

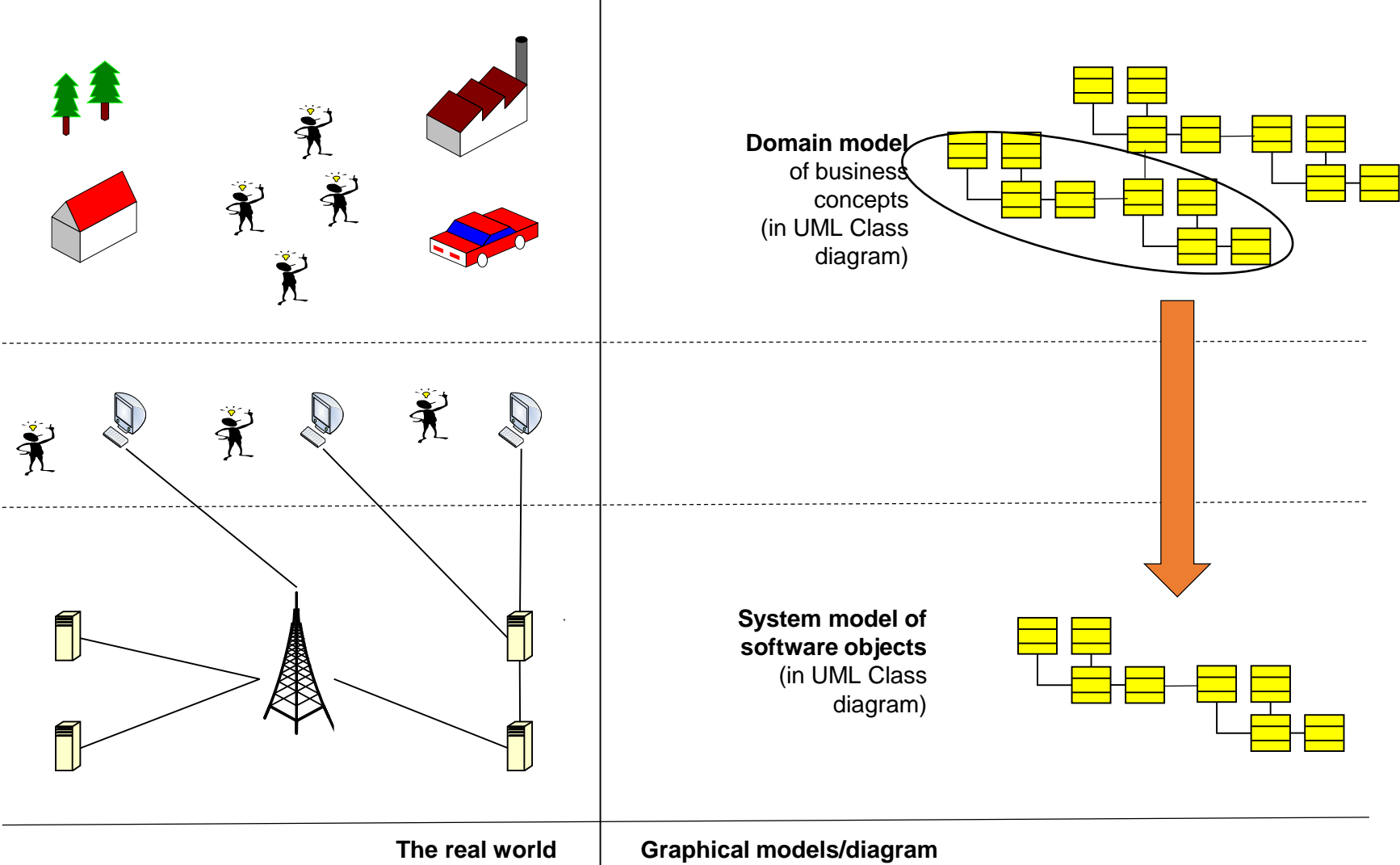
Suggested Solution to Exercise 5: Modelling with Sequence Diagram – the Library Case

