

Suggested Solution to Exercise 3: Modelling a Conceptual Model of a Library

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Domain Description

- This is a domain description of small university library in Sweden.
- For each book title the library needs to have information about: author, title, publisher, ISBN, and what category it belongs to. Regarding copies of books, the library needs to have information of the date of purchase of the copy and which copy number the book has (this number is provided by the library directly after purchase). This copy number is used to identify individual copies of a book, because popular books have several copies
- For each borrower, the library needs to have information of national ID Number (called personal number in Sweden), name, address and library card number
- For each employed librarian, the library needs to have national ID Number (called personal number in Sweden), name, address, library card number and employee number
- A borrower can borrow books. For each loan, the library needs to know which book copy the loan concerns, date of the loan, the date when the copy needs be returned. For each loan, a librarian needs to confirm the loan
- A borrower should also be able to reserve books. The library needs to know which book is reserved and the reservation date. The borrower could also cancel a reservation.
- Each book categories has a category name and an abbreviation of that category name



Your Task

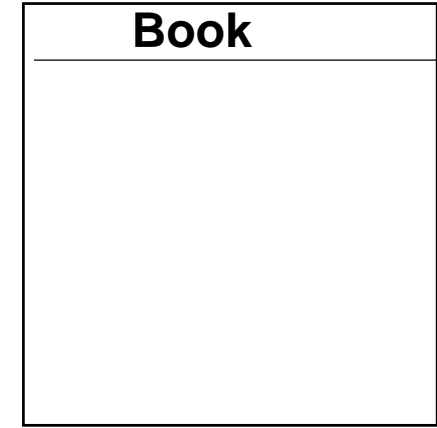
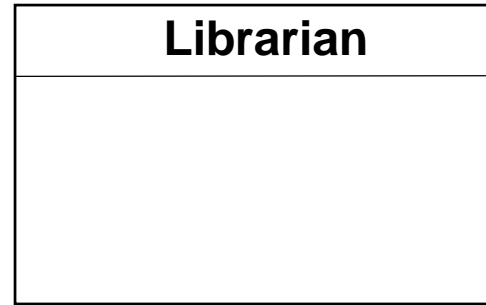
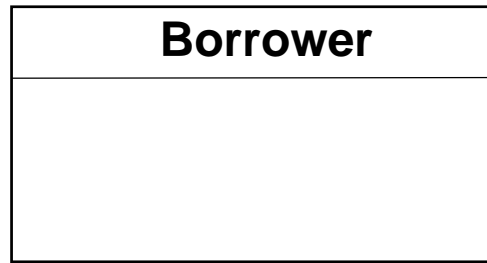
- Represent the concepts/terms in the domain description by creating a conceptual model using UML Class Diagram



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Borrower
name address nationalIDNumber libraryCardNo

Librarian
name address nationalIDNumber libraryCardNo employeeNo

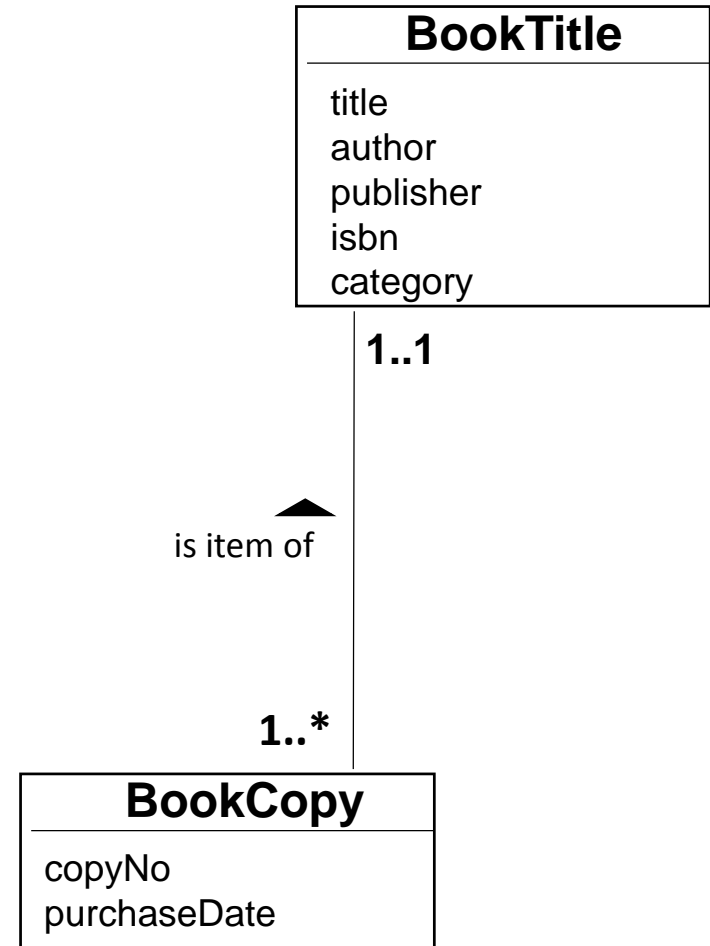
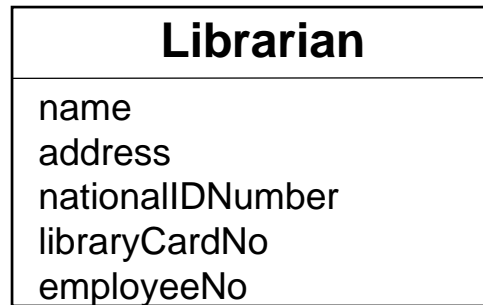
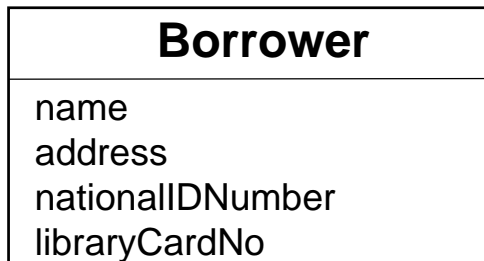
Book
title author publisher isbn category copyNo purchaseDate



