

# Ansible Basic

An Ansible Training Course

PRESENTED BY:

Bittnet DevOps Team

ANSIBLE

We Make Custom Trainings



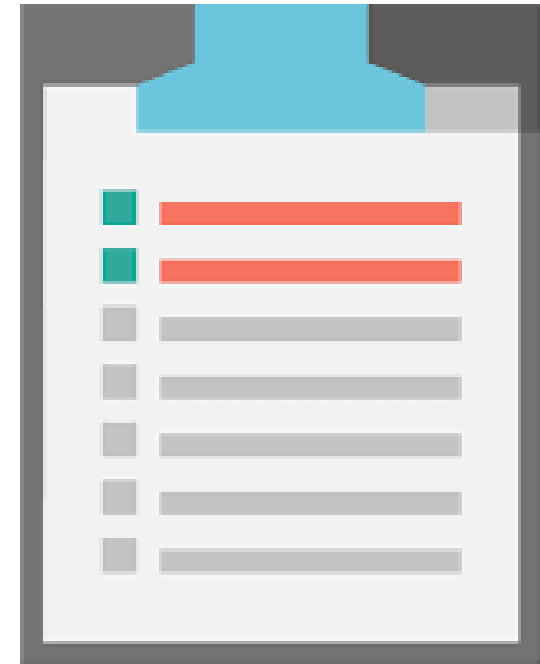
FASTER  
SMARTER  
SAFER

# 1. Introduction to Ansible



# Topics covered:

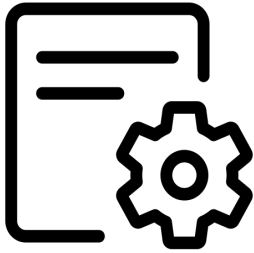
- What is Ansible
- Ansible history
- Installing Ansible



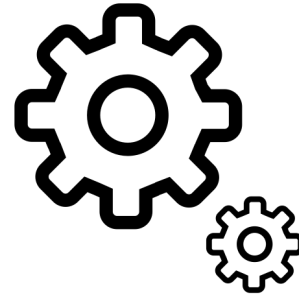
# What is Ansible?

- Ansible is an automation tool, used for tasks such as configuration management, application deployment and provisioning.
- Ansible allows you to create machines, describe how these machines should be configured and/or what actions should be taken on them.

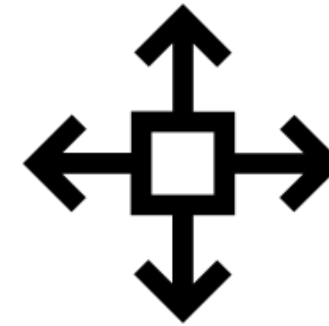
# What is Ansible?



Provisioning



Configuration  
Management



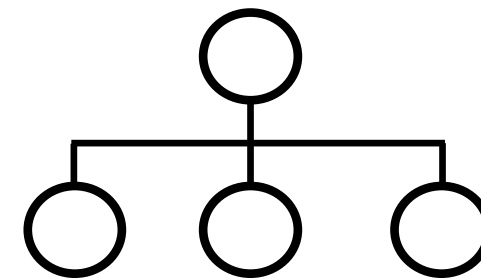
Application  
Deployment



Continuous  
Delivery



Security &  
Compliance



Orchestration

# Why Ansible?



Ansible uses an extraordinarily **simple** syntax written in YAML.



Ansible has **powerful** features that can enable you to model even the most complex IT workflows (infrastructure, networks, OS and services)

