Objective: The objective of this lab is to get you accustomed to constructing ER diagrams given a description.

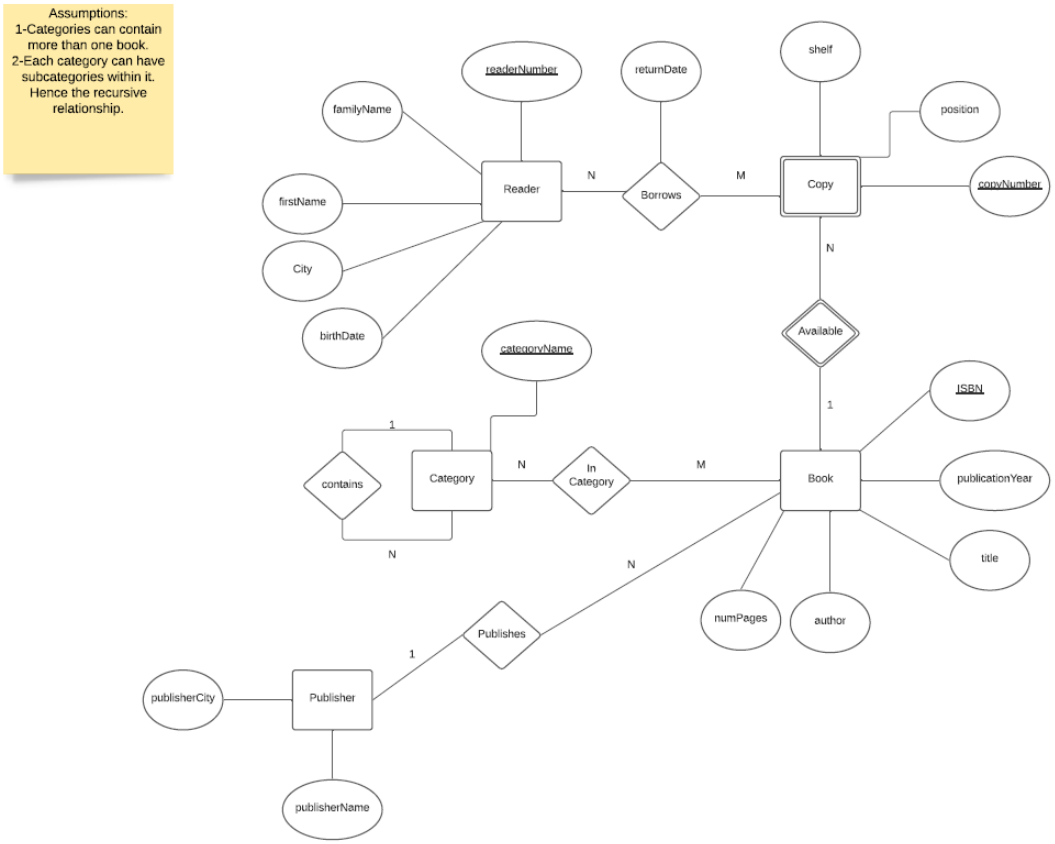
Instructions: Draw an ER diagram for the following description. Identify the keys and give the cardinality of all relationships (e.g., 1:1, N:1, N:M). Make sure you note your assumptions.

Assume you are creating a database for a library system with the following properties:

- The library contains one or several copies of the same book.
- Every copy of a book has a copy number and is located at a specific location in a shelf.
- A copy is identified by the copy number and the ISBN number of the book.
- Every book has a unique ISBN, a publication year, a title, an author, and a number of pages.
- Books are published by publishers.
- A publisher has a name as well as a location.
- Within the library system, books are assigned to one or several genres.
- A category has a name and no further properties.
- Each reader needs to provide his/her family name, his/her first name, his/her city, and his/her date of birth to register at the library.
- Each reader gets a unique reader number. Readers borrow copies of books. Upon borrowing the return date is stored.

A good strategy is to start by identifying the entities and their associated attributes, then identity the relationships present in this description.

Solution:



Attribution:

*These assignments were completed by **Ravi Chandan Pandi,** and they represent his original work completed for academic purposes during his studies and self-learning purposes.*

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