

EXPLORE || DIGITAL SKILLS

SQL for Data Science
SQLite Browser

Downloading SQLite Browser

Installing SQLite Browser

Uploading a database file

Browsing data

Writing SQL queries

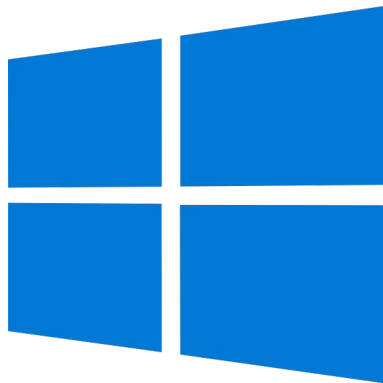


Installing SQLite Browser

SQLite Browser is a lightweight open-source application used for designing, visualising, and manipulating standalone database files. Seeing as we'll be making use of SQLite databases, this browser will come in handy.

To **download** SQLite Browser, do the following:

1. Download the application using the following link: [SQLite Browser download page](#).
 - Make sure to download the appropriate installer for your operating system.
 - For the Windows operating system, you are able to simply download the zip folder, unzip it, and run the **DB Browser for SQLite** application without having to go through an installation.
If you choose this option you do not have to go through the installation procedure described in the succeeding slides. Proceed to: [Uploading a database file](#).



For the remainder of this train, we'll follow the installation procedure for Windows.

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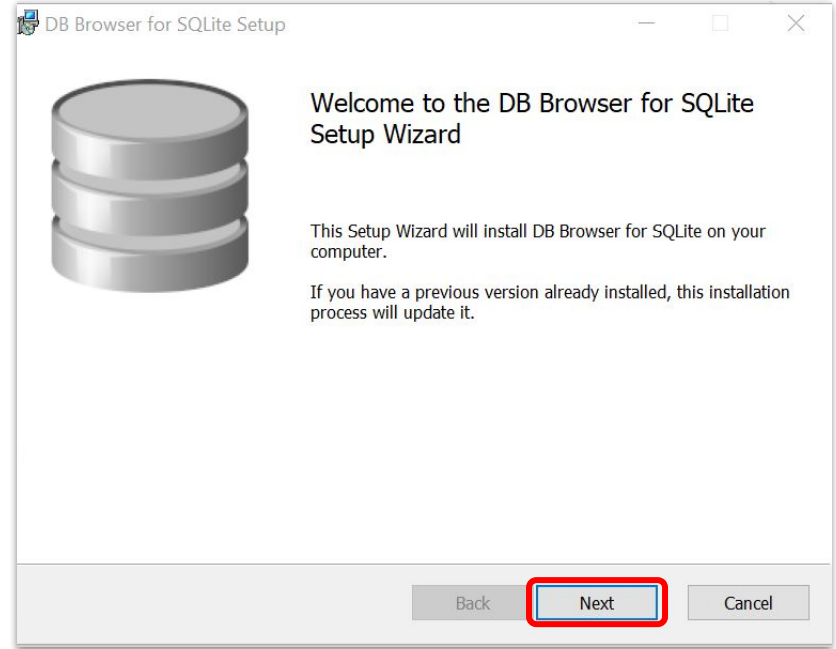


Installing SQLite Browser

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To **install** SQLite Browser, do the following:

1. Locate the Windows installation package in your Downloads folder and run it.
2. An installation wizard should appear to start your installation.
3. Click **Next** to continue.

