

SQLite Homework

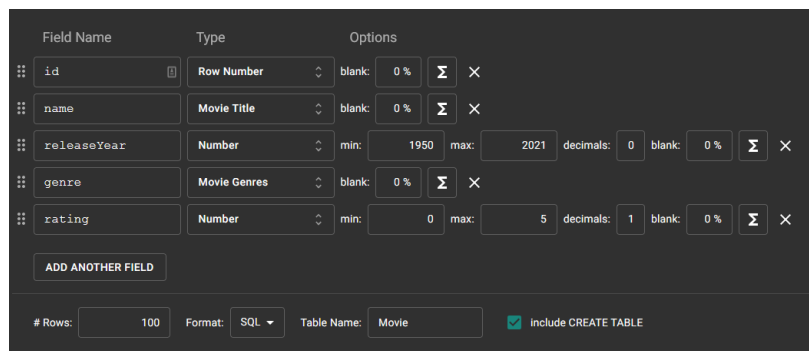
Guillaume VAN PUTTEN

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To work with SQL lite, I choose to use python in Visual Studio Code with SQLite extensions for database visualization, and Mockaroo for data generation.

1 Creation

For the generation of the database, I used Mockaroo:



The screenshot shows the Mockaroo web interface for creating a database schema. It features a table with columns: Field Name, Type, and Options. The fields defined are:

| Field Name | Type | Options |
|-------------|--------------|--|
| id | Row Number | blank: 0 % |
| name | Movie Title | blank: 0 % |
| releaseYear | Number | min: 1950 max: 2021 decimals: 0 blank: 0 % |
| genre | Movie Genres | blank: 0 % |
| rating | Number | min: 0 max: 5 decimals: 1 blank: 0 % |

Below the table is an "ADD ANOTHER FIELD" button. At the bottom, there are settings for "# Rows: 100", "Format: SQL", "Table Name: Movie", and a checked "include CREATE TABLE" option.

Figure 1: Mockaroo Generation

It gave me a sql file from which I can create a SQLite database with this command

```
(sqlenv) G:\RTU\Computer\SQLite>sqlite3 CTmovies.db -init Movie.sql
-- Loading resources from Movie.sql
SQLite version 3.36.0 2021-06-18 18:36:39
Enter ".help" for usage hints.
```

Figure 2: Database Creation

2 Display

I'm using Visual Studio Code with an extension that allows me to visualize data. The SQL command is :

```
SELECT * FROM Movie;
```

| id | name | releaseYear | genre | rating |
|----|---|-------------|------------------------------|--------|
| 1 | All Is Forgiven (Tout est pardonné) | 1964 | Drama | 2.4 |
| 2 | Hardcore | 1984 | Crime Drama | 2.6 |
| 3 | After Fall, Winter | 2012 | Drama | 3.9 |
| 4 | Camille Claudel | 1971 | Drama | 4.6 |
| 5 | Dans la peau d'une grande | 2014 | Comedy | 1 |
| 6 | Riley Rewind | 1996 | Drama Sci-Fi | 4 |
| 7 | Lethal Weapon 4 | 1969 | Action Comedy Crime Thriller | 4.8 |
| 8 | Films to Keep You Awake: The Baby's Room (Películas para no dormir: La habitación del niño) | 1995 | Horror | 1.3 |
| 9 | Anatomy of a Love Seen | 1988 | Drama Romance | 4.2 |
| 10 | Hamlet | 1988 | Drama | 3.4 |
| 11 | Dumb and Dumber To | 2000 | Comedy | 1.9 |
| 12 | Generale Della Rovere, Il | 1959 | Drama | 4.4 |
| 13 | Article 99 | 1975 | Comedy Drama | 3.3 |
| 14 | On a Clear Day | 1962 | Drama | 1.5 |
| 15 | Bombay Talkie | 1964 | Drama Musical Romance | 0.2 |
| 16 | Hellraiser | 2001 | Horror | 4.3 |
| 17 | Man Who Copied, The (Homem Que Copiava, O) | 1951 | Comedy Crime Drama Romance | 3.8 |
| 18 | I Was a Teenage Zombie | 2016 | Comedy Horror | 0.4 |
| 19 | Private Property (Nue propriété) | 1988 | Drama | 4.5 |
| 20 | Notre jour viendra | 2003 | Drama | 3.5 |

Figure 3: Data Display

To display only one row, I chose the first one with this command:

```
SELECT * FROM Movie WHERE id = 1;
```

Giving me this result:

```
(sqlenv) G:\RTU\Computer\SQLite>python sqlite.py
[(1, 'All Is Forgiven (Tout est pardonné)', 1964, 'Drama', 2.4)]
```

