

# README

The program was written entirely in Java. Full source code can be opened as an existing project via Eclipse.

**Summary:** Pub-Sub application using apache kafka as a server, Client side program. Join multiple topics and send messages to topics, including file transferring of any type and size.

## **Requirement:**

- Kafka apache v1.0.1
- JVM (java 8+) to run jars.
- Our config files for kafka + jars.

## **Instructions to use Broker and Zookeeper config files**

Both KB and ZS files must be in kafkas config folder.

(In order to run kafka see tutorial: <https://kafka.apache.org/quickstart>).

Instruction examples in windows from the kafka folder:

- bin\windows\zookeeper-server-start.bat      config\ZS.properties
- bin\windows\kafka-server-start.bat      config\KB0.properties

For each KB file the following must be changed:

- Broker.id must be unique to the entire kafka!  

```
20 # The id of the broker.  
21 broker.id=0
```
- Each broker must be configured to the current IP of the computer and a free port:  

```
25 # The address the socket server listens on.  
26 port = 9090  
27 advertised.host.name = 1.2.3.4
```
- \*\* advertised.host.name is the IP address of the PC.
- The IP of the Zookeeper must be configured to the IP and port of the Zookeepers PC:  

```
126 # root directory for all kafka znodes.  
127 zookeeper.connect=1.2.3.4:2181
```

The ZS file must be fitting port to the port configured above:

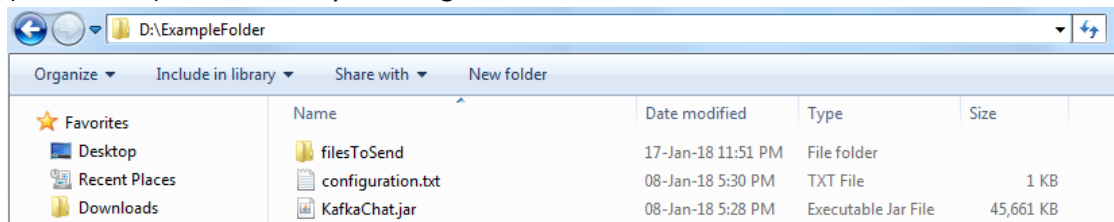
```
17 # the port at which the clients will connect  
18 clientPort=2181
```

## **Important Note for setting the kafka system:**

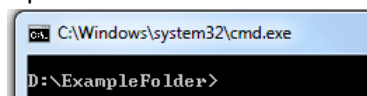
\*\* The properties of the program is set to 3 replications therefore at least 3 brokers must be alive in order for the program to work \*\*

### Instructions to use the Jar files

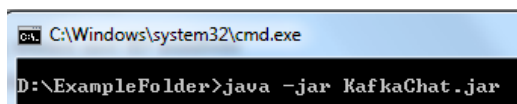
- Extract the jar file (KafkaChat.jar), the config file (configuration.txt) and the folder (filesToSend) to a folder of your liking:



- Inside the “filesToSend” folder you should insert any file you wish to send.
- Config the configirutaion.txt file to any connected broker: brokerIP : brokerPort (e.g. 10.0.196.15:9090). (instructions below)
- Open the CMD and route to the programs folder above:



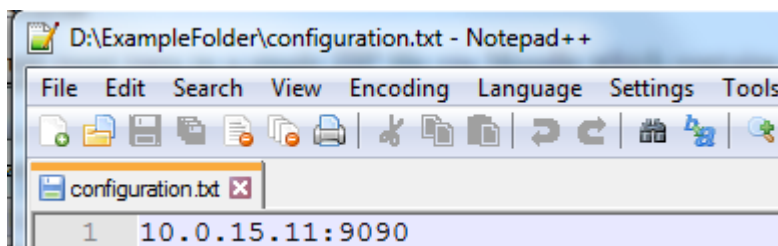
- Run the jar file:



- Follow the program instructions - and of course have fun~ 😊

### Instructions to config the configuration.txt file:

- The configuration.txt contains IP and port of the broker it should be connecting to, brokerIP : brokerPort



- \*\* please config the configuration file to a working broker in order for the program to work.