

DevOps Assignment - 2

Ansible Playbook Exercise

Set up:

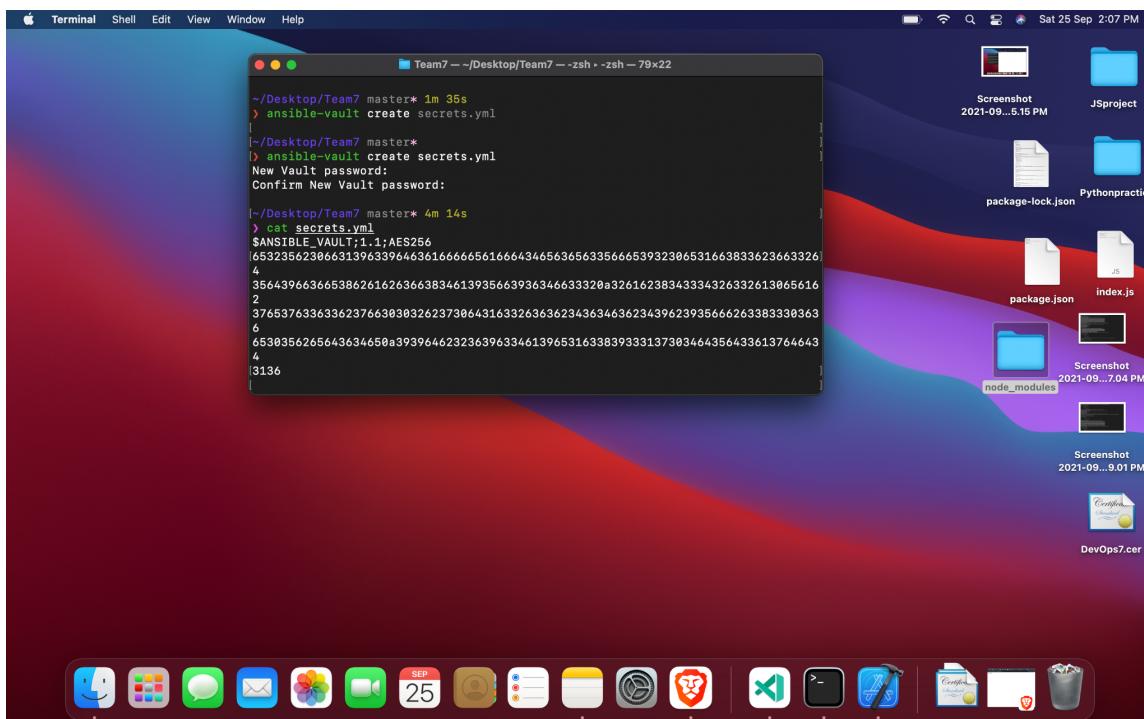
- Installing ansible.
- Creating a remote server using AWS EC2 Instance.
- Chosen platform: Red Hat Enterprise Linux with High Availability.
- Connected to the server using ssh client.

Step 1:

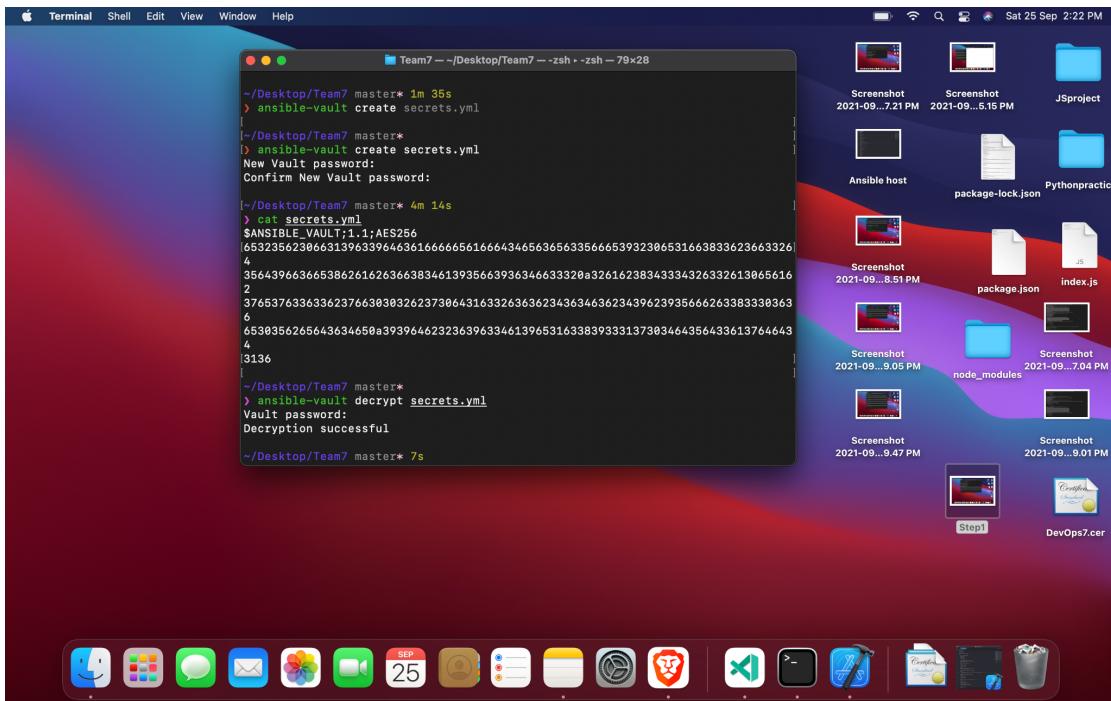
- Configuring Git login
- Using username and security token.
- [https://user: token@github.com/path](https://user:token@github.com/path)

