

Assignment1-Ansible

Deploying three (3) Virtual Machines

Deployed three VM's with OS as ubuntu using Amazon EC2 instances in Aws portal and naming them as VM1 and VM2 VM3 respectively and generating keypair in order to access the other vm's from the server

| Instances (6) Info | | | | | | | | | |
|---|------|---------------------|----------------|---------------|-------------------|--------------|-------------------|------|--|
| <input type="text" value="Find Instance by attribute or tag (case-sensitive)"/> | | | | | | | | | |
| | Name | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone | Publ | |
| <input type="checkbox"/> | VM1 | i-040c4d203a0fe1476 | Running | t2.micro | 2/2 checks passed | No alarms | us-west-1c | ec2- | |
| <input type="checkbox"/> | VM2 | i-0c08bc37ef9e84fd5 | Running | t2.micro | 2/2 checks passed | No alarms | us-west-1c | ec2- | |
| <input type="checkbox"/> | VM3 | i-08ff60a34b201d9de | Running | t2.micro | 2/2 checks passed | No alarms | us-west-1c | ec2- | |

Installing Ansible on the server

- (i) `cd .ssh`
- (ii) `sudo apt-get update && apt-get upgrade`
- (iii) `sudo apt install ansible`
- (iv) `ansible --version`

```
272 — ubuntu@ip-172-31-19-88: ~/.ssh — ssh -i keypair.pem ubuntu@ec2-13-56-164-...
[ubuntu@ip-172-31-19-88:~/.ssh$ ansible --version
ansible 2.10.8
  config file = None
  configured module search path = ['/home/ubuntu/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python3/dist-packages/ansible
  executable location = /usr/bin/ansible
  python version = 3.10.4 (main, Jun 29 2022, 12:14:53) [GCC 11.2.0]
```

Uploading the keypair.pem file into the server for further connections with the remaining VM's

```
scp -i desktop/sanjay/272/keypair.pem -r desktop/sanjay/272/keypair.pem ubuntu@ ec2-13-56-164-60.us-west-1.compute.amazonaws.com:/home/ubuntu/.ssh/keypair.pem
```

Generating a hosts file

It contains the details of the two VM's into which we need to install apache and send the message

Hosts file

```
[apache]
vm2 ansible_host=54.183.237.185 ansible_ssh_private_key_file=keypair.pem
vm3 ansible_host=54.193.128.181 ansible_ssh_private_key_file=keypair.pem

[all:vars]
ansible_python_interpreter=/usr/bin/python3
```

Generating an index file to display message

Index.html

```
<head>
  <h1>
    Hello World from SJSU
  </h1>
</head>
```

Creating a playbook for deploying the Apache server on the VM's

Install.yml

```
- hosts: apache
  become: true
  tasks:
    - name: install apache2
      apt: name=apache2 update_cache=yes state=latest
    - name: Copy your index file
      template:
        src: "index.html"
        dest: "/var/www/html/index.html"
```

Running the playbook

```
ansible-playbook -i hosts install.yml
```

```
272 — ubuntu@ip-172-31-20-20: ~/.ssh — ssh -i keypair.pem ubuntu@ec2-3-101-130-...
[ubuntu@ip-172-31-20-20:~/.ssh$ ansible-playbook -i hosts install.yml

PLAY [apache] *****

TASK [Gathering Facts] *****
ok: [vm2]
ok: [vm3]

TASK [install apache2] *****
ok: [vm2]
ok: [vm3]

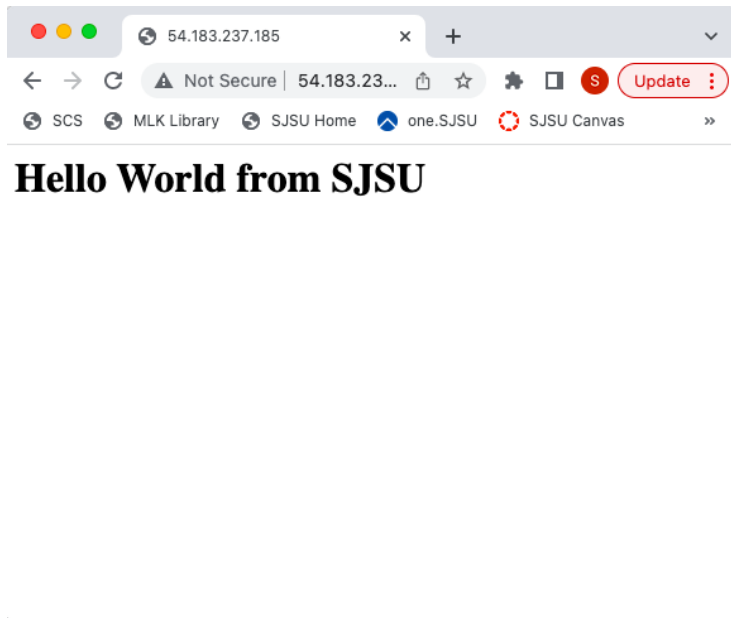
TASK [Copy your index file] *****
ok: [vm3]
ok: [vm2]

PLAY RECAP *****
vm2          : ok=3    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ign
ored=0
vm3          : ok=3    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ign
ored=0
ubuntu@ip-172-31-20-20:~/.ssh$
```

