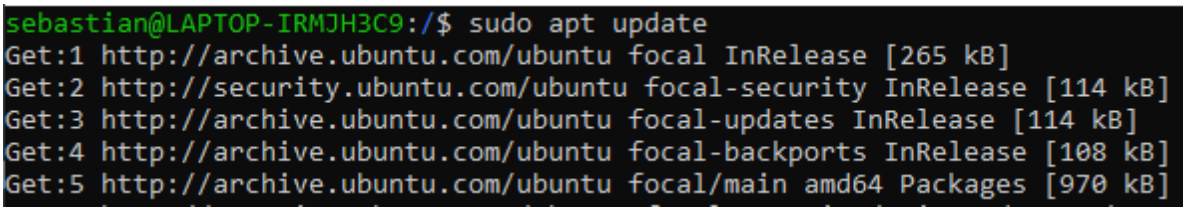
Creating an Ansible playbook

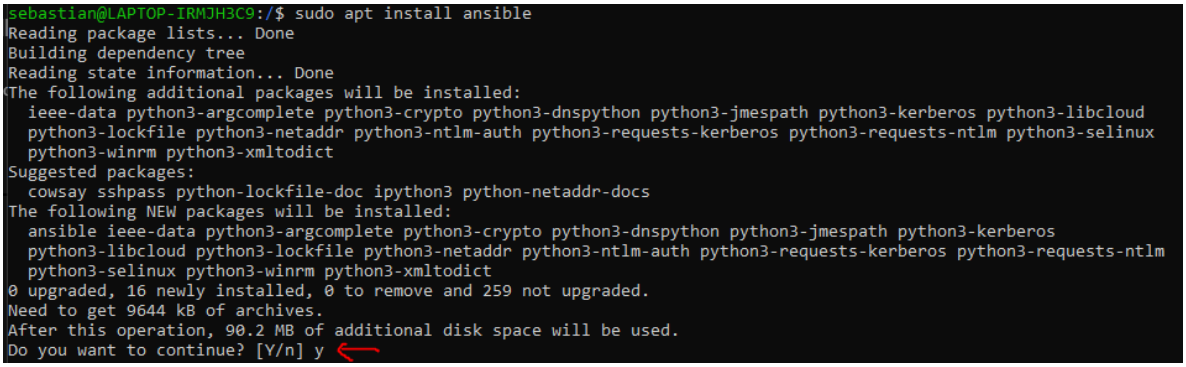
Installing Ansible on control node

These are the instructions to install Ansible on Ubuntu 20.04 LTS. To install on other distributions reference Official Ansible Documentation.

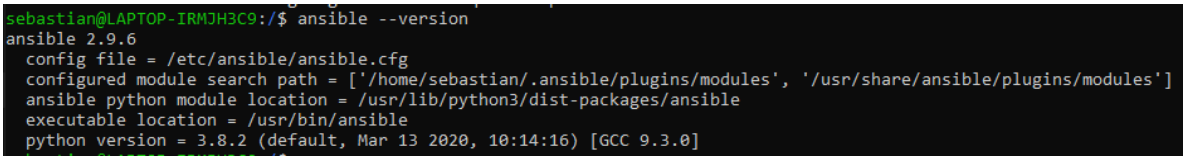
Update packages with `sudo apt update`



Once the packages are updated, run `sudo apt install ansible` to install the software. Type y when prompted.



Type `ansible --version` to check if the installation has been successful



Configuring inventory of hosts

Type `cd /etc/ansible` to move to the folder where the `hosts` file is stored.

```
sebastian@LAPTOP-IRMJH3C9:~$ cd /etc/ansible
sebastian@LAPTOP-IRMJH3C9:/etc/ansible$ ls
ansible.cfg  hosts
```

Open the `hosts` file using any editor. In this case `vim` will be used.

```
sebastian@LAPTOP-IRMJH3C9:/etc/ansible$ vi hosts
```

Add a new group of hosts at the end of the file. To create a group, write `[<group-name>]` and below write all the hosts' ips.

```
[vms]
192.168.100.26
192.168.100.27
```

Run the command `ansible <group-name> -m ping` to check if Ansible is able to communicate with the hosts.

