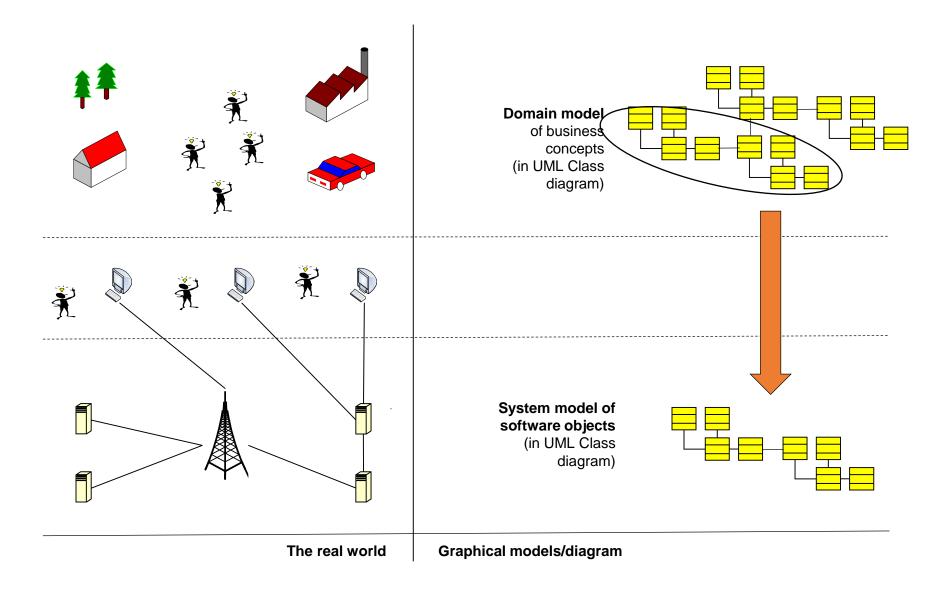
Suggested Solution to Exercise 5: Modelling with Sequence Diagram – the Library Case

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Real World and Models



BookTitle BookCategory System Model title 1..* categoryName 1..1 author abbreviation publisher is categorized as isbn 1..1 1..1 Person name address nationalIDNumber is item of concerns **libraryCardNo** 1..* Librarian **Borrower BookCopy** employeeNo copyNo purchaseDate 1..1 1..1 1..1 1..1 confirmed_by 0..* **BookLoan BookReservation** made by IoanDate 0..* concerns reservationDate plannedReturnDate

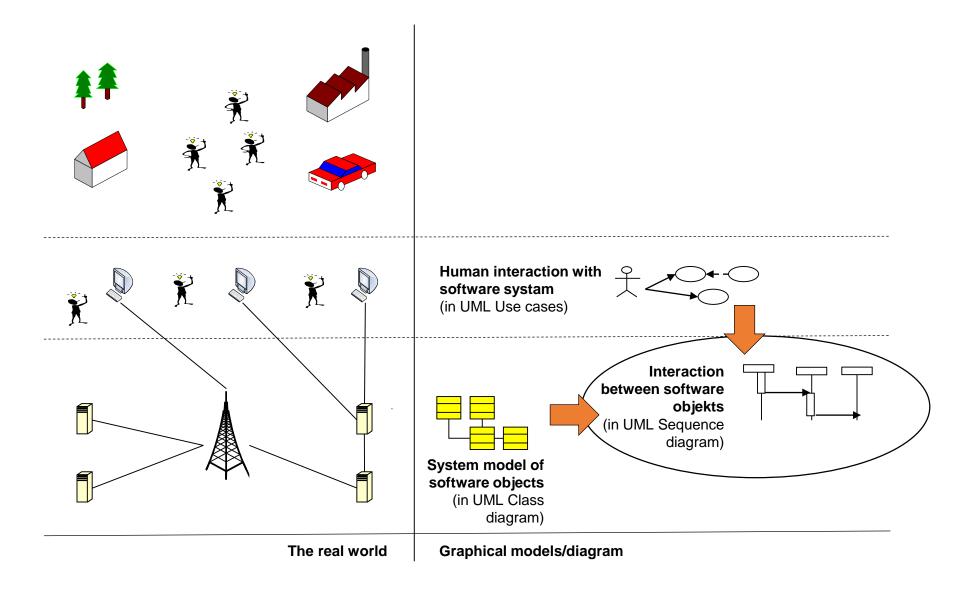
returned (Y/N)

made by

canceledReservation (Y/N)

