How to setup MariaDB/MySQL Galera Cluster using ansible

Prerequisites:

➔ Three fresh ubuntu nodes

➔ Ansible machine's able to ssh cluster nodes

➔ Ports: 3306/tcp, 4567/tcp, 4568/tcp , 4444/tcp, 4567/udp

Note:

This is **Active-active cluster**, where every node is read-write and a change made to one is replicated to all.

Setup:

✓ **Install the galera cluster role:**

```
ansible-galaxy install eradical.ansible_mariadb_galera_cluster
```

✓ **Install mysql community role:**

```
ansible-galaxy collection install community.mysql
```

✓ **main.yml:**

```yaml
---
    - name: Configure MariaDB Galera Cluster
      hosts: galera-cluster-nodes
      become: true
      roles:
        - eradical.ansible_mariadb_galera_cluster
      vars:
        mariadb_galera_cluster_name: my_cluster
        mariadb_galera_cluster_nodes: "{{ groups['galera-cluster-nodes'] }}"
        mariadb_galera_cluster_bootstrap_node: ip-172-31-5-176
        galera_mysql_first_node: ip-172-31-5-176
```

```
galera_cluster_nodes: "{{ groups['galera-cluster-nodes'] }}"
```

✓ **inventory.ini:**

```
[galera-cluster-nodes]
ip-172-31-5-176  ansible_host=3.144.254.133 ansible_user=ubuntu
ip-172-31-6-32 ansible_host=18.218.210.227 ansible_user=ubuntu
ip-172-31-12-167 ansible_host=3.21.21.111 ansible_user=ubuntu
```

✓ **Run Ansible-playbook:**

```
ansible-playbook main.yml -i inventory.ini
```

✓ **Test Execution:**

Creating database and inserting data into dB to verify that replication is working fine from different node's perspective.

o **Creating database on Node_1:**

```
create database galeratest;
```

o **insert some data into galeratest database from Node_2**

```
INSERT INTO person (first_name, last_name) VALUES ('John', 'Doe');
```

o **Verifying on Node_3:**

```
select * from person;
```

Source Repo:

1- https://github.com/mrlesmithjr/ansible-mariadb-galera-cluster

2- https://github.com/mrlesmithjr/ansible-mariadb-galera-cluster/blob/master/defaults/main.yml

Reference Link:

1- https://galaxy.ansible.com/eradical/ansible-mariadb-galera-cluster

2- https://www.digitalocean.com/community/tutorials/how-to-configure-a-galera-cluster-with-mariadb-on-ubuntu-18-04-servers