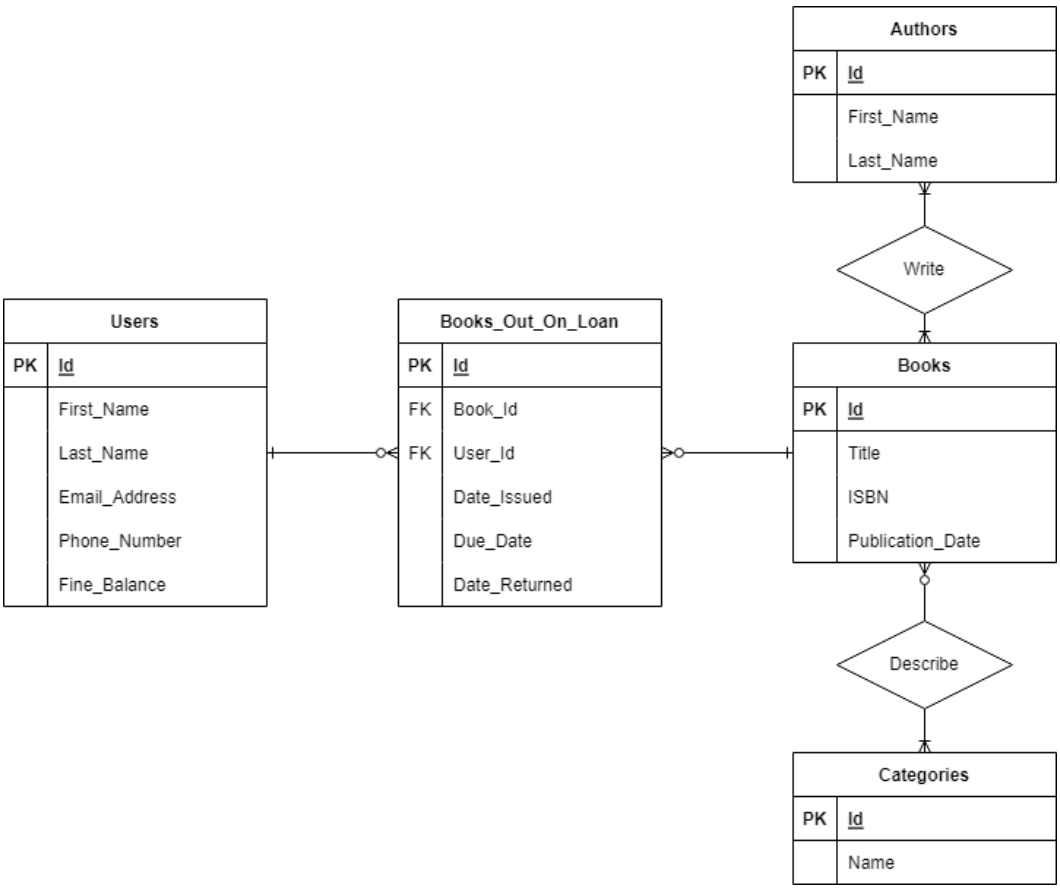
Lab 4 - Database Review

You may work with a partner on this lab if you'd like.

Part 1 - Making a Database

- Using the ER Diagram below, create an SQLite Database - I named mine *Library.db*.
    - Don't forget associative tables (**Books_Out_On_Loan** has been shown here as an example, you'll need one between **Authors** and **Books**, as well as **Categories** and **Books**
    - Upload some data to these tables (I have provided the SQL files containing the *Insert* statements in the file *Data_Inserts.zip* on D2L
        - **READ THE *README.TXT FILE BEFORE RUNNING THESE COMMANDS***
    - Do not worry about the data type of any date fields (e.g., Due_Date, Date_Returned, Date_Of_Publication, etc.)
        - they should be the Text data type



Show me the implemented database.

Part 2 - Basic SQL Queries

Using the database made in part 1, write queries that will return the following information. How you choose to have this part checked off in the lab is up to your discretion – I'd recommend saving the queries to a Notepad++ file and showing them to me when you're finished.

1. The first name, last name, email address, and fine balance of all users who have a fine of greater than $100.00
    a. Concatenate (using ||) the user's name to look like *Last, First* in your output
    b. Order by last name, then fine balance (ascending)
2. The title of all books written by authors whose last name begins with the letter "G"
    a. Use the associative entity and joins
    b. Use the "Like" keyword in the *Where* clause to get the correct group of authors
3. The number of times each book has been checked out (show the title of the book, and the count of each time it has been checked out)
    a. Will need to use the associative entity and joins to make this work
    b. Will also need to use a *Group By* clause
    c. Order by the number of times the book has been checked out in descending order, then the title of the book in ascending order
4. The number of book categories for each author (show the full name of the author, and the number of categories of books that the author has written)
    a. Use the concat (||) to combine the author's first and last name to look like *Last, First* in your ouput
5. Modify the previous query to include only those authors that have written more than 3 categories of books and put them in order of category count (descending), then last name (ascending)

Show me the result of each of the five queries described above.

IMPORTANT: SAVE YOUR .db FILE SOMEWHERE SECURE – WE'LL USE IT IN A SUBSEQUENT LAB.