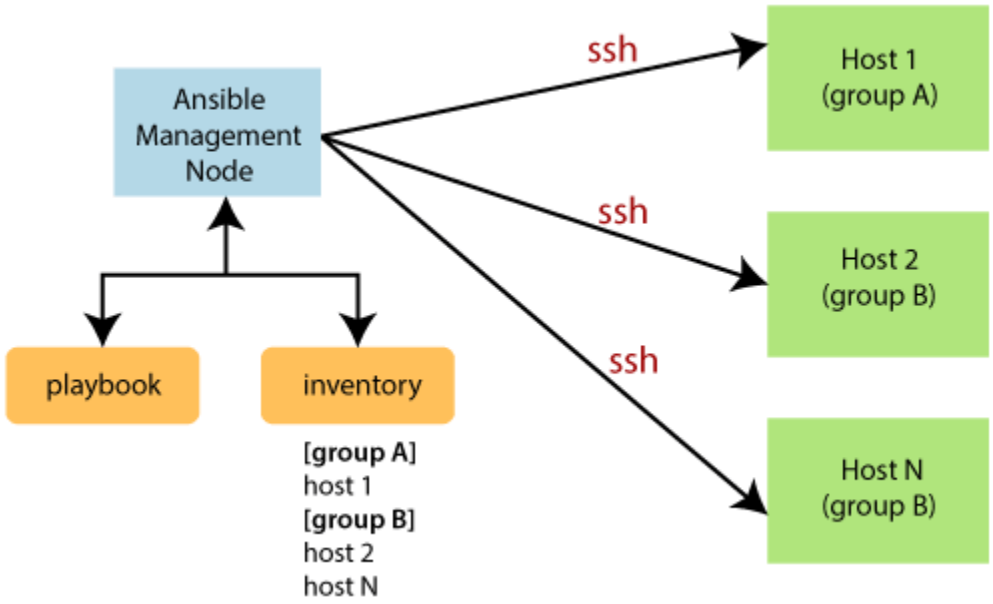
Ansible Workflow

Ansible works by connecting to your nodes and pushing out a small program called **Ansible modules** to them. Then Ansible executed these modules and removed them after finished. The library of modules can reside on any machine, and there are no daemons, **servers,** or **databases** required.



in the above image, the **Management Node** is the controlling node that controls the entire execution of the playbook. The **inventory** file provides the list of hosts where the Ansible modules need to be run. The **Management Node** makes an **SSH** connection and executes the small modules on the host's machine and install the software.

Ansible removes the modules once those are installed so expertly. It connects to the host machine executes the instructions, and if it is successfully installed, then remove that code in which one was copied on the host machine.