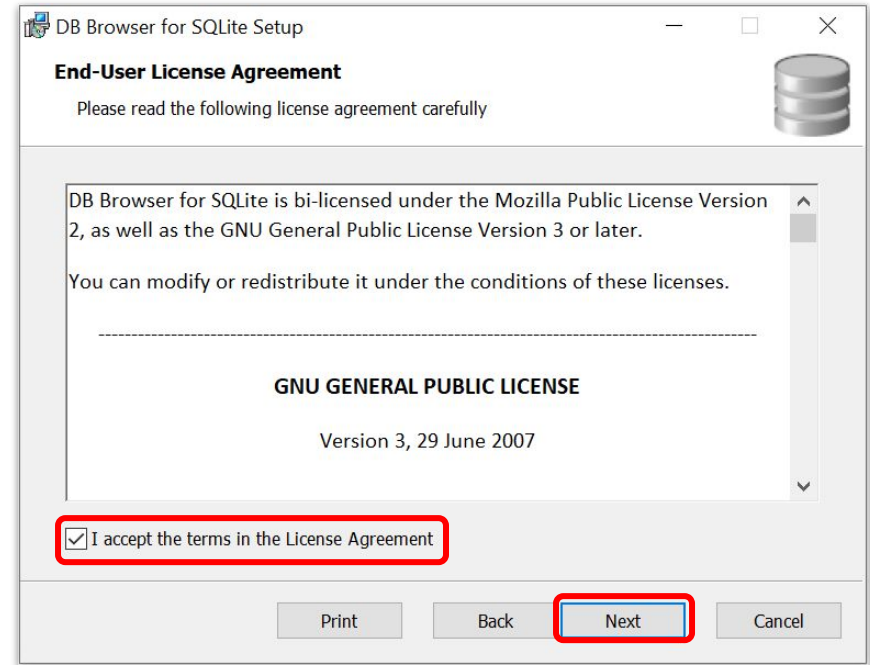


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To **install** SQLite Browser, do the following:

4. **Read** and **accept** the terms presented to you in the License Agreement.
5. Click **Next** to continue.

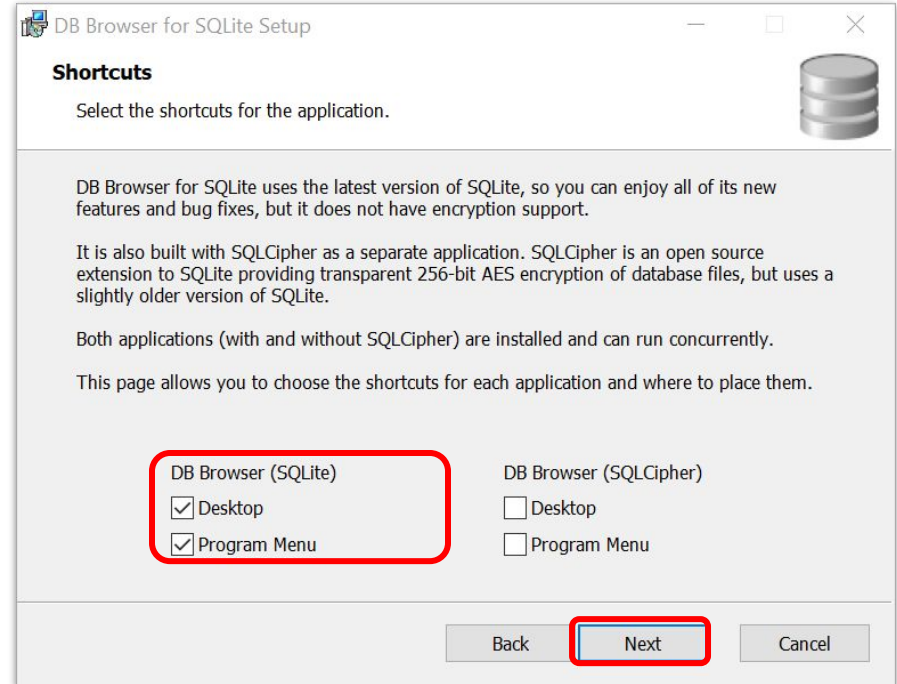


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To **install** SQLite Browser, do the following:

6. Check the two boxes under DB Browser (SQLite) to create shortcuts on your desktop and in your program menu.
7. Click **Next** to continue.

