Ansible
Ansible is used for Configuration management
Configuration management is installing required software in our machines --> it could be used to copy required files from one machine to another machine

Configuration management:
Installing required software in the machines
Copy required files from one machine to another machine
OS updates and patching

Say I have 5-10 EC2 VMs now I want to install Java or Python on all the machines --> it could be done manually as well but it is a time-consuming and error-prone process. The solution is to use the tool or software to overcome this problem. To overcome problems associated with manual configuration management, we can go with Automation configuration management and to automate Configuration management, we have many tools available
Example: Chef, Puppet, Ansible (mostly being used)

Ansible is very friendly and uses yaml syntax. IBM Redhat owns and manages Ansible currently
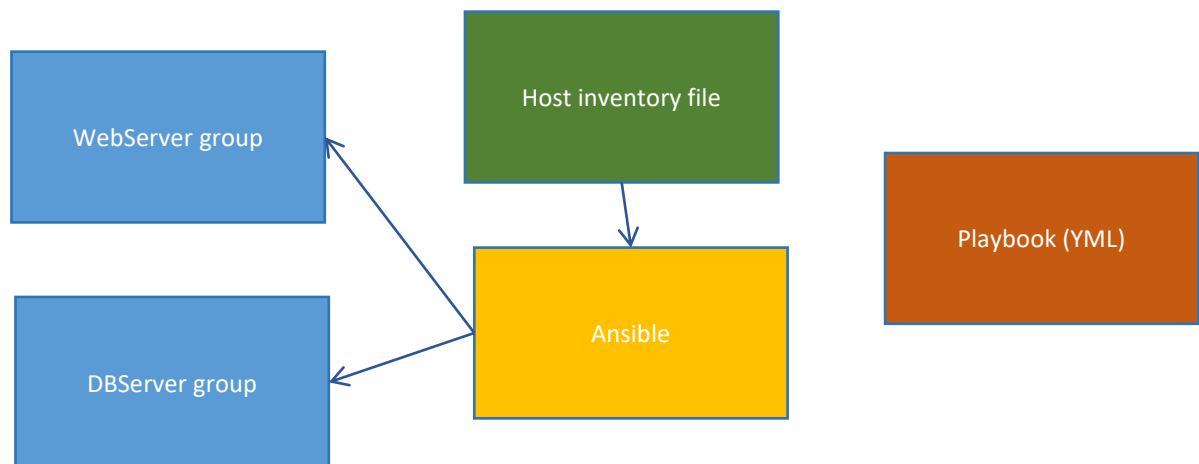
Ansible Architecture
Controlling node
Managed nodes
Host inventory file
Playbook

Lets say we have a bunch of EC2s for web servers (Web server group), similarly db_server group, etc. Yes Ansible can manage different groups also

"Playbook" is where we will have the actual set of tasks in the YAML format. The script is in YML format, the set of tasks you want to perform

"Managed nodes" means all machines being managed by Ansible and that information will be kept inside the "Host inventory file"

The place where are managing different machines, it is called as "Controlling nodes". The means Ansible will be present in the "Controlling nodes"

Terminology
The machine which contains Ansible software/tool to manage other machines is called as "Controlling Node"

The machines which are managed by "Control nodes" are called as "Managed nodes"
"Host inventory file" contains "Managed nodes" information
"Playbook" is a YAML/YML which contains set of tasks

Exercise:
1. Create 3 Linux machines in AWS --> install Ansible on one machine, which will act as "Control node", other 2 machines we will have "managed nodes"
2. Change the sudoers file
3. We got to install Ansible in the "Control node" VM
4. Connect other machines in "Managed nodes" with Ansible
5. Verify connections are successful or not