

Lesson 06 Demo 01

Setting Up Ansible

Objective: To demonstrate the installation process of Ansible on Ubuntu

Tools required: Terminal and sudo access

Prerequisites: Understanding of package management in Linux

Steps to be followed:

1. Install Ansible on Ubuntu

Step 1: Install Ansible on Ubuntu

1.1 Update the package list using the following command:

sudo apt update

```
labsuser@ip-172-31-47-29:~$ sudo apt update
Hit:1 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Hit:3 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Ign:5 https://pkg.jenkins.io/debian-stable binary/ InRelease
Hit:6 https://pkg.jenkins.io/debian-stable binary/ Release
Hit:8 https://download.docker.com/linux/ubuntu jammy InRelease
Hit:7 https://prod-cdn.packages.k8s.io/repositories/isv:/kubernetes:/core:/stable:/v1.28/deb InRelease
Get:9 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1283 kB]
Get:10 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [1285 kB]
Hit:11 https://ppa.launchpadcontent.net/git-core/ppa/ubuntu jammy InRelease
Get:12 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [209 kB]
Get:13 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1033 kB]
Get:14 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [42.1 kB]
Fetched 4081 kB in 2s (1959 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
5 packages can be upgraded. Run 'apt list --upgradable' to see them.
labsuser@ip-172-31-47-29:~$
```

1.2 Use the below command to update package repositories and get the latest package information:

sudo apt-get install software-properties-common

```

labsuser@ip-172-31-47-29:~$ sudo apt-get install software-properties-common
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
software-properties-common is already the newest version (0.99.22.9).
The following packages were automatically installed and are no longer required:
  apport-symptoms python3-systemd
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 5 not upgraded.
labsuser@ip-172-31-47-29:~$

```

1.3 Run these commands to update the list of available software and install Ansible. This process also retrieves the Ansible PPA's signing key and integrates it into your system.

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

```

labsuser@ip-172-31-47-29:~$ sudo apt-add-repository --yes -update ppa:ansible/ansible
Repository: 'deb https://ppa.launchpadcontent.net/ansible/ansible/ubuntu/ jammy main'
Description:
Ansible is a radically simple IT automation platform that makes your applications and systems easier to deploy. Avoid writing scripts or custom code to deploy and update your applications— automate in a language that approaches plain English, using SSH, with no agents to install on remote systems.

http://ansible.com/

If you face any issues while installing Ansible PPA, file an issue here:
https://github.com/ansible-community/ppa/issues
More info: https://launchpad.net/~ansible/+archive/ubuntu/ansible
Adding repository.
Adding deb entry to /etc/apt/sources.list.d/ansible-ubuntu-ansible-jammy.list
Adding disabled deb-src entry to /etc/apt/sources.list.d/ansible-ubuntu-ansible-jammy.list
Adding key to /etc/apt/trusted.gpg.d/ansible-ubuntu-ansible.gpg with fingerprint 6125E2A8C77F2818FB7BD15B93C4A3FD7BB9C367
Hit:1 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:6 https://download.docker.com/linux/ubuntu jammy InRelease
Ign:7 https://pkg.jenkins.io/debian-stable binary/ InRelease
Hit:8 https://pkg.jenkins.io/debian-stable binary/ Release
Hit:5 https://prod-cdn.packages.k8s.io/repositories/isv:/kubernetes:/core:/stable:/v1.28/deb InRelease
Ign:10 https://ppa.launchpadcontent.net/ansible/ansible/ubuntu jammy-date InRelease
Get:11 https://ppa.launchpadcontent.net/ansible/ansible/ubuntu jammy InRelease [18.0 kB]

```

1.4 Use the below command to install Ansible:

sudo apt install ansible

```
labsuser@ip-172-31-47-29:~$ sudo apt install ansible
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  apport-symptoms python3-systemd
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  ansible-core python3-jmespath python3-kerberos python3-ntlm-auth python3-packaging python3-paramiko python3-requests-kerberos
  python3-requests-ntlm python3-resolvelib python3-winrm python3-xlrd python3-xlsxwriter sshpass
Suggested packages:
  python3-gssapi python3-invoke
The following NEW packages will be installed:
  ansible ansible-core python3-jmespath python3-kerberos python3-ntlm-auth python3-packaging python3-paramiko python3-requests-kerberos
  python3-requests-ntlm python3-resolvelib python3-winrm python3-xlrd python3-xlsxwriter sshpass
0 upgraded, 13 newly installed, 0 to remove and 5 not upgraded.
Need to get 17.9 MB of archives.
After this operation, 300 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 python3-packaging all 21.3-1 [30.7 kB]
Get:2 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-resolvelib all 0.8.1-1 [23.6 kB]
Get:3 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 python3-jmespath all 0.10.0-1 [21.7 kB]
Get:4 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-kerberos amd64 1.1.14-3.1build5 [23.0 kB]
Get:5 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-ntlm-auth all 1.4.0-1 [20.4 kB]
Get:6 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 python3-paramiko all 2.9.3-0ubuntu1 [133 kB]
Get:7 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-requests-kerberos all 0.12.0-2 [11.9 kB]
Get:8 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-requests-ntlm all 1.1.0-1.1 [6160 B]
Get:9 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-xlrd all 0.12.0-2 [12.6 kB]
Get:10 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-winrm all 0.3.0-2 [21.7 kB]
Get:11 http://us-west-2.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 sshpass amd64 1.09-1 [11.7 kB]
Get:12 https://ppa.launchpadcontent.net/ansible/ansible/ubuntu jammy/main amd64 ansible-core all 2.15.8-1ppa-jammy [1027 kB]
Get:13 https://ppa.launchpadcontent.net/ansible/ansible/ubuntu jammy/main amd64 ansible all 8.7.0-1ppa-jammy [16.5 MB]
Fetched 17.9 MB in 20s (891 kB/s)
Selecting previously unselected package python3-packaging.
(Reading database ... 155963 files and directories currently installed.)
```

1.5 Verify Ansible installation using the following command:

ansible --version

```
labsuser@ip-172-31-47-29:~$ ansible --version
ansible [core 2.15.8]
  config file = /etc/ansible/ansible.cfg
  configured module search path = ['/home/labsuser/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python3/dist-packages/ansible
  ansible collection location = /home/labsuser/.ansible/collections:/usr/share/ansible/collections
  executable location = /usr/bin/ansible
  python version = 3.10.12 (main, Nov 20 2023, 15:14:05) [GCC 11.4.0] (/usr/bin/python3)
  jinja version = 3.0.3
  libyaml = True
```

By following these steps, you have successfully installed Ansible on your system. You can now begin to explore its powerful automation and configuration management capabilities.