

## Ansible

### **Task 1:** Write and Execute a Simple Ansible Playbook

**Topic:** Ansible Playbooks - Writing Your First Playbook

**Description:** Create a basic Ansible playbook that pings all hosts in the default inventory.

#### **Steps:**

Create a new file named ping.yml in your Ansible working directory.

Write a playbook with a single task to use the ping module.

Run the playbook using the command `ansible-playbook ping.yml`.

Verify that you receive a pong response from all hosts listed in the `/etc/ansible/hosts` file.

#### **Step 1:**

- Navigate to your Ansible working directory.
- Create a new file named ping.yml.

```
cd /path/to/your/ansible/directory
touch ping.yml
```

#### **Step 2:**

- Open the ping.yml file in a text editor.
- Write the following Ansible playbook:

```
- name: Ping all hosts
  hosts: all
  tasks:
  - name: Ping all hosts
    ansible.builtin.ping:
```

#### **Step 3:**

- Save the ping.yml file and close the text editor.
- Run the playbook using the following command:

```
ansible-playbook ping.yml
```

#### **Step 4:**

After running the playbook, you should see output similar to the following, indicating that each host has responded with pong:

**Task 2:** Encrypt a String with Ansible Vault**Topic:** Ansible Vault - Securing Sensitive Data**Description:** Use Ansible Vault to encrypt a string and demonstrate how it can be used within a playbook.**Steps:**

Open the terminal in your Ansible control machine.

Use the Ansible Vault command to encrypt a string: `ansible-vault encrypt_string 'my_secret_password' --name 'password'`.

Copy the output to a new playbook or an existing playbook variable section.

Use the encrypted string in the playbook as a variable for demonstration.

**Step 1:**

Open the terminal on your Ansible control machine.

**Step 2:**

Use the `ansible-vault` command to encrypt a string. For example, to encrypt the string `my_secret_password` and name it `password`:

```
ansible-vault encrypt_string 'my_secret_password' --name 'password'
```

**Step 3:**

Create a new playbook or open an existing one and add the encrypted string in the variables section. For example, create a new playbook named `use_vault.yml`:

```
--- name: Use Ansible Vault encrypted string
hosts: localhost
vars:
  password: !vault |
    $ANSIBLE_VAULT;1.1;AES256
```

**Step 4:**

Run the playbook using the following command:

```
ansible-playbook use_vault.yml --ask-vault-pass
```