**2. Writing Simple Playbooks**

b. Write a simple Ansible playbook that installs a package (e.g., Nginx) on a target machine (EC2 instance in AWS, Azure VM, or GCP instance).

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- name: Install Nginx on Target Machine

hosts: web\_servers # Replace with the appropriate group or hostname in your inventory

become: yes # Runs tasks with sudo privileges

tasks:

- name: Update package cache

apt:

update\_cache: yes

when: ansible\_os\_family == "Debian"

- name: Install Nginx on Debian-based systems

apt:

name: nginx

state: present

when: ansible\_os\_family == "Debian"

- name: Install Nginx on RedHat-based systems

yum:

name: nginx

state: present

when: ansible\_os\_family == "RedHat"

- name: Start and Enable Nginx Service

service:

name: nginx

state: started

enabled: yes

c. Include tasks to start and enable the service

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- name: Install Nginx on Target Machine

hosts: web\_servers # Replace with the appropriate group or hostname in your inventory

become: yes # Runs tasks with sudo privileges

tasks:

- name: Update package cache

apt:

update\_cache: yes

when: ansible\_os\_family == "Debian"

- name: Install Nginx on Debian-based systems

apt:

name: nginx

state: present

when: ansible\_os\_family == "Debian"

- name: Install Nginx on RedHat-based systems

yum:

name: nginx

state: present

when: ansible\_os\_family == "RedHat"

- name: Start and Enable Nginx Service

service:

name: nginx

state: started

enabled: yes

- name: Ensure Nginx service is running

systemd:

name: nginx

state: started

enabled: yes