Figure 4: 1st row display

3 Update

I updated the year of the first movie with this command:
UPDATE Movie SET releaseYear=2002 where id=1;

```
(sqlenv) G:\RTU\Computer\SQLite>python sqlite.py  
[(1, 'All Is Forgiven (Tout est pardonné)', 2002, 'Drama', 2.4)]
```

Figure 5: 1st row update

Then I incremented the year of the 20 first movies by 1:
UPDATE Movie SET releaseYear=releaseYear+1 where id<=20;

| id | name | releaseYear | genre | rating |
|----|---|-------------|------------------------------|--------|
| 1 | All Is Forgiven (Tout est pardonné) | 2003 | Drama | 2.4 |
| 2 | Hardcore | 1985 | Crime Drama | 2.6 |
| 3 | After Fall, Winter | 2013 | Drama | 3.9 |
| 4 | Camille Claudel | 1972 | Drama | 4.6 |
| 5 | Dans la peau d'une grande | 2015 | Comedy | 1 |
| 6 | Riley Rewind | 1997 | Drama Sci-Fi | 4 |
| 7 | Lethal Weapon 4 | 1970 | Action Comedy Crime Thriller | 4.8 |
| 8 | Films to Keep You Awake: The Baby's Room (Películas para no dormir: La habitación del niño) | 1996 | Horror | 1.3 |
| 9 | Anatomy of a Love Seen | 1989 | Drama Romance | 4.2 |
| 10 | Hamlet | 1989 | Drama | 3.4 |
| 11 | Dumb and Dumber To | 2001 | Comedy | 1.9 |
| 12 | Generale Della Rovere, il | 1960 | Drama | 4.4 |
| 13 | Article 99 | 1976 | Comedy Drama | 3.3 |
| 14 | On a Clear Day | 1963 | Drama | 1.5 |
| 15 | Bombay Talkie | 1965 | Drama Musical Romance | 0.2 |
| 16 | Hellraiser | 2002 | Horror | 4.3 |
| 17 | Man Who Copied, The (Homem Que Copiava, O) | 1952 | Comedy Crime Drama Romance | 3.8 |
| 18 | I Was a Teenage Zombie | 2017 | Comedy Horror | 0.4 |
| 19 | Private Property (Nue propriété) | 1989 | Drama | 4.5 |
| 20 | Notre jour viendra | 2004 | Drama | 3.5 |

Figure 6: Year increment on the 20 first rows

4 Delete

Last, I'll delete the first 10 rows:

```
DELETE FROM Movie WHERE id<=10;
```

| id | name | releaseYear | genre | rating |
|----|--|-------------|------------------------------|--------|
| 11 | Dumb and Dumber To | 2001 | Comedy | 1.9 |
| 12 | Generale Della Rovere, Il | 1960 | Drama | 4.4 |
| 13 | Article 99 | 1976 | Comedy Drama | 3.3 |
| 14 | On a Clear Day | 1963 | Drama | 1.5 |
| 15 | Bombay Talkie | 1965 | Drama Musical Romance | 0.2 |
| 16 | Hellraiser | 2002 | Horror | 4.3 |
| 17 | Man Who Copied, The (Homem Que Copiava, O) | 1952 | Comedy Crime Drama Romance | 3.8 |
| 18 | I Was a Teenage Zombie | 2017 | Comedy Horror | 0.4 |
| 19 | Private Property (Nue propriété) | 1989 | Drama | 4.5 |
| 20 | Notre jour viendra | 2004 | Drama | 3.5 |
| 21 | Brokeback Mountain | 1984 | Drama Romance | 3.5 |
| 22 | Change of Plans (Le code a changé) | 1971 | Comedy Drama | 0.4 |
| 23 | New Waterford Girl | 2002 | Comedy | 4 |
| 24 | Las Vegas Story, The | 2019 | Crime Drama Film-Noir | 3.8 |
| 25 | Becoming Chaz | 1962 | Documentary | 0.1 |
| 26 | Night Across the Street (La noche de enfrente) | 1953 | Drama | 3.8 |
| 27 | Loch Ness | 1951 | Drama | 0.7 |
| 28 | Beau Pere (a.k.a. Stepfather) (Beau-père) | 1996 | Drama | 0.3 |
| 29 | Milk of Sorrow, The (Teta asustada, La) | 1956 | Drama | 0.2 |
| 30 | Michael | 2009 | Comedy Drama Fantasy Romance | 2.7 |

Figure 7: Display after the delete of the first 10 rows

5 Conclusion

SQLite allows to use sql operation on lightweight database easily with python.