

Devops and its applications(CS457)

Assignment 2.2 : Ansible Playbook Exercise

Group :4

Reference links: <https://www.middlewareinventory.com/blog/ansible-git-example/>

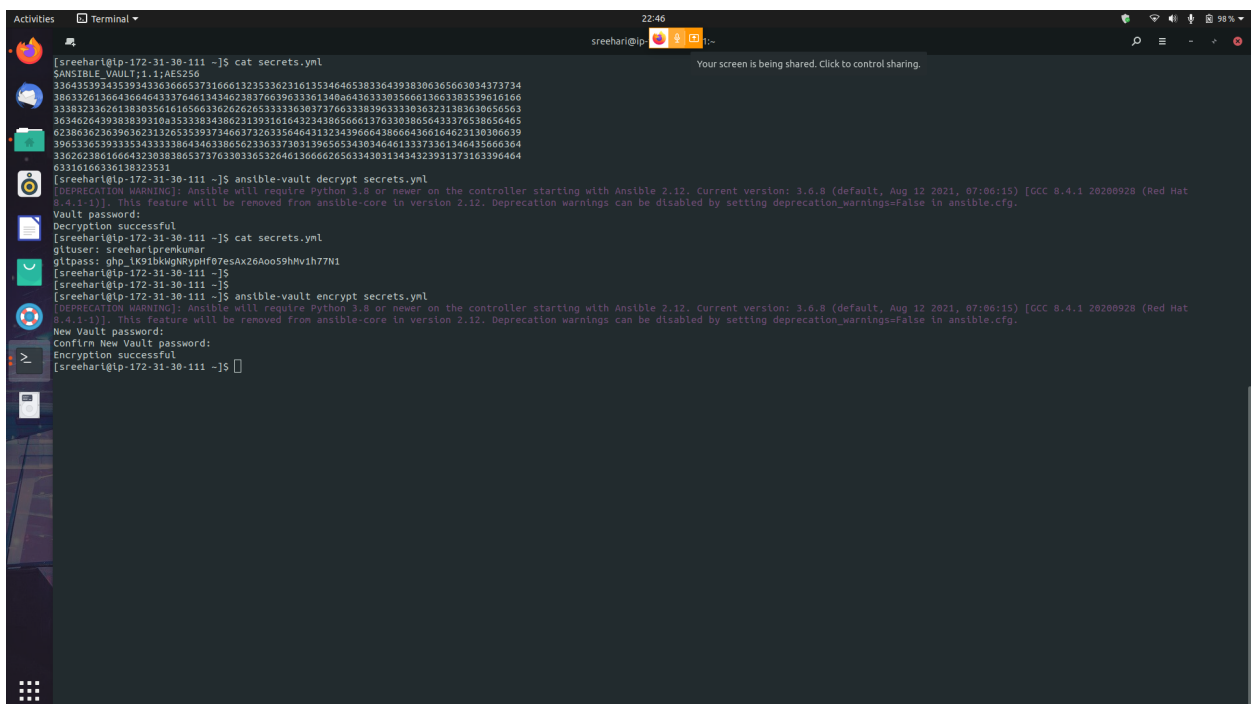
Step1: Configuring Git login

To login to GITHUB , we use the username and token in the following format.