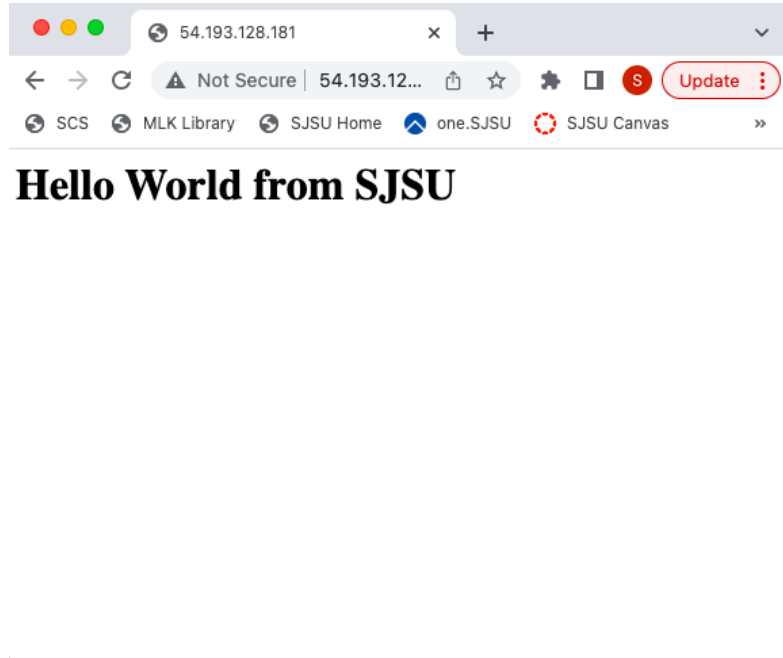
Output

We will be fetching the output from the local port from the amazon ec2 instance with the help of public IP provided in the console. We have enable the HTTP and HTTPS in the security groups so the vm will always be listening in the 80 port

Output from VM2



Output from VM3



Creating a playbook for Un deploying the Apache server on VM's

Uninstall.yml

- hosts: apache
- become: true
- tasks:
 - name: uninstall apache2
 - apt: name=apache2 autoremove=yes state=absent

```
272 — ubuntu@ip-172-31-19-88: ~/.ssh — ssh -i keypair.pem ubuntu@...
ubuntu@ip-172-31-19-88:~/.ssh$ ansible-playbook -i hosts uninstall.yml

PLAY [apache] *****
*****

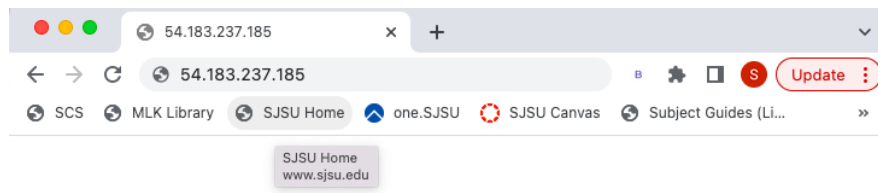
TASK [Gathering Facts] *****
*****
ok: [vm2]
ok: [vm3]

TASK [uninstall apache2] *****
*****
changed: [vm2]
changed: [vm3]

PLAY RECAP *****
vm2      : ok=2    changed=1    unreachable=0    failed=0    skipped=0
  rescued=0    ignored=0
vm3      : ok=2    changed=1    unreachable=0    failed=0    skipped=0
  rescued=0    ignored=0
ubuntu@ip-172-31-19-88:~/.ssh$
```

VM's after Un deploying Apache server

VM2



This site can't be reached

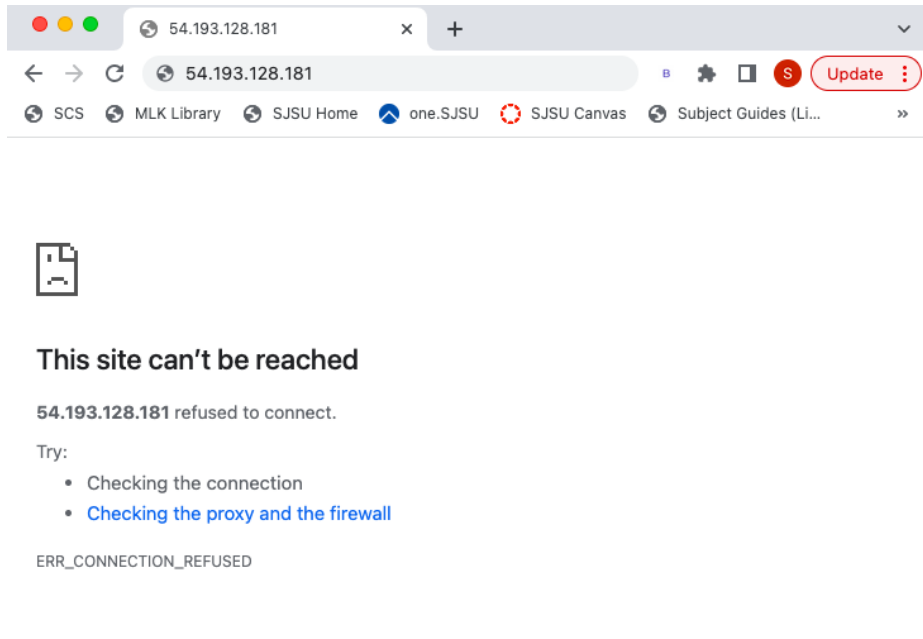
54.183.237.185 refused to connect.

Try:

- Checking the connection
- [Checking the proxy and the firewall](#)

ERR_CONNECTION_REFUSED

VM3



GitHub link for scripts:

<https://github.com/sanjaybhargavm/CMPE272-Assgnment1-Ansible.git>