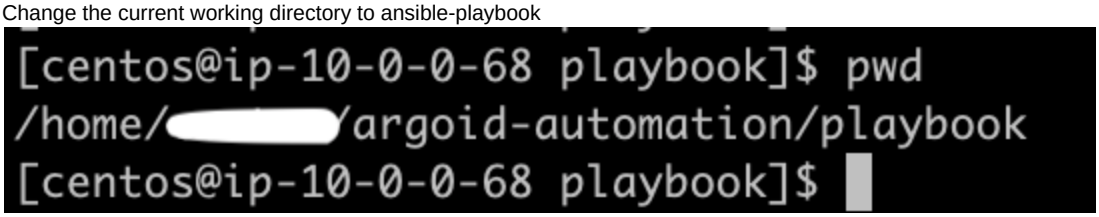
Kafka Setup

Prerequisites:

- Java-8 needs to be installed
- Zookeeper Setup - Zookeeper setup
- Check with leads, whether to keep the Kafka data on boot(root, os) disk or on secondary(data) disks
- If Kafka data to be kept on a secondary disk,
  * then create new data disks through cloud console UI,**(note down the new disk, it could be /dev/sdb or /dev/sdc)**
  * Create ext4 filesystem on the new disk
  `mkfs.ext4  /dev/sdc` **(here as an example the disk device is /dev/sdc , please check with the new disk device accordingly to the environment/cloud)**
  * Create a new directory where new data disks will get mounted
  `mkdir /data/1/`
  `mount /dev/sdc /data/1/`

Ansible run:

- Login to VM where ansible-playbooks are placed
- Change the current working directory to ansible-playbook



- Modify `kafka` inventory IP addresses (accordingly to the environment IP addresses) in `inventory/env_name.ini` file
  Note: Do not use `env_name.ini` as an inventory name in your case, here it is shown just for example purpose, in your case name of the inventory file will be different

- Kafka data will be placed in the path mentioned with key `kafka_data_dir` in an inventory file (in this example, it's a `/data/1/kafka-logs/`)
- Ansible run `ansible-playbook -i inventory/env_name.ini kafka.yml --private-key=files/common/id_rsa --tags=cluster_setup`

Manual Steps:

- Add host mappings in each Kafka server and client VM(/etc/hosts)

```
[centos@ip-10-0-0-39 ~]$ cat /etc/hosts
127.0.0.1   localhost localhost.localdomain localhost4 localhost4.localdomain4
::1         localhost localhost.localdomain localhost6 localhost6.localdomain6
10.0.0.50 ip-10-0-0-50.ap-south-1.compute.internal
10.0.0.163 ip-10-0-0-163.ap-south-1.compute.internal
10.0.0.39 ip-10-0-0-39.ap-south-1.compute.internal
10.0.0.40 ip-10-0-0-40.ap-south-1.compute.internal
10.0.0.175 ip-10-0-0-175.ap-south-1.compute.internal
10.0.0.170 ip-10-0-0-170.ap-south-1.compute.internal
10.0.0.180 ip-10-0-0-180.ap-south-1.compute.internal
10.0.0.54 ip-10-0-0-54.ap-south-1.compute.internal
10.0.0.209 ip-10-0-0-209.ap-south-1.compute.internal
10.0.0.32  ip-10-0-0-32.ap-south-1.compute.internal
10.0.0.47  ip-10-0-0-47.ap-south-1.compute.internal
10.0.0.160 ip-10-0-0-160.ap-south-1.compute.internal
[centos@ip-10-0-0-39 ~]$
```

- Increase `socket.send.buffer.bytes` `socket.receive.buffer.bytes` `socket.request.max.bytes` in `/etc/kafka/conf/server.properties` file

```
#advertised.port=<port accessible by clients>
advertised.listeners=PLAINTEXT://ip-10-0-0-50.ap-south-1.compute.internal:9092
# The number of threads handling network requests
num.network.threads=10

# The number of threads doing disk I/O
num.io.threads=15

# The send buffer (SO_SNDBUF) used by the socket server
#socket.send.buffer.bytes=10240
socket.send.buffer.bytes=1024000
# The receive buffer (SO_RCVBUF) used by the socket server
#socket.receive.buffer.bytes=10240
socket.receive.buffer.bytes=1024000

# The maximum size of a request that the socket server will accept (protection against OOM)
#socket.request.max.bytes=102485
socket.request.max.bytes=10248500
```

- Restart kafka-server
  `sudo systemctl restart kafka-server`