Lesson Reference

1. On all three nodes, add the GPG key and package repository, then install Confluent and Java.

```
wget -qO - https://packages.confluent.io/deb/5.2/archive.key | sudo apt-key add -

sudo add-apt-repository "deb [arch=amd64] https://packages.confluent.io/deb/5.2 stable mai
n"

sudo apt-get update && sudo apt-get install -y openjdk-8-jdk confluent-community-2.12
```

2. On all three nodes, edit the `hosts` file.

```
sudo vi /etc/hosts
```

3. Add the following entries to the `hosts` file on all three servers. Use the private IP addresses of your three servers (you can find them in Cloud Playground).

```
<server 1 private IP> zoo1
<server 1 private IP> zoo2
<server 1 private IP> zoo3
```

4. Edit the ZooKeeper config file.

```
sudo vi /etc/kafka/zookeeper.properties
```

5. Delete the contents of the config file, and replace them with the following:

```
tickTime=2000
dataDir=/var/lib/zookeeper/
clientPort=2181
initLimit=5
syncLimit=2
server.1=zoo1:2888:3888
server.2=zoo2:2888:3888
server.3=zoo3:2888:3888
autopurge.snapRetainCount=3
autopurge.purgeInterval=24
```

6. Set the Zookeeper ID for each server.

```
sudo vi /var/lib/zookeeper/myid
```

7. On each server, set the contents of `/var/lib/zookeeper/myid` to the server's ID. On Server 1, enter `1`. On Server 2, enter `2`, and on Server 3, enter `3`.

```
<server id 1, 2, or 3>
```

8. Edit the Kafka config file.

```
sudo vi /etc/kafka/server.properties
```

9. Edit the `broker.id`, `advertised.listeners`, and `zookeeper.connect` in the config file. Set the broker ID to the appropriate ID for each server (`1` on Server 1, `2` on Server 2, and so on).
10. For `advertised.listeners`, provide the hostname for each server: zoo1, zoo2, or zoo3 as appropriate.
11. Set `zookeeper.connect` to `zoo1:2181`.

```
broker.id=<server id 1, 2, or 3>
...
advertised.listeners=PLAINTEXT://<hostname zoo1, zoo2, or zoo3>:9092
...
zookeeper.connect=zoo1:2181
```

12. Start and enable the Zookeeper service.

```
sudo systemctl start confluent-zookeeper
sudo systemctl enable confluent-zookeeper
```

13. Wait a few seconds, then do the same for the Kafka service.

```
sudo systemctl start confluent-kafka
sudo systemctl enable confluent-kafka
```

14. Check the services to make sure they are running. Both services should be `active (running)` on all three servers.

```
sudo systemctl status confluent*
```

15. Test your cluster by listing the current topics.

```
kafka-topics --list --bootstrap-server localhost:9092
```

16. Since you have not created any topics yet, you will only see a default topic. The output should look like this:

```
__confluent.support.metrics
```