Erik Perjons

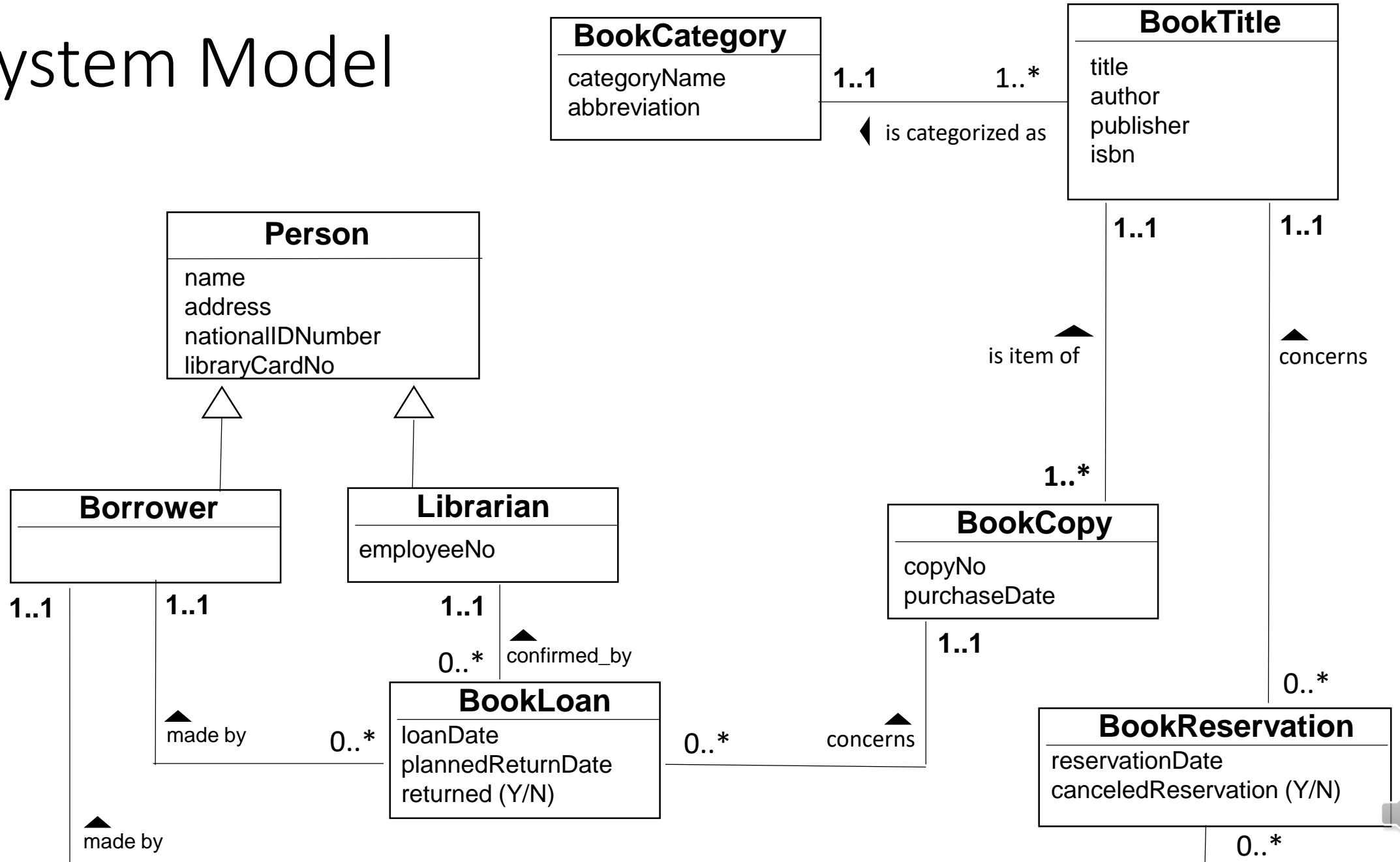
DSV, Stockholm University



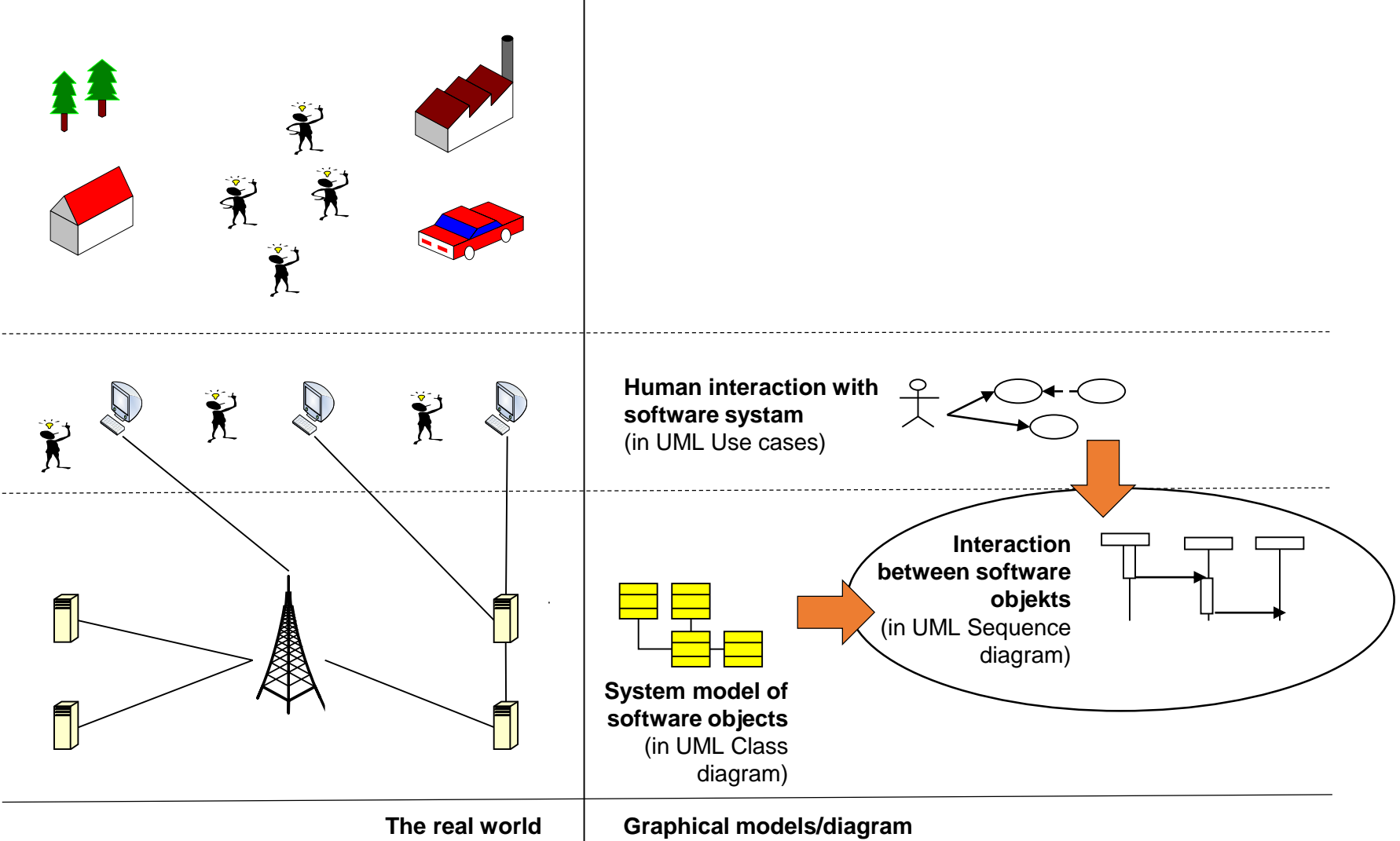
Real World and Models



System Model



Real World and Models



Use Case

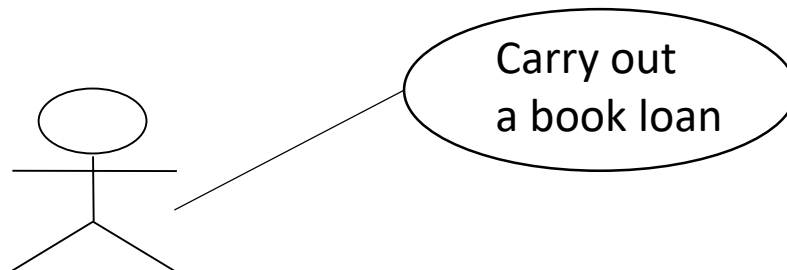
Use Case: Carry out a book loan

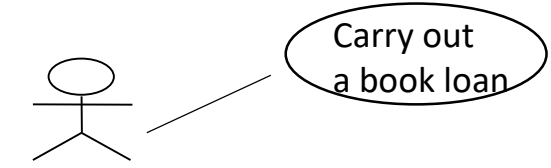
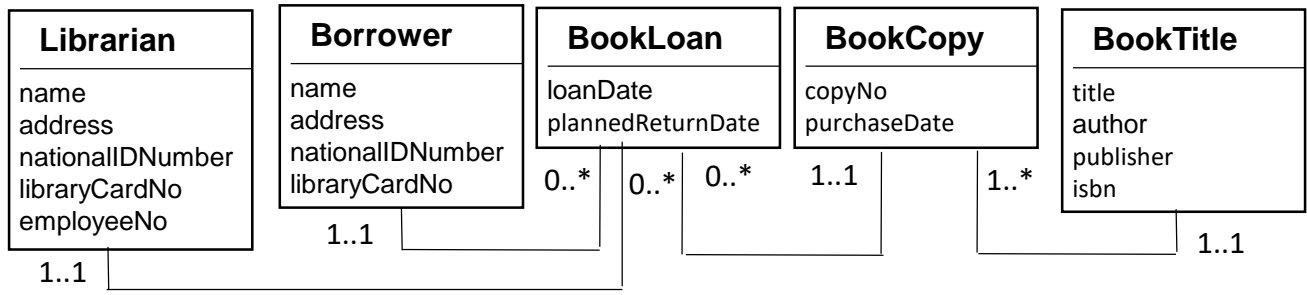
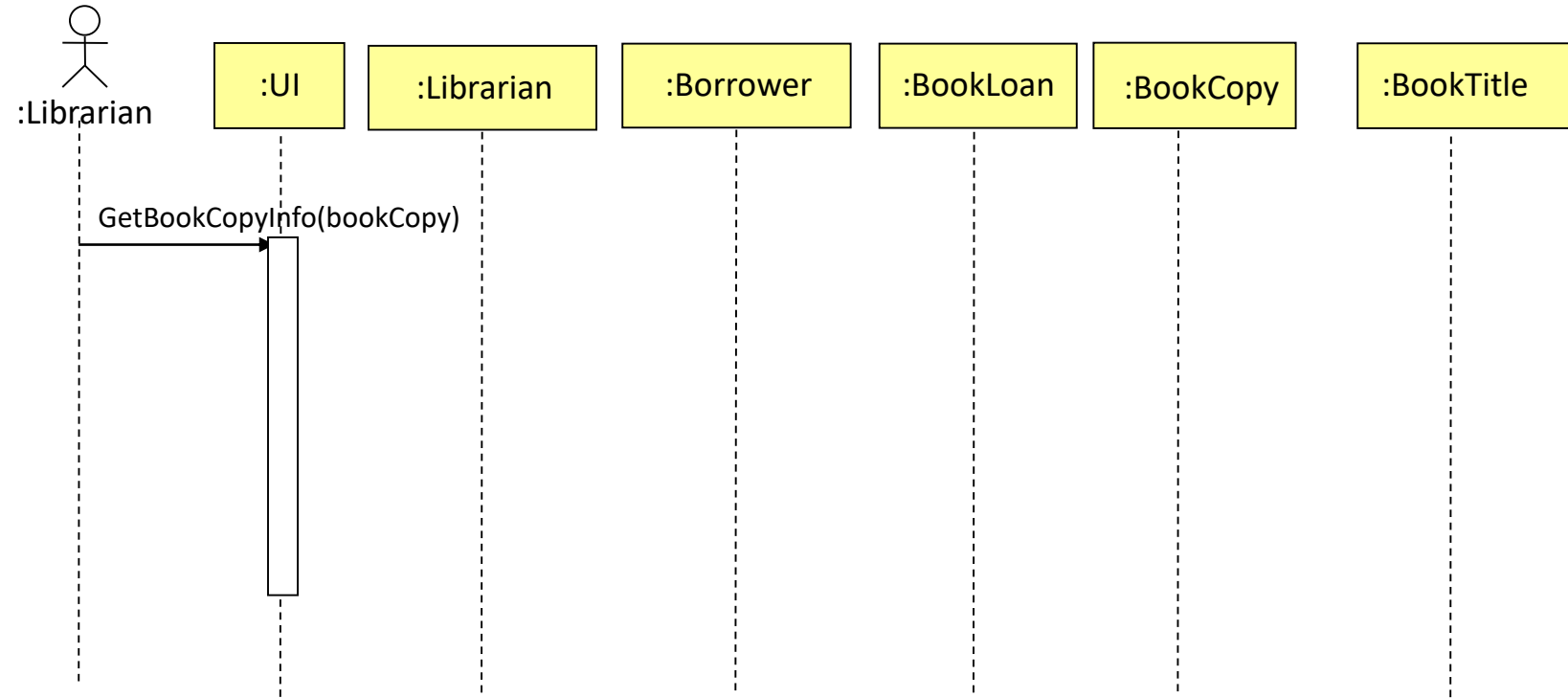
Mål: The librarian aims to carry out a book loan