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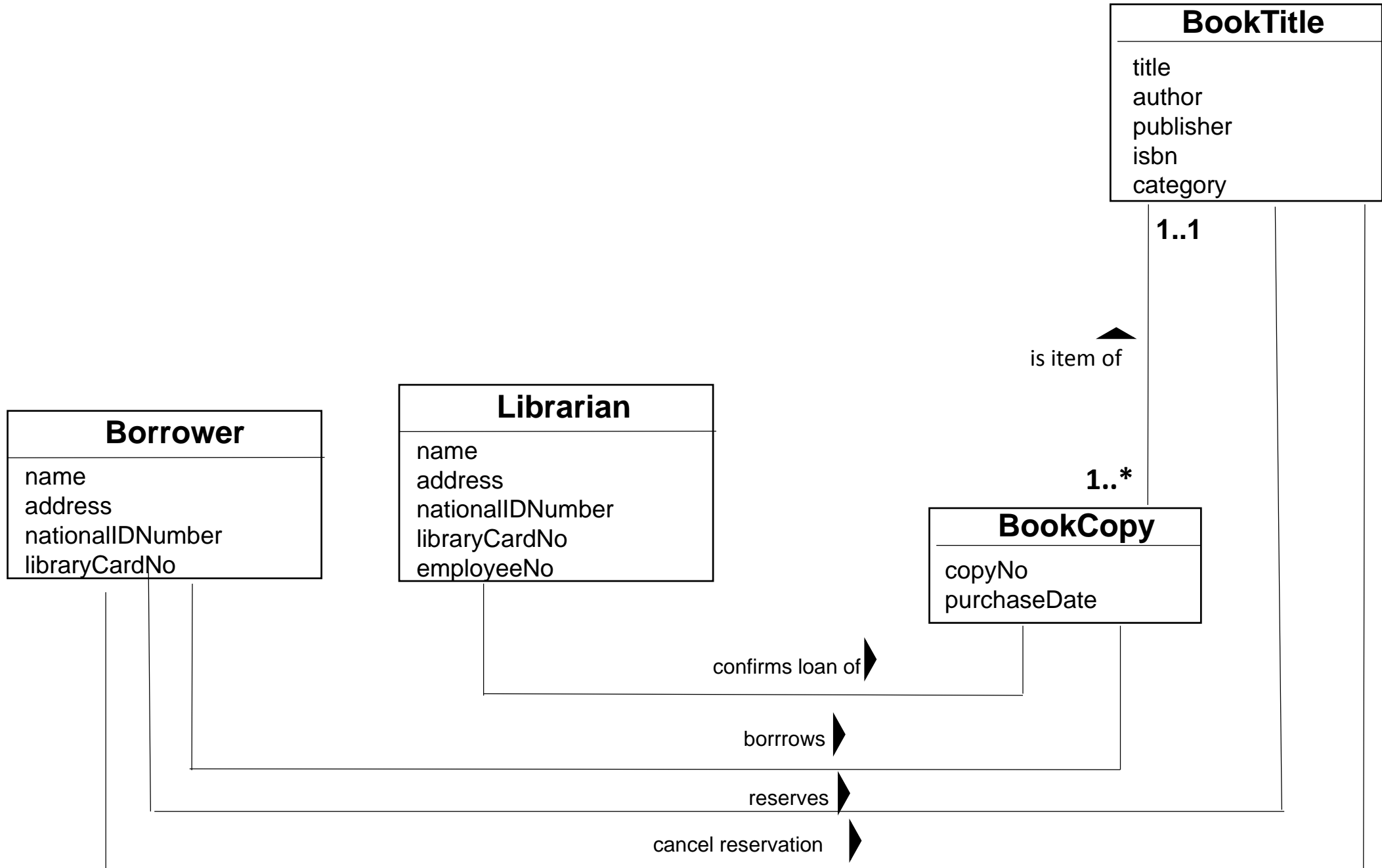




