

Assignment 23

Starting Zookeeper

```
cd $KAFKA_HOME  
./bin/zookeeper-server-start ./etc/kafka/zookeeper.properties  
./bin/zookeeper-server-start.sh ./config/zookeeper.properties
```

Starting broker

```
cd $KAFKA_HOME/bin/kafka-server-start ./etc/kafka/server.properties  
./bin/kafka-server-start.sh ./config/server.properties
```

Task1

Create a kafka topic named KeyLessTopic.

Inside KeyLessTopic insert following data:

```
{"name":"John", "exp":16}  
{"name":"Finn", "exp":20}  
{"name":"Cylin", "exp":18}  
{"name":"Mark", "exp":2}  
{"name":"Akshay", "exp":14}
```

Command

//creation of topic

```
cd $KAFKA_HOME  
./bin/kafka-topics.sh --create --topic KeyLessTopic --zookeeper localhost:2181 --partitions 1 -  
-replication-factor 1
```

//creation of console producer

```
cd $KAFKA_HOME  
./bin/kafka-console-producer.sh --broker-list localhost:9092 --topic KeyLessTopic
```

Task2

Create a console consumer that reads KeyLessTopic from beginning

Command

```
cd $KAFKA_HOME
./bin/kafka-console-consumer.sh --topic KeyLessTopic --from-beginning \
--zookeeper localhost:2181 \
--property print.key=false    //if it would have been true then the key would be printed as
                              'null'
```

Task3

Create a kafka topic named KeyedTopic. Inside KeyedTopic insert following data:

The part before comma(,) should be treated as key and after comma(,) should be treated as value

```
{"name":"John"},{"exp":16}
{"name":"Finn"},{"exp":20}
{"name":"Cylin"},{"exp":18}
{"name":"Mark"},{"exp":2}
{"name":"Akshay"},{"exp":14}
```

Command

//creation of topic

```
cd $KAFKA_HOME
./bin/kafka-topics.sh --create --topic KeyedTopic --zookeeper localhost:2181 --partitions 1 --
replication-factor 1
```

//creation of console producer with “,” as the key-value separator

```
cd $KAFKA_HOME
./bin/kafka-console-producer.sh --broker-list localhost:9092 --topic KeyedTopic \
--property "parse.key=true" \
--property "key.separator=,"
```

Task4

Create a console consumer that reads KeyedTopic from beginning

The key and value should be separated by '- '.

Command

```
cd $KAFKA_HOME
```

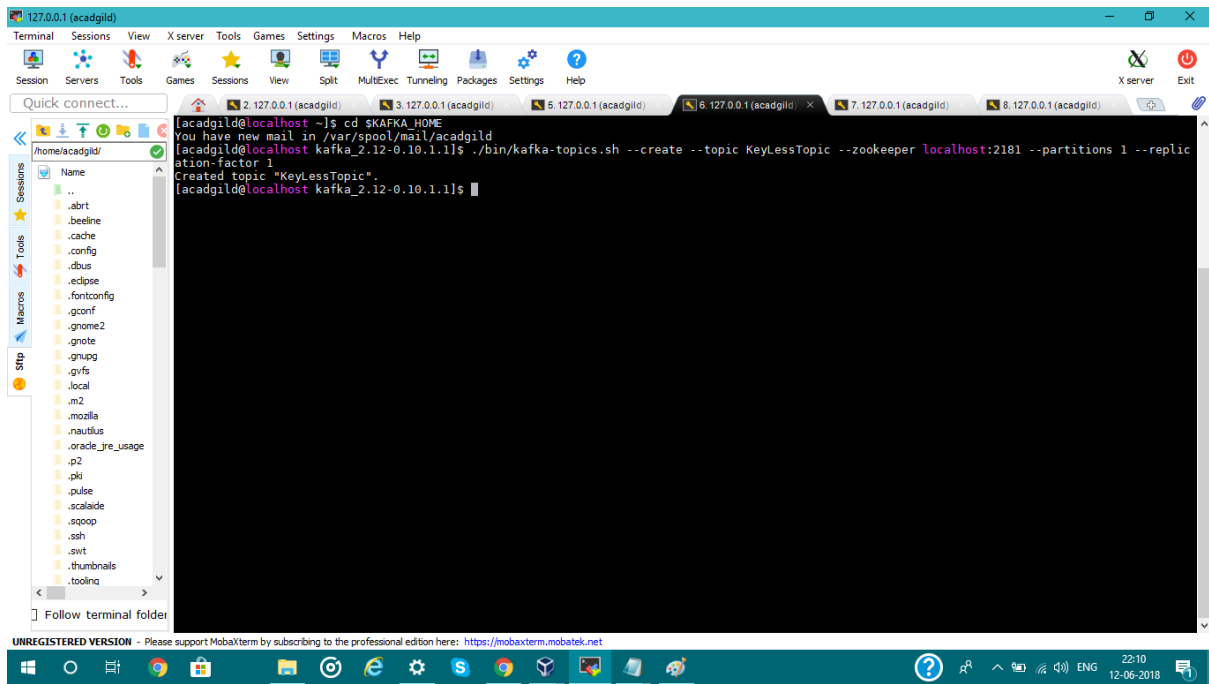
```
./bin/kafka-console-consumer.sh --topic KeyedTopic --from-beginning \
```

```
--zookeeper localhost:2181 \
```

```
--property print.key=true \
```

```
--property key.separator="- "
```