Step 2:

- Creating Ansible vault to Store the Git username and token
- Creating a vault and setting a vault password and creating a file called secrets.yml that stores the github username and security token.
- The secrets.yml file will be encrypted



- We can decrypt the file using the commands



Step 3:

- The Ansible Git Example Playbook
- Here we have created a nodejs app and uploaded it in a private github repository.
- Then we create the Ansible playbook. (gitexample.yml)
- The github username and token we created in the secrets.yml file.

```

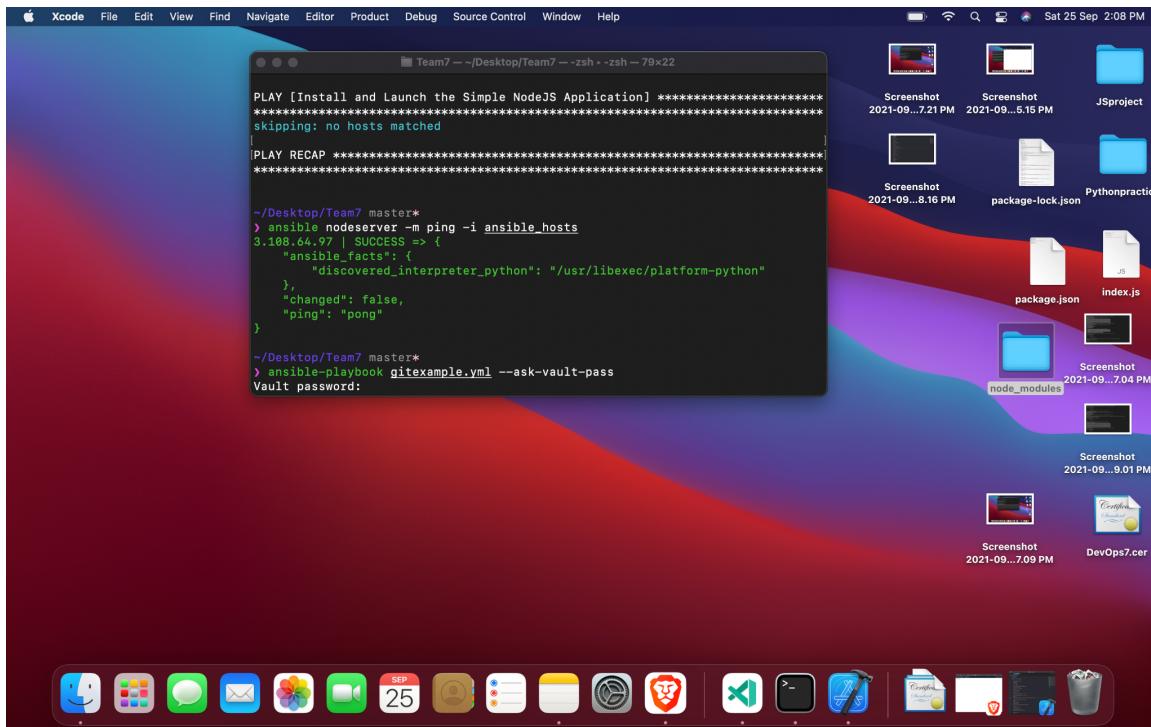
gitexample > No Selection
  1 vars_files:
  2   - secrets.yml
  3 vars:
  4   - destdir: /app/SampleNodeApp
  5 tasks:
  6   - name: Install Node and NPM
  7     apt:
  8       name: nodejs
  9       state: latest
 10
 11   - name: validate the nodejs installation
 12     debug:
 13       msg: "Installation of node is Successful"
 14       when: preplay is changed
 15
 16   - name: Version of Node and NPM
 17     shell:
 18       cmd: "node -v && npm -v"
 19       register: versioninfo
 20
 21   - name: Version Info
 22     debug:
 23       msg: "Version info {{versioninfo.stdout_lines}}"
 24       when: versioninfo is changed
 25
 26   - name: Download the NodeJS code from the GitHub
 27     become: yes
 28     git:
 29       repo: "https://{{gituser}}:{{gitpass}}@github.com/praveen2604/Team7.git"
 30       dest: "{{destdir}}/"
 31
 32   - name: Change the ownership of the directory
 33     become: yes
 34     file:
 35       path: "{{destdir}}"
 36       owner: root
 37       group: root
 38       register: chgroup
 39
 40   - name: Install Dependencies with NPM install command
 41     shell:
 42       cmd: "npm install"
 43       args:
 44         cwd: "{{destdir}}"
 45       register: npminstallout
 46
 47   - name: Debug npm install command
 48     debug:
 49       msg: "{{npminstallout.stdout_lines}}"
 50
 51
 52   - name: Start the App
 53     args:
 54       cmd: "node index.js > nodeapp.log 2>1 &"
 55       shell:
 56         type: "node index.js > nodeapp.log 2>1 &""
 57       args:
 58         cwd: "{{destdir}}"
 59       register: appstart
 60
 61   - name: validating the port is open
 62     become: root
 63     wait_for:
 64       host: "localhost"
 65       port: 3000
 66       delay: 10
 67       timeout: 30
 68
 69   - name: validating the port is open
 70     become: root
 71     wait_for:
 72       host: "localhost"
 73       port: 3000
 74       delay: 10
 75       timeout: 30
 76
 77

```

Step 4:

- Launch the Playbook with Ansible Git Now we launch the playbook using the ansible-playbook command
- ansible-playbook gitexample.yml --ask-vault-pass

First we check if the hostgroup is reachable using the following command: (here, nodeserver is the name of our hostgroup)



Ansible_hosts is an inventory file that contains the name of the host group, public IP address of the host server etc



Deployment:

