

1. What is Ansible?

Ansible is an open-source automation tool that simplifies the management and deployment of software applications and configurations.

2. How does Ansible work?

Ansible works by connecting to remote machines over SSH and executing tasks defined in playbooks, which are written in YAML format.

3. What is a playbook in Ansible?

A playbook is a YAML file that defines a set of tasks, organized in a readable and structured manner, for Ansible to execute.

4. What are Ansible roles?

Ansible roles are a way to organize playbooks into reusable components, making it easier to manage and maintain automation tasks.

5. How do you install Ansible?

Ansible can be installed using package managers like apt (for Ubuntu) or yum (for CentOS), or even using tools like pip.

6. What is an inventory in Ansible?

An inventory is a list of hosts that Ansible manages, containing information about the hosts and their connection details.

7. How do you define an inventory in Ansible?

An inventory can be defined in a static inventory file or generated dynamically using scripts. It's usually stored in `/etc/ansible/hosts`.

8. How do you execute a playbook in Ansible?

Use the command: `ansible-playbook <playbook.yml>`

9. What is a task in Ansible?

A task is a single unit of work defined in a playbook. It can involve tasks like installing packages, copying files, or restarting services.

10. How do you define a task in Ansible?

- Tasks are defined in YAML format under the tasks section of a playbook.

11. What is an Ansible module?

- An Ansible module is a predefined script that performs a specific task, such as managing packages, files, or services.

12. How do you use variables in Ansible?

- Variables are defined in YAML format and can be used to store and reuse values throughout playbooks and roles.

13. What is a handler in Ansible?

- A handler is a special task that gets triggered when specific conditions are met, typically used to restart services after a change.

14. How do you define a handler in Ansible?

- Handlers are defined in the handlers section of a playbook and are usually associated with tasks.

15. What is idempotence in Ansible?

- Idempotence means that applying the same configuration multiple times will have the same effect as applying it once, ensuring predictable results.

16. How do you manage remote machines' SSH keys with Ansible?

- Ansible has the `known_hosts` module, which can be used to manage SSH keys on remote hosts.

17. What is the `ansible.cfg` file?

- The `ansible.cfg` file is used to configure Ansible's behavior, including settings like the default inventory file location and various options.

18. What is Ansible Galaxy?

- Ansible Galaxy is a platform where you can find, share, and reuse Ansible roles and collections created by the community.

19. How do you install roles from Ansible Galaxy?

- Use the command: `ansible-galaxy install <role-name>`

20. How can you apply conditionals in Ansible playbooks?

- Ansible supports conditionals using tasks like `when`, which execute based on predefined conditions.

21. What is Ansible Vault?

- Ansible Vault is a tool for securely encrypting sensitive data in Ansible playbooks and roles.

22. How do you use Ansible Vault to encrypt data?

- Use the command: `ansible-vault encrypt <filename>`

23. How can you decrypt a file encrypted with Ansible Vault?

- Use the command: `ansible-vault decrypt <filename>`

24. How do you run Ansible in check mode?

- Use the command: `ansible-playbook --check <playbook.yml>`

25. How can you use loops in Ansible playbooks?

- Ansible supports loops using constructs like `with_items` or `loop`.

26. How do you create a role using Ansible Galaxy?

- Use the command: `ansible-galaxy init <role-name>`

27. How do you pass extra variables to an Ansible playbook?

- Use the command: `ansible-playbook -e "variable=value" <playbook.yml>`

28. What is Ansible Tower?

- Ansible Tower (now Red Hat Ansible Automation Platform) is a web-based interface and dashboard for managing and automating Ansible tasks.

29. How do you install Ansible Tower?

- Ansible Tower is installed using an installer script provided by Red Hat.

30. What is the purpose of become in Ansible?

- The become keyword is used to switch to a different user or privilege level (usually root) while executing tasks.

31. How can you specify the user to become in Ansible playbooks?

- Use the become parameter in tasks, like: `become: yes` or `become_user: root`.

32. What is the Ansible gather_facts module?

- The gather_facts module collects information about remote hosts, such as hardware details and network configuration.

33. How can you disable gathering facts in Ansible?

- Use the command: `ansible-playbook <playbook.yml> --skip-tags gather_facts`

34. What is Ansible's register module used for?

- The register module is used to store the output of a task in a variable for later use.

35. How do you include a playbook inside another playbook in Ansible?

- Use the include statement or import_playbook module.

36. What is the purpose of Ansible facts?

- Ansible facts provide information about remote hosts that can be used in playbooks and templates.

37. How do you use conditionals with when to run tasks conditionally in Ansible?

- Tasks can have a when statement that evaluates a condition, and the task is executed only if the condition is true.

38. What is an Ansible template?

- An Ansible template is a file with placeholders that are replaced with actual values when the template is deployed.

39. How do you use Ansible to manage Docker containers?

- Ansible has modules like docker_container and docker_image to manage Docker containers and images.

40. How do you manage package installations with Ansible?

- Use modules like yum or apt to install packages on different Linux distributions.

41. How do you specify the order of task execution in an Ansible playbook?

- The order of task execution is determined by the order in which tasks are defined within a playbook.

42. How can you run only specific tasks from an Ansible playbook?

- Use tags to group tasks and then use the --tags flag to run specific tags.

43. What is Ansible Vault's edit mode?

- Ansible Vault's edit mode allows you to edit encrypted files securely.

44. How do you manage system services using Ansible?

- Ansible has a systemd module that allows you to manage and control system services.

45. What is an Ansible fact cache?

- An Ansible fact cache stores facts gathered from remote hosts, improving performance by reducing the need to gather facts each time.

46. How can you run Ansible in parallel on multiple hosts?

- Ansible inherently runs tasks in parallel across multiple hosts by default.

47. How do you set up SSH keys for Ansible authentication?

- You generate an SSH key pair and distribute the public key to remote hosts.

48. How do you debug Ansible playbooks?

- You can use the debug module, and also Ansible's verbose and debugging modes.

49. What is Ansible's delegate_to directive used for?

- The delegate_to directive allows you to execute a task on a different host than the target host.

50. How do you perform rolling updates using Ansible?

- You can use Ansible to update hosts one at a time by applying changes to a subset of hosts, allowing you to manage rolling updates seamlessly.