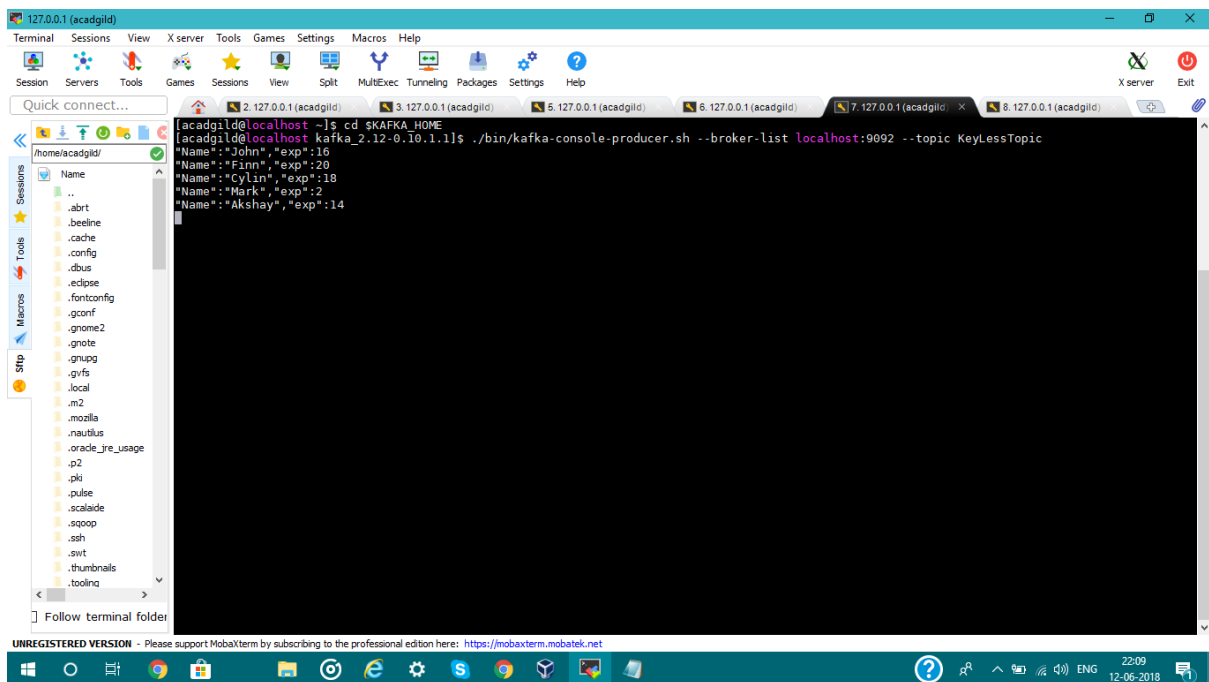
Screenshots



The screenshot shows a MobaXterm window with a terminal session. The terminal output is as follows:

```
[acadgild@localhost ~]$ cd $KAFKA_HOME
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost kafka_2.12-0.10.1.1]$ ./bin/kafka-topics.sh --create --topic KeyLessTopic --zookeeper localhost:2181 --partitions 1 --replication-factor 1
Created topic "KeyLessTopic".
[acadgild@localhost kafka_2.12-0.10.1.1]$
```

