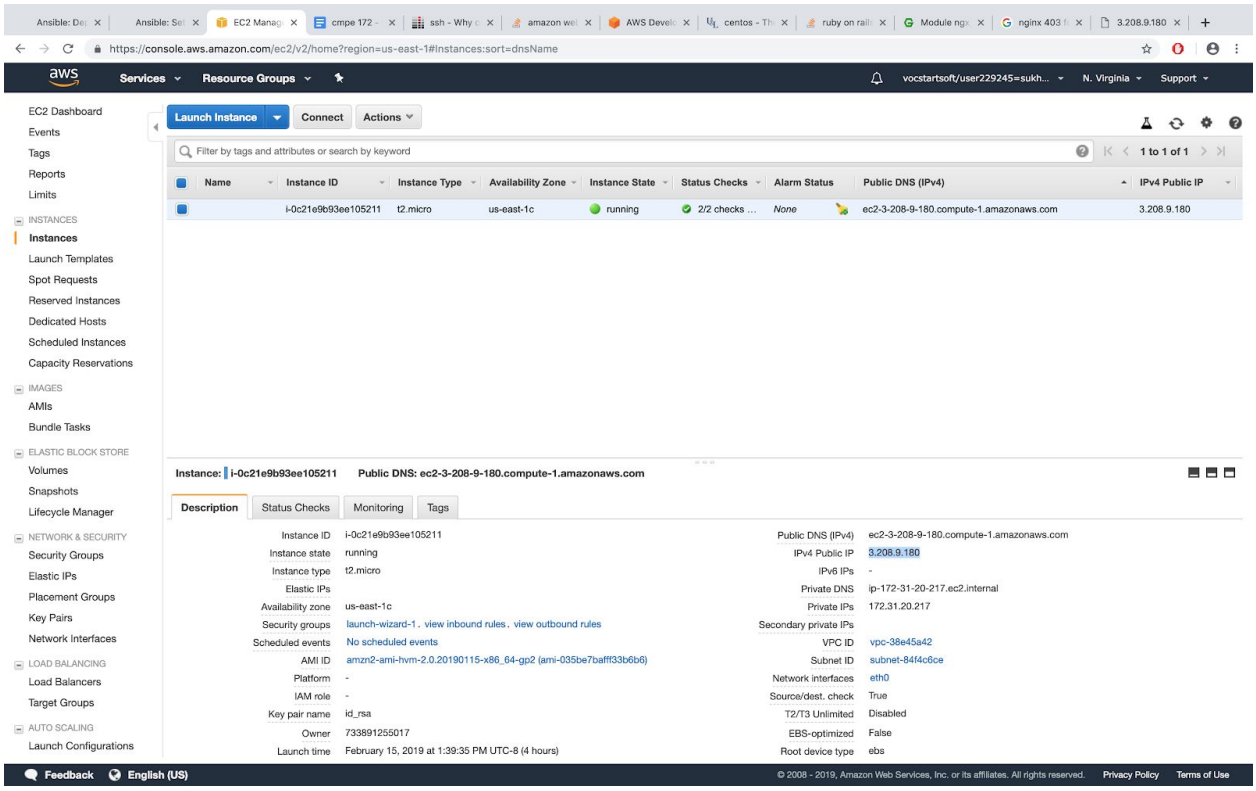
Github code repo: https://github.com/SukhvirS/cmpe172-hw1

Steps:

- Since we connect to the server using SSH, we need to first generate a public/private SSH key-pair using the command **ssh-keygen**. This creates two separate files: id_rsa (private key) and id_rsa.pub (public key)

- When starting a new EC2 instance, we pass AWS the public key file to that you can connect to it later using **ssh -i "id_rsa.pem" ec2-user@ec2-3-208-9-180.compute-1.amazonaws.com**

