UML BASED DESIGN
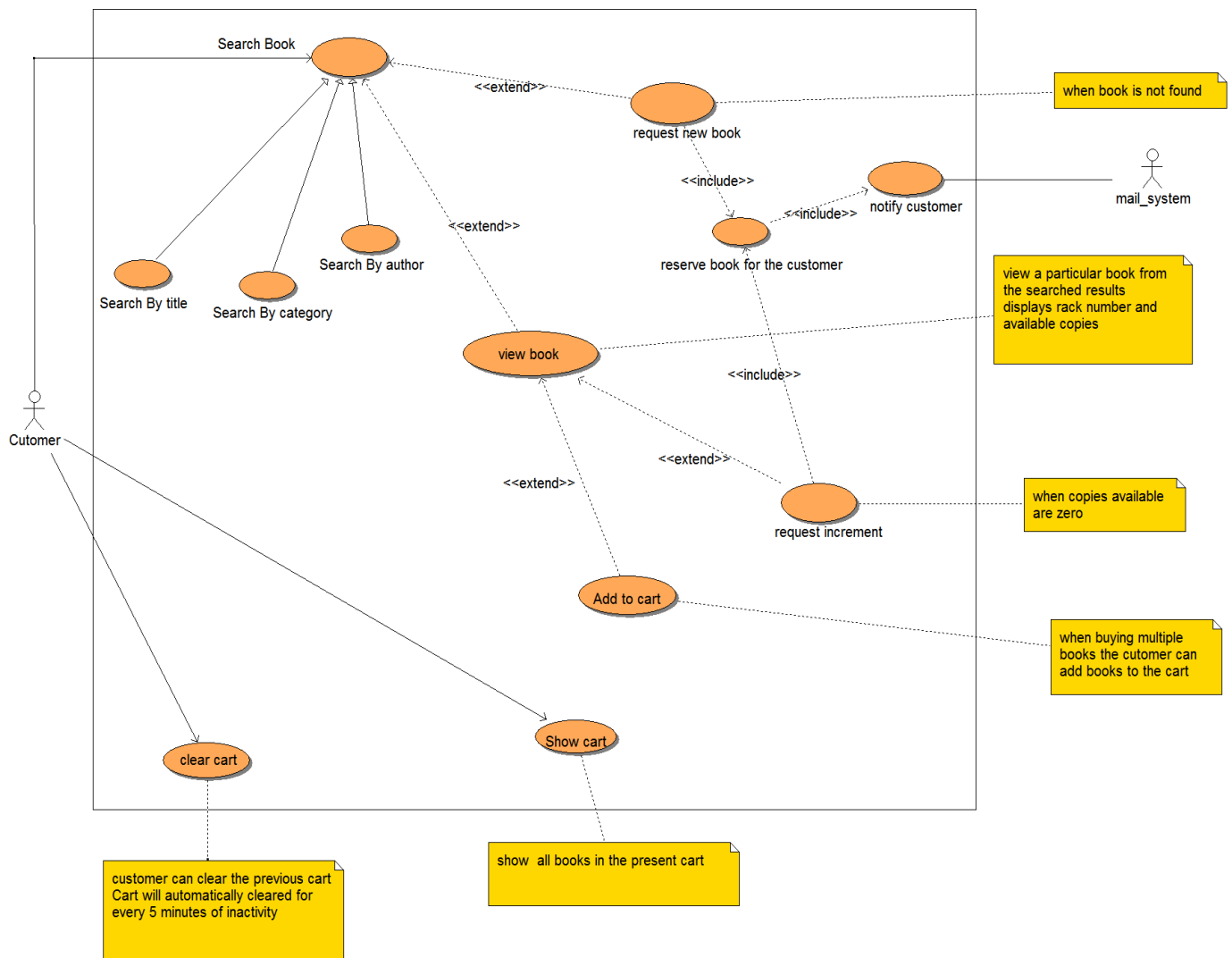
SUMIT GOSWAMI 