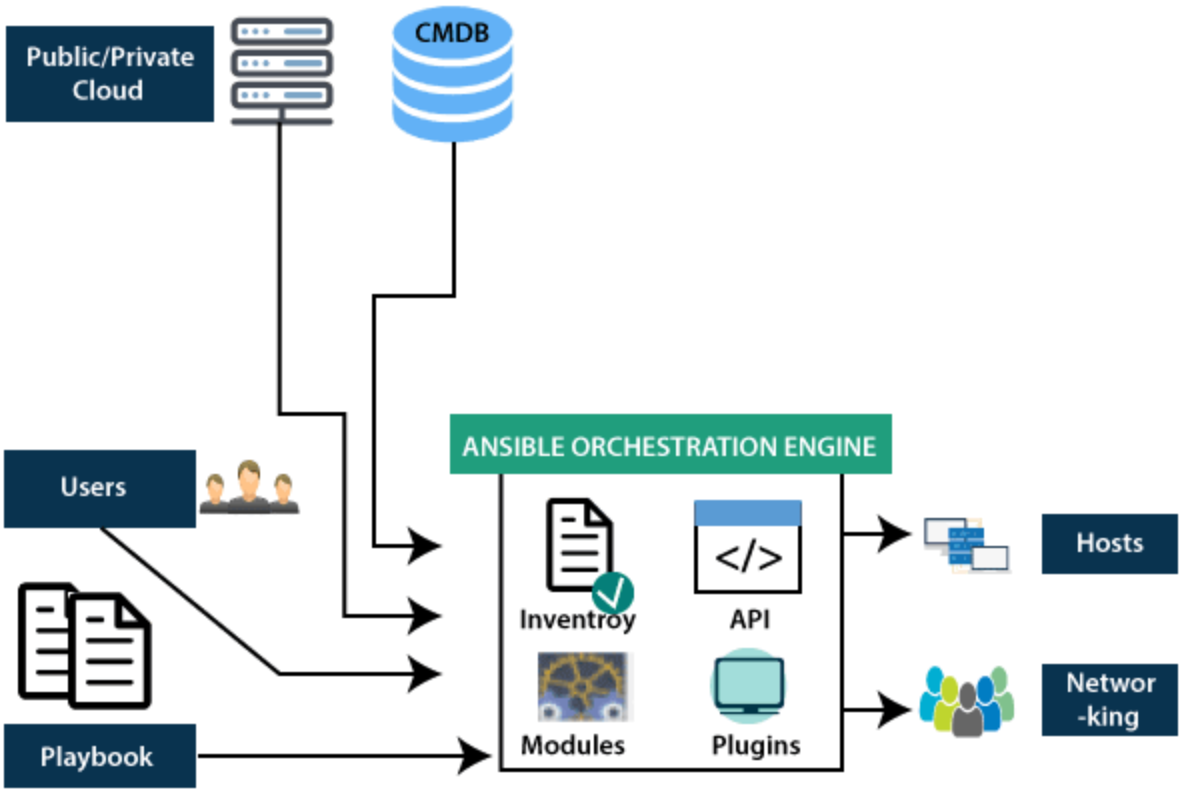
Terms used in Ansible

Here are some important terms which are used in Ansible, such as:

Terms	Explanation
Ansible Server	It is a machine where Ansible is installed and from which all tasks and playbooks will be executed.
Modules	The module is a command or set of similar commands which is executed on the client-side.
Task	A task is a section which consists of a single procedure to be completed.
Role	It is a way of organizing tasks and related files to be later called in a playbook.
Fact	The information fetched from the client system from the global variables with the gather facts operation.
Inventory	A file containing the data regarding the Ansible client-server.
Play	It is the execution of the playbook.
Handler	The task is called only if a notifier is present.
Notifier	The section attributed to a task which calls a handler if the output is changed.
Tag	It is a name set to a task that can be used later on to issue just that specific task or group of jobs.

Ansible Architecture

The Ansible orchestration engine interacts with a user who is writing the Ansible playbook to execute the Ansible orchestration and interact along with the services of private or public cloud and configuration management database. You can show in the below diagram, such as:



Inventory

Inventory is lists of nodes or hosts having their IP addresses, databases, servers, etc. which are need to be managed.

API's

The Ansible API's works as the transport for the public or private cloud services.

Modules

Ansible connected the nodes and spread out the Ansible modules programs. Ansible executes the modules and removed after finished. These modules can reside on any machine; no database or servers are required here. You can work with the chose text editor or a terminal or version control system to keep track of the changes in the content.

Plugins

Plugins is a piece of code that expends the core functionality of Ansible. There are many useful plugins, and you also can write your own.

Playbooks

Playbooks consist of your written code, and they are written in YAML format, which describes the tasks and executes through the Ansible. Also, you can launch the tasks synchronously and asynchronously with playbooks.

Hosts

In the Ansible architecture, hosts are the node systems, which are automated by Ansible, and any machine such as RedHat, Linux, Windows, etc.

Networking

Ansible is used to automate different networks, and it uses the simple, secure, and powerful agentless automation framework for IT operations and development. It uses a type of data model which separated from the Ansible automation engine that spans the different hardware quite easily.

Cloud

A cloud is a network of remote servers on which you can store, manage, and process the data. These servers are hosted on the internet and storing the data remotely rather than the local server. It just launches the resources and instances on the cloud, connect them to the servers, and you have good knowledge of operating your tasks remotely.

CMDB

CMDB is a type of repository which acts as a data warehouse for the IT installations.