Aktör: Librarian

Main scenario:

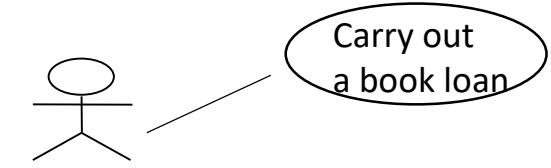
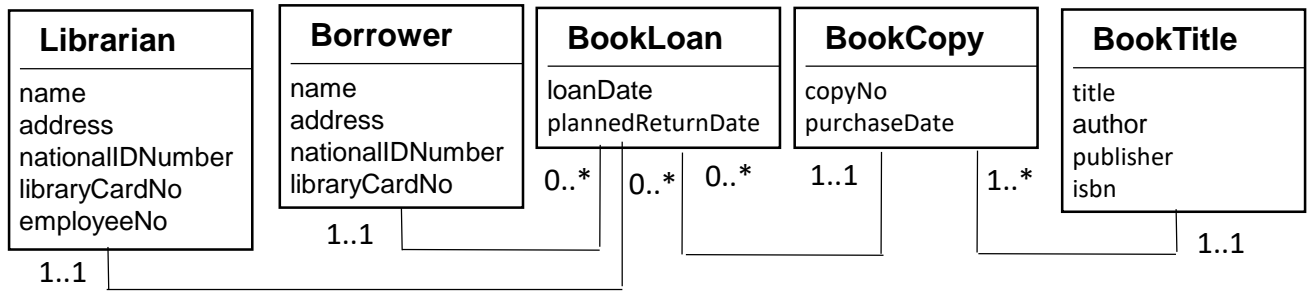
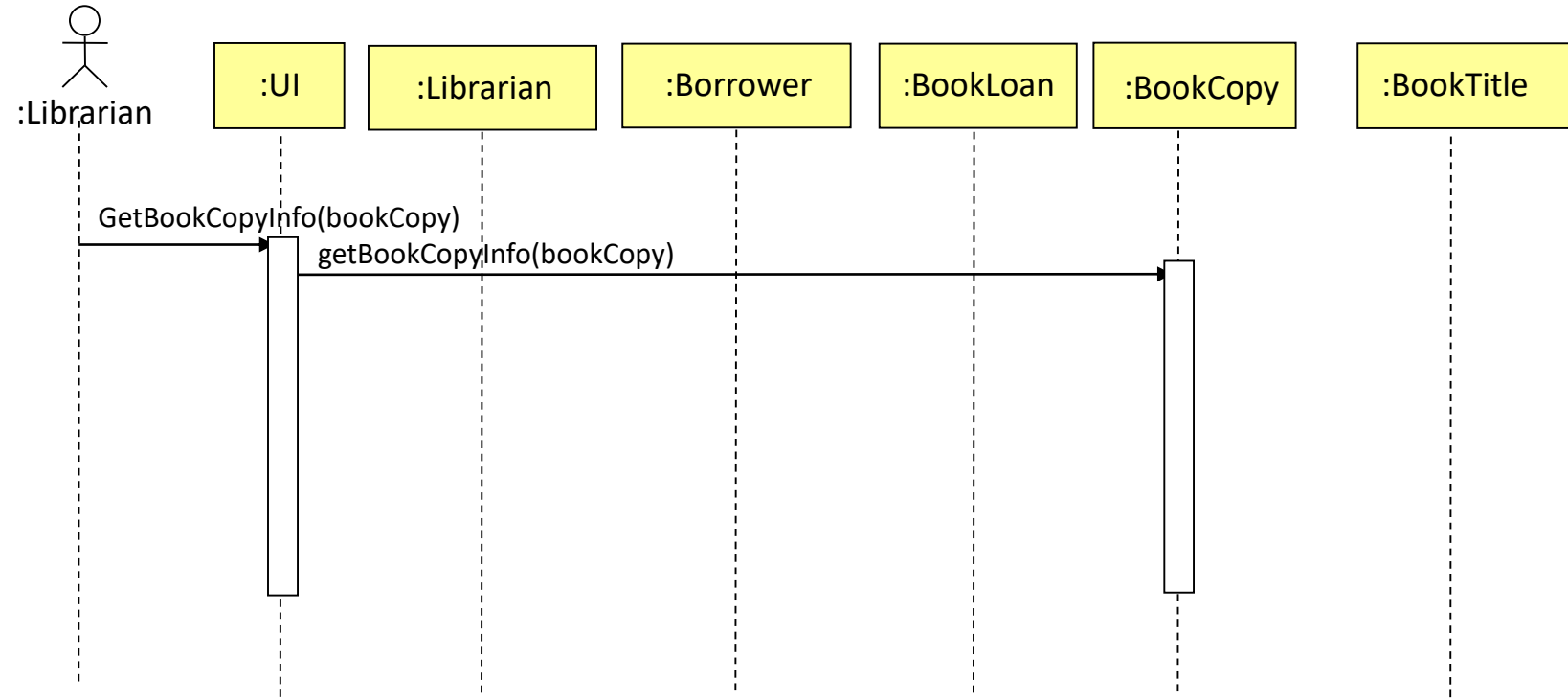
1. The librarian asks for book copy info (by adding the book copyNo).
2. The system presents info about the book copy (including title, author, and planned return date)
3. The librarian carry out the loan (by adding the borrower's library card no, the librarian's employeeNo, copyNo of the book, and planned return date)
4. The system confirm the loan





