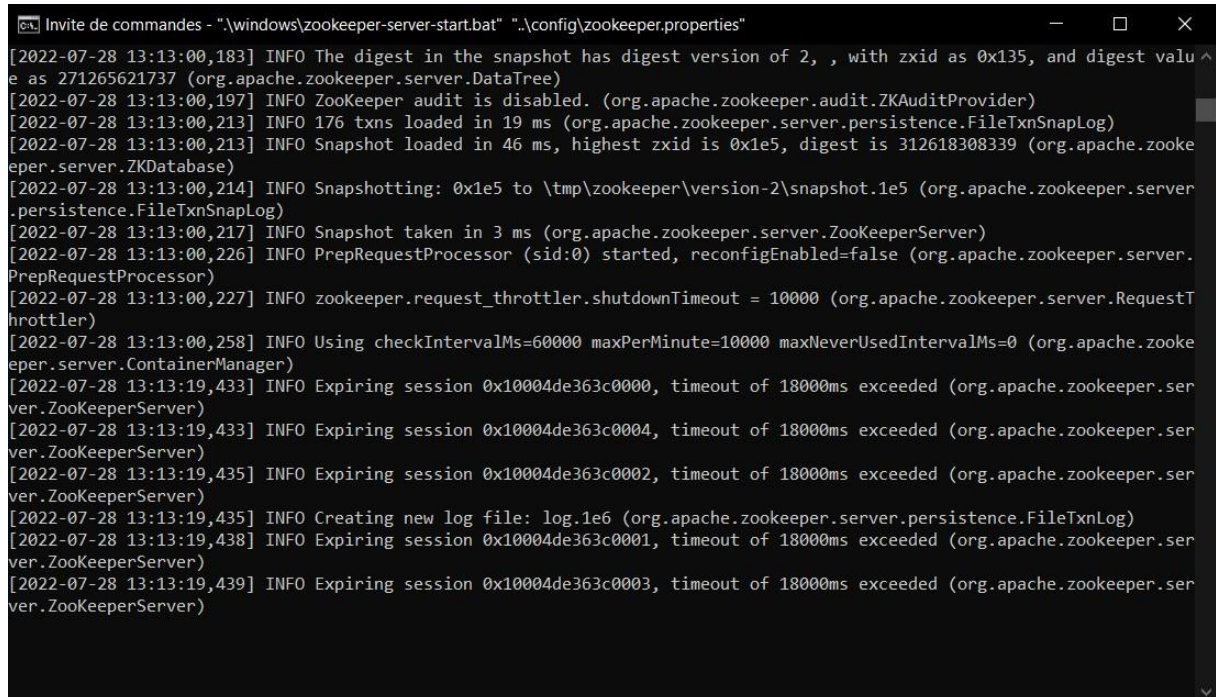


Quentin DA ROCHA.