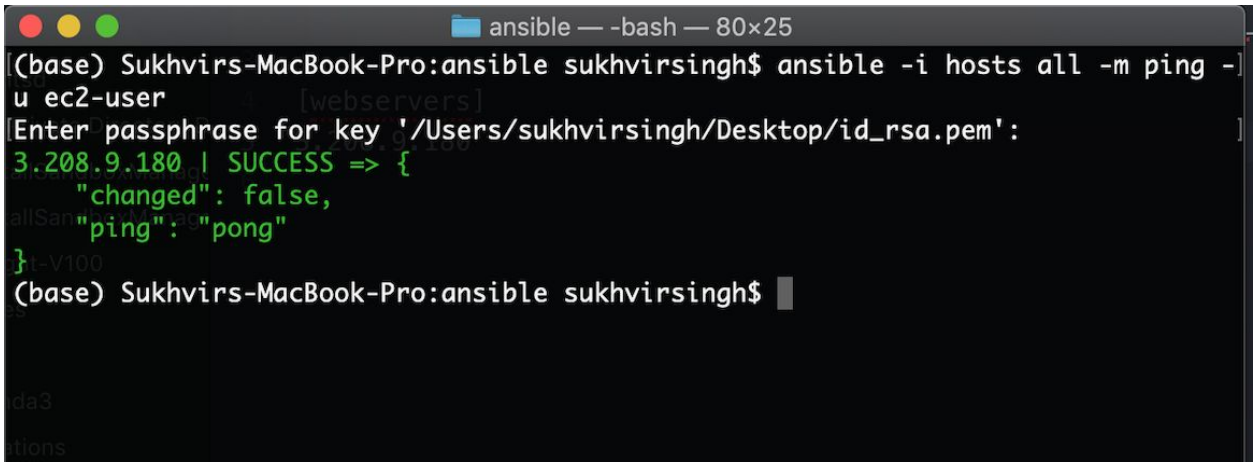
- Once connected to the server, we can go to the AWS Console online to get our public IP address (highlighted in blue in the picture)



- Now we can use our IP address in our hosts file
  hosts

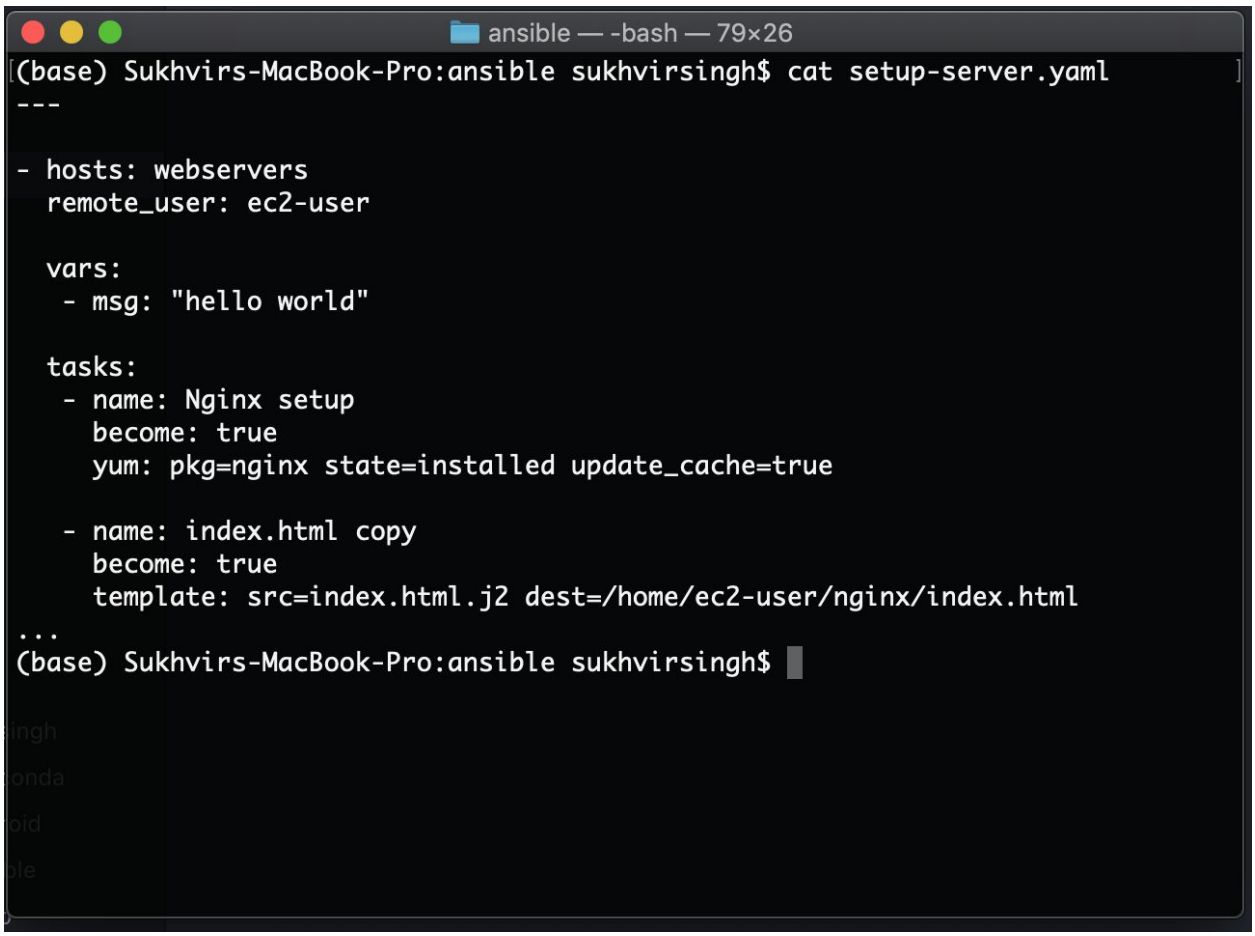
```
[webservers:vars]
ansible_ssh_private_key_file=/Users/sukhvirsingh/Desktop/id_rsa.pem

[webservers]
3.208.9.180
```

