**Deploy RabbitMQ using Ansible**

**Prerequisite**

**1.Virtual Machine with ubuntu 20.04.**

**2.CPU 2 and 4 GM RAM.**

Ansible is an open-source automation tool, or platform, used for IT tasks such as configuration management, application deployment, intraservice orchestration, and provisioning. Automation is crucial these days, with IT environments that are too complex and often need to scale too quickly for system administrators and developers to keep up if they had to do everything manually. Automation simplifies complex tasks, not just making developers’ jobs more manageable but allowing them to focus attention on other tasks that add value to an organization. In other words, it frees up time and increases efficiency. And Ansible, as noted above, is rapidly rising to the top in the world of automation tools. Let’s look at some of the reasons for Ansible’s popularity.

Now that we have seen what is Ansible, let us find out the various Benefits of Ansible.

**Benefits of Ansible**

Free: Ansible is an open-source tool.

Very simple to set up and use: No special coding skills are necessary to use Ansible’s playbooks (more on playbooks later).

Powerful: Ansible lets you model even highly complex IT workflows.

Flexible: You can orchestrate the entire application environment no matter where it’s deployed. You can also customize it based on your needs.

Agentless: You don’t need to install any other software or firewall ports on the client systems you want to automate. You also don’t have to set up a separate management structure.

Efficient: Because you don’t need to install any extra software, there’s more room for application resources on your server

**Ansible Commands**



**To install it through apt on localhost VM, use the following:**

$ sudo apt-get update

$ sudo apt-get install software-properties-common

$ sudo apt-add-repository ppa:ansible/ansible $ sudo apt-get update

$ sudo apt-get install ansible

$ sudo ansible –version

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**Ansible configuration file location**

config file = /etc/ansible/ansible.cfg

configured module search path = ['/home/neuroadmin/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']

ansible python module location = /usr/lib/python3/dist-packages/ansible

executable location = /usr/bin/ansible

**Add your host to ansible hosts file.**

Vi /etc/ansible/hosts

Add the entry and save the file

[servers]

Localhostipaddress

Then save the file

Check the host connection using ansible command

Ansible -m localhostipaddress ping

Output

root@ansible:~# ansible -m ping localhost

localhost | SUCCESS => {

"changed": false,

"ping": "pong"

}

Create yaml for RabbitMQ deployment (playbook for RabbitMQ)

Vi RabbitMQ.yaml

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- name: Deploy RabbitMQ

hosts: localhost

become: yes

tasks:

- name: Install RabbitMQ

apt:

name: rabbitmq-server

state: present

- name: Enable RabbitMQ Management Plugin

command: rabbitmq-plugins enable rabbitmq\_management

- name: Enable and Start RabbitMQ service

service:

name: rabbitmq-server

enabled: yes

state: started

then save the file.

**Run the ansible playbook and to deploy the RabbitMQ**

**ansible-playbook mq.yml**

**neuroadmin@ansible:~$ ansible-playbook mq.yml**

**PLAY [Deploy RabbitMQ] \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**TASK [Gathering Facts] \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**ok: [localhost]**

**TASK [Install RabbitMQ] \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**changed: [localhost]**

**TASK [Enable RabbitMQ Management Plugin] \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**changed: [localhost]**

**TASK [Enable and Start RabbitMQ service] \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**ok: [localhost]**

**PLAY RECAP \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**localhost : ok=4 changed=2 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0**

**Check the RabbitMQ Following command.**

**neuroadmin@ansible:~$ sudo rabbitmqctl status | grep "RabbitMQ\|rabbitmq"**

**RabbitMQ version: 3.8.2**

**Enabled plugin file: /etc/rabbitmq/enabled\_plugins**

**\* rabbitmq\_management**

**\* rabbitmq\_web\_dispatch**

**\* rabbitmq\_management\_agent**

**Node data directory: /var/lib/rabbitmq/mnesia/rabbit@ansible**

**\* /var/log/rabbitmq/rabbit@ansible.log**

**\* /var/log/rabbitmq/rabbit@ansible\_upgrade.log**

**Now you can connect to RabbitMQ via web browser.**

**http://** [**http://172.171.241.208:15672/**](http://172.171.241.208:15672/)