HOMEWORK4

I've follow your diaporama on campus by typing these commands:

```
".\windows\zookeeper-server-start.bat"  
"..\.config\zookeeper.properties"
```



```
Invite de commandes - ".\windows\zookeeper-server-start.bat" "..\.config\zookeeper.properties"  
[2022-07-28 13:13:00,183] INFO The digest in the snapshot has digest version of 2, , with zxid as 0x135, and digest valu  
e as 271265621737 (org.apache.zookeeper.server.DataTree)  
[2022-07-28 13:13:00,197] INFO ZooKeeper audit is disabled. (org.apache.zookeeper.audit.ZKAuditProvider)  
[2022-07-28 13:13:00,213] INFO 176 txns loaded in 19 ms (org.apache.zookeeper.server.persistence.FileTxnSnapLog)  
[2022-07-28 13:13:00,213] INFO Snapshot loaded in 46 ms, highest zxid is 0x1e5, digest is 312618308339 (org.apache.zooke  
eper.server.ZKDatabase)  
[2022-07-28 13:13:00,214] INFO Snapshotting: 0x1e5 to \tmp\zookeeper\version-2\snapshot.1e5 (org.apache.zookeeper.server  
.persistence.FileTxnSnapLog)  
[2022-07-28 13:13:00,217] INFO Snapshot taken in 3 ms (org.apache.zookeeper.server.ZooKeeperServer)  
[2022-07-28 13:13:00,226] INFO PrepRequestProcessor (sid:0) started, reconfigEnabled=false (org.apache.zookeeper.server.  
PrepRequestProcessor)  
[2022-07-28 13:13:00,227] INFO zookeeper.request_throttler.shutdownTimeout = 10000 (org.apache.zookeeper.server.RequestT  
hrottler)  
[2022-07-28 13:13:00,258] INFO Using checkIntervalMs=60000 maxPerMinute=10000 maxNeverUsedIntervalMs=0 (org.apache.zooke  
eper.server.ContainerManager)  
[2022-07-28 13:13:19,433] INFO Expiring session 0x10004de363c0000, timeout of 18000ms exceeded (org.apache.zookeeper.ser  
ver.ZooKeeperServer)  
[2022-07-28 13:13:19,433] INFO Expiring session 0x10004de363c0004, timeout of 18000ms exceeded (org.apache.zookeeper.ser  
ver.ZooKeeperServer)  
[2022-07-28 13:13:19,435] INFO Expiring session 0x10004de363c0002, timeout of 18000ms exceeded (org.apache.zookeeper.ser  
ver.ZooKeeperServer)  
[2022-07-28 13:13:19,435] INFO Creating new log file: log.1e6 (org.apache.zookeeper.server.persistence.FileTxnLog)  
[2022-07-28 13:13:19,438] INFO Expiring session 0x10004de363c0001, timeout of 18000ms exceeded (org.apache.zookeeper.ser  
ver.ZooKeeperServer)  
[2022-07-28 13:13:19,439] INFO Expiring session 0x10004de363c0003, timeout of 18000ms exceeded (org.apache.zookeeper.ser  
ver.ZooKeeperServer)
```

Then I start 5 brokers juste like in your course

```
"bin/windows/kafka-server-start.bat" "config/server.1.properties"  
"bin/windows/kafka-server-start.bat" "config/server.2.properties"  
"bin/windows/kafka-server-start.bat" "config/server.3.properties"  
"bin/windows/kafka-server-start.bat" "config/server.4.properties"  
"bin/windows/kafka-server-start.bat" "config/server.5.properties"
```

```
Invite de commandes - "bin/windows/kafka-server-start.bat" "config/server1.properties"
[2022-07-28 13:31:21,393] INFO [Controller id=1, targetBrokerId=3] Node 3 disconnected. (org.apache.kafka.clients.NetworkClient)
[2022-07-28 13:31:21,398] INFO [ReplicaFetcherManager on broker 1] Removed fetcher for partitions Set(topic3-1) (kafka.server.ReplicaFetcherManager)
[2022-07-28 13:31:21,417] INFO [LogLoader partition=topic3-1, dir=C:\tmp\kafka-logs1] Loading producer state till offset 0 with message format version 2 (kafka.log.UnifiedLog$)
[2022-07-28 13:31:21,428] INFO Created log for partition topic3-1 in C:\tmp\kafka-logs1\topic3-1 with properties {} (kafka.log.LogManager)
[2022-07-28 13:31:21,432] INFO [Partition topic3-1 broker=1] No checkpointed highwatermark is found for partition topic3-1 (kafka.cluster.Partition)
[2022-07-28 13:31:21,435] INFO [Partition topic3-1 broker=1] Log loaded for partition topic3-1 with initial high watermark 0 (kafka.cluster.Partition)
[2022-07-28 13:31:21,452] WARN Attempting to send response via channel for which there is no open connection, connection id 147.32.213.242:9093-147.32.213.242:59342-1 (kafka.network.Processor)
[2022-07-28 13:31:56,603] INFO Creating topic topic5 with configuration {} and initial partition assignment Map(2 -> ArrayBuffer(5), 1 -> ArrayBuffer(3), 0 -> ArrayBuffer(2)) (kafka.zk.AdminZkClient)
[2022-07-28 13:34:38,179] INFO [GroupCoordinator 1]: Dynamic member with unknown member id joins group console-consumer-65406 in Empty state. Created a new member id console-consumer-507a00bf-97e4-4b0b-88ba-65cca7e1fe55 and request the member to rejoin with this id. (kafka.coordinator.group.GroupCoordinator)
[2022-07-28 13:34:38,188] INFO [GroupCoordinator 1]: Preparing to rebalance group console-consumer-65406 in state PreparingRebalance with old generation 0 (__consumer_offsets-22) (reason: Adding new member console-consumer-507a00bf-97e4-4b0b-88ba-65cca7e1fe55 with group instance id None; client reason: rebalance failed due to 'The group member needs to have a valid member id before actually entering a consumer group.' (MemberIdRequiredException)) (kafka.coordinator.group.GroupCoordinator)
[2022-07-28 13:34:38,192] INFO [GroupCoordinator 1]: Stabilized group console-consumer-65406 generation 1 (__consumer_offsets-22) with 1 members (kafka.coordinator.group.GroupCoordinator)
[2022-07-28 13:34:38,200] INFO [GroupCoordinator 1]: Assignment received from leader console-consumer-507a00bf-97e4-4b0b-88ba-65cca7e1fe55 for group console-consumer-65406 for generation 1. The group has 1 members, 0 of which are static. (kafka.coordinator.group.GroupCoordinator)
```