0..*

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

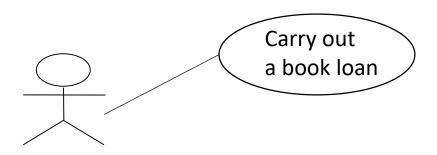
Main scenario:

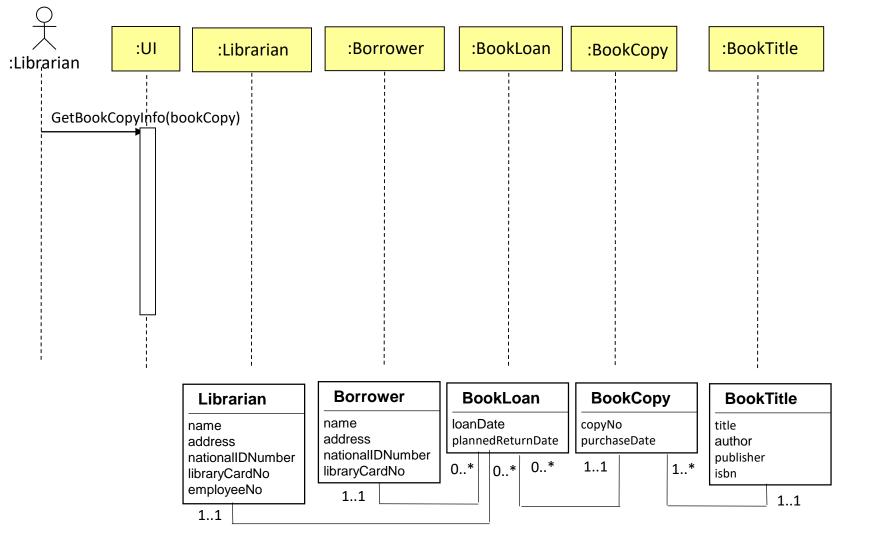
1. The librarian asks for book copy info (by adding the book copyNo).

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)