# Why Ansible?



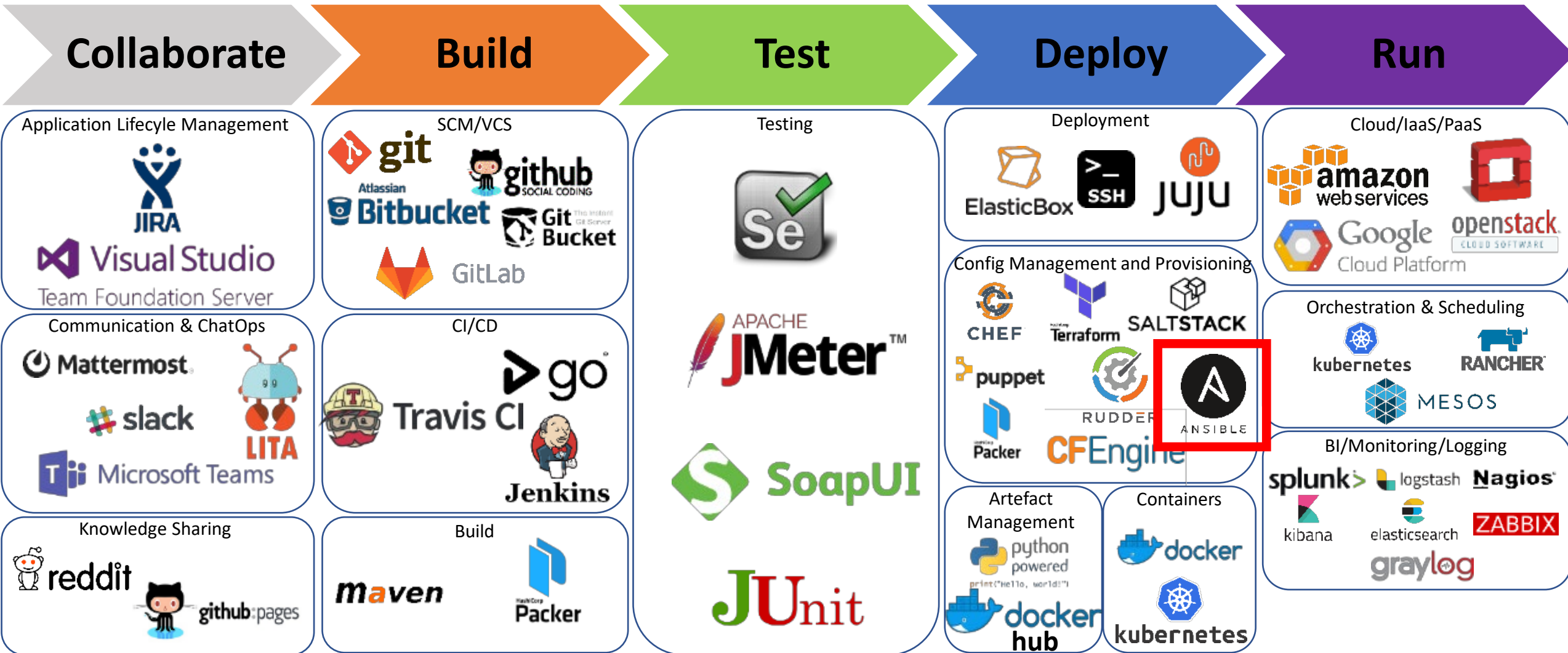
It is completely **agentless**, there are **no agents/software** or additional firewall ports that you need to install on the client systems



**No extra software** on your servers means more resources for your applications.



# Ansible in DevOps





# What Ansible Automates

## CLOUD

AWS  
Azure  
Digital  
Ocean  
Google  
OpenStack  
Rackspace  
**+more**

## OPERATING SYSTEMS

RHEL and  
Linux  
UNIX  
Windows  
**+more**

## VIRT & CONTAINER

Docker  
VMware  
RHV  
OpenStack  
OpenShift  
**+more**

## STORAGE

NetApp  
Red Hat  
Storage  
Infinidat  
**+more**

## WINDOWS

ACLs  
Files  
Packages  
IIS  
Regedit  
Shares  
Services  
Configs  
Users  
Domains  
**+more**

## NETWORK

Arista  
A10  
Cumulus  
Bigswitch  
Cisco  
Cumulus  
Dell  
F5  
Juniper  
Palo Alto  
OpenSwitch  
**+more**

## DEVOPS

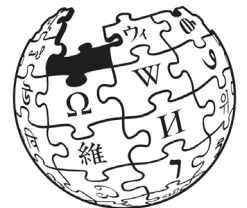
Jira  
GitHub  
Vagrant  
Jenkins  
Bamboo  
Atlassian  
Subversion  
Slack  
Hipchat  
**+more**

## MONITORING

Dynatrace  
Airbrake  
BigPanda  
Datadog  
LogicMonitor  
Nagios  
New Relic  
PagerDuty  
Sensu  
StackDriver  
Zabbix  
**+more**

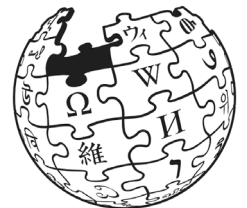
# Ansible History

- The term "**ansible**" was coined by **Ursula K. Le Guin** in her 1966 novel *Rocannon's World*, and refers to fictional instantaneous communication system.
- The Ansible tool **was developed** by **Michael DeHaan**, the author of the provisioning server application Cobbler.



# Ansible History

- Ansible, Inc. (originally AnsibleWorks, Inc.) was the company set up to commercially support and sponsor Ansible.
- Red Hat acquired Ansible in October 2015.
- Ansible is included as part of the **Fedora** distribution of Linux, owned by Red Hat.
- Is also **available** for **Red Hat Enterprise Linux, CentOS, Debian, Scientific Linux, Oracle Linux** via Extra Packages for Enterprise Linux (**EPEL**) and Ubuntu as well as for other operating systems.



# Installing Ansible

## 1. Installing prerequisites

```
student:~$ sudo apt update
student:~$ sudo apt -y install software-properties-common
```

## 2. Add Ansible official repository

```
student:~$ sudo apt-add-repository ppa:ansible/ansible
[...]

http://ansible.com/
More info: https://launchpad.net/~ansible/+archive/ubuntu/ansible
Press [ENTER] to continue or Ctrl-c to cancel adding it.
[...]
Fetched 17.0 kB in 1s (17.6 kB/s)
Reading package lists... Done
```

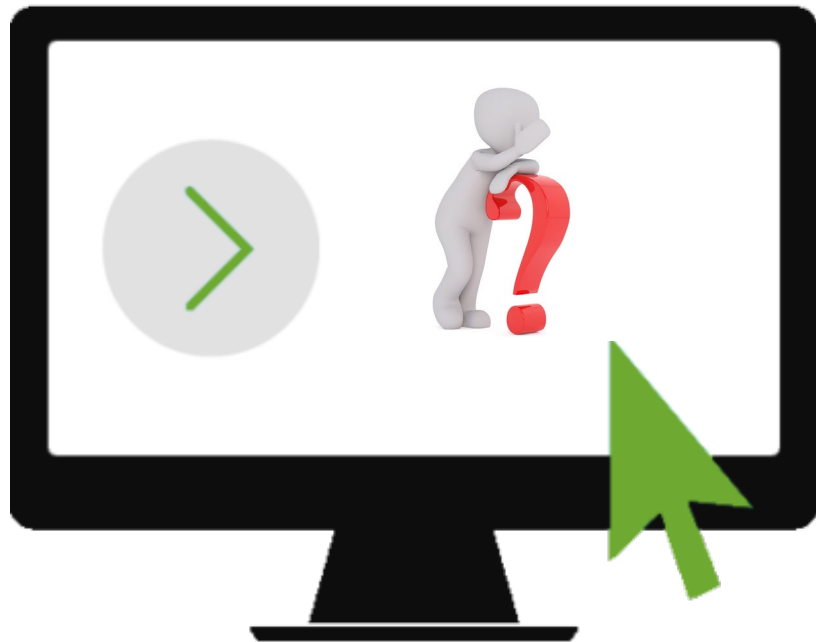
# Installing Ansible

## 3. Install Ansible

```
student:~$ sudo apt install ansible -y
```

## 4. Check Ansible version

```
student:~$ ansible --version
ansible 2.9.1
  config file = /etc/ansible/ansible.cfg
  configured module search path = [u'/home/student/.ansible/plugins/modules',
u'/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python2.7/dist-packages/ansible
  executable location = /usr/bin/ansible
  python version = 2.7.15+ (default, Jan 1 2040, 17:39:04) [GCC 7.4.0]
```





# Lab 1: Installing Ansible





Solutions for training the world.