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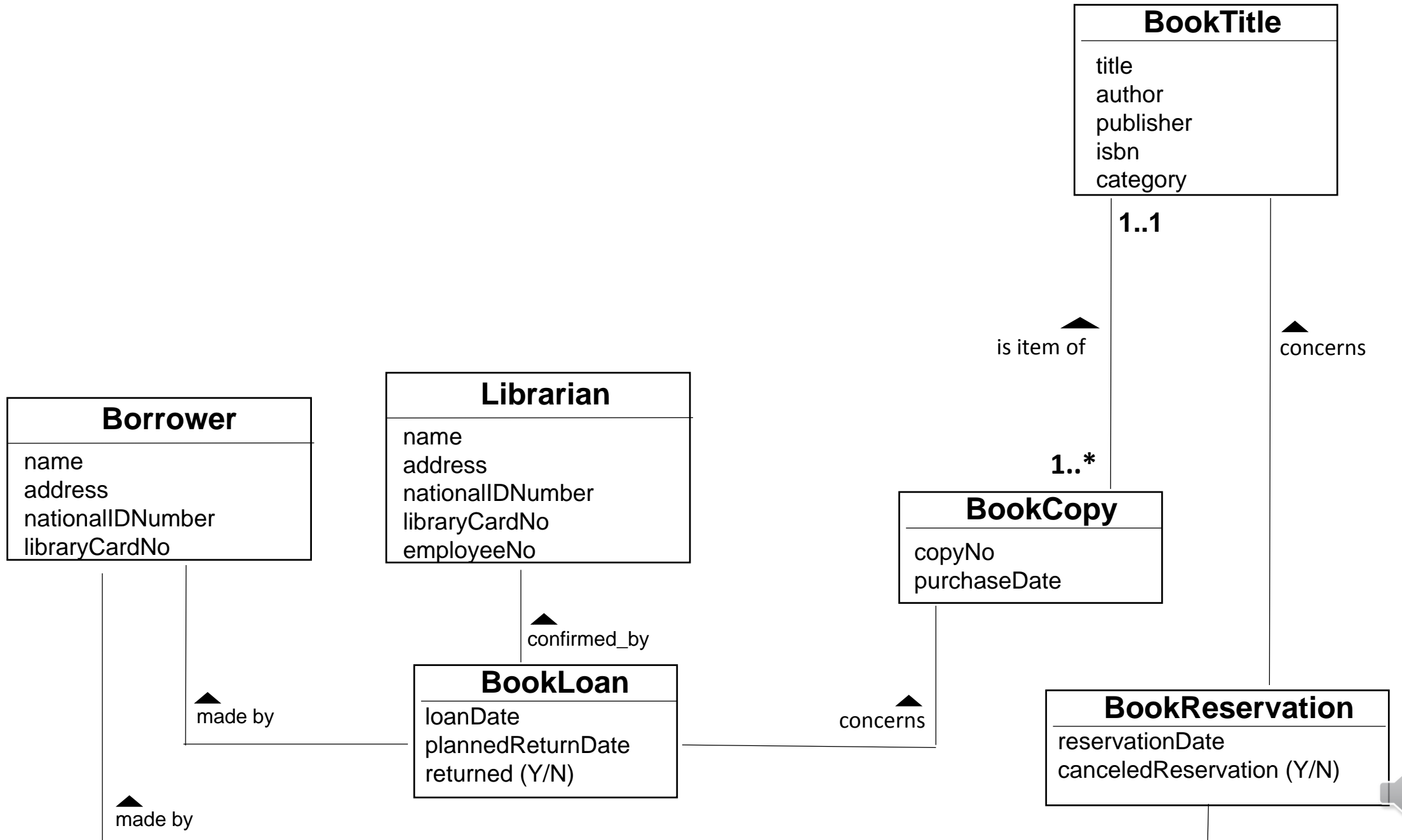