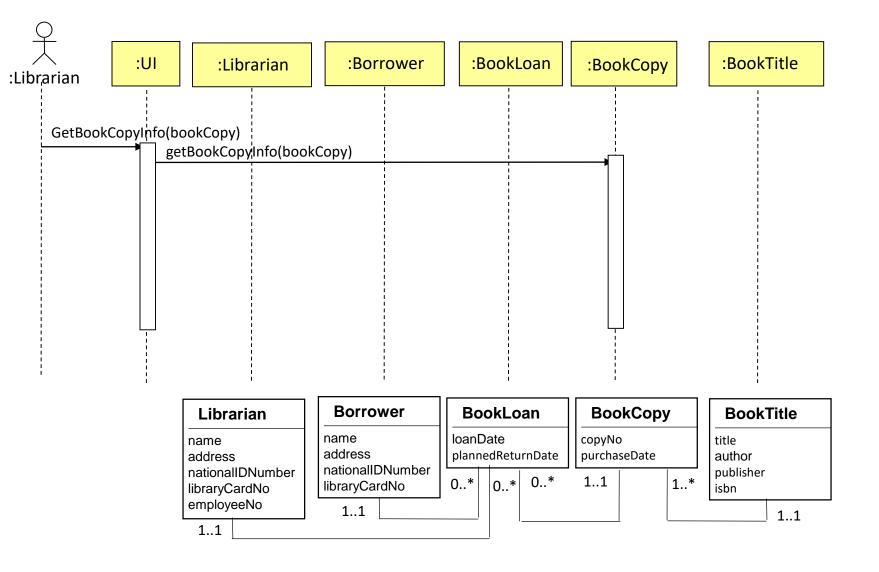
4. The system confirm the loan





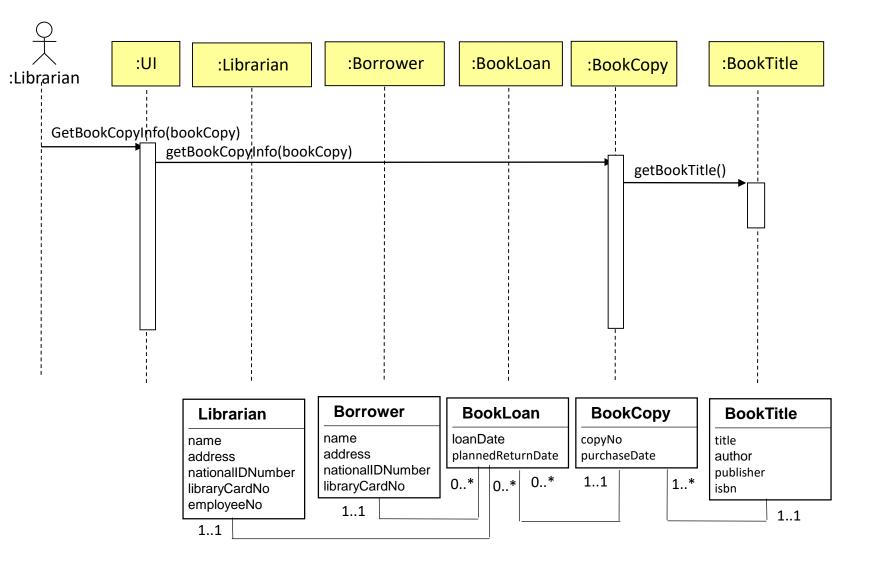


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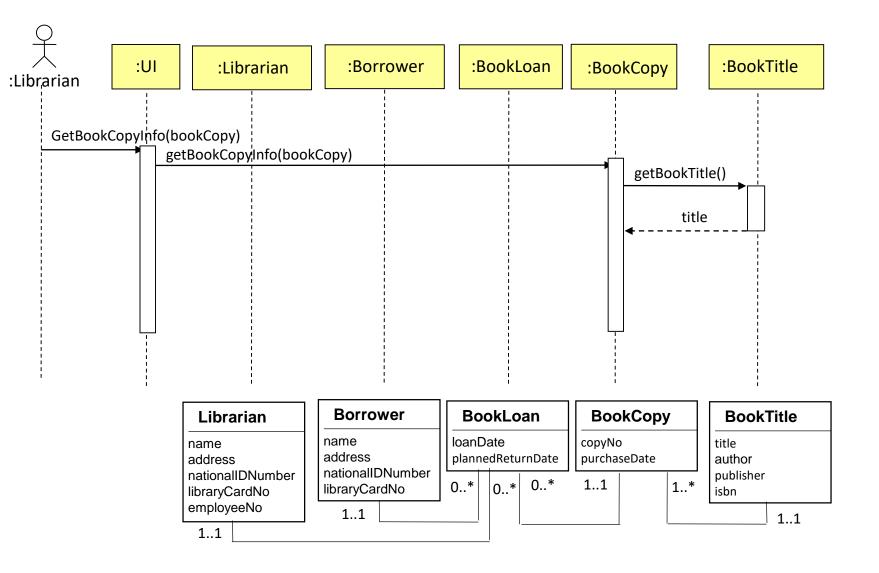


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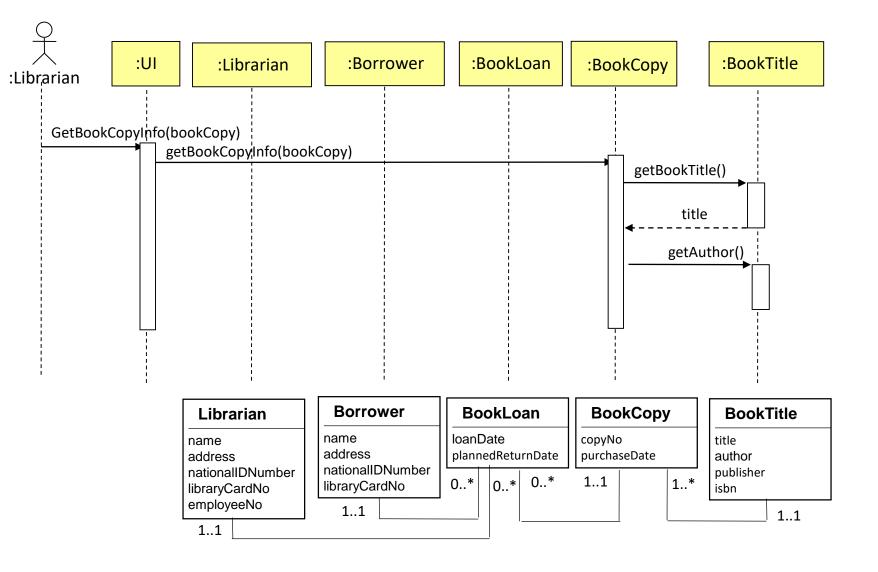


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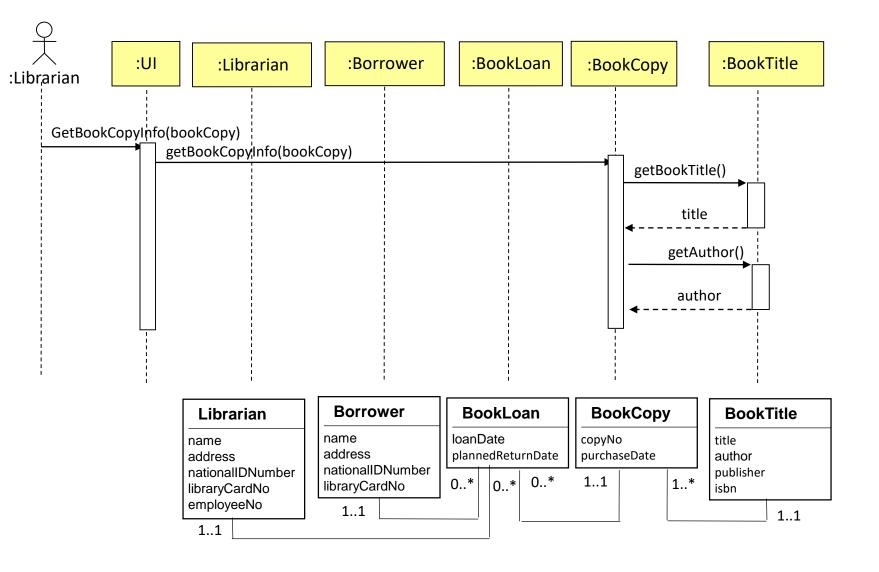


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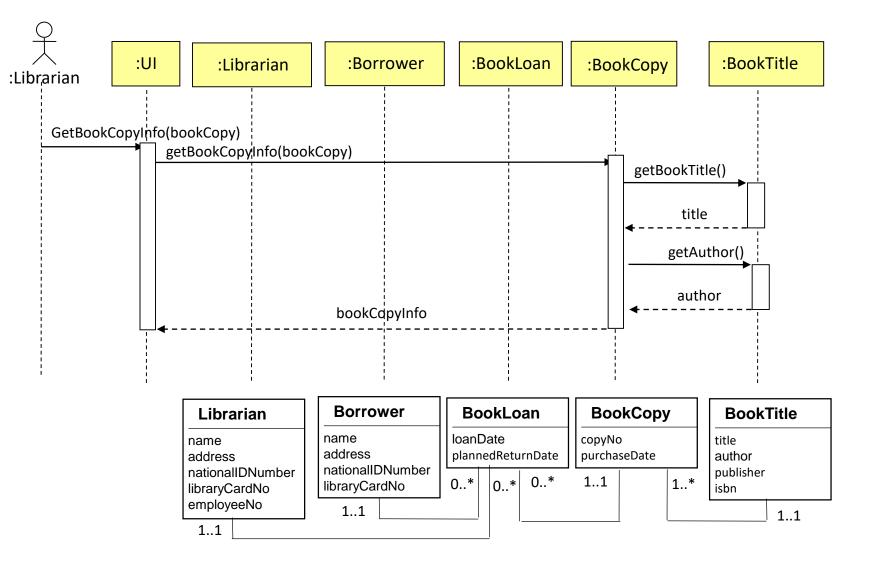


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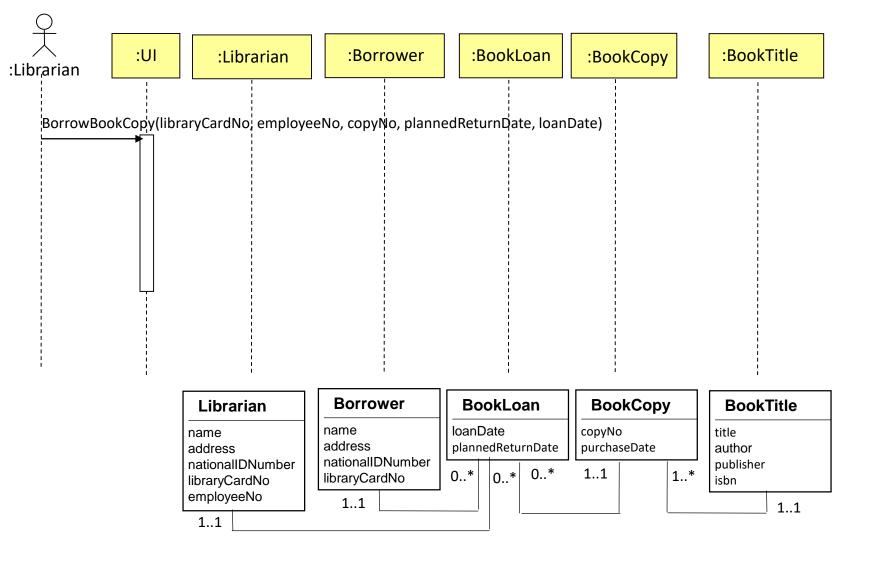


