Lesson 7: KSQL:

Overview:

* KSQL:
  + An SQL-like abstraction developed by confluent.
  + Provides users the ability to create streams and tables.
  + Simple SQL queries can be written to turn Kafka topics into KSQL streams and tables.
  + Those tables can also be written back out to Kafka.

Glossary:

* User Defined Function (UDF):
  + An extension to the SQL capabilities of KSQL written by the user.
  + In the case of KSQL, these are written in Java.
* Key (KSQL):
  + Data which uniquely identifies the value contained in this data message relative to other pieces of data in the stream.
  + For example, a **user\_id** may uniquely identify a **user** object.
* Session Windowing (KSQL):
  + A system that keeps track of when the last time a particular key was seen.
  + When a new record with the same key arrives, the difference between the timestamps is calculated.
    - If the difference is larger than a defined session window, then a new window is started for that session.
    - If the difference is less than the defined session window, the new record is added to the existing window.

Stream Processing with KSQL: