👥 **Just browsing Stack Overflow? Help us improve your experience.**   [Sign up for research]   ✕

Comparing 2 SQLite databases

Asked 8 years, 7 months ago   Modified 1 year, 10 months ago   Viewed 9k times

▲

5

▼

🔖

↺

I would like to compare 2 SQLite databases in order to check whether it needs to be updated on the client computer.

I am not really sure how I should do this. Whether I should make an internal version ID or compare the file size (which probally is not a good idea because I think the file size doesn't change anytime I edit the database).

Does anybody know a good way to do what I need to do?

Thank you!

`sqlite`

Share   Improve this question   Follow

asked May 12, 2016 at 19:27

Maiken Roskilde
467 ● 4 ● 15

Is this a *"one off"* type of comparison, or something you need to do regularly? – Mark Setchell May 12, 2016 at 20:45

Can there be changes made on both computers? If yes, you always have to compare all the contents. – CL. May 13, 2016 at 7:51 ✏

3 Answers

Sorted by: Highest score (default) ⇕

▲

8

▼

🔖

✓

You might try *dumping* each SQLite database, using SQLite's `.dump` command:

```
$ sqlite3 /path/to/database1 .dump > database1.sql
$ sqlite3 /path/to/database2 .dump > database2.sql
```

And then comparing the generated files. If your two databases are quite similar, a simple `diff` might work to show any differences, *e.g.*:

```
$ diff -u database1.sql database2.sql
```

Hope this helps!

Share   Improve this answer   Follow

I never did that. How do you compare the dump files? By file length? – Maiken Roskilde May 12, 2016 at 20:31

1   The dump files are textual; you could compare them by length for a simple comparison, or use the `diff` command to see what the specific differences might be. If nothing else, just looking through those dump files might be useful/helpful. – Castaglia May 12, 2016 at 20:43

Thanks a lot. You saved a lot of time. – Prasad Apr 26, 2023 at 15:38

A bit late for original question but may be will be helpful for others.

7

On Windows you can use KS DB Merge Tools for SQLite. I am the author of this tool. Compares both DB object definitions and data. Free version available and pretty functional for diff/compare needs.

EDIT 2022-06-29 I've made the web wasm-based diff-only version of this tool:

https://ksdbmerge.tools/for-sqlite-online

EDIT 2022-02-21: Accepted .dump answer is good for many cases, but it can report false-positive changes. Here is dump result for this question:

Both columns are part of the primary key, so from the point of data model data is the same but dumps are different. My tool is using primary key to compare data so no changes would be reported for such case.

Share   Improve this answer   Follow

edited Feb 7, 2023 at 15:55

1   Didn't try it, but the website looks promising. Thanks for providing a free version - upvote deserved.
    – Binarus Jan 31, 2021 at 15:23 ✎

▲

3

▼

🔖

↺

You could use sqldiff.

On Debian or Debian-based systems (and possibly other Linux systems) it is installed by default when installing sqlite3: `apt install sqlite3`

On MacOS, it can be installed with Homebrew : `brew install sqldiff`

Share   Improve this answer   Follow

answered Dec 11, 2020 at 18:36

mivk
14.7k ●5 ●83 ●74

---

1   Didn't try it, but the website looks promising. Thanks for providing a free version - upvote deserved.
    – Binarus Jan 31, 2021 at 15:23 ✎