Database Library Project

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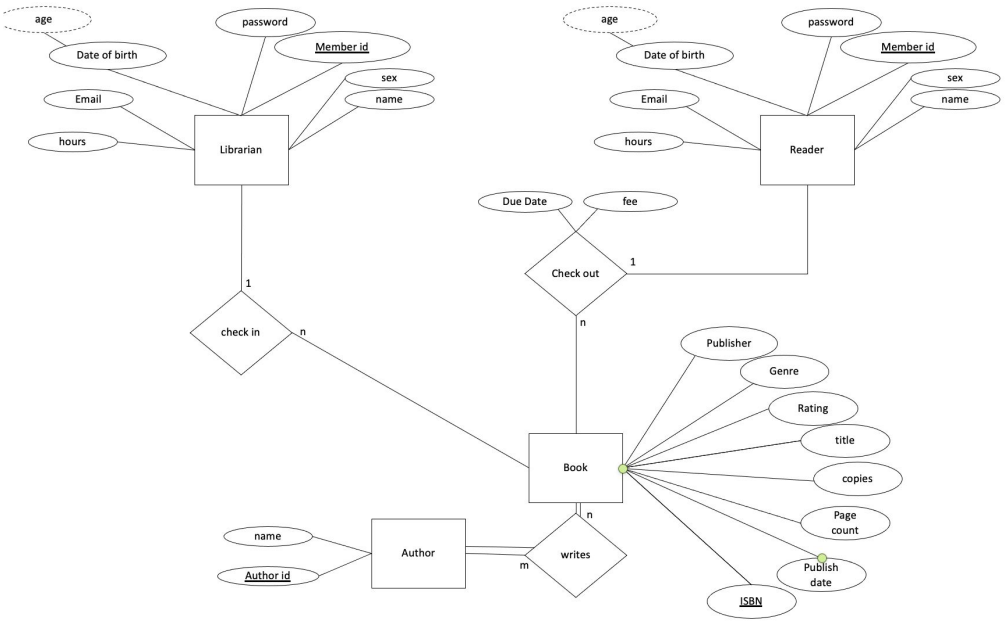
Project Introduction

- The Library System consist of two basic users: Librarians and Readers
- Readers should be able to check out books, view their personal info in the library, and see what books they have currently checked out as well as if they owe any money to the library for overdue books
- A librarian should be able to view their own information, see what books any user has checked out, and check in books for a user.

ER Diagram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Normalized Database Schema

Librarian (Staff id, fname, lname, salary, hours, date of birth, email, password, sex)

- Table is 3NF as there are no transitive dependencies
- FD: Staff_id -> {fname, lname, salary, hours, date of birth, email, password, sex}

Reader (Reader id, fname, lname, date of birth, email, password, sex)

- Table is 3NF as there are no transitive dependencies
- FD: Reader_id -> {fname, lname, salary, hours, date of birth, email, password, sex}

Book (ISBN, publisher, publish date, title, genre, age rating, page count, word count, copies)

- Table is 3NF as there are no transitive dependencies
- FD: ISBN -> {publisher, publish date, title, genre, age rating, page count, word count, copies}

Checked Out(Reader id, ISBN, Due Date, Daily fee)

- Table is 3NF as there are no transitive dependencies
- FD: {Reader_id, ISBN} -> {Due Date, Daily fee}

Author(Author id, fName, lName)

- Table is 3NF as there are no transitive dependencies
- FD: Author_id -> {fName, lName}

Writes(Author id, ISBN)

- Table is 3NF as there are no transitive dependencies