12CS10051, PRUDHVI DHARMAN 12CS10037

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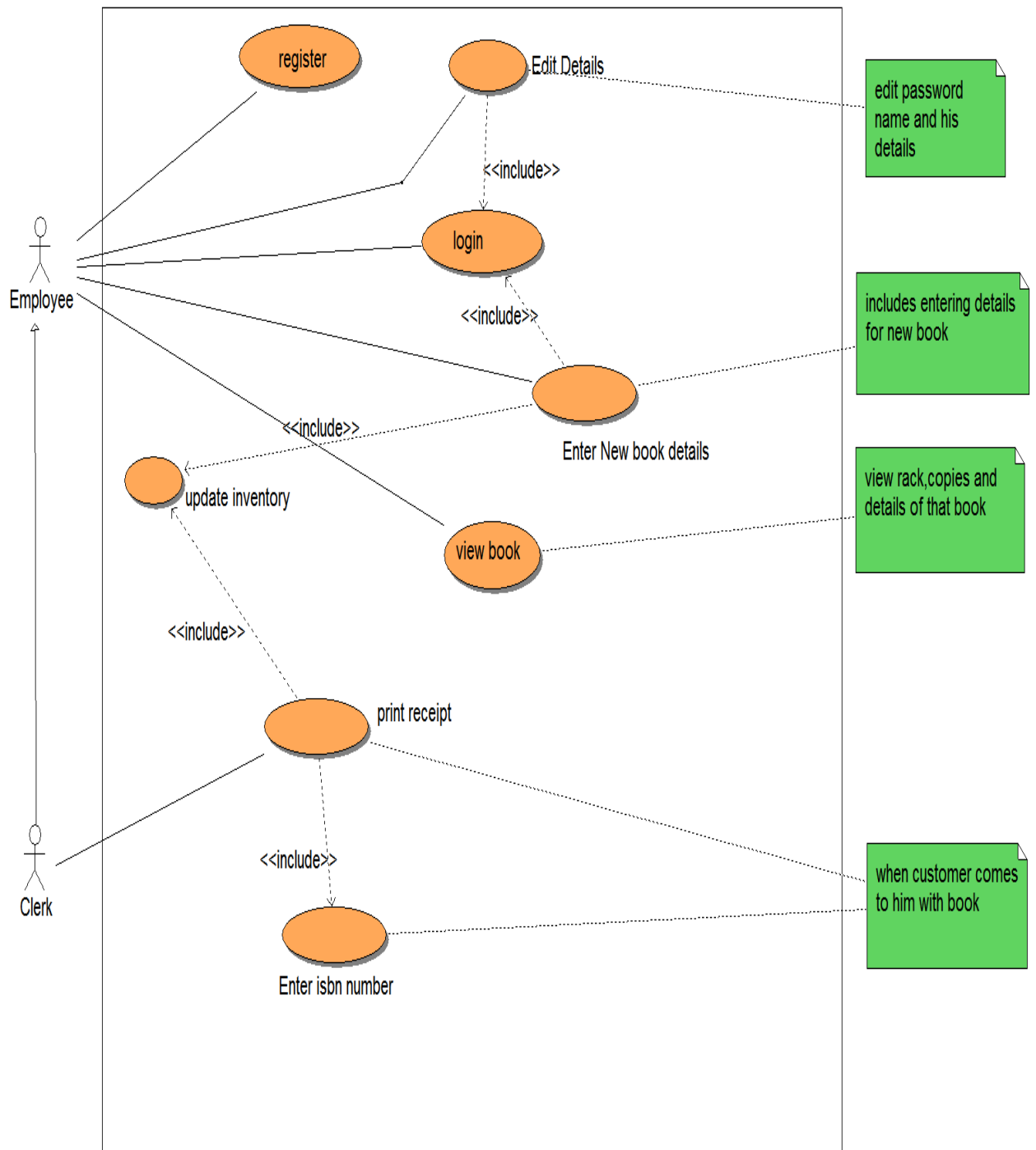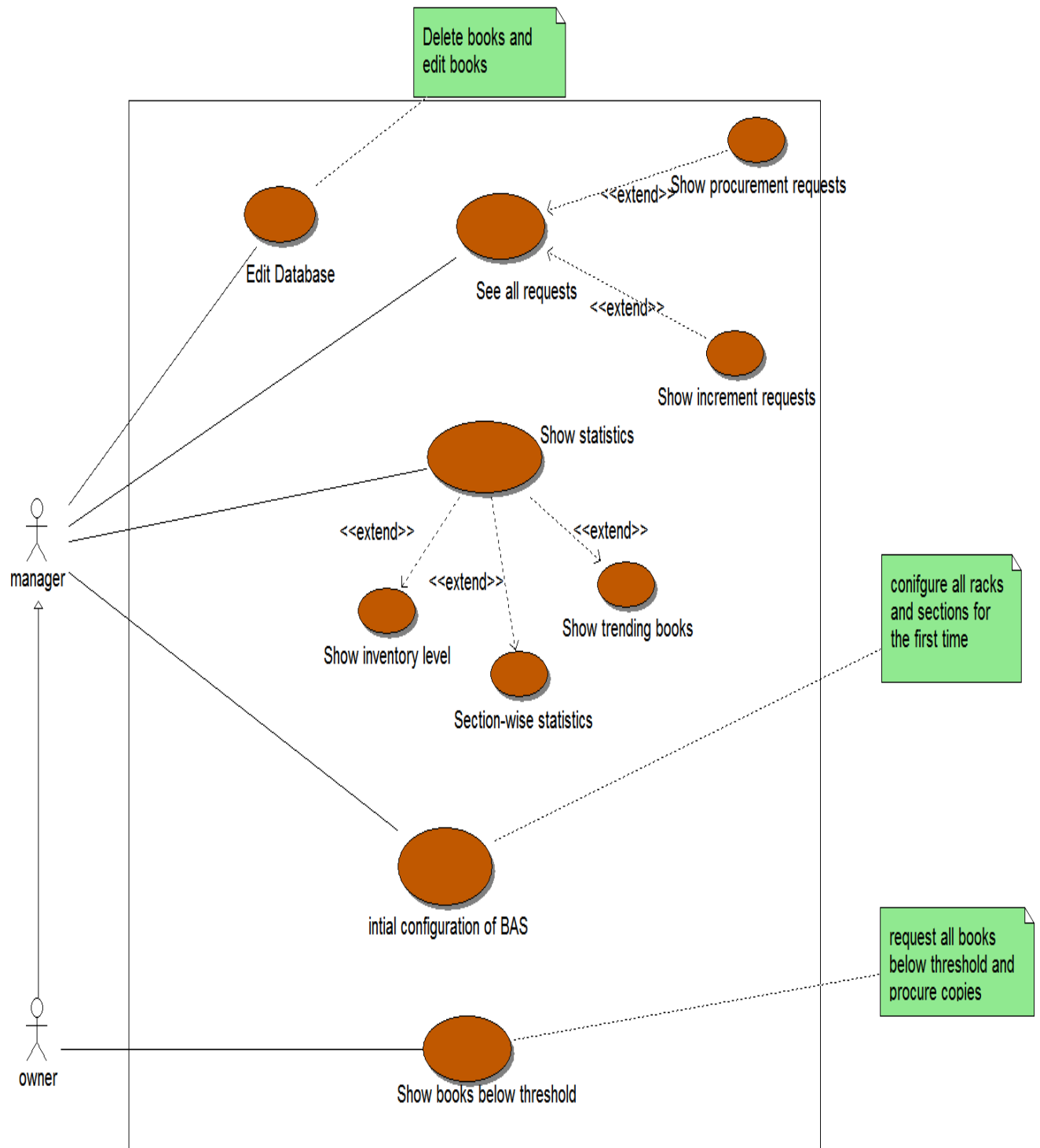