- To test that we're connected to the server we can run **ansible -i hosts all -m -u ec2-user**

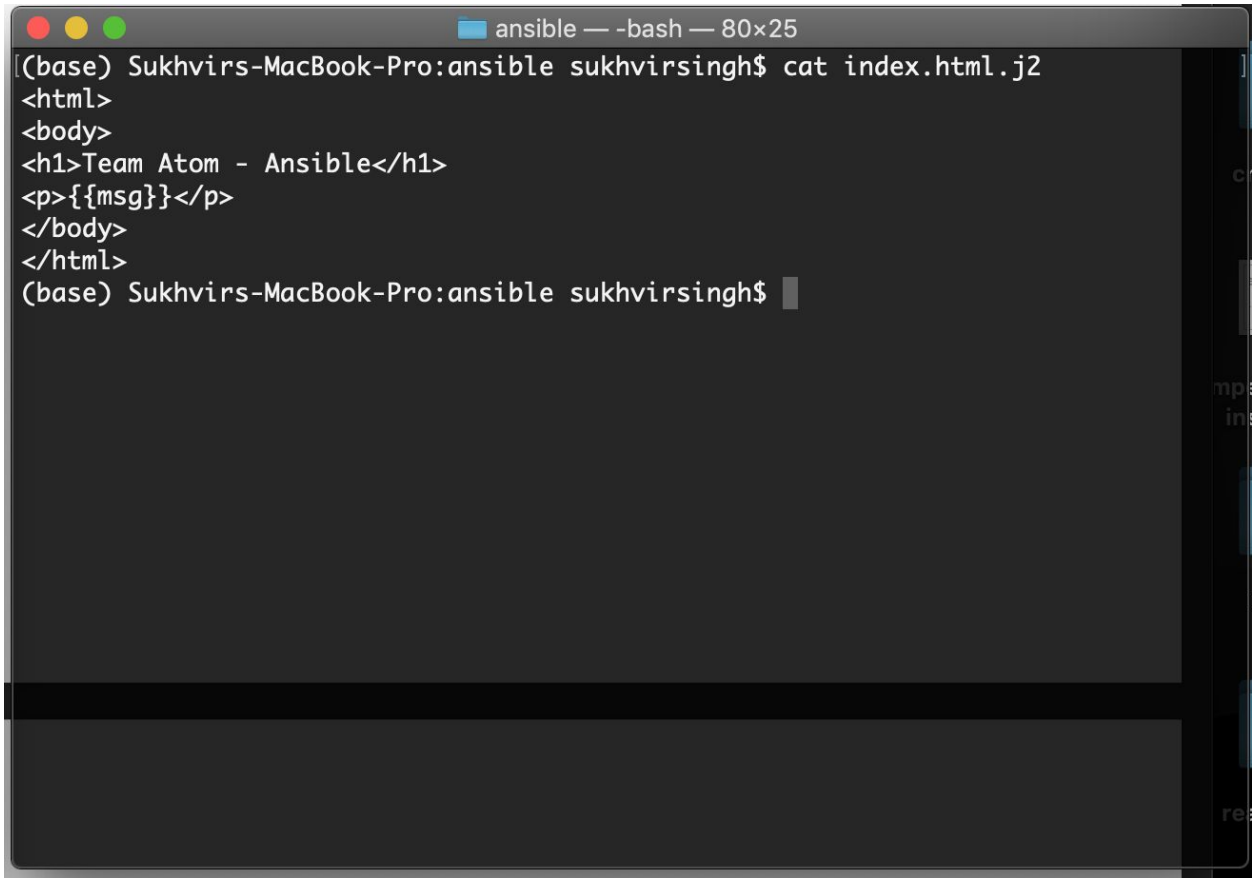


- Now that we've confirmed our connection, we can write our **setup-server.yaml** playbook that will start a Nginx server on the EC2 instance and copy our **index.html** file onto that server

setup-server.yaml:

