

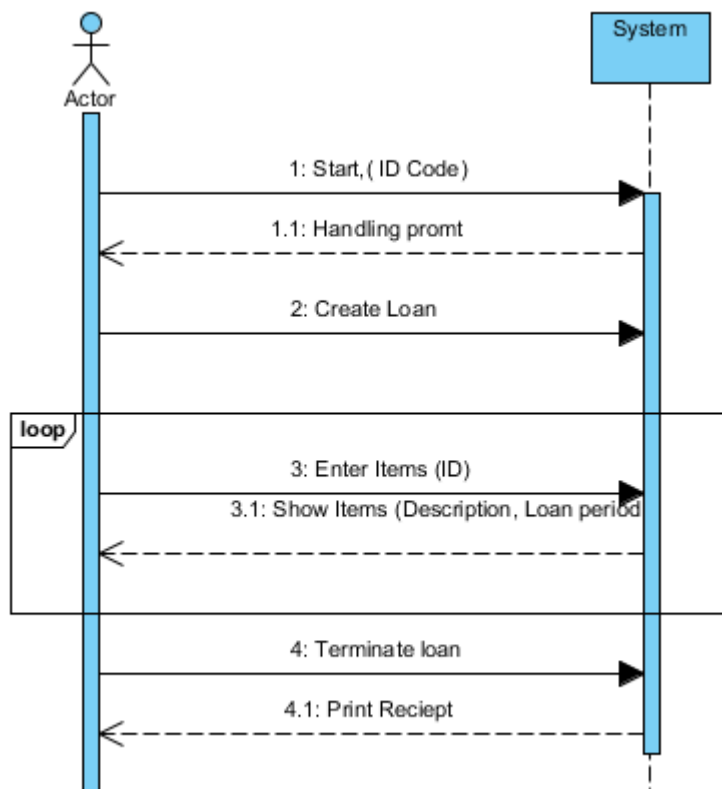
# Exercise using GRASP

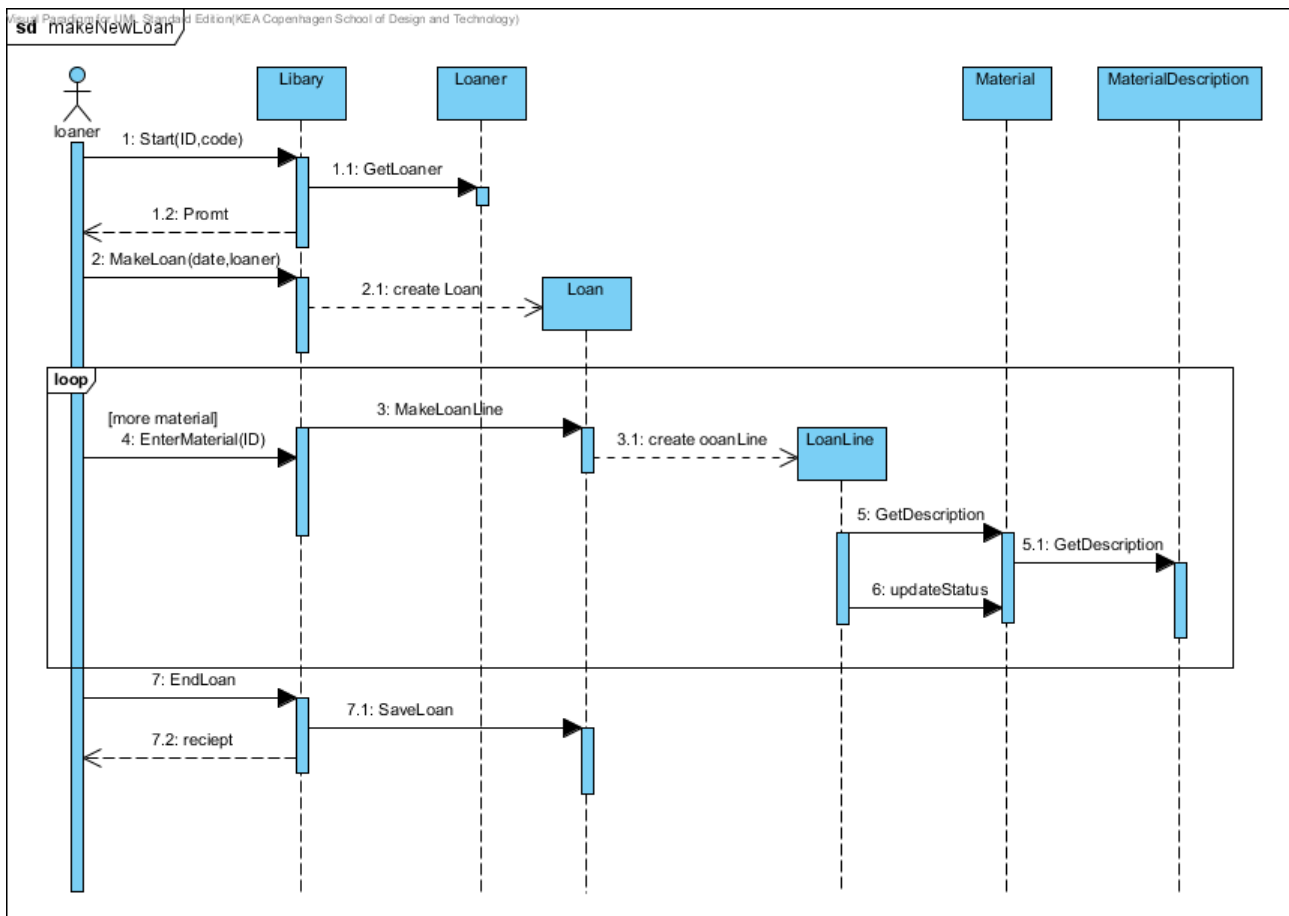
## Use Case Loan Books

### Main Success Scenario:

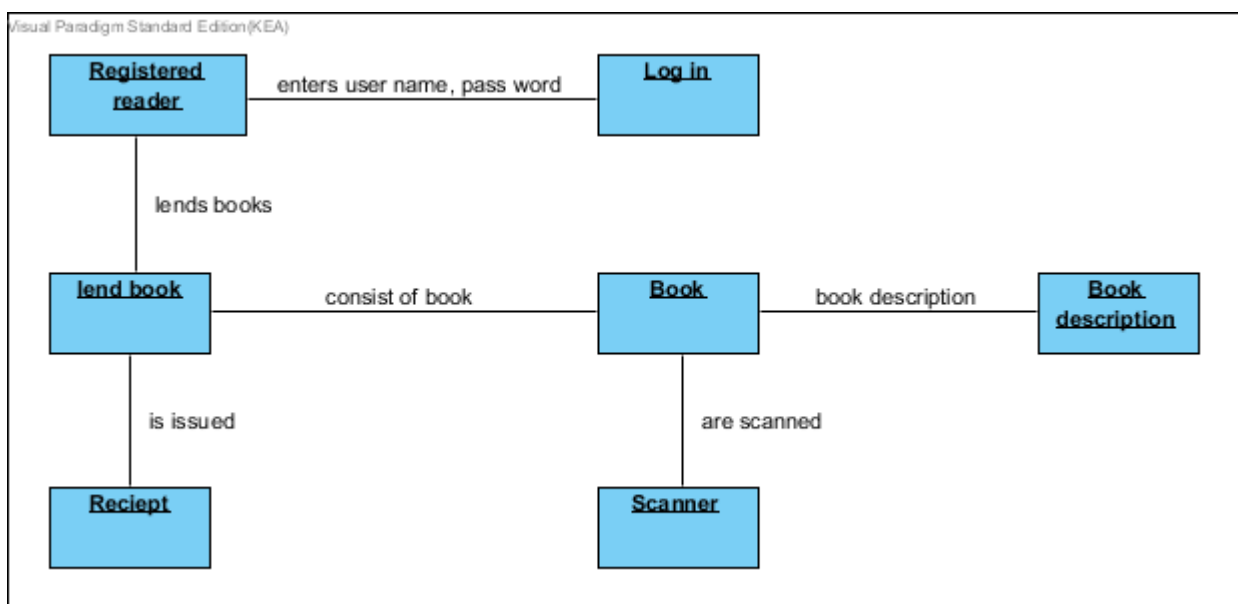
1. The registered reader wishes to borrow some books
2. The registered reader inserts user name and password
3. The system asks what the registered reader wants
4. The registered reader indicates "lend books"
5. The registered reader scan in the ID for each book
6. The system shows a description of the books and the loan period  
*step 5 and 6 is repeated until all books are scanned*
7. The registered reader complete the transaction
8. The system issues an receipt

### System Sequens diagram for **Loan Books**





## Domain Model



# Exercise

## 1

- Study the System Sequence diagram for the library system
- Identify collaborating objects for the system operations **MakeLoan** and **EnterMaterial**. Which objects are creators?
- Draw a sequence diagram for each of the two system operations

## 2

- Study the domain model for the library system and identify information experts.

For example:

- Which object should be responsible for knowing if a book is reserved?
- Which object should be responsible for knowing when a book must be returned by the loaner?
- Draw a sequence diagram for an information expert
- Draw the UML design class diagram for the information expert

## 3

- Identify controller(s) for the library system
- Add a controller to the sequence diagrams that you made for the library system