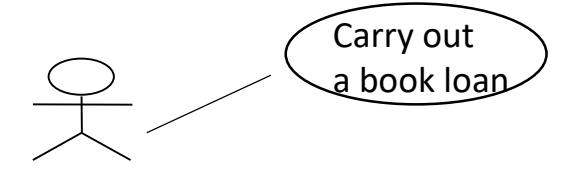
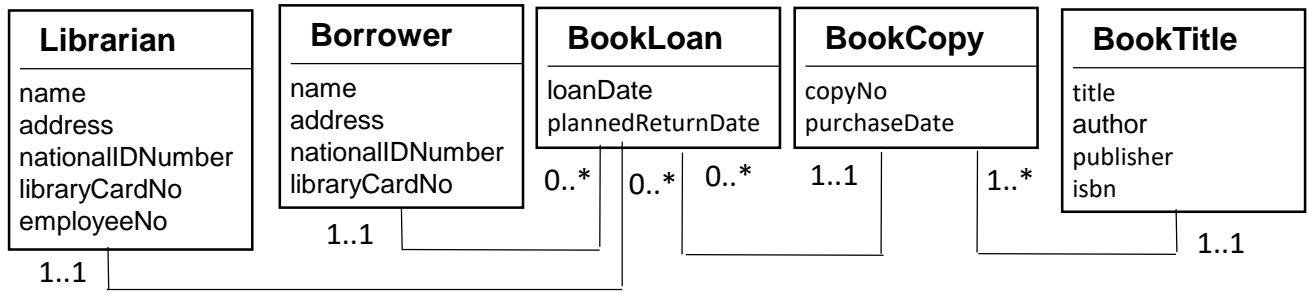
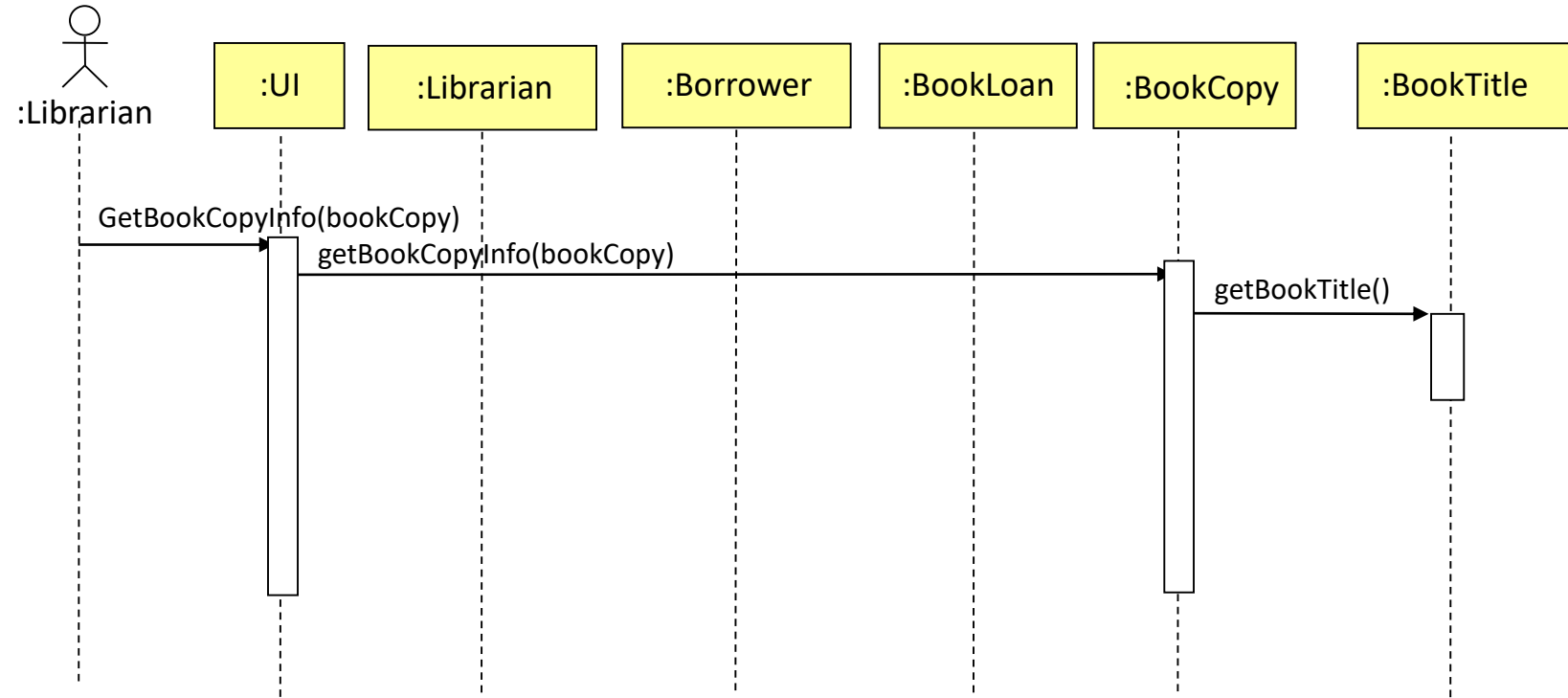
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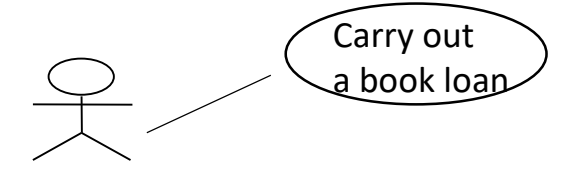
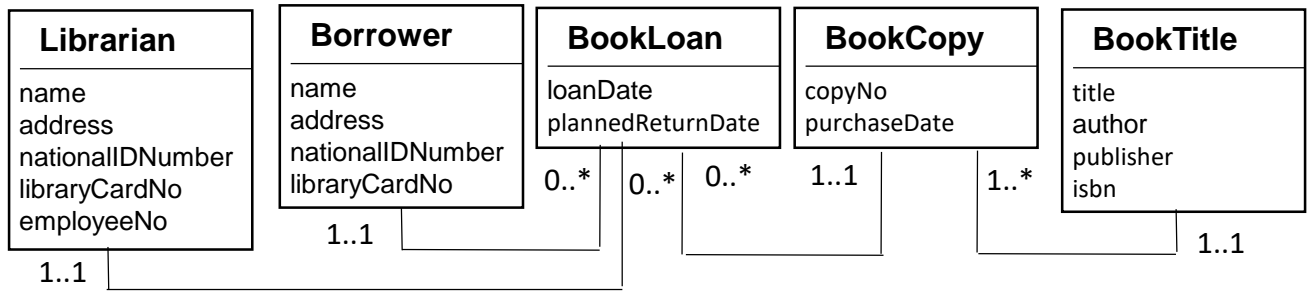
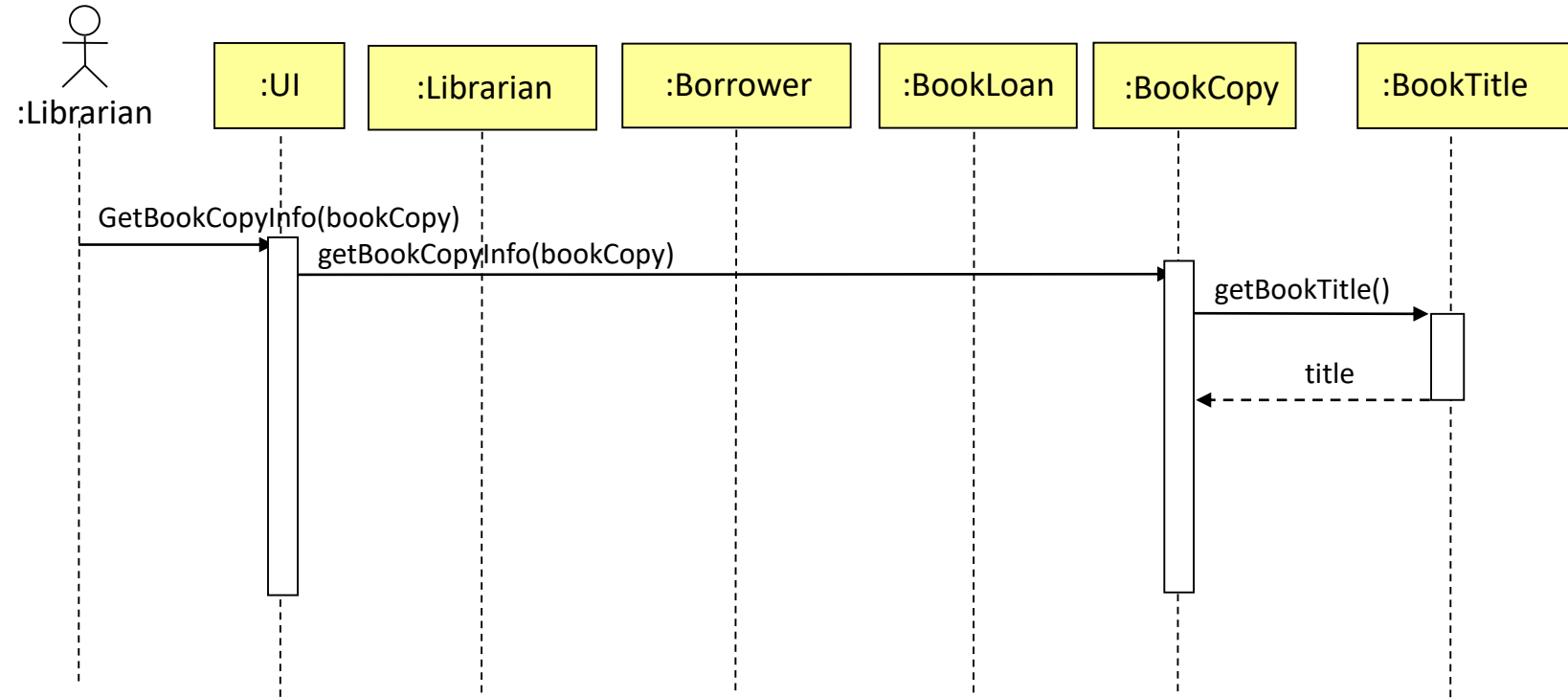
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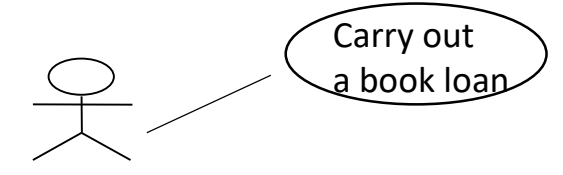
