Create a new schema (database) inside your MySQL Workbench, containing the tables ‘authors’ and ‘books’. We want to know the name, biography, birth\_year and gender of each author. The books all have a title, a price, and a publication\_date. But we also need to know who wrote them !

* Identify the data types we need to use for each column.
* What’s the type of relationship we’ll be using here ?
* Create a schema called ‘Library’
* Create the 2 tables with the information we gathered previously.
* Fill the tables with sample data with at least 5 rows for each table, vary the data entered for each column to get interesting SELECT results.

EXERCICE 1

Part 1 :

* Get all the information from each books
* Get the title of each book
* Get the title and publication date of each book

Part 2 :

* Retrieve the title of each book, sorted alphabetically
* List all authors in alphabetical order and without duplicate

Part 3 :

* Recover the book with id 2
* Find books released between 2000 and 2010 included
* Find books that did not come out between 2000 and 2010 included

Part 4 :

* Insert an author in the corresponding table with the following information : ‘Tolkien’, ‘This is J.R.R. Tolkien’s biography’, ‘1992’, ‘Male’
* Insert a book in the table with the following information : ‘Lord Of The Rings’, 24, *Tolkien’s author id*, ‘1954-07-29’
* Recover all books starting with “Lord Of The Ring”
* Get all books from the author “Tolkien” (you have to know the author id)
* Get all the author’s books that are not “Tolkien”

Part 5 :

* Recover all books from the newest to oldest
* Count the number of books by each author

Part 6 :

* List only the first 5 books
* List the last 4 books (from newest to oldest)

Part 7 :

* Get the sum of all the book’s price (total amount of all books)
* Get the sum of books price PER author id

Part 8 :

* Update all books with author id = 2. Those books all cost now 10
* Update all books with author id = 5. Those books all cost now 5 more euro than previous price

EXERCICE 2

Now, there is a ‘novels’ table that has the same fields as the ‘books’ table. Add 5 rows of data as a sample.

* Retrieve all novels and all books in one query
* Collect all novels and all books from/since 2018
* Get the total price per author (books and novels combined)
* Get the total price for all books AND all novels (books and novels separated)

SQL JOIN

Part 1

* For each book, Retrieve its title and the name of the author
* Get the title of each book and the name of the author, sorted alphabetically on the title of the book
* Same but sorted on the author's name
* For each book, get all the information about it and the name of the author

Part 2

* Retrieve the category and the name of the song for each song, but we still want to see all the categories, even if they don't have one or more matching songs.
* Retrieve the name of the artist, the song name and the category for each song, but we still want to see all the categories without matched songs. We also want to see the results in the alphabetical order of the song names.