Ansible Question 1

```
master@master-vm:~/Desktop$ mkdir Ansible1
master@master-vm:~/Desktop$ cd Ansible1
master@master-vm:~/Desktop/Ansible1$ nano inventory.ini
```

Created inventoey.ini file

```
GNU nano 6.2                                                    inventory.ini
[mysql_servers]
worker1 ansible_host=192.168.153.131 ansible_user=worker1 ansible_ssh_pass=root@123 ansible_become_pass=root@123
worker2 ansible_host=192.168.153.133 ansible_user=worker2 ansible_ssh_pass=root@123 ansible_become_pass=root@123
```

```
master@master-vm:~/Desktop/Ansible1$ nano mysql_install.yml
```

Created mysql_install.yml playbook

```
GNU nano 6.2                                                    mysql_install.yml
---
- name: Install and configure MySQL server
  hosts: mysql_servers
  become: true
  vars:
    mysql_root_password: "root@123"

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

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

    - name: Ensure MySQL is running and enabled
      service:
        name: mysql
        state: started
        enabled: yes

    - name: Install Python pip
      apt:
        name: python3-pip
        state: present

    - name: Install PyMySQL module
      pip:
        name: PyMySQL

    - name: Set MySQL root password (only if not already set)
      command: >
        mysqladmin -u root password "{{ mysql_root_password }}"
      ignore_errors: yes

    - name: Switch MySQL root auth to mysql_native_password
      mysql_user:
        name: root
        host: localhost
        password: "{{ mysql_root_password }}"
        login_unix_socket: /var/run/mysqld/mysqld.sock
        priv: '*.*:ALL,GRANT'
        plugin: mysql_native_password
        state: present

    - name: Remove anonymous users
      mysql_user:
        name: ''
        host_all: yes
```

```yaml
- name: Remove anonymous users
  mysql_user:
    name: ''
    host_all: yes
    state: absent
    login_user: root
    login_password: "{{ mysql_root_password }}"

- name: Disallow remote root login
  mysql_user:
    name: root
    host: "{{ item }}"
    state: absent
    login_user: root
    login_password: "{{ mysql_root_password }}"
  loop:
    - "{{ ansible_fqdn }}"
    - '%'

- name: Remove test database
  mysql_db:
    name: test
    state: absent
    login_user: root
    login_password: "{{ mysql_root_password }}"
```

output

Doing ssh into worker1 and worker2

Checking mysql service status

Verifying mysql root password

Checking authentication plugin

```
master@master-vm:~/Desktop/Ansible1$ ssh worker1@192.168.153.131
worker1@192.168.153.131's password:
Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 6.8.0-58-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

Expanded Security Maintenance for Applications is not enabled.

41 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

12 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

New release '24.04.2 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Sat May  3 13:28:25 2025 from 192.168.153.128
worker1@worker1-vm:~$ sudo systemctl status mysql
[sudo] password for worker1:
● mysql.service - MySQL Community Server
     Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
     Active: active (running) since Sat 2025-05-03 13:22:41 IST; 9min ago
    Process: 15480 ExecStartPre=/usr/share/mysql/mysql-systemd-start pre (code=exited, status=0/SUCCESS)
   Main PID: 15499 (mysqld)
     Status: "Server is operational"
      Tasks: 38 (limit: 6961)
     Memory: 367.5M
        CPU: 4.010s
     CGroup: /system.slice/mysql.service
             └─15499 /usr/sbin/mysqld

May 03 13:22:41 worker1-vm systemd[1]: Starting MySQL Community Server...
May 03 13:22:41 worker1-vm systemd[1]: Started MySQL Community Server.
worker1@worker1-vm:~$
```

```
worker1@worker1-vm:~$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 18
Server version: 8.0.41-0ubuntu0.22.04.1 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

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

mysql> SELECT user, host, plugin FROM mysql.user WHERE user='root';
+------+-----------+-----------------------+
| user | host      | plugin                |
+------+-----------+-----------------------+
| root | localhost | mysql_native_password |
+------+-----------+-----------------------+
1 row in set (0.00 sec)

mysql>
```

```
master@master-vm:~/Desktop/Ansible1$ ssh worker2@192.168.153.133
worker2@192.168.153.133's password:
Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 6.8.0-58-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

Expanded Security Maintenance for Applications is not enabled.

41 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

12 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

New release '24.04.2 LTS' available.
Run 'do-release-upgrade' to upgrade to it.
```

```
worker2@worker2-vm:~$ sudo systemctl status mysql
[sudo] password for worker2:
● mysql.service - MySQL Community Server
     Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
     Active: active (running) since Sat 2025-05-03 13:22:33 IST; 12min ago
    Process: 15096 ExecStartPre=/usr/share/mysql/mysql-systemd-start pre (code=exited, status=0/SUCCESS)
   Main PID: 15104 (mysqld)
     Status: "Server is operational"
      Tasks: 38 (limit: 6961)
     Memory: 367.6M
        CPU: 4.931s
     CGroup: /system.slice/mysql.service
             └─15104 /usr/sbin/mysqld

May 03 13:22:32 worker2-vm systemd[1]: Starting MySQL Community Server...
May 03 13:22:33 worker2-vm systemd[1]: Started MySQL Community Server.
worker2@worker2-vm:~$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 18
Server version: 8.0.41-0ubuntu0.22.04.1 (Ubuntu)

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owners.

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

mysql> SELECT user, host, plugin FROM mysql.user WHERE user='root';
+------+-----------+-----------------------+
| user | host      | plugin                |
+------+-----------+-----------------------+
| root | localhost | mysql_native_password |
+------+-----------+-----------------------+
1 row in set (0.00 sec)

mysql>
```