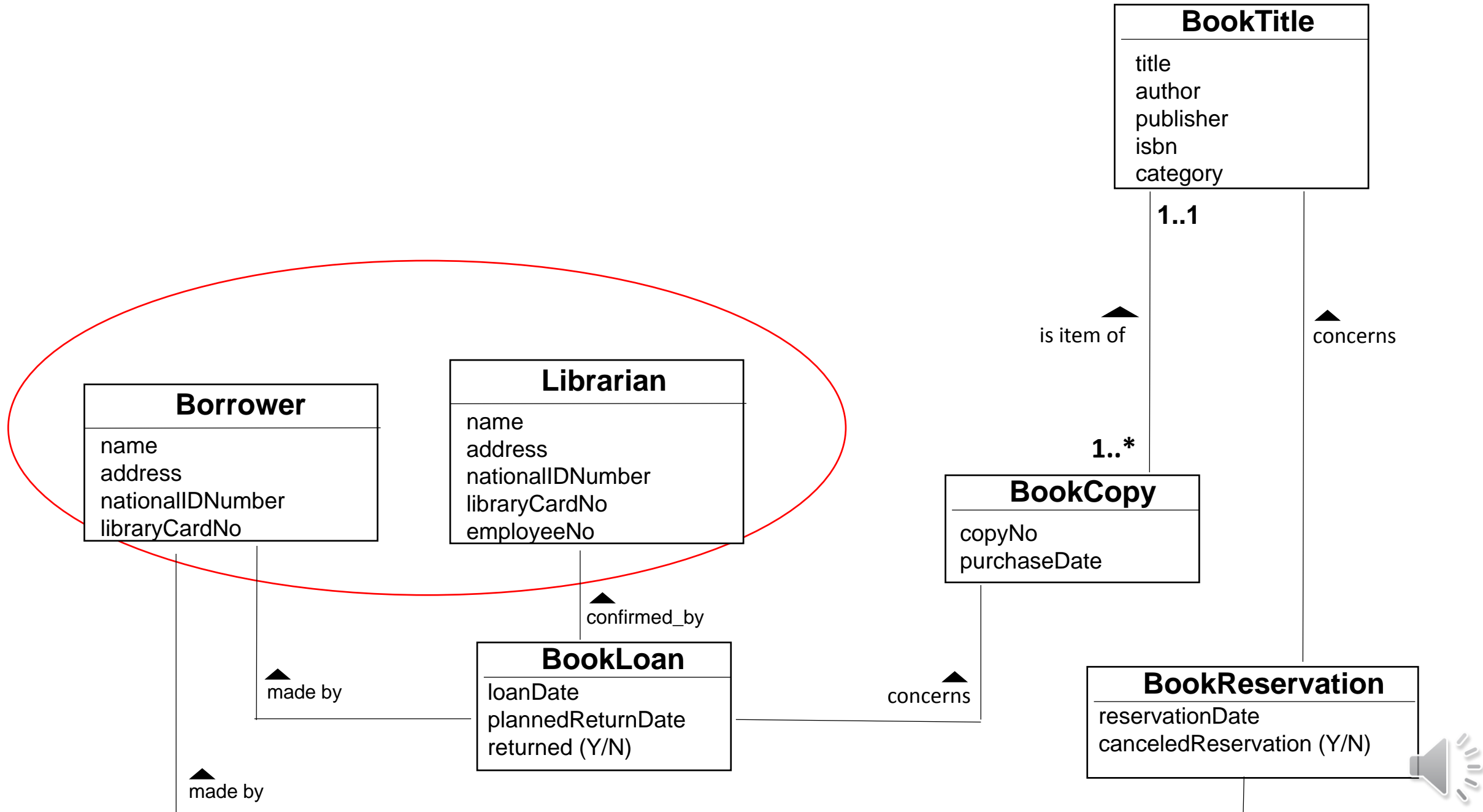


