**1. What is Ansible?**

Ansible is a tool automating IT tasks more efficiently and less time consuming.

It is a software tool that is developed in Python language. It is useful while deploying any application using ssh without any downtime.

Ansible is agentless (you don’t need to install agent on target taget server) you can control target by your machine.

**2. What’s the Use of Ansible?**

Ansible can be used in IT Infrastructure to manage and deploy software applications to remote nodes. For example, let’s say you need to deploy a single software or multiple software to 100’s of nodes by a single command, with the help of Ansible you can deploy as many as applications to many nodes with one single command.

- For the multiple servers install, updates or repetitive tasks (Backups, create users, reboots, assign groups/permission) manually will take more time and tedious, we can automatize with ansible.

**3. How does Ansible work?**

There are two main categories of server type in Ansible: the nodes and controlling machine. It simply uses the SSH protocol to deploy modules to nodes. These nodes stored in remote nodes interact with Ansible Machine. The Ansible has the capability to manage more than 100 nodes in one single system.

**5. What are CD and CI, and what is Ansible’s relationship with them?**

CD stands for continuous delivery, and CI stands for continuous integration; both are software development practices.

In CD, developers build software that can be released into production at any given time. CI, on the other hand, consists of each developer uploading regularly scheduled integrations (usually daily), resulting in multiple integrations every day. Ansible is an ideal tool for CI/CD processes, providing a stable infrastructure for provisioning the target environment and then deploying the application to it.

**6. What is the difference between Ansible and Puppet?**

Ansible: The Ansible has the simplest technology written in the YAML language. It can be quickly installed and deployed because of agentless architecture. The Ansible supports automated workflow for continuous delivery.

Puppet: The puppet has complex technology in comparison to Ansible. This is written in Ruby language. To access this, it is important to learn Puppet DSL.

**7. What are the things Ansible can do?**

With the Ansible these are the following things one can do:

Deployment of application

Configuration management

Task automation

IT orchestration

**8. Explain what a “playbook” is.**

A playbook has a series of YAML-based files that send commands to remote computers via scripts. Developers can configure entire complex environments by passing a script to the required systems rather than using individual commands to configure computers from the command line remotely. Playbooks are one of Ansible’s strongest selling points and often referred to as the tool’s building blocks.

**9. What is Ansible Galaxy?**

This is a tool bundled with Ansible to create a base directory structure. Galaxy is a website that lets users find and share Ansible content. You can use this command to download roles from the website:

**10. Explain ad-hoc commands.**

The ad-hocs are used to take action on the hosts without writing the playbooks.

**11. How do you use Ansible to create encrypted files?**

To create an encrypted file, use the ‘ansible-vault create’ command.

$ ansible-vault create filename.yaml

You will get a prompt to create a password, and then to type it again for confirmation. You will now have access to a new file, where you can add and edit data.

**12. What is Ansible's role and how are they different from the playbook?**

Ansible Roles is basically another level of abstraction used to organize playbooks. They provide a skeleton for an independent and reusable collection of variables, tasks, templates, files, and modules which can be automatically loaded into the playbook. Playbooks are a collection of roles. Every role has specific functionality.

**13. What is inventory in ansible?**

/etc/ansible/hosts file called as inventory. It contains the group of the server name or IP’s.