**Jenkins-Ansible Integration-Ubuntu**

**Step 1: Update System Packages**

Before installing Ansible, ensure your system is up to date:

sudo apt update && sudo apt upgrade -y

**Step 2: Add Ansible’s Official PPA Repository**

The default Ubuntu repository may have an older version of Ansible. To get the latest stable release, add the official Ansible PPA:

sudo apt install software-properties-common -y

sudo add-apt-repository --yes --update ppa:ansible/ansible

This ensures your system pulls Ansible from the official Ansible project repository.

Step 3: Install Ansible

Once the PPA is added, install Ansible:

sudo apt install ansible -y

Step 4: Verify Ansible Installation

After installation, confirm that Ansible is installed correctly:

ansible --version

You should see output similar to:

ansible [core 2.15.2]

config file = /etc/ansible/ansible.cfg

python version = 3.10

If this works, Ansible is successfully installed!

**Setting Up Ansible for Jenkins**

Now that Ansible is installed, let's configure it for Jenkins:

**Step 5: Install Ansible Plugin in Jenkins**

Open Jenkins Dashboard → Manage Jenkins → Manage Plugins

Search for Ansible Plugin

Install and restart Jenkins

**Step 6: Configure Ansible in Jenkins**

Open Jenkins Dashboard → Manage Jenkins → Global Tool Configuration

Scroll down to Ansible

Click Add Ansible

Set Name (e.g., ansible or ansible-latest or any)

Set Path to Ansible: /usr/bin/

Click Save

**Inside your Ansible YAML Playbook**

- name: This is the playbook for installing httpd,copy, and restart the service

hosts: all

become: yes ### Enables sudo privileges for all tasks

tasks:

OR

**Step 7: Allow Jenkins to Use Ansible Without sudo Password**

Since Jenkins runs as a system user, it needs passwordless sudo access to execute Ansible commands:

sudo visudo

Add the following line at the end:

jenkins ALL=(ALL) NOPASSWD: /usr/bin/ansible-playbook

This allows the **Jenkins user** to run Ansible playbooks **without asking for a password**.

**Testing Ansible with Jenkins**

Step 8: Run a Test Ansible Playbook in Jenkins

Create a simple Jenkins Job that executes an Ansible playbook.

Open Jenkins Dashboard → New Item → Freestyle Project

Scroll to Build → Add build step → Invoke Ansible Playbook

Enter:

Playbook Path: /var/lib/jenkins/playbooks/test.yml

Inventory Path: /etc/ansible/hosts

Click Save and Build Now

1. Create a Git repo:
2. Add your playbook-name.yml files
3. Add your inventory-file-name.inv files
4. Create Jenkins pipeline stages to clone git & execute Ansible













