

Useful Commands

We **recommend** doing all the **hands-on work** including registering for Instaclustr account **from Ubuntu VM** image that was provided to you. If you still don't have this image, then **ask** and we will provide the image ova file to you. Opening Instaclustr platform console website in VM makes it easy to copy connection credentials when connecting to C* or Kafka clusters.

Signup for Instaclustr account

- Go to <https://www.instaclustr.com/>
- Sign up for a new account
<https://console.instaclustr.com/user/signup>

Using Instaclustr Managed C* cluster

- Connect to cluster using already downloaded cqlsh tool using commands below
cd ~/Downloads/apache-cassandra-3.11.4/bin/

```
./cqlsh -u iccassandra <your cluster public IP>  
Enter password when prompted
```

- Creating Keyspace
CREATE KEYSPACE training_ks WITH replication = {'class':
'NetworkTopologyStrategy', '<DC name e.g. AWS_VPC_US_WEST_2>':
'3'};

```
DESCRIBE training_ks;
```

- Creating Table
CREATE TABLE training_ks.sensor_events (
 sensor_id text,
 event_ts timestamp,
 reading double,
 PRIMARY KEY (sensor_id, event_ts));

- Inserting records
INSERT INTO training_ks.sensor_events (sensor_id, event_ts,
reading)
VALUES ('S123456', '2019-04-25T10:02:03.123', 5.67);
INSERT INTO training_ks.sensor_events (sensor_id, event_ts,
reading)
VALUES ('S123456', '2019-04-25T10:02:03.124', 2.34);
INSERT INTO training_ks.sensor_events (sensor_id, event_ts,
reading)

```
VALUES ('S123457', '2019-04-26T10:03:03.124', 4.56);
```

- Selecting records

```
SELECT * FROM training_ks.sensor_events;
```

Using Instaclustr Managed Kafka Cluster

- Create kafka.properties file

```
cd ~/Downloads/kafka_client/bin/
```

Check for kafka.properties file in this folder

```
ls ~/Downloads/kafka_client/bin/kafka.properties
```

If it's not there, then download using following command

```
wget
```

```
https://raw.githubusercontent.com/dwivedialok/eventsproducer/master/kafka.properties
```

Now open it in an editor e.g. nano using command below

```
nano kafka.properties
```

You will see text like one below, where you just need to change the password for your kafka cluster. You will get password from 'Connection Info' section of your Instaclustr managed Kafka cluster. If for any reason you cannot download this file using above commands, then you can use text below or get it from 'Connection Info' section of your Instaclustr managed Kafka cluster.

```
security.protocol=SASL_PLAINTEXT
sasl.mechanism=SCRAM-SHA-256
sasl.jaas.config=org.apache.kafka.common.security.scram.ScramLoginModule required \
    username="ickafka" \
    password="[USER PASSWORD]";
```

Save kafka.properties file in `~/Downloads/kafka_client/bin/`

- List all topics in cluster

```
./ic-kafka-topics.sh --bootstrap-server <cluster public IP>:9092 --properties-file kafka.properties --list
```
- Create new topic

```
./ic-kafka-topics.sh --bootstrap-server <cluster public IP>:9092 --properties-file kafka.properties --create --topic events --replication-factor 3 --partitions 3
```

You can list topics again and ensure new topic '*events*' is there

- Start Kafka console consumer to check any new messages posted to this topic
`./kafka-console-consumer.sh --bootstrap-server <cluster public IP>:9092 --consumer.config kafka.properties --topic events`

Instead of getting only new messages since consumer started, if you want to list messages from the beginning, then run above command with additional flag "`--from-beginning`"

Developing Java based Producer and Consumers

You can get the code repository locally by using following commands

```
mkdir -p ~/dev/training
cd ~/dev/training/
git clone https://github.com/dwivedialok/eventsproducer.git
git clone https://github.com/dwivedialok/eventsconsumer.git
```

Now you can import these projects into IntelliJ using pom.xml file and using "Import project" option of IntelliJ. However, we suggest creating project step by step as will be shown in the hands-on exercise session in the workshop. For the ease of referring to existing code, we are providing URLs of code repos on github.com

<https://github.com/dwivedialok/eventsproducer>

<https://github.com/dwivedialok/eventsconsumer>