Database Technologies for Business Analytics
BEM2040
Practice Week 2

1. Download the file Week2.zip. We will be using:
   - films_subset.db
   - practice_w2_start.ipynb
2. Uncompress the files in your downloads folder.
3. Start SQLite and follow the instruction in class. We will spend the first part of the session interacting with the command line of the database system. We will be using the following instructions, or similar:

```
SELECT * FROM film;

SELECT * FROM film where film_year_start=1940;

SELECT * FROM actor ;

INSERT into actor(actor_id,actor_name,actor_year_born,actor_year_dead)
VALUES ("a1", "Timothée Chalamet", 1994, null);

INSERT into actor(actor_id,actor_name,actor_year_born,actor_year_dead)
VALUES ("a2", "Rebecca Ferguson", 1983, null);

SELECT * FROM actor;

UPDATE actor SET actor_year_born = 1995 WHERE actor_id = "a1";

SELECT * FROM actor;

SELECT count(*) FROM actor;
```

4. Start jupyter and browse to the download folder.
5. Open the just downloaded jupyter notebook (practice_w2_start.ipynb).
6. Add instructions to the notebook, copying and pasting from the code below, according to guidance in the practice. Note that you already have the initial instructions.

```
#Importing the library to connect to the database.
import sqlite3
#Creating a connection to the database.
conn = sqlite3.connect('films_subset.db')
#A cursor holds resources for a query.
#Several cursors can be created for a connection.
cur = conn.cursor()

# Getting all records in the table called "film"
```

```
query = "SELECT * FROM film"
cur.execute(query)
rows = cur.fetchall()

for row in rows:
  print(row)

# Getting the films from 1940
query = "SELECT * FROM film where film_year_start=1940"
cur.execute(query)
rows = cur.fetchall()

for row in rows:
   print(row)

#Getting all the records in the table called "actor"
query = "SELECT * FROM actor"
cur.execute(query)
rows = cur.fetchall()

for row in rows:
   print(row)


#Adding some records to the table actor
query = "insert into actor( " + \
        "actor_id," + \
        "actor_name," + \
        "actor_year_born," + \
        "actor_year_dead)" + \
        "values (" + \
        "?," + \
        "?," + \
        "?," + \
        "?)"

cur.execute(query, ("a1", "Timothée Chalamet", 1994, None))

cur.execute(query, ("a2", "Rebecca Ferguson", 1983, None))

conn.commit()

#Listing all records after having added two.
query = "SELECT * FROM actor"
cur.execute(query)
rows = cur.fetchall()
for row in rows:
   print(row)


# Updating the birth year of actor with code "a1", that is, Timothée Chalamet
query = "update actor set actor_year_born = ? where actor_id = ?"
cur.execute(query, (1995, "a1"))
conn.commit()

#Listing actors after the update.
query = "SELECT * FROM actor"
cur.execute(query)
rows = cur.fetchall()
```

```
for row in rows:
   print(row)


#Counting the number of records in table actor.
query = "SELECT count(*) FROM actor"
cur.execute(query)
rows = cur.fetchall()
print(rows)
print(rows[0][0])

#Closing the connection
print("Closing connection")
conn.close()
```