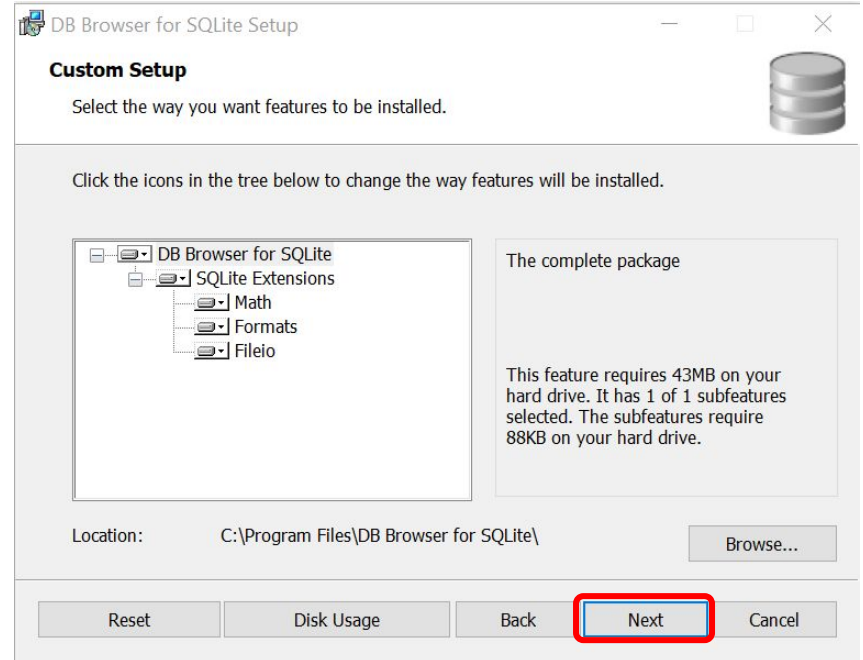


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To **install** SQLite Browser, do the following:

8. In the **Custom Setup** window, you can choose the installation location for SQLite Browser by selecting **Browse**, or leave it at the default location.
9. Click **Next** to continue.

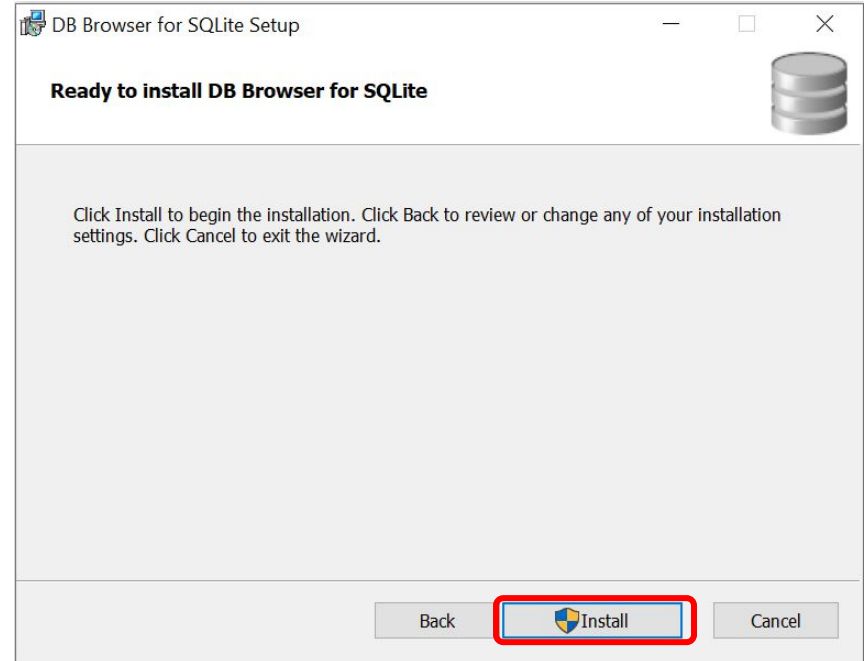


Installing SQLite Browser

SQLite Browser is a lightweight open-source application used for designing, visualising, and manipulating standalone database files. Seeing as we'll be making use of SQLite databases, this browser will come in handy.

To **install** SQLite Browser, do the following:

10. Finally, click **Install** to start the installation process.
11. Once the installation is done, click on **Finish** to complete the installation.