Using the username and security token on the URL

- `https://user:token@github.com/path`

Step2: Creating Ansible vault to Store the Git username and token



```
[sreehari@ip-172-31-30-111 ~]$ cat secrets.yml
$ANSIBLE_VAULT:1.1;AES256
3b64353934353934336366653731666132353623161353464653833643938306365663034373734
3863326136643664643337646134346238376639633361348a643633303566613663383539616166
33303233626138383561616566336262626533333638373766333839633303632313836386566
3634626439383839310a353338343862313931616432343865666137633038656433376538656465
62386362363963623132653539373466373263356464313234396664386664366164623130366639
396533653933353433338643633865623363373031396565343834646133373361346435666364
3362623861666432303838653737633036532646136666265633430313434323931373163396464
63316166336138323531

[sreehari@ip-172-31-30-111 ~]$ ansible-vault decrypt secrets.yml
[DEPRECATION WARNING]: Ansible will require Python 3.8 or newer on the controller starting with Ansible 2.12. Current version: 3.6.8 (default, Aug 12 2021, 07:06:15) [GCC 8.4.1 20200928 (Red Hat 8.4.1-1)]. This feature will be removed from ansible-core in version 2.12. Deprecation warnings can be disabled by setting deprecation_warnings=False in ansible.cfg.
Vault password:
Decryption successful
[sreehari@ip-172-31-30-111 ~]$ cat secrets.yml
gituser: sreehari@premkumar
gitpass: ghp_LK91bkWgNRYpHf07esAx26Aoo59hMV1h77N1

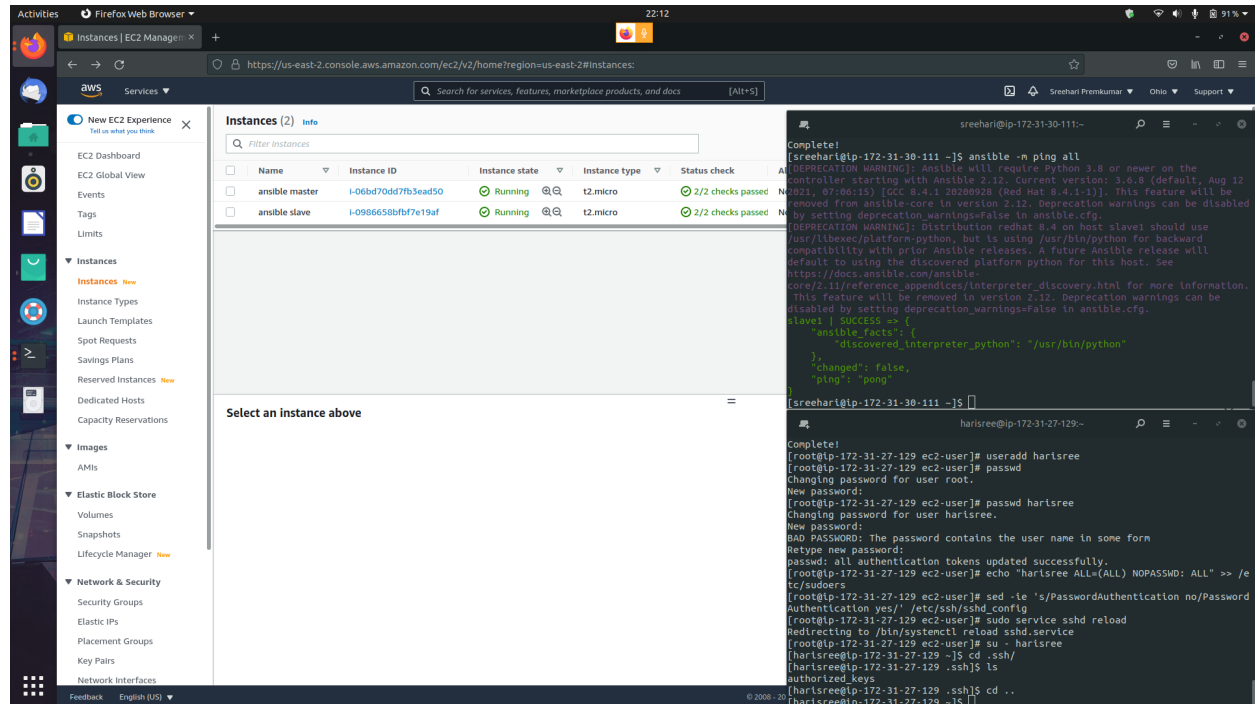
[sreehari@ip-172-31-30-111 ~]$
[sreehari@ip-172-31-30-111 ~]$
[sreehari@ip-172-31-30-111 ~]$ ansible-vault encrypt secrets.yml
[DEPRECATION WARNING]: Ansible will require Python 3.8 or newer on the controller starting with Ansible 2.12. Current version: 3.6.8 (default, Aug 12 2021, 07:06:15) [GCC 8.4.1 20200928 (Red Hat 8.4.1-1)]. This feature will be removed from ansible-core in version 2.12. Deprecation warnings can be disabled by setting deprecation_warnings=False in ansible.cfg.
New Vault password:
Confirm New Vault password:
Encryption successful
[sreehari@ip-172-31-30-111 ~]$
```

