

## Case study: Local Library Management System

The town of Biblioville has recently established a local library. They have been managing books and members manually, but as the number of members and books increases, they realized the need for a computerized system. They have collected various data over time but it's all in a single spreadsheet which has caused redundant data and inaccuracies. Your task is to help the library normalize this data to design a reliable and efficient database system.

An existing table (called “Library”) with data:

MemberID	MemberName	Address	BookID	BookTitle	Author	BorrowDate	ReturnDate	Librarian	LibrarySection
M101	Alice	123 St	B001	ABC	Mr.A	01-Jan	10-Jan	Bob	Fiction
M102	Bob	456 Ln	B002	DEF	Mr.B	02-Jan	12-Jan	Charlie	Non-Fiction
M103	Charlie	789 Rd	B001	ABC	Mr.A	03-Jan	13-Jan	Bob	Fiction

(Note: This is a simple representation, the actual spreadsheet contains hundreds of rows.)

The primary key of this table is supposed to be (MemberID, BookID).

Requirements:

- Each member can borrow multiple books, but a book can be borrowed by only one member at a time.
- A librarian can handle multiple book borrowings.
- Books belong to different sections like Fiction, Non-Fiction, Sci-Fi, etc.
- The library keeps track of when a book is borrowed and when it's due to be returned.
- Some books can have multiple authors and an author can write multiple books.