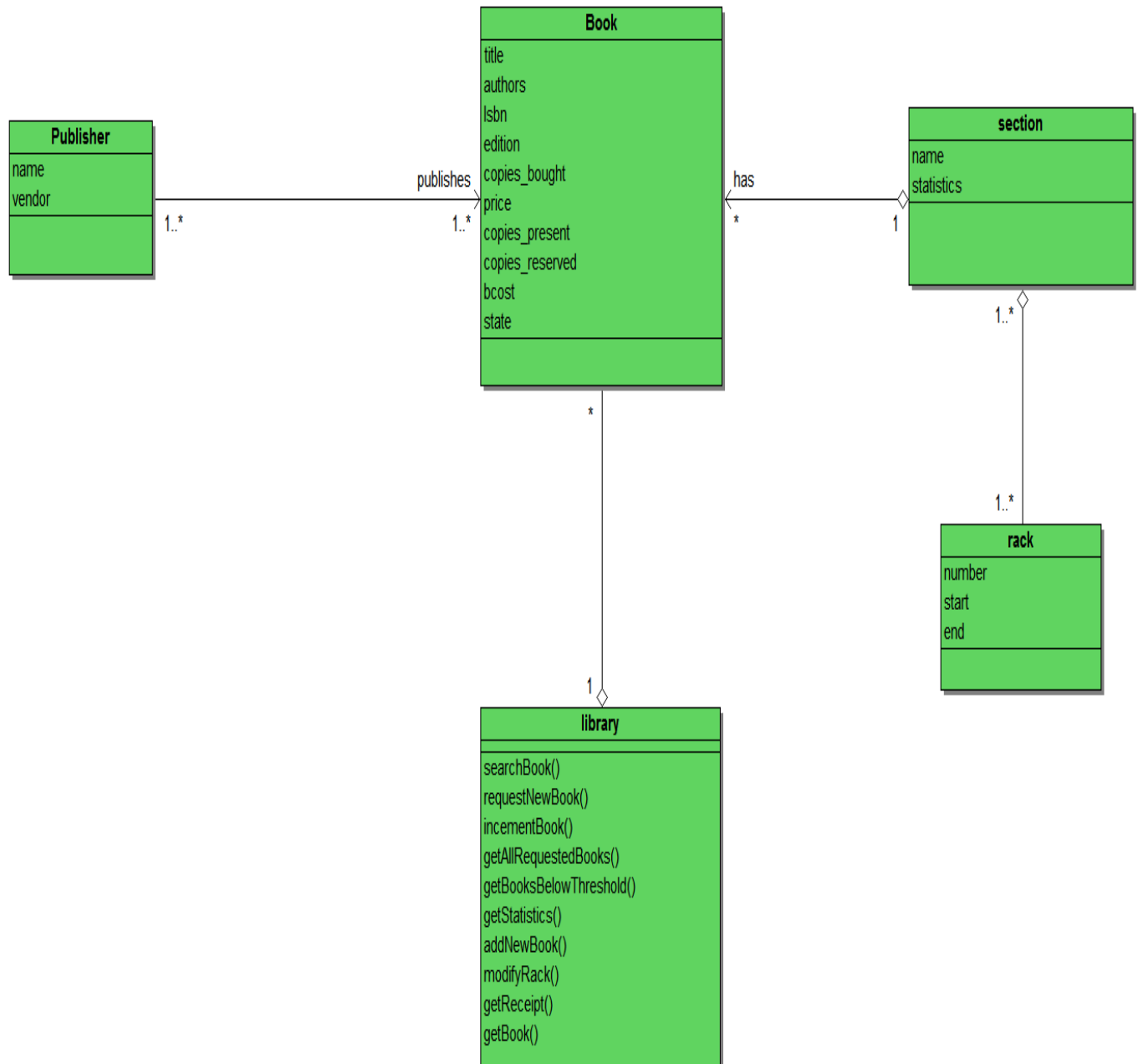
1.0 Use case Diagrams