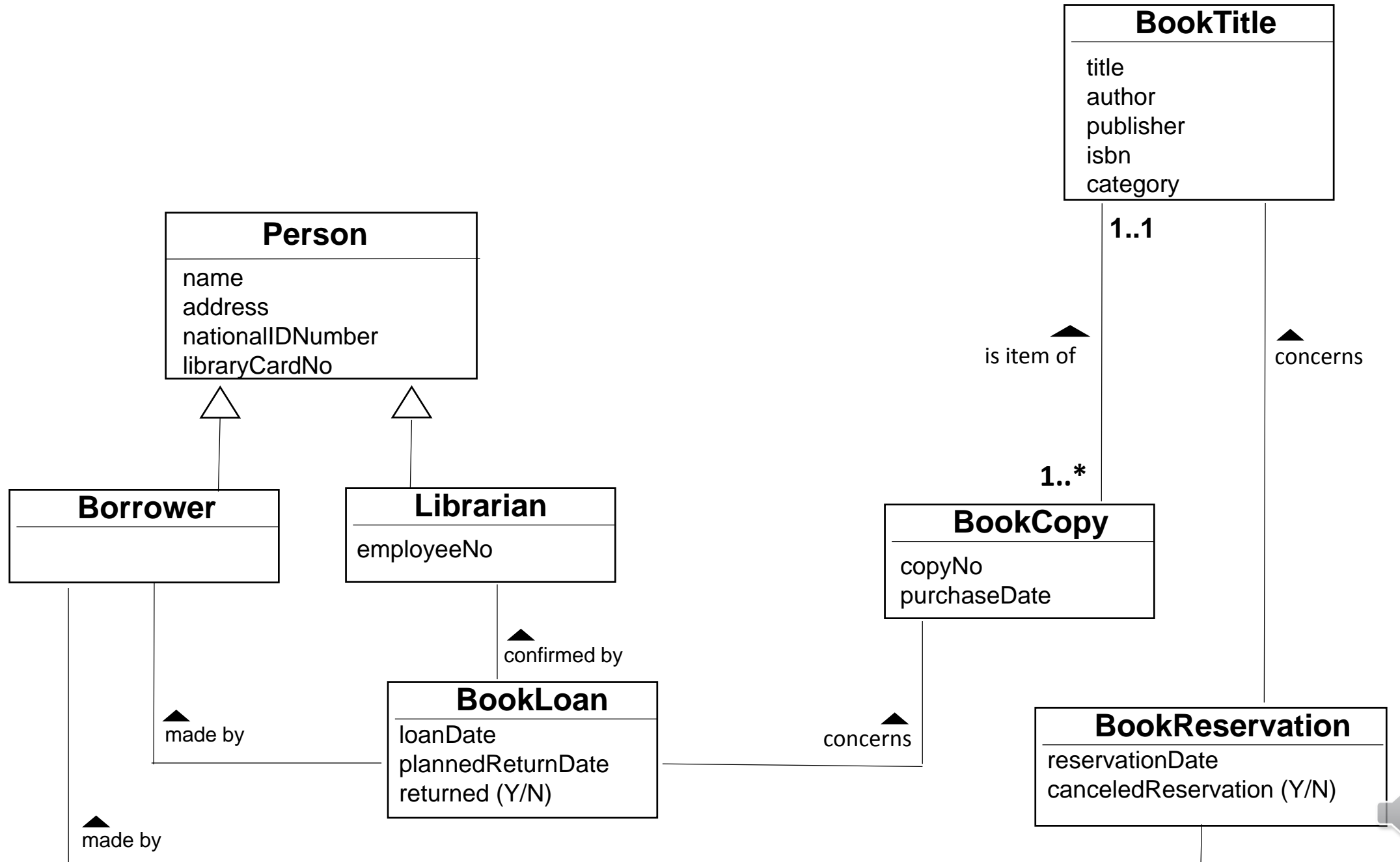
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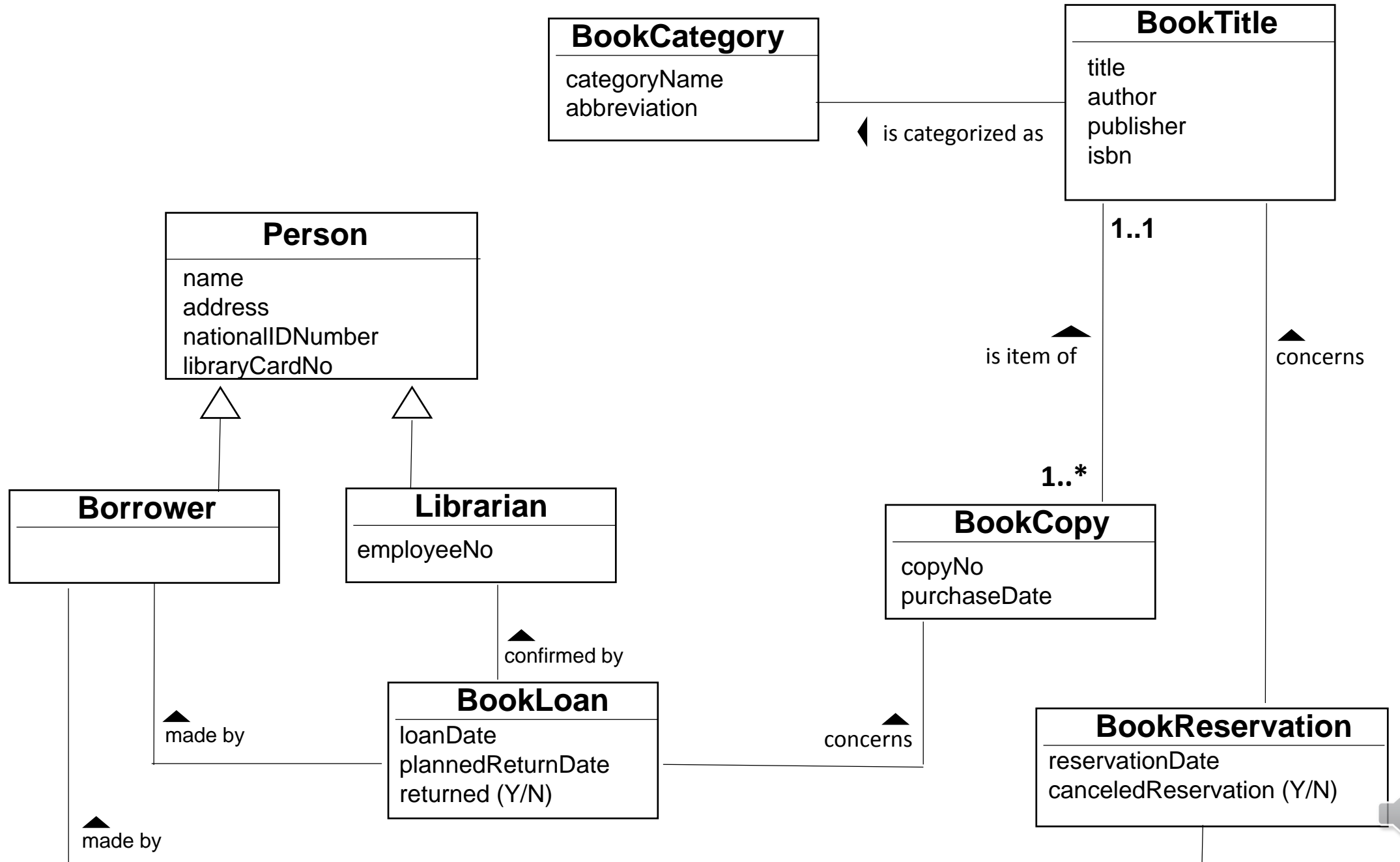


