# **Kafka local setup**

. means current directory

--Double hyphen means predefined key

Windows means use backward slash

|  |  |
| --- | --- |
| Windows | Mac |
| %KAFKA\_HOME%  Whereas KAFKA\_HOME is an environment variable | $KAFKA\_HOME |
| Use BACK slash \ | Forward slash / |
| .bat | .sh |
| .. means current directory |  |
| .also sometimes current directory- I am also not clear |  |
| C:\kafka\_2.13-3.3.1>.\bin\windows\kafka-console-consumer.bat | If u just type this u will get all the options available with this batch file |
| --In the command means predefined option |  |

Download kafka from kafka quickstart

And make sure u have the kafka in c folder

1. Start zookeeper

First always Start zookeeper with zookeeper properties file

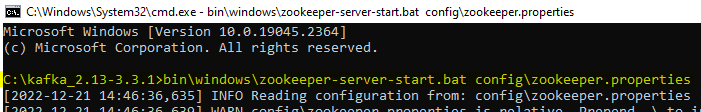
Always run the command outside bin folder because u need to provide the properties files which are in config folder which is outside of bin folder –so don’t run commands inside bin folder

**Way1 without using dot :-**

E:\study softwares\kafka-3.3.1-src>bin\windows\zookeeper-server-start.bat config\zookeeper.properties

Or

C:\kafka\_2.13-3.3.1\bin\windows\zookeeper-server-start.bat C:\kafka\_2.13-3.3.1\config\zookeeper.properties



Move the Kafka folder to c drive and start the zookeeper and its working initially when it was in e drive it was having class path issue now its solved after moving

**Way 2 with using dot .\ :-**

C:\kafka\_2.13-3.3.1>.\bin\windows\zookeeper-server-start.bat .\config\zookeeper.properties

The above command says, there is a batch file called zookeeper-server-start.bat

In bin/windows folder run that batch file using zookeeper.properties which is present in config folder

If u got any error like below

Classpath is empty. Please build the project first e.g. by running 'gradlew jarAll'

Then goto bin\windows\kafka-run-class

1. Start kafka server with server.properties file

C:\kafka\_2.13-3.3.1>bin\windows\kafka-server-start.bat config\server.properties

Start the kafka with server.properties file

Once started u wil text with port number as “PLAINTEXT://DESKTOP-48ALSQ8:9092,”

1. Create the topic

.\bin\windows\kafka-topics.bat --create --topic myTopic --partitions 1 –replication-factor 3 --bootstrap-server localhost:9092 –config min.insync.replicas=2

1. Create the console producer

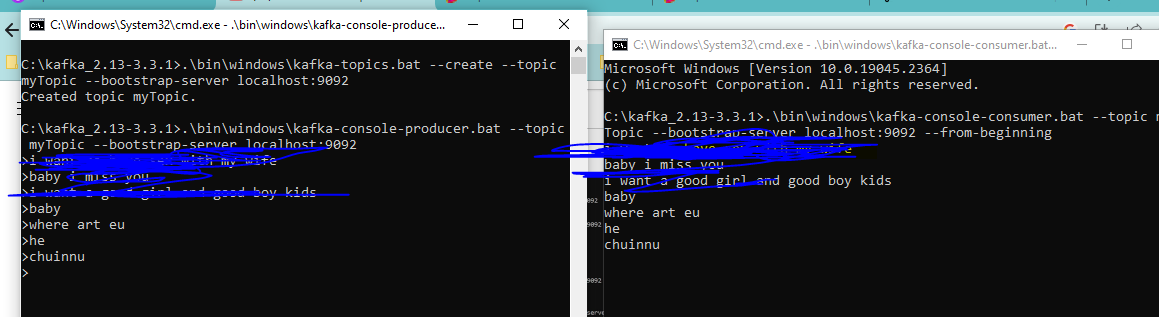
.\bin\windows\kafka-console-producer.bat --topic myTopic --bootstrap-server localhost:9092

Create a producer and gave a sample csv file as below then the producer will put that file to the kafka server

.\bin\windows\kafka-console-producer.bat --topics myTopic --bootstrap-server localhost:9092 < ..\data\sample2.csv

1. Create console consumer

.\bin\windows\kafka-console-consumer.bat --topic myTopic --bootstrap-server localhost:9092 --from-beginning



1. Console consumer in a group

If all consumers are in same group they will share the work load

If all consumers are in different group they will act as separate consumers and they will not share the work load same like persons in different teams, if same team they will help each other

.\bin\windows\kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic stock-tips --from-beginning --group group1

|  |  |
| --- | --- |
| C:\kafka\_2.13-3.3.1>**.\bin\windows\kafka-console-consumer.bat** | If u just type this **kafka-console-consumer.bat** in command prompt u will get all the options available with this batch file |

Ex:- 2

C:\kafka\_2.13-3.3.1\bin\windows\kafka-console-consumer.bat --bootstrap-server localhost:9092 --from-beginning --whitelist "hello-producer-1|hello-producer-2"