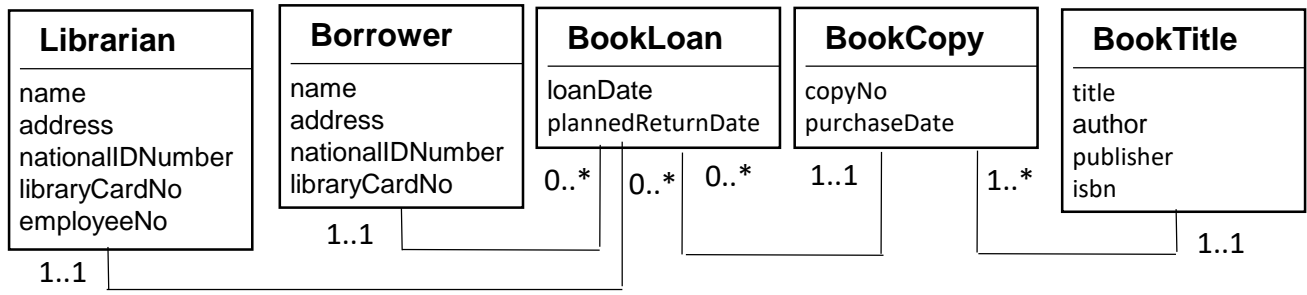
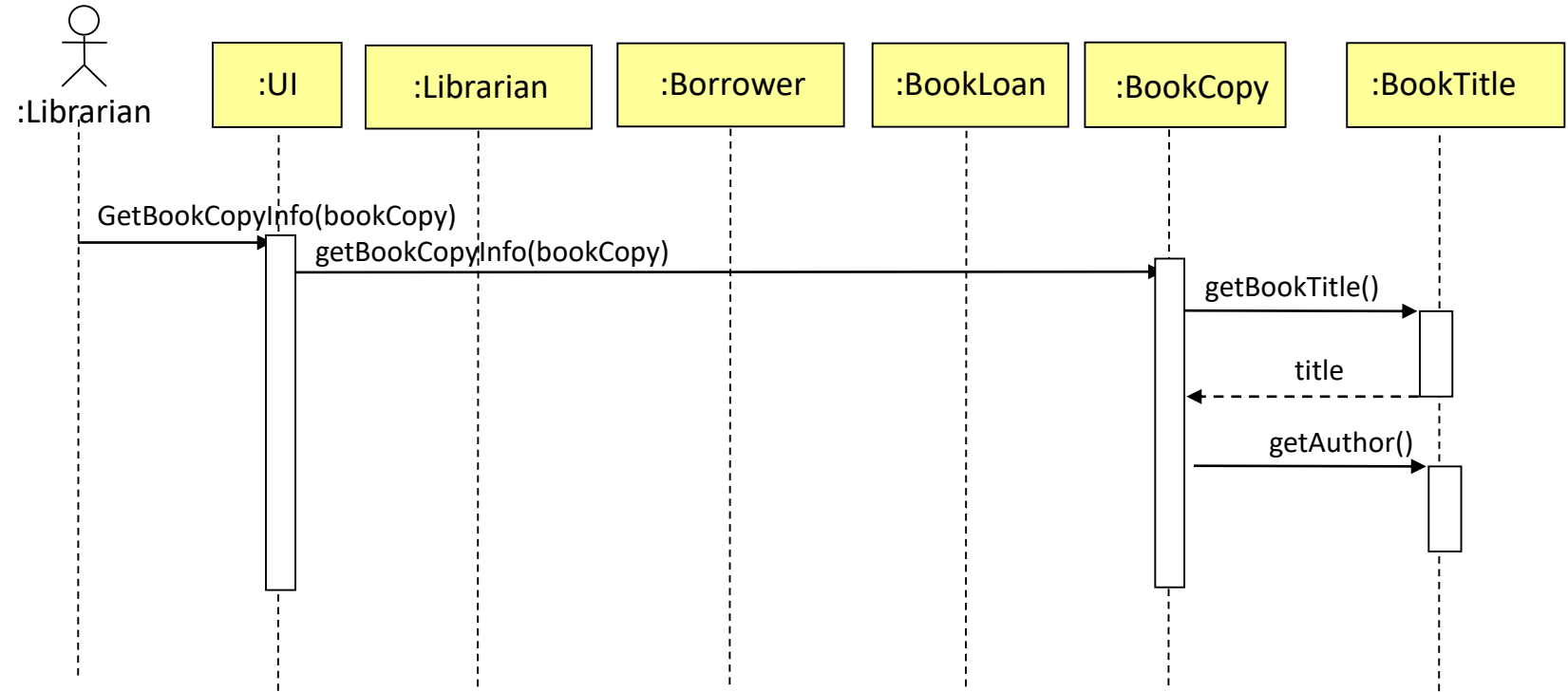
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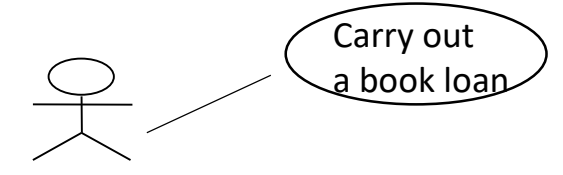
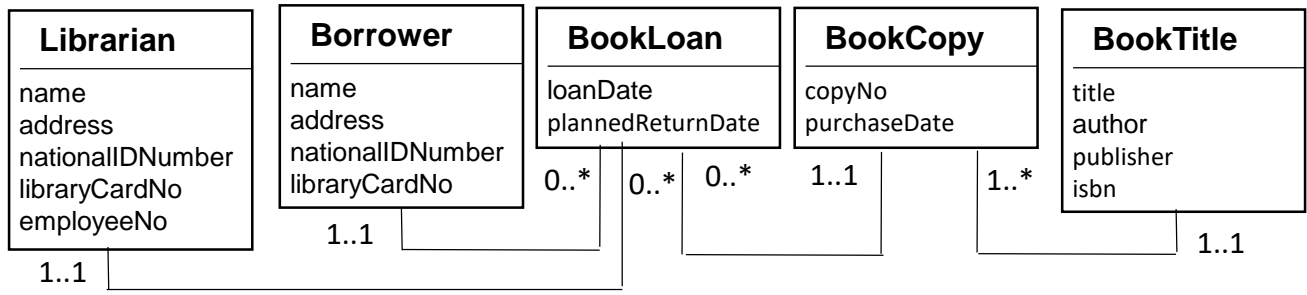
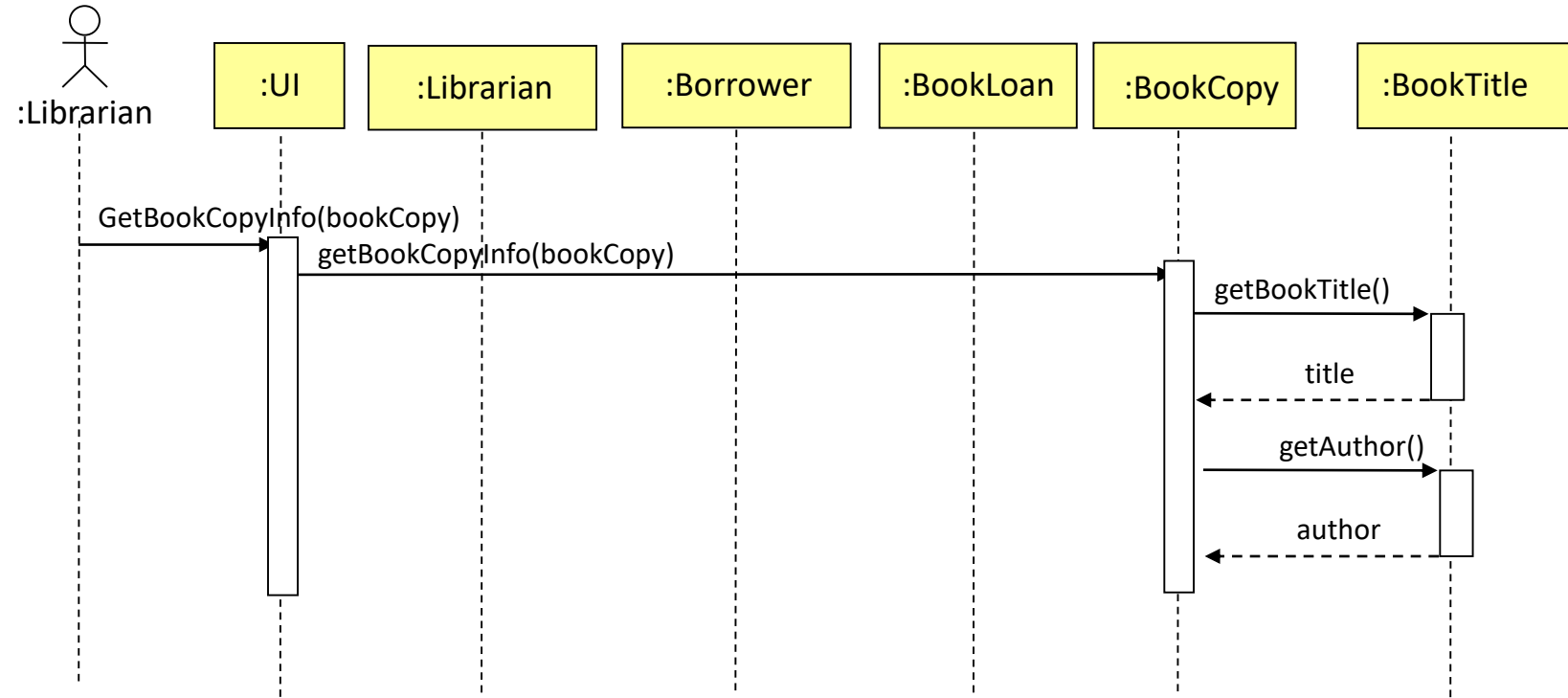
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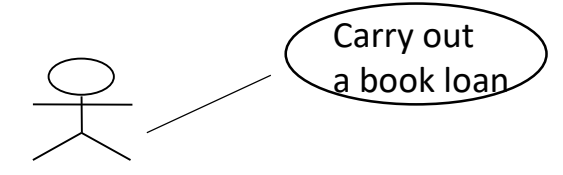
