

Lab Exercise Week 3

Scenario:

1. Create playbook, that can run on both Redhat and Debian OS.
2. On each machine,
 - a. install apache2, git, terraform
 - b. Start the apache2 service
 - c. Group all the tasks as one.
 - d. Provide tag for this group.
 - e. Also make sure to have the when condition
 - f. The above task needs to be configured for both Redhat and Debian OS
3. Software specific to Debian OS.
 - a. Install DB
 - b. Start the DB
 - c. Group these 2 tasks
 - d. Provide tag

Solution:

Main.yaml:

```
---
- name: Install and Configure Services
  hosts: all
  become: yes
  gather_facts: yes

  tasks:
    - name: Install and start Apache and required services
      block:
        - name: Install required packages (Apache, Git, Terraform)
          apt:
            name: "{{ item }}"
            state: present
          loop:
            - apache2
            - git
            - wget

        - name: Start Apache service
          service:
            name: apache2
            state: started

        - name: Install unzip package (Debian/Ubuntu)
          become: yes
          package:
            name: unzip
            state: present

        - name: Install Terraform binary
          get_url:
            url: "https://releases.hashicorp.com/terraform/1.6.6/terraform_1.6.6_linux_amd64.zip"
            dest: /tmp/terraform.zip

        - name: Unzip Terraform
          command: "unzip /tmp/terraform.zip -d /usr/local/bin/"
          args:
            creates: /usr/local/bin/terraform
          when: ansible_os_family == 'RedHat' or ansible_os_family == 'Debian'
          tags:
            - services

    - name: Install and start DB on Debian OS
      block:
```

```

- name: Install MySQL server
  apt:
    name: mysql-server
    state: present
  vars:
    mysql_root_password: root123
when: ansible_os_family == 'Debian'
tags:
  - db

```

Inventory:

```

[localhost]
10.0.1.6 # Master Node Private IP

[Node1]
10.0.1.4 # Node 1 Private IP

[Node2]
10.0.1.5 # Node 2 Private IP

```

Output:

```

$ ansible-galaxy install -i /tmp/ ansible-playbook -i inventory test.yml

PLAY [Install and Configure Services] *****

TASK [Gathering Facts] *****
[localhost:localhost] Distribution Ubuntu 18.04 on host 10.0.1.6 should use /usr/bin/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/2.9/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: [10.0.1.6]
[Node1:10.0.1.4] Distribution Ubuntu 18.04 on host 10.0.1.4 should use /usr/bin/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/2.9/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: [10.0.1.4]
[Node2:10.0.1.5] Distribution Ubuntu 18.04 on host 10.0.1.5 should use /usr/bin/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/2.9/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: [10.0.1.5]

TASK [Install required packages (Apache, Git, Terraform)] *****
ok: [10.0.1.5] => (item=apache2)
ok: [10.0.1.4] => (item=apache2)
ok: [10.0.1.6] => (item=apache2)
ok: [10.0.1.5] => (item=git)
ok: [10.0.1.4] => (item=git)
ok: [10.0.1.6] => (item=git)
ok: [10.0.1.5] => (item=git)
ok: [10.0.1.4] => (item=git)
ok: [10.0.1.6] => (item=git)

TASK [Start Apache service] *****
ok: [10.0.1.5]
ok: [10.0.1.4]
ok: [10.0.1.6]

TASK [Install unzip package (Debian/Ubuntu)] *****
ok: [10.0.1.5]
ok: [10.0.1.4]
ok: [10.0.1.6]

TASK [Install Terraform binary] *****
ok: [10.0.1.5]
ok: [10.0.1.4]
ok: [10.0.1.6]

TASK [Unzip Terraform] *****
ok: [10.0.1.5]
ok: [10.0.1.4]
ok: [10.0.1.6]

TASK [Install MySQL server] *****
ok: [10.0.1.5]
ok: [10.0.1.4]
ok: [10.0.1.6]

PLAY RECAP *****
10.0.1.4 : ok=7 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
10.0.1.5 : ok=7 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
10.0.1.6 : ok=7 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0

```