Ex:-3

.\bin\windows\kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic EmployeesInfo --from-beginning --group cg1

1. 1 consumer consuming from 2 topics

C:\kafka\_2.13-3.3.1\bin\windows\kafka-console-consumer.bat --bootstrap-server localhost:9092 --from-beginning --whitelist "hello-producer-1|hello-producer-2"

### 7. analyze the dump using below



Installing multi node cluster

Go to kafka config folder and make 3 copies of server.property file

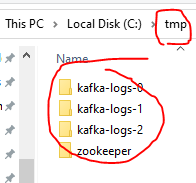
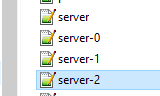
(in C:\kafka\_2.13-3.3.1\config)

So that every time u start kafka server we can provide different serer file

C:\kafka\_2.13-3.3.1>bin\windows\kafka-server-start.bat config\server-0.properties

C:\kafka\_2.13-3.3.1>bin\windows\kafka-server-start.bat config\server-1.properties

C:\kafka\_2.13-3.3.1>bin\windows\kafka-server-start.bat config\server-2.properties



Every broker should have a different broker id, which makes broker unique

1. So open each broker and edit the below broker.id field and for 3 servers u will see 3 folders

**broker.id=1**

in realtime we will have multiple brokers /cluster of brokers, each will run on different node

1. so open each server.properties file and change the port , so that they will be running separately

listeners=PLAINTEXT://:9093

another property file with 9094

all 3 brokers will listen to 3 different ports and with these they will start on different nodes

1. when you are running multiple broker , each broker should have different log location

do change values as

open **server-o.properties** file and do the modification

log.dirs=**/tmp/kafka-logs-0**

# initially it would be log.dirs=**/tmp/kafka-logs**

open server-1.properties file and do the modification

log.dirs=/tmp/kafka-logs-1

open server-2.properties file and do the modification

log.dirs=/tmp/kafka-logs-2

1. The only problem with above is the above will create these file in c:temp

So now change them as

1 ) make below changes in server.properties file

log.dirs=../tmp/kafka-log-\*

initially there is no double dot,whereas double dot means current directory

so from intellij u will run these commands so then and there itself in that folder these files will be created

1. open zookeeper.properties

dataDir=../tmp/zookeeper

after doing that first start zookeeper and then start kafka server with 1st property file and then start second kafka server with second property file

### Change everything to current directory

1. create an environment variable called KAFKA\_HOME because to run the below command given by udemy sir prasanth, we should have set the variable and set as below

C:\kafka\_2.13-3.3.1>setx KAFKA\_HOME C:\kafka\_2.13-3.3.1

SUCCESS: Specified value was saved.

this will set to user variables instead to a global variable

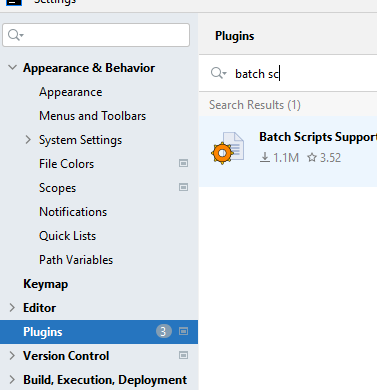
In this command only we will use the environment variable %KAFKA\_HOME%\bin\windows\kafka-server-start.bat %KAFKA\_HOME%\etc\kafka\server-0.properties

### **Cfg Batch scripts plugin in intellij**

You should be able to run the .cmd files from intellij idea

if u can’t run the command then install a plugin in intellij named “**Batch scripts support**”

The pro



To run 1st kafka node

C:\kafka\_2.13-3.3.1\bin\windows\kafka-server-start.bat C:\kafka\_2.13-3.3.1\config\server-0.properties

This will use server-0.properties file where this broker would be running on 9092

We have opened that prop file and changed the node

C:\kafka\_2.13-3.3.1\bin\windows\kafka-server-start.bat C:\kafka\_2.13-3.3.1\config\server-1.properties

This server-1.properties file will have node id as 9093 as this broker will run on node 9093

C:\kafka\_2.13-3.3.1\bin\windows\kafka-server-start.bat C:\kafka\_2.13-3.3.1\config\server-2.properties

This server-2.properties file will run the kafka broker on 9094

1. creating multiple topics

C:\kafka\_2.13-3.3.1\bin\windows\kafka-topics.bat --create --bootstrap-server localhost:9092 --topic hello-producer-1 --partitions 5 --replication-factor 3 --config min.insync.replicas=2

This will create topic with name **hello-producer-1**

Create 2nd topic

C:\kafka\_2.13-3.3.1\bin\windows\kafka-topics.bat --create --bootstrap-server localhost:9092 --topic hello-producer-2 --partitions 5 --replication-factor 3 --config min.insync.replicas=2

1. consume from 2 topics

C:\kafka\_2.13-3.3.1\bin\windows\kafka-console-consumer.bat --bootstrap-server localhost:9092 --from-beginning --whitelist "hello-producer-1|hello-producer-2"