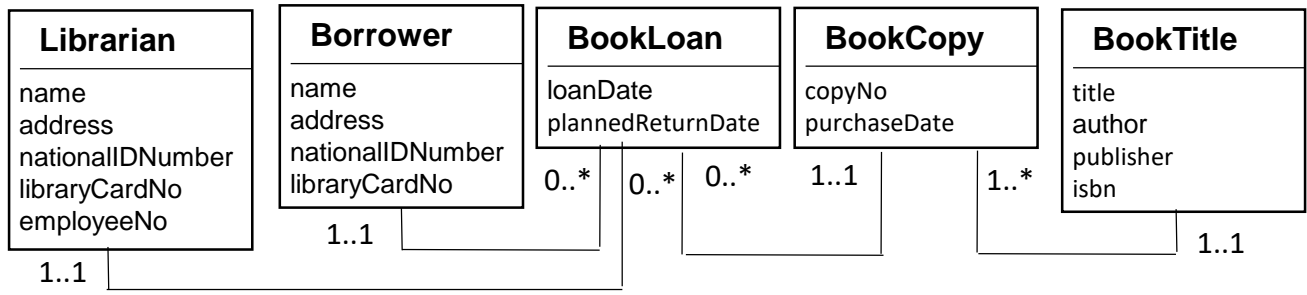
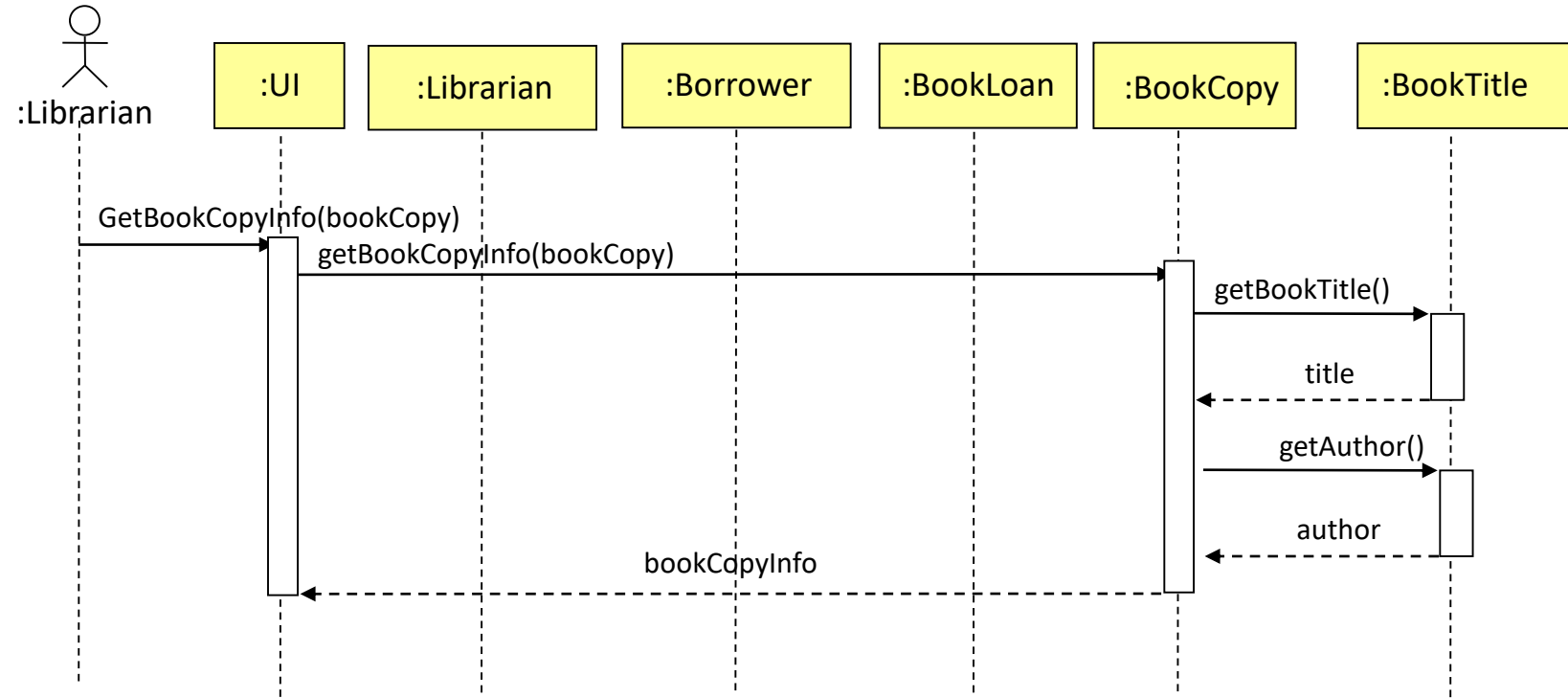
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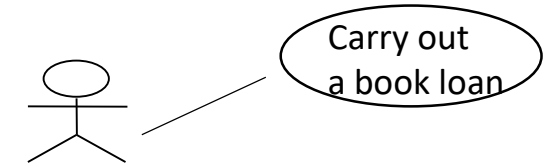
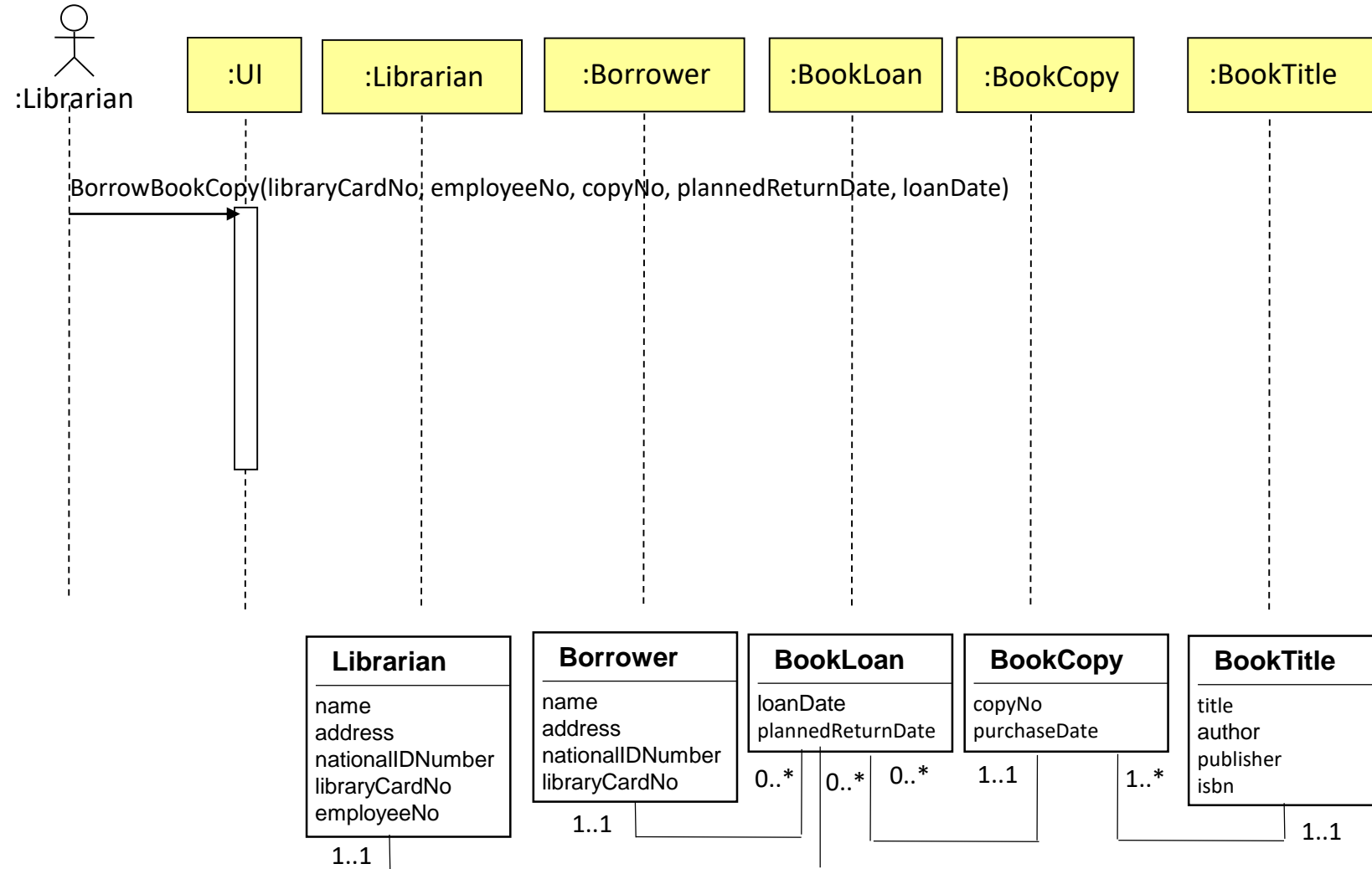
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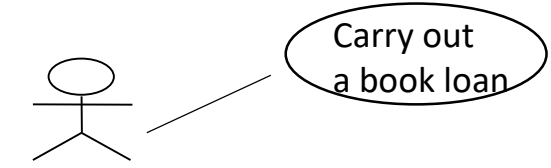
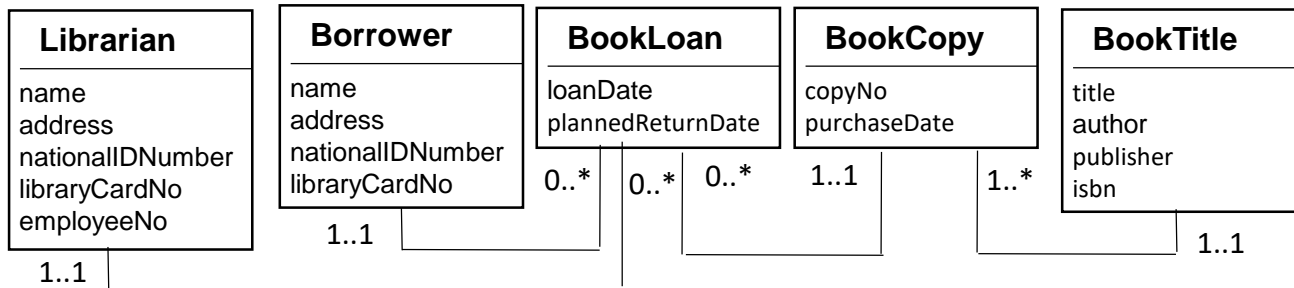
