

Lab 9: Ansible Vault • Objective: Write an Ansible playbook to install MySQL, create ivolve database, create user with all privileges on ivolve DB. Use Ansible Vault to encrypt sensitive information such as database user password, and incorporate the encrypted data into an Ansible playbook

Ansible vault: is a feature in Ansible that allows you to encrypt sensitive data, such as passwords or API keys,

Create ansible vault:

ansible-vault create vars/vault.yml

```
ahmed@ahmed-VMware-Virtual-Platform:~/Downloads$ ansible-vault create vars/vault.yml
New Vault password: 
```

Put db_username & password

```
db_user: involve_user
db_password: "involve"
~
~
```

Vim inventory

```
ec2-3-89-220-228.compute-1.amazonaws.com
[sql]
ec2-3-89-220-228.compute-1.amazonaws.com
~
~
~
~
~
~
~
~
~
```

Vim ansible.cfg to manage configuration related ansible

```
[defaults]
inventory = ./inventory
remote_user = ubuntu
private_key_file = ~/Downloads/lab3/ahmed.pem

[privilege_escalation]
become= true
become_method= sudo
become_user= root
become_ask_pass= false
~
~
~
~
~
~
~
~
```

Vim playbook.yml to put tasks

```
role: Install MySQL and Configure Database
hosts: sql
become: true
vars_files:
  - vars/vault.yml

tasks:
  - name: Update apt cache
    apt:
      update_cache: yes

  - name: Install MySQL server
    apt:
      name: mysql-server
      state: present

  - name: Install Python MySQL dependencies
    apt:
      name: python3-pymysql
      state: present

  - name: Set MySQL root password
    shell: |
      mysql -e "ALTER USER 'root'@'localhost' IDENTIFIED WITH 'mysql_native_password' BY '{{ root_password }}'; FLUSH PRIVILEGES;"
    args:
      executable: /bin/bash
      ignore_errors: true

  - name: Create MySQL root configuration file
    copy:
      dest: /root/.my.cnf
      content: |
        [client]
        user=root
        password={{ root_password }}
      mode: '0600'

  - name: Create involve database
    mysql_db:
      name: involve
      state: present
```

Command to run playbook

```
ahmed@ahmed-VMware-Virtual-Platform:~/Downloads/lab3$ ansible-playbook -i inventory playbook.yml --ask-vault-pass
Vault password:
```

```
< PLAY [Install MySQL and Configure Database] >
-----
      \  ^__^
       (oo)\_______
          (__)\       )\/\
              ||----w |
              ||     ||
```

```
ec2-3-89-220-228.compute-1.amazonaws.com : ok=9    changed=8    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
ahmed@ahmed-VMware-Virtual-Platform:~/Downloads/lab3$
```

Install sql & create database involve

```
ubuntu@ip-172-31-82-46:~$ mysql -u involve_user -p involve
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.40-0ubuntu0.24.04.1 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| involve   |
| performance_schema |
+-----+
3 rows in set (0.00 sec)

mysql>
```

