

ANSIBLE INTERVIEW QUESTIONS

What Is Ansible?

Ansible is a configuration management system. It is used to set up and manage infrastructure and applications. It allows users to deploy and update applications using SSH, without needing to install an agent on a remote system.

What's the use of Ansible?

Ansible is used for managing IT infrastructure and deploy software apps to remote nodes.

For example, Ansible allows you to deploy an application to many nodes with one single command. However, for that, there is a need for some programming knowledge to understand the ansible scripts.

Explain a few of the basic terminologies or concepts in Ansible.

Modules — Ansible uses modules to execute tasks. (Core and Custom)

Playbook — playbooks in a file which is having a list of commands to execute on target servers.

Inventory File — Defines a collection of hosts managed by Ansible (Static and Dynamic)

Ansible roles — Roles provide a framework for fully independent, or interdependent collections of variables, tasks, files, templates, and modules.

Task — Unit of work (or) Each task represents a single procedure that needs to be executed, e.g. Install a library.

APIs — Ansible Tower's REST API, provides the REST interface to the automation platform

Play — A task executed from start to finish or the execution of a playbook is called a play.

Role — An Ansible role is a pre-defined way for organizing playbooks and other files in order to facilitate sharing and reusing portions of provisioning.

Facts: Facts are global variables that store details about the system, like network interfaces or operating system.

Handlers: Are used to trigger the status of a service, such as restarting or stopping a service.

Ansible Ad-Hoc Commands?

Ansible ad-hoc command uses the ansible command-line tool to automate a task on managed nodes. These tasks avoid using playbooks and use modules to perform any operation quickly on nodes.

e.g. ping all nodes

ansible all -m ping

format of command

ansible [host-pattern] -m [module] -a "[module options]" -i "[inventory]"

e.g. ensure service is started on all web servers:

\$ ansible all -m ansible.builtin.service -a "name=httpd state=started"

Ansible Variables

Ansible support variables that can be reusable in the project. Variables provide the way to handle dynamic values. Variables are scoped as well.

Global — Set for all hosts

Host — For particular host

Play — Set for all but in the context of the play

How is Ansible different from Puppet?

Metrics	Ansible	Puppet
1.Availability	•Highly available	•Highly available
2.Ease of set up	•Easy	•Comparatively hard to set up
3.Management	•Easy management	•Not very easy
4.Scalability	•Highly scalable	•Highly scalable
5.Configuration language	•YAML(Python)	•DSL(PuppetDSL)
6.Interoperability	•High	•High
7.Pricing nodes	•\$10,000	•\$11200-\$19900

Compare Ansible with Chef.

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5.Configuration language	•YAML(Python)	•DSL(Ruby)
6.Interoperability	•High	•High
7.Pricing nodes	•\$10,000	\$13700

What are Ad-hoc commands? Give an example.

Ad-hoc commands are simple one-line commands used to perform a certain task. You can think of Adhoc commands as an alternative to writing playbooks. An example of an Adhoc command is as follows:

- hosts: your hosts

vars:

port_Tomcat : 8080

Here, we’ve defined a variable called port_Tomcat and assigned the port number 8080 to it. Such a variable can be used in the Ansible Playbook.

What are Ansible Vaults and why are they used?

Ansible Vault is a feature that allows you to keep all your secrets safe. It can encrypt entire files, entire YAML playbooks or even a few variables. It provides a

facility where you can not only encrypt sensitive data but also integrate them into your playbooks.

Vault is implemented with file-level granularity where the files are either entirely encrypted or entirely unencrypted. It uses the same password for encrypting as well as for decrypting files which makes using Ansible Vault very user-friendly.

How to create encrypted files using Ansible?

To create an encrypted file, use the 'ansible-vault create' command and pass the filename.

```
ansible-vault create filename.yaml
```

Is Ansible an Open Source tool?

Yes, Ansible is open source. That means you take the modules and rewrite them. Ansible is an open-source automated engine that lets you automate apps.

What is Playbook in Ansible?

Playbook's in Ansible are written in YAML Language which works on Key:Value format.

These playbook's contains set of instructions which is used for the server configurations. It tells to Ansible what tasks to perform on remote servers.

It allows us to define the desired state of system.

What is Ad hoc commands..??

These are the one-line commands which are used to execute the tasks on remote servers.

Instead of writing the entire playbook's we can simply perform these quick commands.

What is Configuration Management?

Configuration management is a process for maintaining computer systems, servers, and software in a desired, consistent state.

Let us assume we have a lot of servers and we want to manage the installation/upgradation of any software on these servers. Doing this manually would be time-consuming. To save time, we can do this via Configuration Management Tool like Ansible without really needing to SSH into the servers.

Why only Ansible?

Ansible is agentless. To configure multiple servers, we don't need to install any agent. The only pre-requisite is that we need to have a passwordless authentication between the Ansible host and all others where we need to configure this. For Linux, Ansible uses SSH and for Windows, it uses WinRM. Ansible is written in Python and it uses YAML scripting.

How has Ansible helped your organization?

If you were using some basic shell scripting or Powershell scripts for patching or installing packages, this is time-consuming. By using Ansible, this time can be reduced drastically and is very effective.

What are handlers in Ansible and what are they used for?

we can use this handlers when you want to perform task a task when a change is made on a machine.

Handlers are tasks that only run when notified.