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/
  ```

  Open an editor using command below
  ```
  nano kafka.properties
  ```

  Copy paste the following text into nano editor and update with correct password. If you have the new version of the VM then this file should already be there with following text and you just need to change the password for your kafka cluster that you will get from ‘Connection Info’ tab 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.
  NOTE: you can also use ***vi*** editor

- 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 following command

  ```
  ./kafka-console-consumer.sh --bootstrap-server <cluster public IP>:9092 --consumer.config kafka.properties --from-beginning --topic events
  ```

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