Creating the playbook

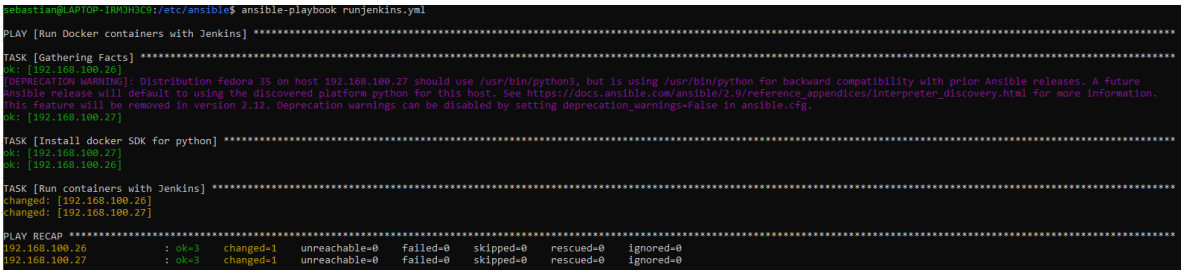
Create a new playbook file on `/etc/ansible`. Use `touch <filename>.yml` or, as in this case, `sudo vi <filename>.yml`

```
sebastian@LAPTOP-IRMJH3C9:/etc/ansible$ sudo vi runjenkins.yml
```

The following playbook will install Docker SDK on the servers in order to user docker_container module to run a Docker container. For more information about modules, visit Ansible Oficcial Module Documentation.

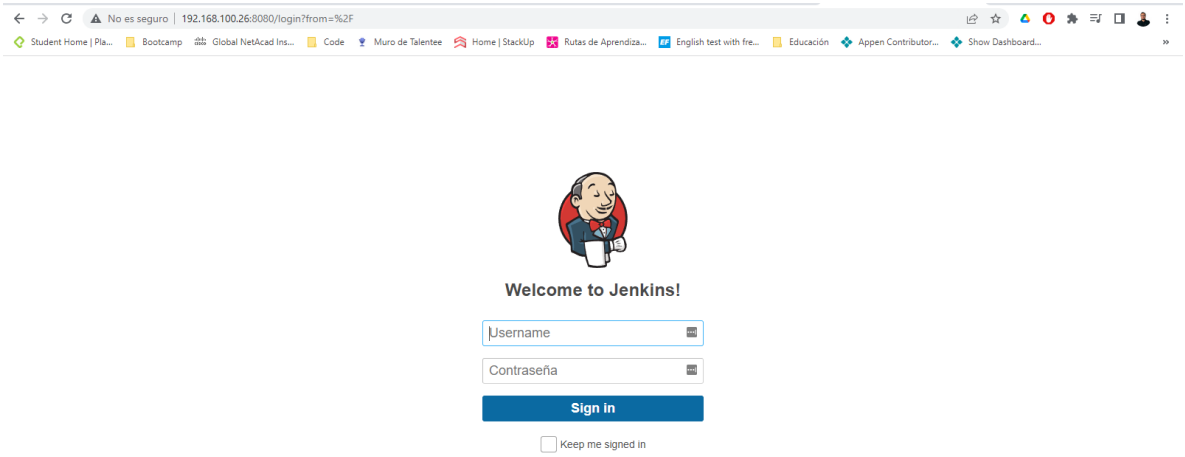
```yaml
---
- name: Run Docker containers with Jenkins
  hosts: vms
  tasks:
    - name: Install Docker SDK for python
      pip:
        name:
          - docker
          - docker-compose


    - name: Run containers with Jenkins
      docker_container:
        name: jenkins-python
        volumes:
          - jenkins_home:/var/jenkins_home
        detach: true
        image: jenkins:python
        ports:
          - "8080:8080"
          - "50000:50000"
        state: started
```

To run a playbook, type in console `ansible-playbook <playbook-name>.yml`



If everything was configured successfully, all tasks should have been executed on the remote servers.

Remote server 1:



Remote server 2: