# What is Ansible

* Ansible is configuration management tool encourages automation.
* Ansible is used, If any software is to be installed on multiple servers.
* Ansible supports windows, Linux platforms
* Ansible uses python to
* We can add list of server in Ansible inventory, In order to perform action on all required servers at one time instead of logging into each individual server.
* Ansible connects Linux system over protocol SSH and connects to Windows server through winrm.

# Configure Password Less Authentication

|  |
| --- |
| * Run command- **ssh-keygen** |
| * will create public and private key in path specified under hidden folder name **.ssh** |
| * Also creates files-**authorised-keys,id\_rsa.pub**(Public key),**id\_rsa**(private key) |
| * copy public key of server from where access to be taken (Ansible Server) to target server’s authorised-keys file  Ansible host/inventory file |

* Create file inventory/host and write IP address of target servers into this file.
* To group servers, write name in [] as [dbserver] [webserver]

# Ansible adhoc command

* Ansible command to run single command and Ansible playbook for multiple Commands
* To run adhoc command use command “**ansible**”
* Ansible adhoc command

ansible –i inventory targetIPAddress –m “shell” –a “touch ansibletestfile”

* -i=to define inventory
* inventory= inventory File name
* targetIpAddress= can be written direct **IP address** or
  + **all** (for all IP’s in inventory file) or

**group name** (as mentioned in inventory file)

* -m = to define module
* “shell” = shell is module name used
* -a= arguments
* “touch ansibletestfile” = command to be run target server
* -v – this option shows (verbose) debugging steps

# Ansible playbook

* Ansible playbook is file with extension **.yaml**
* To run ansible playbook use command

“**ansible-playbook –i inventory playbookname.yml**”

To provide sudo password on running play book

**ansible-playbook –i inventory playbookname.yml --extra-vars "ansible\_sudo\_pass=yourPassword**"

* It starts with **“---”**
* Name of Playbook is written as

**“- name: First Ansible Playbook”**

* Multiple Playbook can be written in single file by repeating **“-name”,**

as **“-”** indicates list

* hosts-indicates server list on which action to be performed, it can be

**”host: IP address/all/group name in inventory file”**

* To run command as Root user, use command

**“become: root”**

* **“tasks**:” indicates task to be performed
* **- name –**indicate name of task

**“ – name Install & Start redis”**

* **shell: apt install redis –**to run shell commands
* or instead of shell use package manager **apt**(which is ansible module)

**apt:**

**name: redis**

**state: present**

* **“-name: Start Redis”**

**shell: systemctl start redis**

**OR**

**service:**

**name: redis**

**state: started**

* Indentation in ansible playbook file should be carefully managed