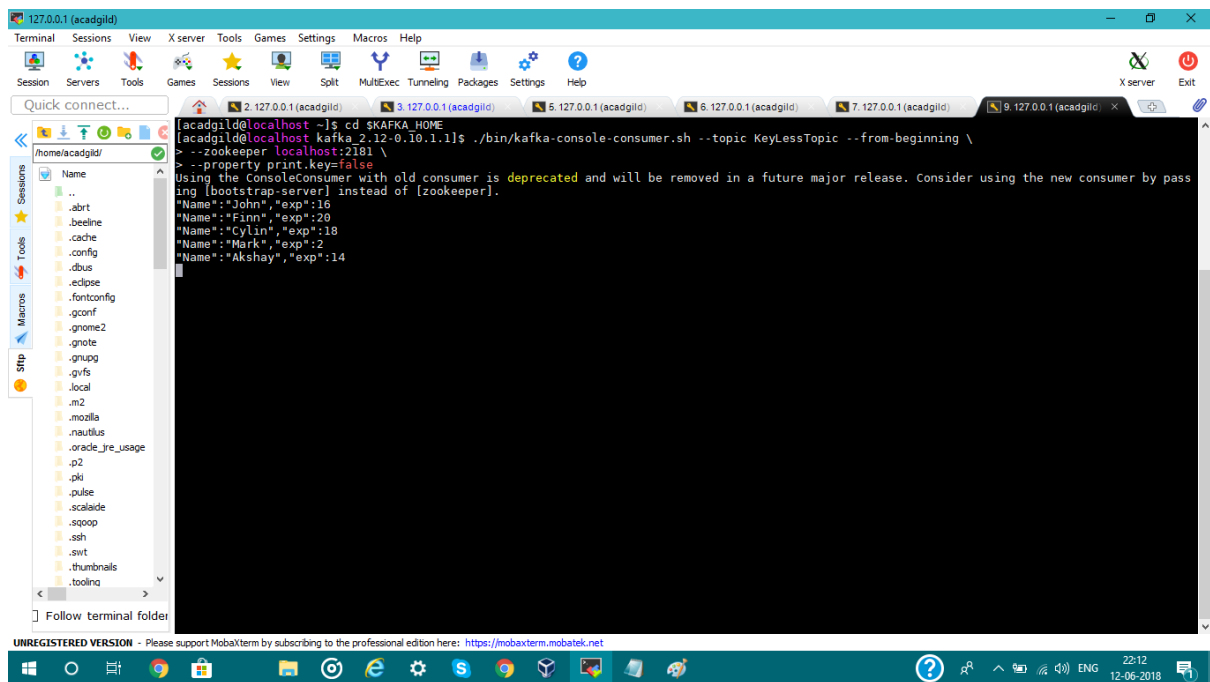
1.1: Creation of KeyLessTopic



The screenshot shows a MobaXterm window with a terminal session. The terminal output is as follows:

```
[acadgild@localhost ~]$ cd $KAFKA_HOME
[acadgild@localhost kafka_2.12-0.10.1.1]$ ./bin/kafka-console-producer.sh --broker-list localhost:9092 --topic KeyLessTopic
"Name":"John","exp":16
"Name":"Finn","exp":20
"Name":"Cyllin","exp":18
"Name":"Mark","exp":2
"Name":"Akshay","exp":14
```