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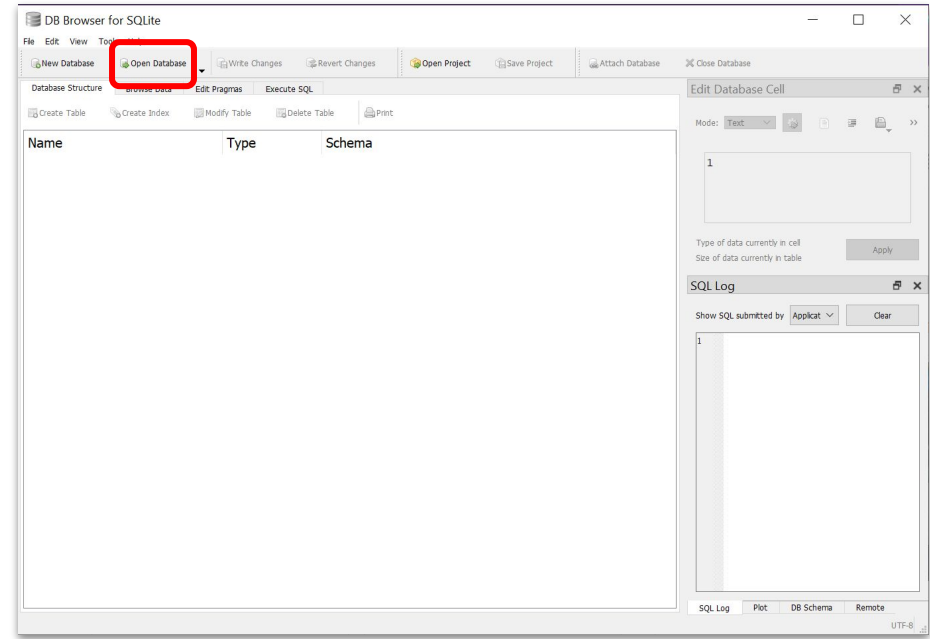
Writing SQL queries



Uploading a database file

After successfully installing SQLite Browser, open the application so you can view the main graphical user interface. It should be called: **DB Browser (SQLite)**.

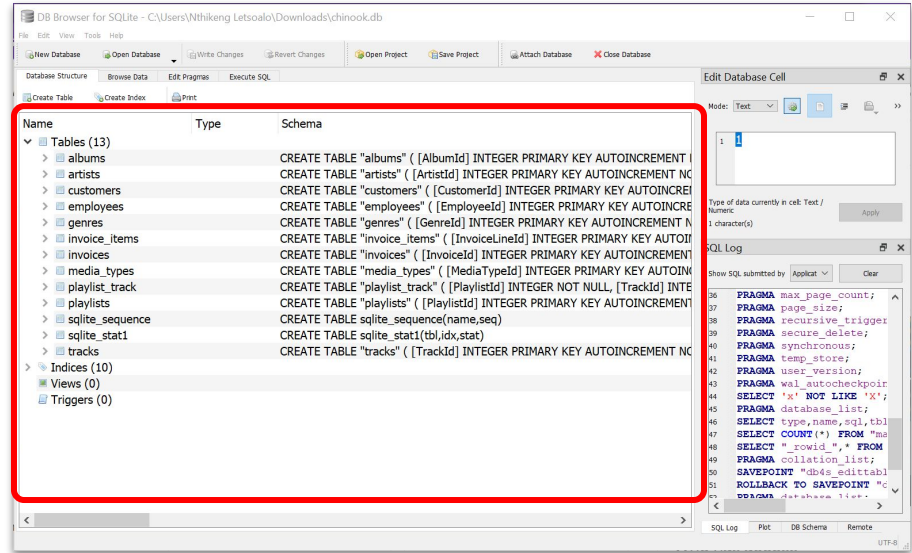
1. First, download the sample database found in the public academy repo: [chinook.db](https://github.com/publicacademy/chinook.db).
2. Click on **Open Database** and locate the database file in your Downloads folder.



Uploading a database file

After successfully installing SQLite Browser, open the application so you can view the main graphical user interface. It should be called: **DB Browser (SQLite)**.

1. After opening the chinook.db file, you should see all the tables present in the database.
2. This window should also show you all the **indices, views, and triggers** if they are available.
3. You can right-click on the tables to **create, browse, modify, and/or delete** any tables that you wish. You can also export any tables to CSVs if you want.