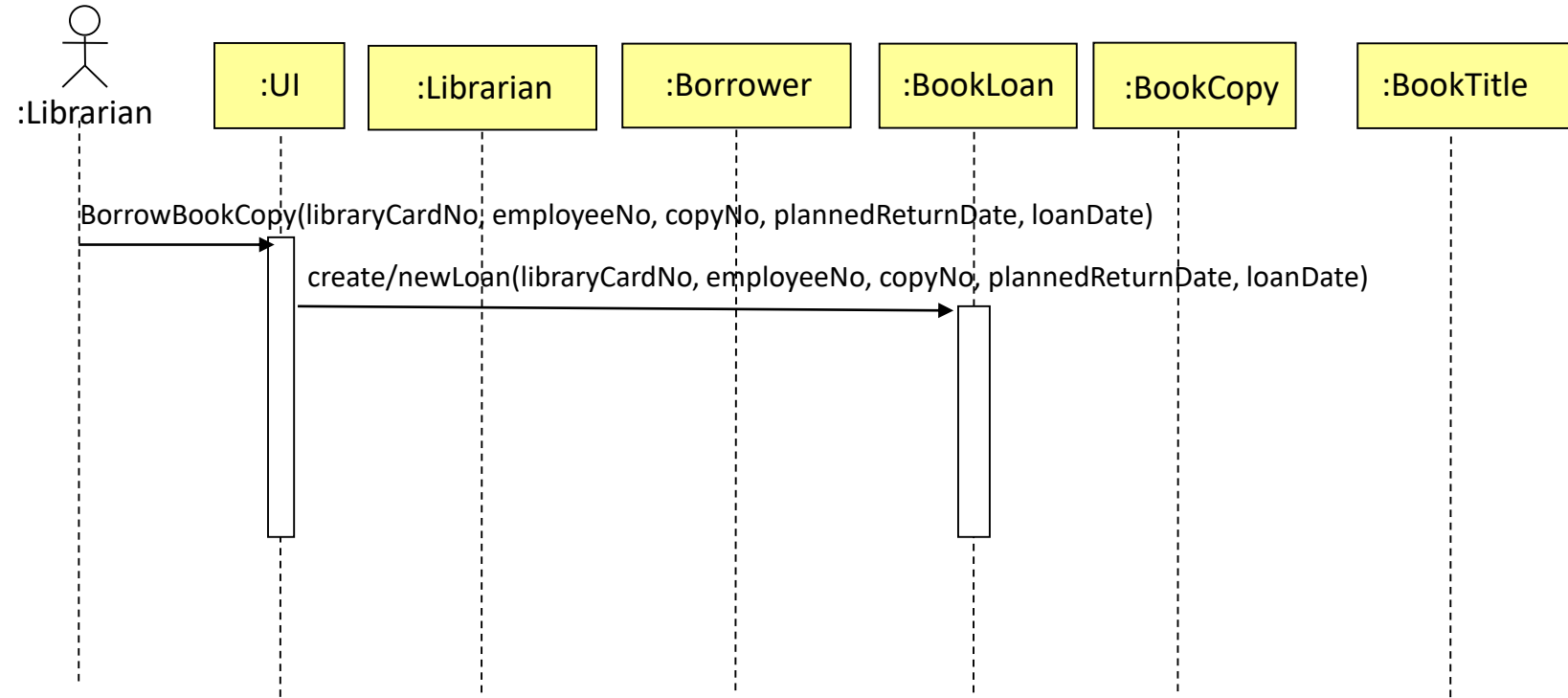
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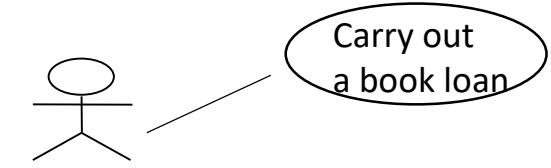
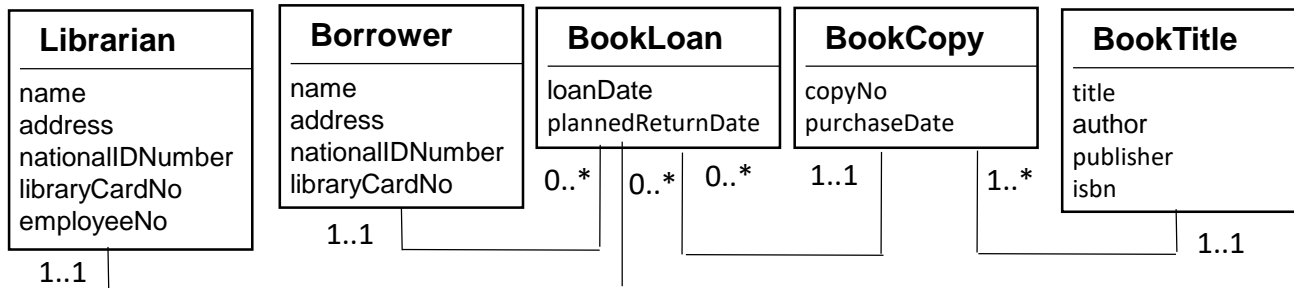
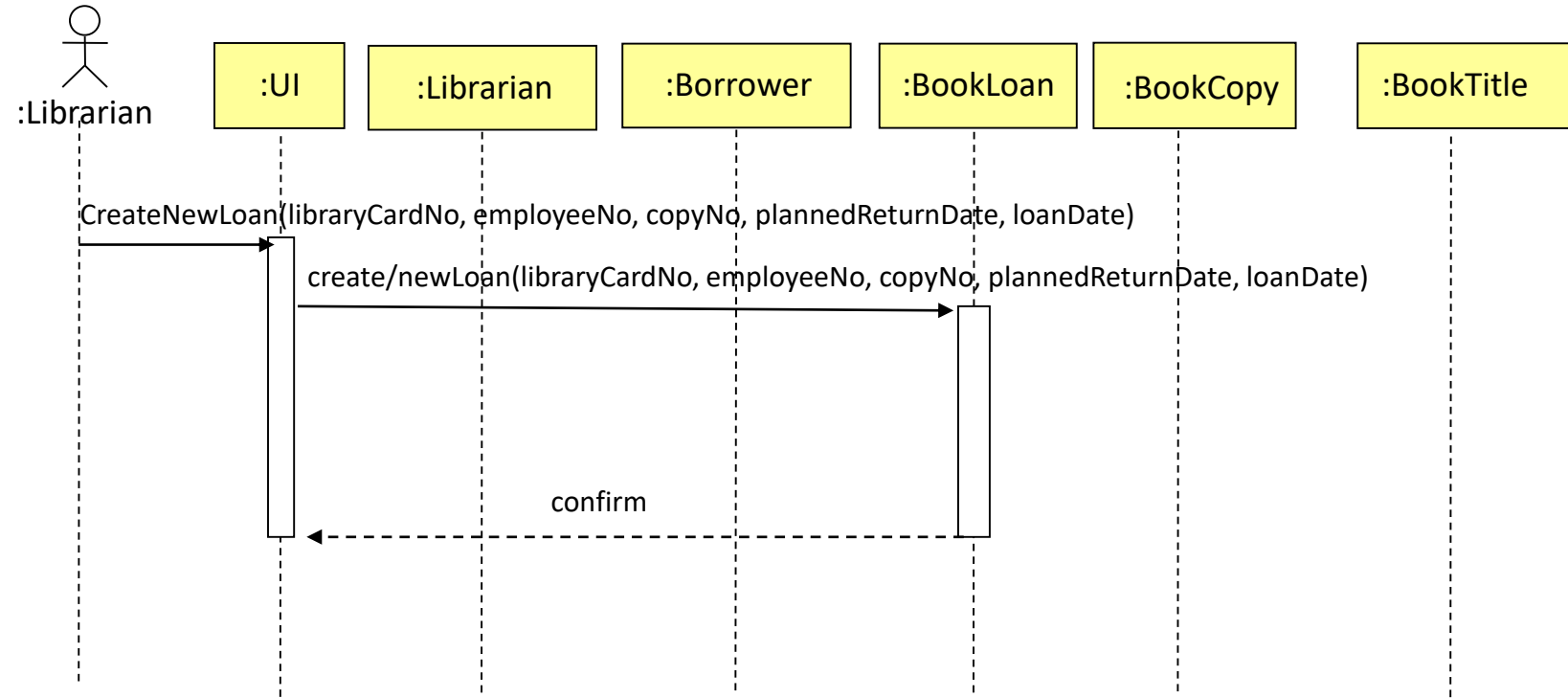
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| Borrower |
|--|
| name address nationalIDNumber libraryCardNo |
| borrowBookCopy(libraryCardNo, employeeNo, copyNo, plannedReturnDate) |

| BookLoan |
|--|
| loanDate plannedReturnDate |
| create/newLoan(libraryCardNo, employeeNo, copyNo, plannedReturnDate, loanDate) |

| BookCopy |
|-------------------------------|
| loanDate plannedReturnDate |
| getBookCopyInfo(bookCopy) |

| BookTitle |
|--|
| loanDate plannedReturnDate |
| getBookTitle(title) getAuthor(author) |