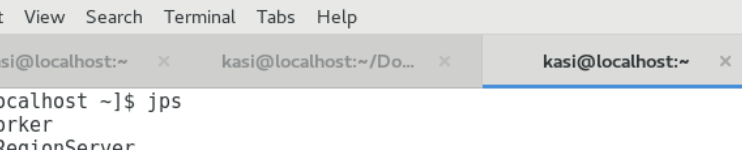


## Spark Streaming with Kafka and Hbase

**Expected output:**

## Running the Services:



```
kasi@localhost:~  
File Edit View Search Terminal Tabs Help  
kasi@localhost:~ x kasi@localhost:~/Do... x kasi@localhost:~ x  
[kasi@localhost ~]$ jps  
24224 Worker  
24770 HRegionServer  
11075 DataNode  
24547 HQuorumPeer  
26979 Main  
10916 NameNode  
11755 NodeManager  
11276 SecondaryNameNode  
11439 ResourceManager  
24656 HMaster  
27090 Jps  
24116 Master  
25306 Kafka  
5727 org.eclipse.equinox.launcher_1.5.0.v20180512-1130.jar  
[kasi@localhost ~]$
```

## Running the producer:

```
kasi@localhost:~/Desktop/task1-kafkasparkstreaming$  
File Edit View Search Terminal Help  
[kasi@localhost kafkasparkstreaminghbase]$ java -jar producer.jar ultratendency.task01.Producer  
log4j:WARN No appenders could be found for logger (org.apache.kafka.clients.producer.ProducerConfig).  
log4j:WARN Please initialize the log4j system properly.  
log4j:WARN See http://logging.apache.org/log4j/1.2/faq.html#noconfig for more info.  
producing messages and sending it to topic1  
producing messages and sending it to topic2  
producing messages and sending it to topic3  
producing messages and sending it to topic1  
producing messages and sending it to topic2  
producing messages and sending it to topic3  
producing messages and sending it to topic1  
producing messages and sending it to topic2  
producing messages and sending it to topic3  
producing messages and sending it to topic1  
producing messages and sending it to topic2  
producing messages and sending it to topic3  
producing messages and sending it to topic1  
producing messages and sending it to topic2  
producing messages and sending it to topic3
```

## Running the Consumer:

```
File Edit View Search Terminal Help
[kasi@localhost kafka$ java -jar consumer.jar ultratendency.task01.Consumer
Using Spark's default log4j profile: org/apache/spark/log4j-defaults.properties
18/08/22 22:21:19 INFO SparkContext: Running Spark version 2.1.0
18/08/22 22:21:20 WARN NativeCodeLoader: Unable to load native-heapoos library for your platform... using builtin-java classes where applicable
18/08/22 22:21:20 WARN Utils: Your hostname, localhost.localdomain resolves to a loopback address: 127.0.0.1; using 10.0.2.15 instead (on interface enp0s3)
18/08/22 22:21:20 WARN Utils: Set SPARK_LOCAL_IP if you need to bind to another address
18/08/22 22:21:20 INFO SecurityManager: Changing view acls to: kasi
18/08/22 22:21:20 INFO SecurityManager: Changing modify acls to: kasi
18/08/22 22:21:20 INFO SecurityManager: Changing view acls groups to:
18/08/22 22:21:20 INFO SecurityManager: Changing modify acls groups to:
18/08/22 22:21:20 INFO SecurityManager: SecurityManager: authentication disabled; ui acls disabled; users with view permissions: Set(kasi); groups with view permissions: Set(); users with modify permissions: Set(kasi); groups with modify permissions: Set()
18/08/22 22:21:21 INFO Utils: Successfully started service 'sparkDriver' on port 35332.
18/08/22 22:21:21 INFO SparkEnv: Registering MapOutputTracker
18/08/22 22:21:21 INFO SparkEnv: Registering BlockManagerMaster
18/08/22 22:21:21 INFO BlockManagerMasterEndpoint: Using org.apache.spark.storage.DefaultTopologyMapper for getting topology information
18/08/22 22:21:21 INFO BlockManagerMasterEndpoint: BlockManagerMasterEndpoint up
18/08/22 22:21:21 INFO DiskBlockManager: Created local directory at /tmp/blockmgr-fae759b4-7afe-4bdf-8abf-574b2878cb34
18/08/22 22:21:22 INFO MemoryStore: MemoryStore started with capacity 427.9 MB
18/08/22 22:21:22 INFO SparkEnv: Registering OutputCommitCoordinator
18/08/22 22:21:22 INFO Utils: Successfully started service 'SparkUI' on port 4040.
18/08/22 22:21:22 INFO SparkUI: Bound SparkUI to 0.0.0.0, and started at http://10.0.2.15:4040
18/08/22 22:21:23 INFO Executor: Starting executor ID driver on host localhost
18/08/22 22:21:23 INFO Utils: Successfully started service 'org.apache.spark.network.netty.NettyBlockTransferService' on port 42359.
18/08/22 22:21:23 INFO NettyBlockTransferService: Server created on 10.0.2.15:42359
18/08/22 22:21:23 INFO BlockManager: Using org.apache.spark.storage.RandomBlockReplicationPolicy for block replication policy
18/08/22 22:21:23 INFO BlockManagerMaster: Registering BlockManager BlockManagerId(driver, 10.0.2.15, 42359, None)
18/08/22 22:21:23 INFO BlockManagerMasterEndpoint: Registering block manager 10.0.2.15:42359 with 427.9 MB RAM, BlockManagerId(driver, 10.0.2.15, 42359, None)
18/08/22 22:21:23 INFO BlockManagerMaster: Registered BlockManager BlockManagerId(driver, 10.0.2.15, 42359, None)
18/08/22 22:21:23 INFO BlockManager: Initialized BlockManager: BlockManagerId(driver, 10.0.2.15, 42359, None)
18/08/22 22:21:24 INFO VerifiableProperties: Verifying properties
18/08/22 22:21:24 INFO VerifiableProperties: Property auto.offset.reset is overridden to smallest
18/08/22 22:21:24 INFO VerifiableProperties: Property client.id is overridden to Consumer
18/08/22 22:21:24 INFO VerifiableProperties: Property group.id is overridden to 918eb2b2-fb83-4ad3-bd2b-b017e496bd9e
18/08/22 22:21:24 INFO VerifiableProperties: Property zookeeper.connect is overridden to
```

