

Illustrate the problem of M-to-M relationship
--> this motivates adding composite entities in the logical modelling

Suppose only one book per borrow

PK is unique and not null

PK	member_id	member_name	phone
	1	Alice	123-456-789
	2	Ben	123-456-790
	3	Carl	123-456-791
	4	Denny	123-456-792

FK value exists in the linked table

PK	borrow_id	borrow_date	FK member_id	FK book_id
	1001	2025-11-25	2	101
	1002	2025-12-25	1	101
	1003	2025-12-28	4	102

PK	book_id	title	author	ISBN_nr	copy_nr
	101	How to Solve It	George polya	978-0140124996	1
	102	How to Solve It	George polya	978-0140124996	2
	103	Cozy & Calm. En cozy målarbok	Sam Jayne	978-9181161113	1
	104	Designing Data-Intensive Applications	Martin Kleppmann	978-1449373320	1

Possibly multiple books per borrow (which is more realistic)
--> PK is not unique!

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PK	borrow_id	borrow_date	FK member_id	FK book_id
	1001	2025-11-25	2	101
	1002	2025-12-25	1	101
	1003	2025-12-28	4	102
	1004	2025-12-30	1	103
	1004	2025-12-30	1	104

PK	book_id	title	author	ISBN_nr	copy_nr
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	102	How to Solve It	George polya	978-0140124996	2
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This alternative solution will break the FK constraint

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	1001	2025-11-25	2	101
	1002	2025-12-25	1	101
	1003	2025-12-28	4	102
	1004	2025-12-30	1	103, 104

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The solution is to introduce a composite entity to break the M-to-M relationship between Book and Borrow