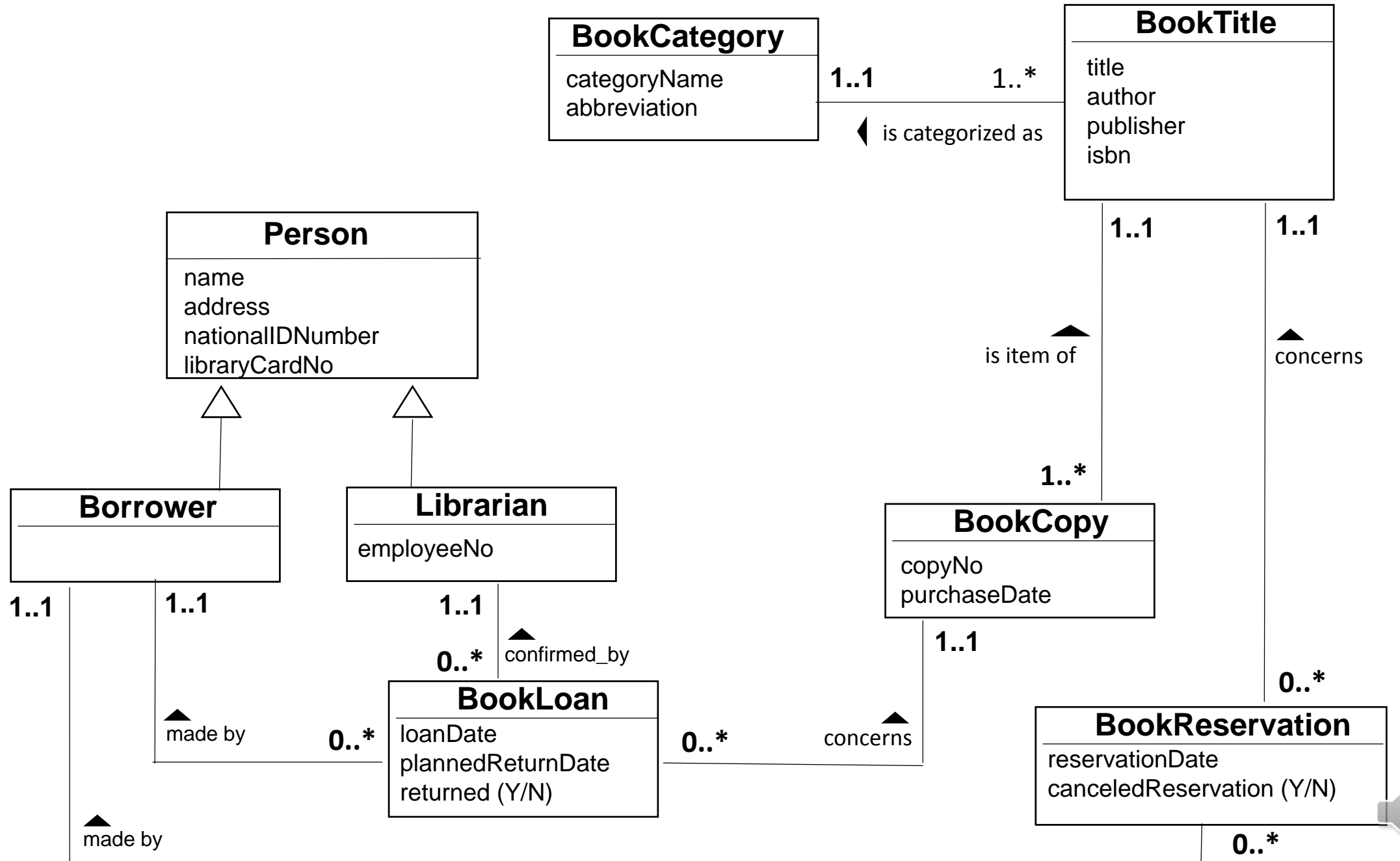


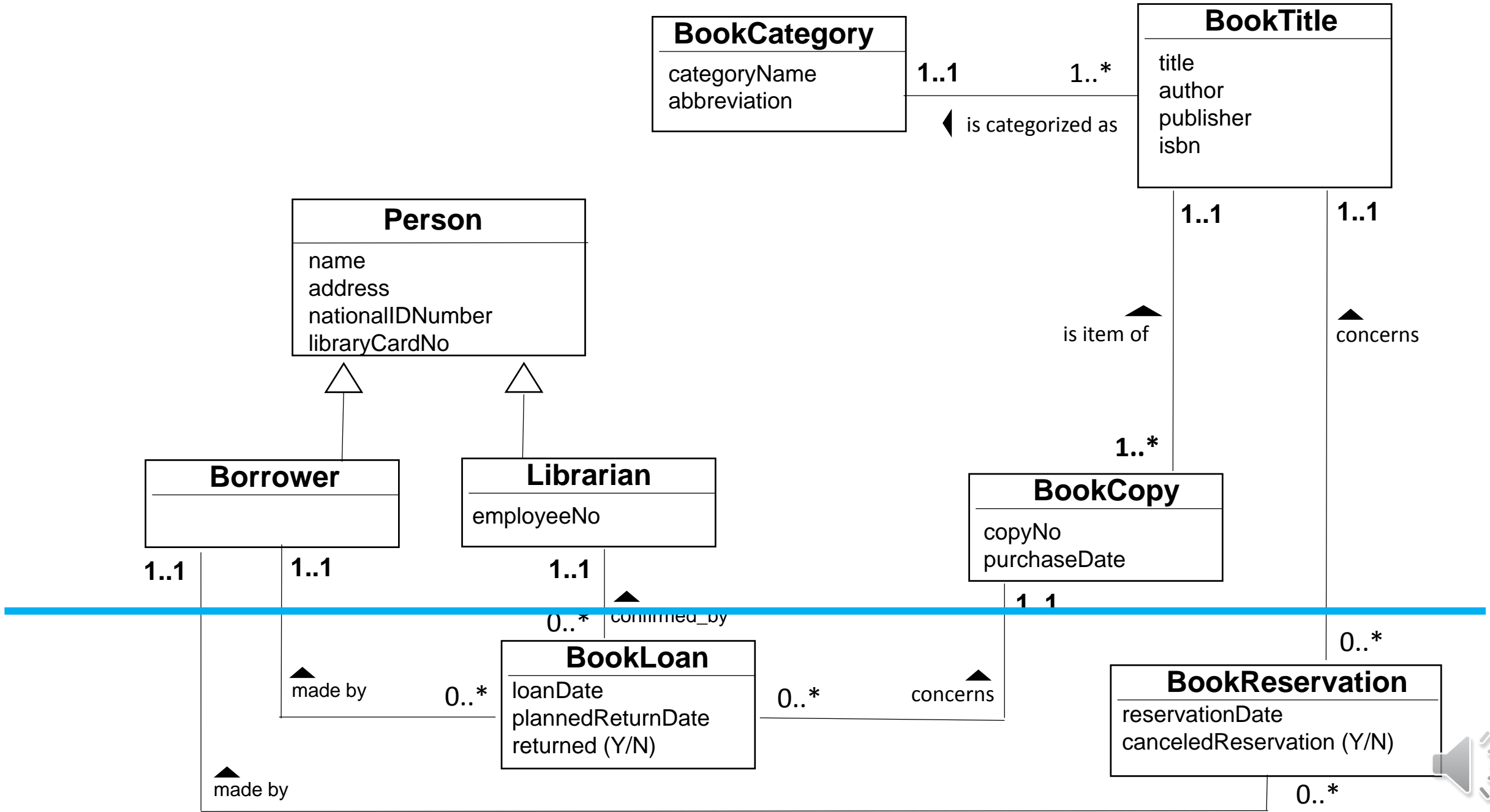
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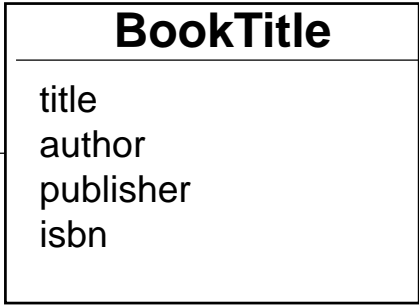
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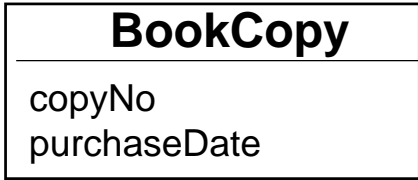
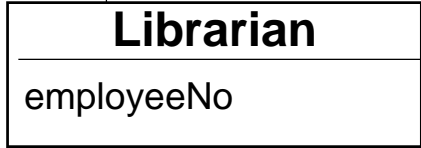
