Interview Questions :

1. What is Ansible?

Ansible is an open-source automation tool used for configuration management, application deployment, and task automation. It uses a simple YAML-based language to define automation tasks.

2. What are the advantages of using Ansible for configuration management?

Some advantages of using Ansible for configuration management include:

● Agentless architecture, no need to install additional software on target systems.
● Simple and human-readable syntax using YAML.
● Ability to automate complex tasks and manage configurations at scale.
● Supports idempotent operations, ensuring consistency in configuration state.
● Integration with version control systems for managing playbooks and roles.

3. What is the difference between Ansible and other configuration management tools like Puppet or Chef?

Unlike Puppet or Chef, Ansible follows a push-based model where the control machine pushes configuration changes to target servers. Ansible is also agentless, meaning it doesn't require any software to be installed on the target systems.

4. What is an Ansible playbook?

An Ansible playbook is a YAML file that contains a set of tasks and plays to be executed on remote hosts. Playbooks define the desired state of the system and the tasks to achieve that state.

5. What are Ansible roles?

Ansible roles are reusable units of playbooks that encapsulate specific functionalities or configurations. Roles provide a modular approach to organizing and sharing Ansible code.

6. How do you handle variables in Ansible?

Ansible allows the use of variables to define dynamic values. Variables can be defined at different levels, such as playbook level, role level, or even inventory level. Variables can be stored in YAML files, inventory files, or passed as command-line arguments.

7. How do you handle errors and exceptions in Ansible?

Ansible provides error handling mechanisms such as "failed_when" and "ignore_errors" to handle errors and exceptions in tasks. It also allows the use of handlers to trigger specific actions based on the outcome of tasks.

8. How can you test Ansible playbooks and roles?

Ansible provides a testing framework called Ansible Testing, which allows you to write unit tests for your playbooks and roles. It supports tools like Molecule and Testinfra for testing the infrastructure and validating the desired state.

9. What is an Ansible inventory file?

An Ansible inventory file is a text file that lists the target hosts or groups of hosts that Ansible can manage. It provides information about the hostnames, IP addresses, SSH credentials, and other details required to connect to the target systems.

10. How do you handle sensitive data like passwords or API keys in Ansible?

Ansible provides a feature called Ansible Vault, which allows you to encrypt sensitive data within playbooks or variable files. Vault uses symmetric encryption to securely store and retrieve sensitive information.