**Setting up basic kafka cluster with zookeeper ensemble:**

**Step-1: Setup Zookeeper ensemble (cluster): setup 3 instances for DEV minimum**

1. Below are minimum configurations in zookeeper.properties for each zookeeper instance. Each instance uses its own properties file.

Adjust dataDir and ports for each instance.

zookeeper-1.properties:

# use different directories if hosting multiple instances on same server.

dataDir=I:/tmp/zk/1

# the port at which the clients will connect

clientPort=2181

# disable the per-ip limit on the number of connections since this is a non-production config

maxClientCnxns=0

tickTime=10000

initLimit=10

syncLimit=5

**# each instance will use 3 ports, one for clients to listen in (2181) other two are for communicating with each other.**

server.1=localhost:2888:3888

server.2=localhost:2889:3889

server.3=localhost:2890:3890

1. Go to each **dataDir** and create a file with name “myid” and add corresponding zookeeper numerical id. It has to be numerical and should match what we are putting in all zookeeper.properties



server.<id>=localhost:2888:3888

server.**1**=localhost:2888:3888

server.**2**=localhost:2889:3889

server.**3**=localhost:2890:3890

1. Startup each instances from kafka\_home/bin using corresponding zookeeper.properties file

Ex:

./zookeeper-server-start.sh ../config/zookeeper-1.properties

./zookeeper-server-start.sh ../config/zookeeper-2.properties

./zookeeper-server-start.sh ../config/zookeeper-3.properties

**Step-2: Setup Kafka cluster: setup 3 instances min for DEV.**

1. Add all zookeeper instances in kafka server.properties for property “zookeeper.connect”

Example:

zookeeper.connect=localhost:2181,localhost:2182,localhost:2183

1. Add below properties in each kafka server config .

# Timeout in ms for connecting to zookeeper

zookeeper.connection.timeout.ms=6000

##### Misc

group.max.session.timeout.ms=5000

group.max.session.timeout.ms=90000

session.timeout.ms=60000

1. Start up each kafka instance

Ex:

./kafka-server-start.sh ../config/server-1.properties

./kafka-server-start.sh ../config/server-2.properties

./kafka-server-start.sh ../config/server-3.properties

Step-3: Alter existing kafka topics to use cluster

1. Change “—replication-factor” for each topic to 3

Ex: ./kafka-topic.sh –alter –topic <name> --zookeeper host:port --replication-factor 3