A quick guide to installing IBM MQ using Ubuntu Linux and Ansible Galaxy

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In this article I will provide you with step-by-step instructions on how to install IBM MQ for developers on an Ubuntu Linux server using the IBM MQ Ansible Galaxy collection of playbooks and modules. I will assume you don't have Ansible installed so if you have it already skip the 'apt' install commands. Following these instructions will install IBM MQ for developers, setup users, create a test queue manager called QM1, start the web console and create some sample MQ objects. As this is just a test server/sandbox environment - for simplicity I will use the 'root' user.

The IBM MQ Ansible Galaxy collection supports other operating systems too, for more details see, [IBM MQ Ansible Galaxy Collection](#)

Want to get involved? Head over to the open-source IBM mq-ansible project on [GitHub](#)

Install Ansible and the IBM MQ Ansible Galaxy Collection

Full details for an Ansible installation can be found here, [installing-ansible-on-ubuntu](#)

STEP Type the following to install Ansible using APT,

```
$ apt update
$ apt install software-properties-common
$ add-apt-repository --yes --update ppa:ansible/ansible
```

```
$ apt install --yes ansible
```

STEP Type the following to install the IBM MQ collection,

```
$ ansible-galaxy collection install ibm_messaging.ibmmq
```

IBM MQ Ansible Setup

STEP Create a file called **setup-playbook.yml** with the following contents:

```
---
- name: prepares MQ server
  hosts: localhost
  connection: local
  become: true
  environment:
    PATH: /opt/mqm/bin:{{ ansible_env.PATH }}
  collections:
    - ibm_messaging.ibmmq
  tasks:
    - name: Import downloadmq role
      ansible.builtin.import_role:
        name: ibm_messaging.ibmmq.downloadmq
    - name: Import setupusers role
      ansible.builtin.import_role:
        name: ibm_messaging.ibmmq.setupusers
    - name: Import installmq role
      ansible.builtin.import_role:
        name: ibm_messaging.ibmmq.installmq
    - name: Import setupenvironment role
      ansible.builtin.import_role:
        name: ibm_messaging.ibmmq.setupenvironment
    - name: Get MQSC file
      become: true
      become_user: mqm
      ansible.builtin.import_role:
```

```yaml
      name: ibm_messaging.ibmmq.getconfig
    vars:
      mqsc_local: dev-config.mqsc
  - name: Set up web console
    become: true
    become_user: mqm
    ansible.builtin.import_role:
      name: ibm_messaging.ibmmq.setupconsole
  - name: Start web console
    become: true
    become_user: mqm
    ansible.builtin.import_role:
      name: ibm_messaging.ibmmq.startconsole
  - name: Create a queue manager
    become_user: mqm
    tags: ["queue"]
    ibm_messaging.ibmmq.queue_manager:
      qmname: QM1
      state: present
  - name: Use our MQSC File
    become: true
    become_user: mqm
    ibm_messaging.ibmmq.queue_manager:
      qmname: QM1
      state: running
      mqsc_file: /var/mqm/dev-config.mqsc
```

STEP Copy the example MQSC file to the same folder as the playbook, the example comes with the Galaxy collection so yours might be in a different folder if you already had Ansible installed, this article just uses the default which puts them in your home folder.

Type,

```
$ cp
.ansible/collections/ansible_collections/ibm_messaging/ibmmq/playbooks
/files/dev-config.mqsc ./
```

Optionally, if you don't have the supplied example MQSC file or you want to use your own file just do something like,

```
$ echo "define ql(test)" > dev-config.mqsc
```

Install IBM MQ and create a Queue Manager

STEP Now you can install IBM MQ on this server/localhost using this command,

```
$ ansible-playbook setup-playbook.yml -e 'ibmMqLicence=accept'
```

To install a specific version of IBM MQ, override the default version,

```
$ ansible-playbook setup-playbook.yml -e 'ibmMqLicence=accept
vrmf=9.4.2.0 version=9.4.2.0'
```

When the installation has finished you can `su` to the 'mqm' user and observe your running queue manager e.g.,

```
$ su - mqm
```

```
$ dspmq
```

That's pretty much it, if you want to install on a remote host, make sure you have SSH access, change these lines in **setup-playbook.yml**

hosts: localhost

  connection: local

to

hosts: mqservers

Create an ini file with the target server details, e.g.,

[mqservers]

mq-server1 ansible_host=your-remote-host.com ansible_ssh_user=root

Run the playbook with the -i option,

```
$ ansible-playbook setup-playbook.yml -i ./inventory.ini -e
'ibmMqLicence=accept'
```

Accessing the IBM MQ Web Console

Firstly I recommend you change the default passwords, edit the **mqwebuser.xml** file,

```
$ vi /var/mqm/web/installations/Installation1/servers/mqweb/mqwebuser.xml
```

Search for 'password' and you'll see the usernames and their password, e.g. 'mqadmin' replace the passwords with your own choice of password.

Now find the URL for the console,

```
$ dspmqweb
```

This will give you the URL for the console e.g.,

```
URLS:
  https://your-host-name:9443/ibmmq/rest/
  https://your-host-name:9443/ibmmq/console/
```

Use the username/password combination from **mqwebuser.xml**

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