

Ansible is an open source automation platform that helps to manage and deploy applications and systems in simple and efficient manner. What is playbook? Playbooks contain plays which further is a group of tasks. This is the place to define the workflow or the steps needed to complete a process. List of modules to perform your automation where we describe the desired state What is inventory? Ansible Inventory is a collection of hosts, grouped together, which are managed by Ansible. The inventory is essentially a mapping of host names to 

full access for the master ansible and write a yaml file and 
inventory path "/etc/ansible/hosts" their corresponding IP addresses or hostnames, and is used to define the target systems that Ansible will What is configuration management? Configuration management is the process of organizing, controlling, and maintaining the configuration of software systems, hardware systems, and network devices. It involves defining, maintaining, and verifying the integrity of configurations over the entire life cycle of the system. The goal of configuration management is to ensure that the system is always in a known and consistent state, and that changes to the system are controlled, tracked, and documented. What is handlers? Sometimes you want a task to run only when a change is made on a machine. For example, you may want to restart a service if a task updates the configuration of that service, but not if the configuration is unchanged. Ansible uses handlers to address this use case. Handlers are tasks that only run when notified. What is lookups? In Ansible, "lookups" are a feature that allow you to retrieve and use data from external sources in your playbook tasks. Lookups can be used to access data stored in files, environment variables, or other external sources and use that data as variables in your playbook What is ansible forks (parallelisim)? This represents the number of hosts in which ansible will parallely execute the playbook. The default number of forks are 5, This value can be changed while executing ansible command or in the configuration file. What is idempotency? Idempotence is an essential feature of Ansible, which helps you to execute one or more tasks on a server as many times as needed, but without changing the result beyond the initial application. What is Ansible Vault? Ansible Vault is a feature of ansible that allows you to keep sensitive data such as passwords or keys in

Features of Ansible: Agentless, SSH, Push architechture, Easy Setup, Manage Inventory, Developed in Python

Commands:

--- ansible-playbook -i hosts main.yaml ansible-playbook -i hosts --syntax-check main.yaml

Static inventory: In this scenario the ip address are entered manually so in future if we stop the servers we have to again enter all the ip's manually.

Dynamic inventory: In this scenario we have to install boto 3 by using "qpt install pip 3" then download the role" ansible-galaxy collection install amazon.aws" and then go to ansible.cfg file and add the in the plugin section " enable\_plugins = aws\_ec2" save . Then create a role with execute it will show all the server details.

- If we don't create inventory file ansible will use it's default

# Fetch all hosts in us-east-1, the hostname is the public DNS if it exists, otherwise the private IP address plugin: amazon.aws.aws\_ec2 regions:

- us-east-l

Salt

filters: # All instances with their `Environment` tag set to `dev` tag:Environment: dev

Types of Configuration Management (CM): 1. Push-based configuration management refers to a model in which changes are pushed from a centralized management system to target nodes. In this model, the management system is responsible for checking the state of target nodes and applying changes as necessary. It is best use in small to medium sized infrastructure. Ansible,

2. Pull-based configuration management refers to a model in which target nodes periodically check in with the management system to retrieve their desired state. In this model, target nodes are responsible for checking and applying changes. It is best use is large scale infrastructure. Chef, Puppet

What are flush handlers?

— If you want to execute handlers after some step immediatly or before the end of the play we use flush\_handlers

encrypted files, rather than as plaintext in playbooks or

What is Ansible?