## Commit to Hbase:

```
File Edit View Search Terminal Tabs Help
kasi@localhost:~
hbase(main):003:0> scan 'ultratendency'
ROW COLUMN+CELL
row1 column=weather-data:deviceId, timestamp=1534969291693, value=11c1310e-c8c2-461b-a4eb-f6bf8da2d23c
row1 column=weather-data:latitude, timestamp=1534969291693, value=52.14691120000001
row1 column=weather-data:longitude, timestamp=1534969291693, value=11.658838699999993
row1 column=weather-data:temperature, timestamp=1534969291693, value=28
row1 column=weather-data:time, timestamp=1534969291693, value=15344339142
row10 column=weather-data:deviceId, timestamp=1534969294346, value=11c1310e-c8c2-461b-a4eb-f6bf8da2d23c
row10 column=weather-data:latitude, timestamp=1534969294346, value=52.14691120000001
row10 column=weather-data:longitude, timestamp=1534969294346, value=11.658838699999993
row10 column=weather-data:temperature, timestamp=1534969294346, value=28
row10 column=weather-data:time, timestamp=1534969294346, value=153443419289
row100 column=weather-data:deviceId, timestamp=1534969312843, value=11c1310e-c8c2-461b-a4eb-f6bf8da2d23c
row100 column=weather-data:latitude, timestamp=1534969312843, value=52.14691120000001
row100 column=weather-data:longitude, timestamp=1534969312843, value=11.658838699999993
row100 column=weather-data:temperature, timestamp=1534969312843, value=24
row100 column=weather-data:time, timestamp=1534969312843, value=153443635425
row101 column=weather-data:deviceId, timestamp=1534969312925, value=11c1310e-c8c2-461b-a4eb-f6bf8da2d23c
row101 column=weather-data:latitude, timestamp=1534969312925, value=52.14691120000001
row101 column=weather-data:longitude, timestamp=1534969312925, value=11.658838699999993
row101 column=weather-data:temperature, timestamp=1534969312925, value=24
row101 column=weather-data:time, timestamp=1534969312925, value=153443635425
row102 column=weather-data:deviceId, timestamp=1534969313027, value=11c1310e-c8c2-461b-a4eb-f6bf8da2d23c
row102 column=weather-data:latitude, timestamp=1534969313027, value=52.14691120000001
row102 column=weather-data:longitude, timestamp=1534969313027, value=11.658838699999993
row102 column=weather-data:temperature, timestamp=1534969313027, value=24
row102 column=weather-data:time, timestamp=1534969313027, value=153443635425
row103 column=weather-data:deviceId, timestamp=1534969313132, value=11c1310e-c8c2-461b-a4eb-f6bf8da2d23c
row103 column=weather-data:latitude, timestamp=1534969313132, value=52.14691120000001
row103 column=weather-data:longitude, timestamp=1534969313132, value=11.658838699999993
row103 column=weather-data:temperature, timestamp=1534969313132, value=24
row103 column=weather-data:time, timestamp=1534969313132, value=153443635425
row104 column=weather-data:deviceId, timestamp=1534969313239, value=11c1310e-c8c2-461b-a4eb-f6bf8da2d23c
row104 column=weather-data:latitude, timestamp=1534969313239, value=52.14691120000001
row104 column=weather-data:longitude, timestamp=1534969313239, value=11.658838699999993
row104 column=weather-data:temperature, timestamp=1534969313239, value=24
row104 column=weather-data:time, timestamp=1534969313239, value=153443635425
row105 column=weather-data:deviceId, timestamp=1534969313373, value=11c1310e-c8c2-461b-a4eb-f6bf8da2d23c
row105 column=weather-data:latitude, timestamp=1534969313373, value=52.14691120000001
row105 column=weather-data:longitude, timestamp=1534969313373, value=11.658838699999993
row105 column=weather-data:temperature, timestamp=1534969313373, value=24
row105 column=weather-data:time, timestamp=1534969313373, value=153443635425
row106 column=weather-data:deviceId, timestamp=1534969313476, value=11c1310e-c8c2-461b-a4eb-f6bf8da2d23c
```