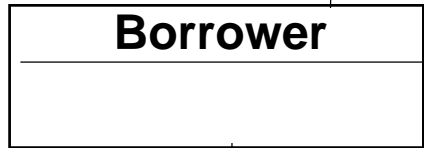
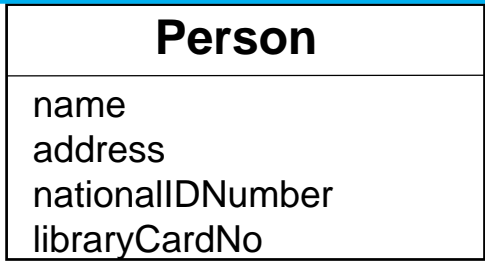




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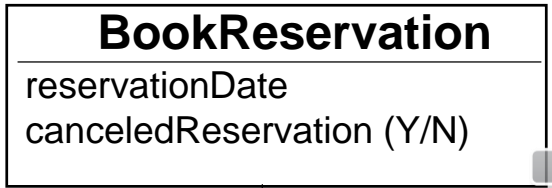
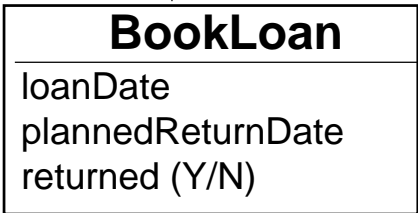
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