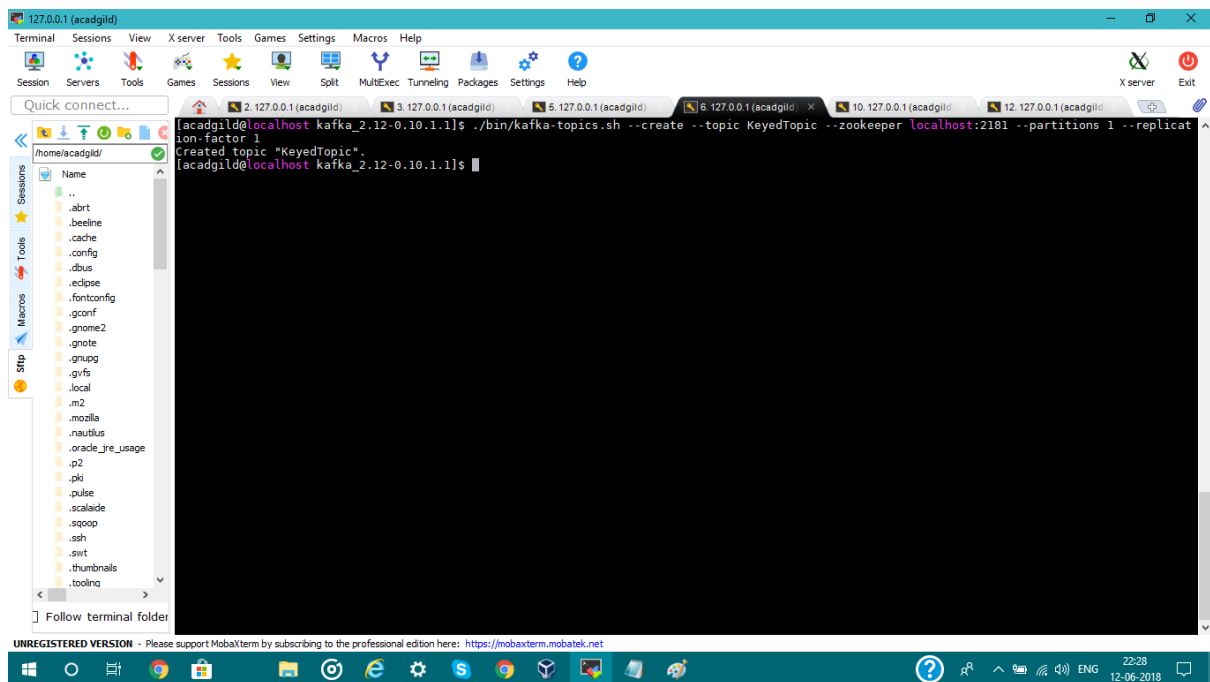
1.2: Creation of console producer and inserting of values



The screenshot shows a MobaXterm window with a terminal session. The terminal output displays the Kafka console consumer command and its output, which lists five messages with their keys and values. The messages are: John (exp:16), Finn (exp:20), Cylin (exp:18), Mark (exp:2), and Akshay (exp:14). The terminal also shows a warning about the deprecated ConsoleConsumer class.

```
acacgild@localhost ~$ cd $KAFKA_HOME
acacgild@localhost kafka_2.12-0.10.1.1$ ./bin/kafka-console-consumer.sh --topic KeyLessTopic --from-beginning \
> --zookeeper localhost:2181 \
> --property print.key=false
Using the ConsoleConsumer with old consumer is deprecated and will be removed in a future major release. Consider using the new consumer by pass
ing [bootstrap-server] instead of [zookeeper].
"Name":"John","exp":16
"Name":"Finn","exp":20
"Name":"Cylin","exp":18
"Name":"Mark","exp":2
"Name":"Akshay","exp":14
```

2: creation of consumer and display of values



The screenshot shows a MobaXterm window with a terminal session. The terminal output displays the Kafka topic creation command and its output, which confirms the successful creation of the 'KeyedTopic'.

```
acacgild@localhost kafka_2.12-0.10.1.1$ ./bin/kafka-topics.sh --create --topic KeyedTopic --zookeeper localhost:2181 --partitions 1 --replica
tion-factor 1
Created topic "KeyedTopic".
acacgild@localhost kafka_2.12-0.10.1.1$
```

3. 1: Creation of KeyedTopic

The screenshot shows a MobaXterm window with a terminal session. The user is at a local host and has navigated to the \$KAFKA_HOME directory. They have run the command `kafka-console-producer.sh --broker-list localhost:9092 --topic KeyedTopic` with properties `parse.key=true` and `key.separator=-`. The terminal output shows five messages being produced, each with a name and an expiration time (exp):

```
"Name":"John","exp":16
"Name":"Finn","exp":20
"Name":"Cylind","exp":18
"Name":"Mark","exp":2
"Name":"Akshay","exp":14
```

The MobaXterm interface includes a sidebar with file explorer, a top menu bar, and a status bar at the bottom indicating the version and date.

3.2: Creation of console producer and inserting of values

The screenshot shows a MobaXterm window with a terminal session. The user is at a local host and has navigated to the \$KAFKA_HOME directory. They have run the command `kafka-console-consumer.sh --topic KeyedTopic --from-beginning` with properties `print.key=true` and `key.separator=-`. The terminal output shows the same five messages as in the previous screenshot, but with a warning message from Kafka:

```
Using the ConsoleConsumer with old consumer is deprecated and will be removed in a future major release. Consider using the new consumer by passing [bootstrap-server] instead of [zookeeper].
"Name":"John","exp":16
"Name":"Finn","exp":20
"Name":"Cylind","exp":18
"Name":"Mark","exp":2
```

The MobaXterm interface is the same as in the previous screenshot, showing the terminal session and the file explorer sidebar.

4: creation of consumer and display of values