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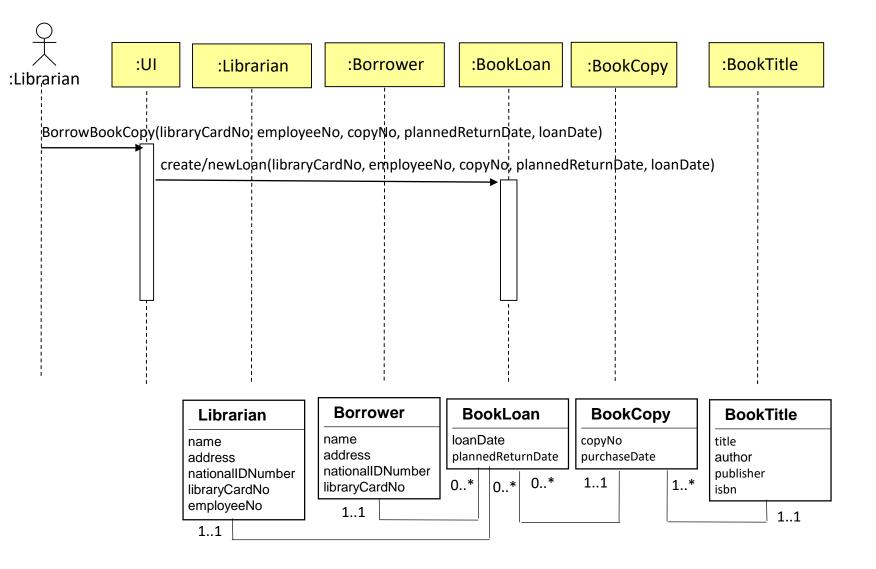


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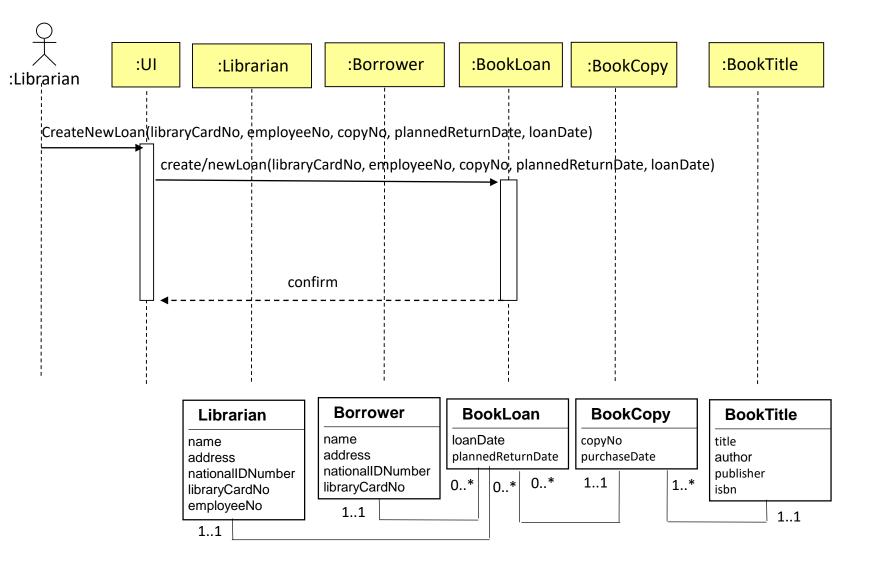


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Borrower

name

address

nationalIDNumber

libraryCardNo

borrowBookCopy(libraryCardNo, employeeNo, copyNo, plannedReturnDate)

BookLoan

IoanDate

plannedReturnDate

create/newLoan(libraryCardNo, employeeNo, copyNo, plannedReturnDate, loanDate)

BookCopy

IoanDate

plannedReturnDate

getBookCopyInfo(bookCopy)

BookTitle

IoanDate

plannedReturnDate

getBookTitle(title)

getAuthor(author)