**7. Implementing IaC with Ansible on GCP**

b. Steps to create a simple Ansible playbook that provisions a Google Compute Engine instance

Step 1: Create an Inventory File

Step 2: Create the Ansible Playbook

Step 3: Run the Playbook

Step 4: Verify the Deployment

c. Write the Ansible playbook YAML file.

- name: Provision a Google Compute Engine instance

hosts: localhost

gather\_facts: no

tasks:

- name: Create a GCE instance

google.cloud.gcp\_compute\_instance:

name: "ansible-gce-instance"

machine\_type: "e2-medium"

zone: "us-central1-a"

project: "<YOUR\_GCP\_PROJECT\_ID>"

auth\_kind: "serviceaccount"

service\_account\_file: "/path/to/your/service-account.json"

network\_interfaces:

- network: "global/networks/default"

access\_configs:

- name: "External NAT"

type: "ONE\_TO\_ONE\_NAT"

disks:

- auto\_delete: true

boot: true

initialize\_params:

source\_image: "projects/debian-cloud/global/images/family/debian-11"

state: "present"

register: gce\_instance

- name: Display instance information

debug:

msg: "Instance {{ gce\_instance.name }} created with public IP {{ gce\_instance.networkInterfaces[0].accessConfigs[0].natIP }}"