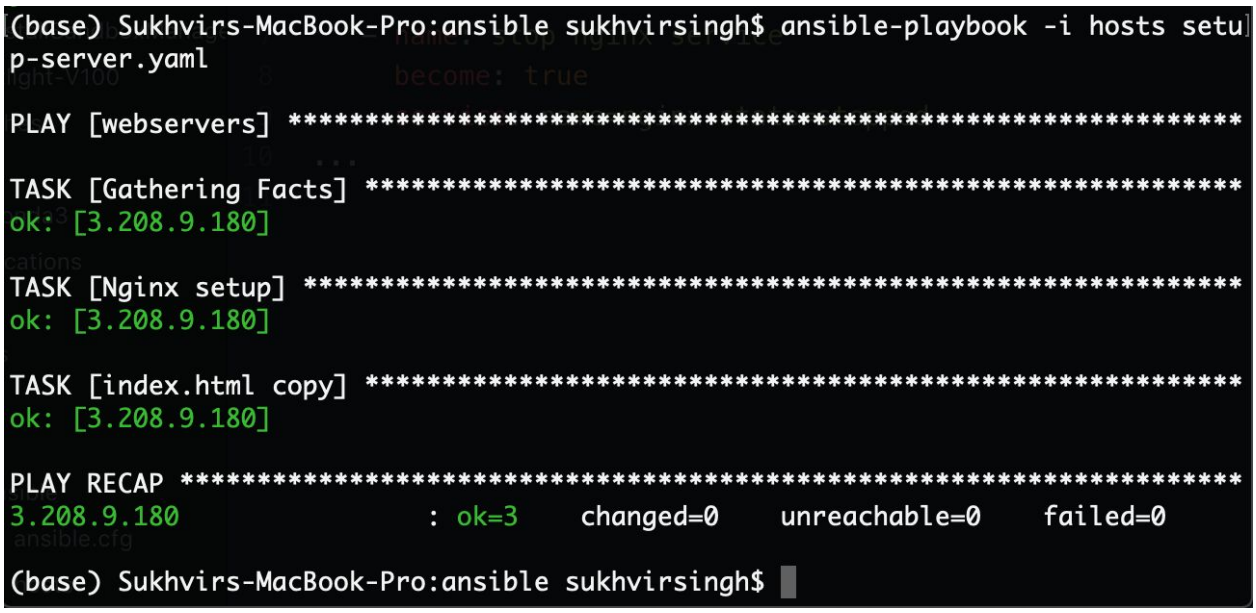


index.html:



*the .j2 at the end of the filename is just a naming convention for template html files, it doesn't change anything

- Now we can run our playbook that will start the server



- Now that our server has been deployed, we can go to the IP address (3.208.9.180) in a web browser and see index.html

- Now we can write our playbook that will undeploy our server **stop-server.yaml**:

```
ansible — -bash — 81×30
(base) Sukhvirs-MacBook-Pro:ansible sukhvirsingh$ cat stop-server.yaml
---

- hosts: webservers
  remote_user: ec2-user

  tasks:
   - name: stop nginx service
     become: true
     service: name=nginx state=stopped
...
(base) Sukhvirs-MacBook-Pro:ansible sukhvirsingh$
```

- Now we can use **stop-server.yaml** to undeploy our server

```
(base) Sukhvirs-MacBook-Pro:ansible sukhvirsingh$ ansible-playbook -i hosts stop
-server.yaml

PLAY [webservers] ***************************************************************

TASK [Gathering Facts] **********************************************************
Enter passphrase for key '/Users/sukhvirsingh/Desktop/id_rsa.pem':
ok: [3.208.9.180]

TASK [stop nginx service] *******************************************************
changed: [3.208.9.180]

PLAY RECAP **********************************************************************
3.208.9.180                : ok=2    changed=1    unreachable=0    failed=0

(base) Sukhvirs-MacBook-Pro:ansible sukhvirsingh$
```

- We can verify that the server has been stopped because the web page won't load