One example of lunching a server

Now I start a topic that I call topic5

```
bin/windows/kafka-topics.bat --create --topic topic5 --bootstrap-server localhost:9093 --partitions 5 --replication-factor 1
```

```
C:\Users\Nilsavoie\Desktop\kafka\bin\windows>kafka-topics.bat --create --topic topic5 --bootstrap-server localhost:9093 --partitions 5 --replication-factor 1
Created topic topic5.
```

The following commands start the producer and consumer

```
bin/windows/kafka-console-producer.bat --broker-list localhost:9093,localhost:9094,localhost:9095,localhost:9096,localhost:9097 --topic topic5 (modifié)
```

```
C:\Users\Nilsavoie\Desktop\kafka\bin\windows>kafka-console-producer.bat --broker-list localhost:9093,localhost:9094,localhost:9095,localhost:9096,localhost:9097 --topic topic5
>quentin
>nils
```

We can see that the producer does ask to send a message

```
bin/windows/kafka-console-consumer.bat --bootstrap-server localhost:9093 --topic topic5 --from-beginning (modifié)
```

```

lhost:9095,lo[2022-07-28 14:00:17,743] WARN
>quentin (/147.32.213.242:9097) could
>nils [2022-07-28 14:00:20,838] WARN
> (/147.32.213.242:9097) could
>hotpeppers
> [2022-07-28 14:00:24,158] WARN
(/147.32.213.242:9097) could
[2022-07-28 14:00:27,249] WARN
(/147.32.213.242:9097) could
[2022-07-28 14:00:30,459] WARN
(/147.32.213.242:9097) could
[2022-07-28 14:00:33,398] WARN
(/147.32.213.242:9097) could
hotpeppers
[2022-07-28 14:00:36,580] WARN
(/147.32.213.242:9097) could
[2022-07-28 14:00:39,817] WARN
(/147.32.213.242:9097) could

```

I've stopped broker 4 and 5 and tried to send the "hotpeppers" message to see if the consumer is still receiving my message via the producer and as we can see it still works even if the brokers 5 is down

```

(/147.32.213.242:9097) could not be established. Broker may not be available. (org.apache.kafka.clients.NetworkClient)
2022-07-28 13:38:52,696] WARN [Consumer clientId=console-consumer, groupId=console-consumer-65406] Connection to node 5
(/147.32.213.242:9097) could not be established. Broker may not be available. (org.apache.kafka.clients.NetworkClient)
2022-07-28 13:38:56,131] WARN [Consumer clientId=console-consumer, groupId=console-consumer-65406] Connection to node 5
(/147.32.213.242:9097) could not be established. Broker may not be available. (org.apache.kafka.clients.NetworkClient)
2022-07-28 13:38:59,349] WARN [Consumer clientId=console-consumer, groupId=console-consumer-65406] Connection to node 5
(/147.32.213.242:9097) could not be established. Broker may not be available. (org.apache.kafka.clients.NetworkClient)

```

The replication factor is to 1. It means that the message is replicated only once, in all cases, the message is sent even if it is replicated several times and there is a greater or lesser number of brokers available within the limit where there is at least one broker available.