Step3: The Ansible Git Example Playbook

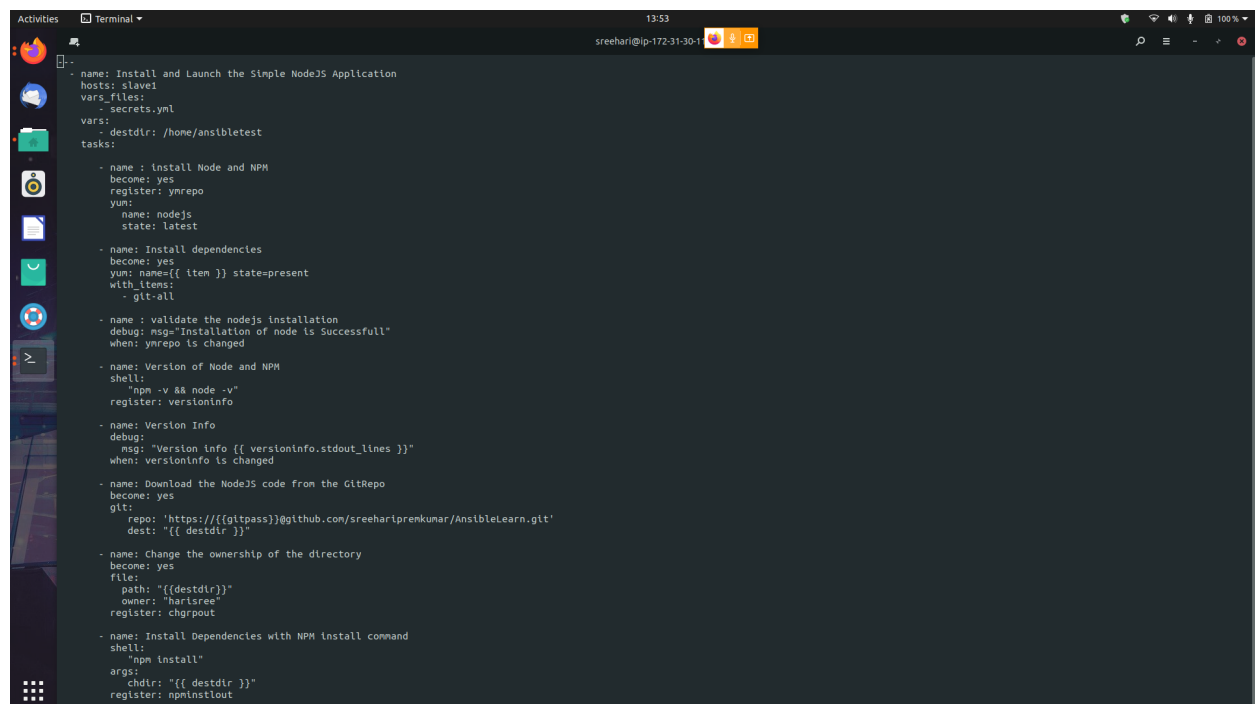
EC2 Instances with Red Hat AMI:

Master Node : sreehari@ip-172-31-30-111

Slave Node:harishree@ip-172-31-27:129



Playbook to automate the installation of node js, its dependencies and to download and launch a sample node js app from a private github repository.



Step4: Launch the Playbook with Ansible Git

```
Activities Terminal 13:54
sreehari@ip-172-31-30-111

TASK [Gathering Facts] *****
[deprecation warning]: Distribution redhat 8.4 on host slave1 should use
/usr/libexec/platform-python, but is using /usr/bin/python for backward
compatibility with prior Ansible releases. A future Ansible release will
default to using the discovered platform python for this host. See
https://docs.ansible.com/ansible-
core/2.11/reference_appendices/interpreter_discovery.html for more information.
This feature will be removed in version 2.12. Deprecation warnings can be
disabled by setting deprecation_warnings=False in ansible.cfg.
ok: [slave1]

TASK [install Node and NPM] *****
ok: [slave1]

TASK [Install dependencies] *****
ok: [slave1] => (item=git-all)

TASK [validate the nodejs installation] *****
skipping: [slave1]

TASK [Version of Node and NPM] *****
changed: [slave1]

TASK [Version Info] *****
ok: [slave1] => {
  "msg": "Version Info ['0.14.11', 'v18.24.8']"
}

TASK [Download the NodeJS code from the GitRepo] *****
ok: [slave1]

TASK [Change the ownership of the directory] *****
ok: [slave1]

TASK [Install Dependencies with NPM (install command)] *****
changed: [slave1]

TASK [Debug npm install command] *****
ok: [slave1] => {
  "msg": {
    "up to date in 0.289s",
    "found 0 vulnerabilities"
  }
}

TASK [Start the App] *****
changed: [slave1]

TASK [Validating the port is open] *****
ok: [slave1]

PLAY RECAP *****
slave1 : ok=11 changed=3 unreachable=0 failed=0 skipped=1 rescued=0 ignored=0

[sreehari@ip-172-31-30-111 ~]$
```

Step5: Validate the Deployment

The screenshot displays the AWS Management Console with the EC2 Instances page. Two instances are listed: 'ansible master' and 'ansible slave', both in a 'Running' state. Below the console, two terminal windows are shown. The left terminal, on the 'ansible master' instance, shows a successful curl command to 'http://18.221.8.169:5000/' returning a '200 OK' status and a 'Hello World!' message. The right terminal, on the 'ansible slave' instance, shows a successful curl command to 'http://localhost:5000' also returning a 'Hello World!' message.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP
ansible master	i-06bd70dd7fb5ead50	Running	t2.micro	2/2 checks passed	No alarms	us-east-2b	ec2-18-218-61-175.us-...	18.218.61.175	-
ansible slave	i-0906650bf7e19af	Running	t2.micro	2/2 checks passed	No alarms	us-east-2b	ec2-18-221-8-169.us-e...	18.221.8.169	-

Github Repo(with the sample node js script) :

Github Repo link: <https://github.com/sreeharipremkumar/AnsibleLearn>