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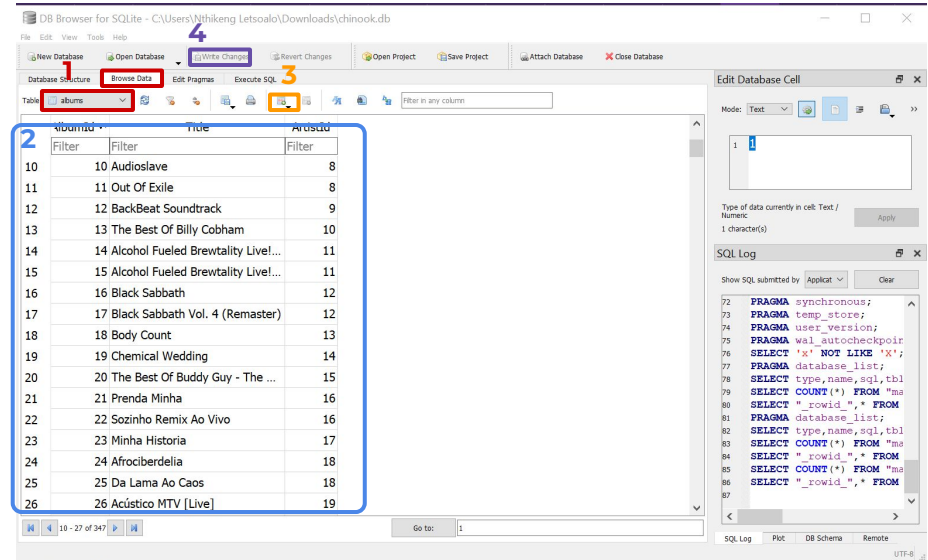
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SQLite Browser overview

Now that we have seen how to upload a database, let's look around the application to see the functionalities it has to offer.

1. Under the **Browse Data** tab, we can view the data present in the given tables. To view data, select a table from the **drop-down list**.
2. The output area shows data contained in the **albums** table. You can edit and filter the table as you please.
3. Use the **Insert** button if you want to add an entry to the table.
4. If you want your changes to reflect in the database file, remember to click on **Write changes**.



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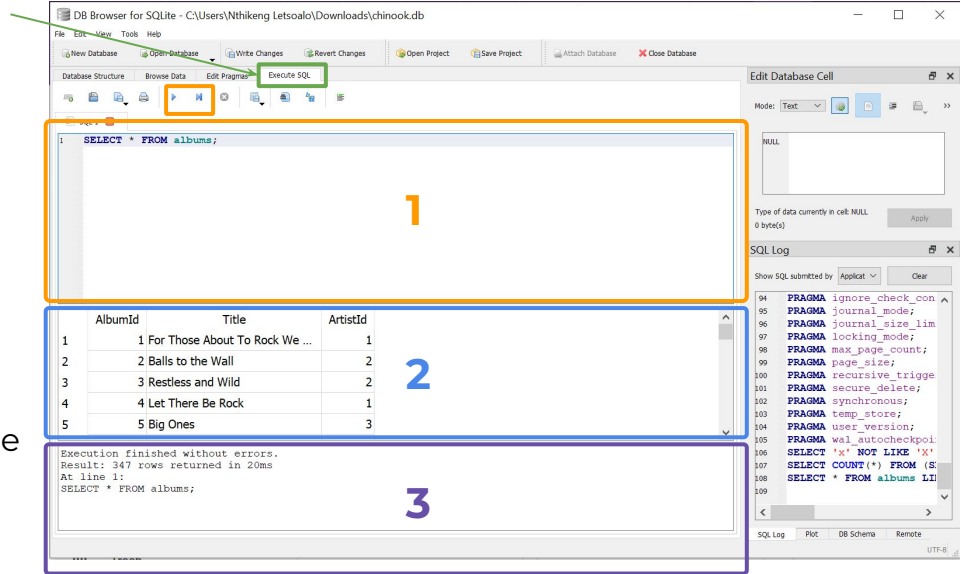


Writing SQL queries

SQLite Browser also enables you to write queries and save individual SQL scripts so that you can use them at a later stage.

Go to the **Execute SQL** tab. You will notice that it is divided into three parts:

1. First, it has a scripting area that allows you to **write your SQL queries**. Press the blue **play buttons** to execute your queries.
2. Below that, we have the **output generated from the query** written in the scripting area above.
3. Lastly, we have a **log section** that will return the **execution details** of your SQL queries. Any **errors** will appear here. It also tells you the **amount of time** it took to execute your query.



Conclusion

In this tutorial, we learned how to:

- install SQLite Browser;
- upload a file using SQLite Browser;
- navigate tables using the data browser; and
- execute SQL queries in the application.

The above items are in no way the complete functionality of SQLite Browser. Continue playing around with the application as you go through the course to familiarise yourself. Although it is not mandatory to make use of SQLite Browser, you may find that it can be useful when being used as a scratch pad to investigate databases and planning queries.

