S6.B.01
SAE
Ansible

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I Introduction

As part of the penultimate phase of the project realised for the 3thd Year, we have to deploy our previous infrastructure made in phase 4 with Ansible, to improve fast deployment and then high availability.
The main components we have to deploy are :

1. k3s cluster
2. Rancher through helm
3. Create RKE2 cluster with workers and master node
4. Create deployment / secrets / volumes / etc... with kubectl

II Requirements

To be able to deploy Kubernetes artefacts, we firstly have to install some modules and roles dedicated for these tasks.

- ansible-galaxy collection install kubernetes.core
- ansible-galaxy role install lablabs.rke2

We also have to configure the users on the machines to be able to connect through SSH without typing a password, and to be able to use sudo without password too.
On each machine we have to add an user, install ssh and modify the sudoers file.

```
adduser sisyphe
apt install ssh
echo "sisyphe ALL=(ALL:ALL) NOPASSWD: ALL >> /etc/sudoers
```

We can now copy the public key to the host machine.

```
ssh-copy-id -i  SSH/sisyphe_key.pub sisyphe@10.0.1.13
```

III Issues

During this phase, I encountered various issues. However, I have been able to run the infrastructure with ansible with special conditions which are :

- Making the infrastructure by hand, and waiting for the node to register, even if there was error.
- Creating the infrastructure by hand, but creating the cluster through ansible, fine too, we have to wait for the node to register itself.
- I now have to test if making all the infrastructure by Ansible works, still waiting for the node to register as it takes time.

I think, and I guess that if I restart rke2-server.service before it finishes, all the infrastructure crashes.