**Ansible**

Ansible is agentless

Linux - SSH

Windows - Powershell Remoting

Default inventory path : /etc/ansible/hosts

Eg:

web1 ansible\_host=server1.company.com

web2 ansible\_host=server2.company.com

web3 ansible\_host=server3.company.com

db1 ansible\_host=server4.company.com

Inventory Parameters:

* ansible\_connection - ssh/winrm/localhost
* ansible\_port - 22/5986
* ansible\_user - root/administrator
* ansible\_ssh\_pass - Password

Security: Ansible Vault

/etc/ansible/ansible.cfg

YAML - Yet another markup language

Ansible playbook are text file pr configuration are written in YAML

Text

Description automatically generated

-(dash) indicates it an element of an array

A picture containing diagram

Description automatically generated

A picture containing graphical user interface

Description automatically generated

Text

Description automatically generated

Graphical user interface, application

Description automatically generated

Dictionary is a unordered collection

List is a ordered collection

A picture containing graphical user interface

Description automatically generated

Playbook:

* Playbook - A single YAML file

Play - Defines a set of activities (tasks) to be run on hosts

Task - An action to be performed on the host

- Execute a command

- Run a script

- Install a package

- Shutdown/Restart

Different action run by tasks are called **modules**

eg: command

script

yum

service

ansible-doc -l

ansible all -m ping -I inventory.txt

Ansible Modules:

1. System - (user, group, hiostname
2. Command - (command, expect, chdir, creates, script, removes)
3. File - (Acl, Archieve, Copy, File, Find, LineinFile, Replace)
4. Database (mysql, postgres, mongobd)
5. Cloud - (Amazon, Azure, Atomic, Docker, Vmware, Google etc)
6. Windows - (win\_copy, win\_command, win\_domain, win\_file, win\_msg)

More..

**Command module:** is useed to execute a command on a remote node

**Script module :** Runs a local script on a remote node after transferring it

**Service module:** Manage servcies - start, stop. Restart

service:

name: postgressql

state: started

Why "started" and not "start"?

""start" the service httpd. "started" the service httpd.

Because we are not instructing ansible to start the service instead we are instructing ansible to ensure service httpd is started

If httpd is not already started => start it

If httpd is already started, => do nothing

this id called idompotence

Idemtotency

An operation is idempotent if the result of performing it once is exactly the same as the result of performing it repeatedly without any interventing actions.

**Lineinfile module:**

Search for a line in a file and replace it or add it if it doesn't exist

Variable

Stores information that varies with each host

To create role:

ansible-galaxy init <rolename>

/etc/ansible/ansible.cfg

Roles\_path = /etc/ansible/roles