1.1 Customer

1.2 Employee and Clerk

1.3 Manger and Owner

2.0 Class Diagrams

2.1 Book

Publisher
name
vendor

1..*

publishes

1..*

Book
title
authors
Isbn
edition
copies_bought
price
copies_present
copies_reserved
bcost
state

has

*   1

section
name
statistics

1..*

1..*

rack
number
start
end

*

1

library
searchBook()
requestNewBook()
incementBook()
getAllRequestedBooks()
getBooksBelowThreshold()
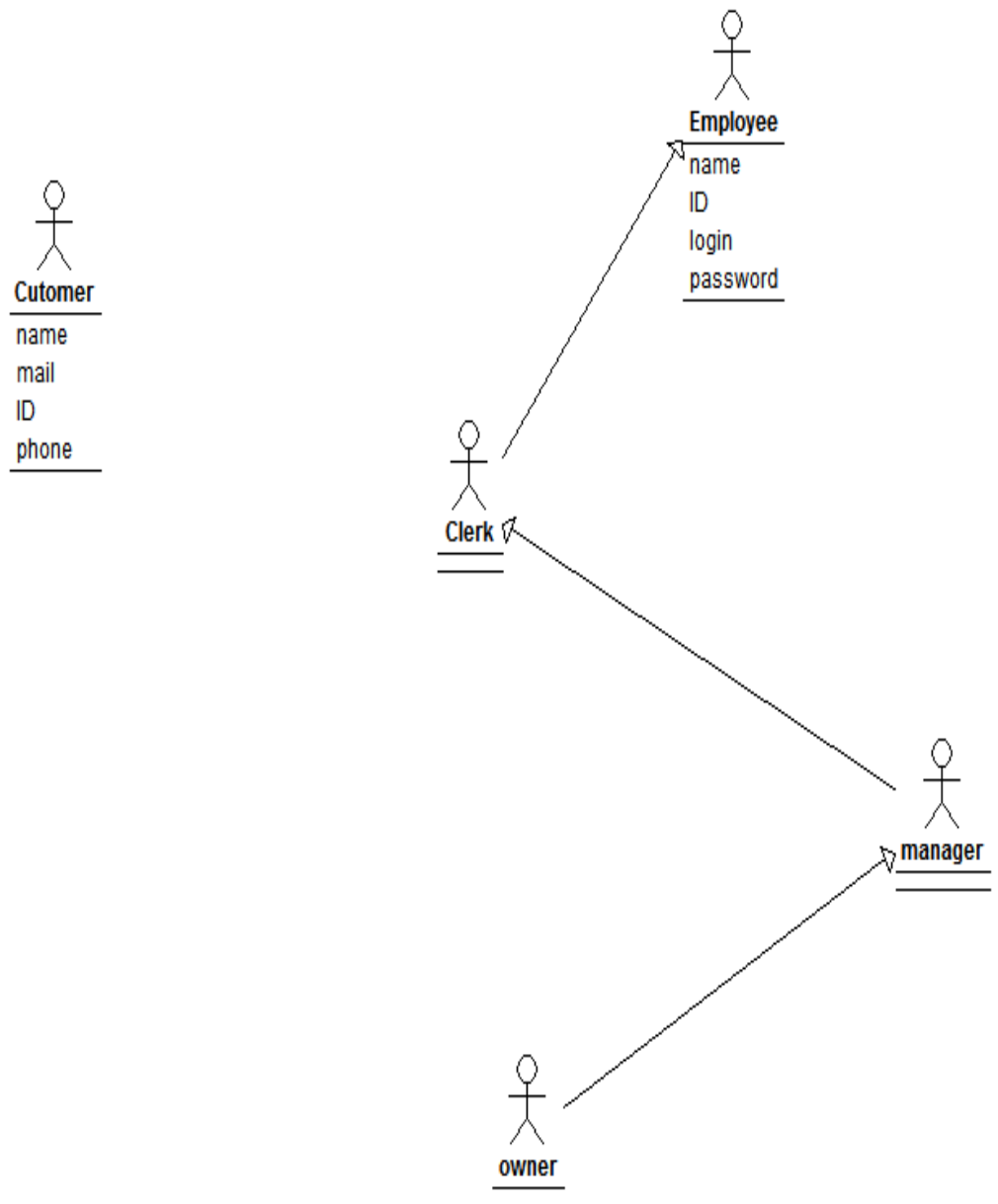getStatistics()
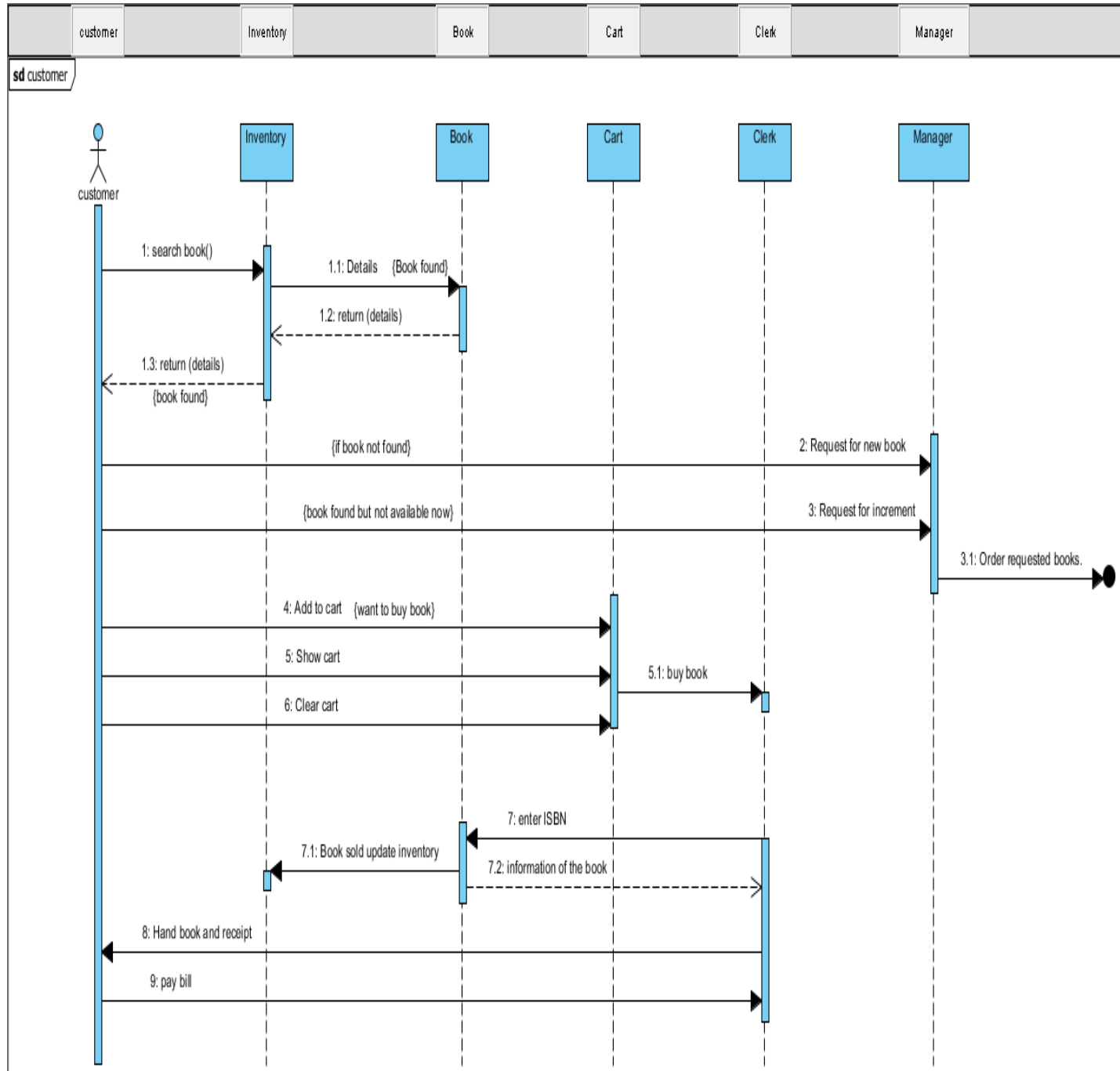addNewBook()
modifyRack()
getReceipt()
getBook()

2.2 Library
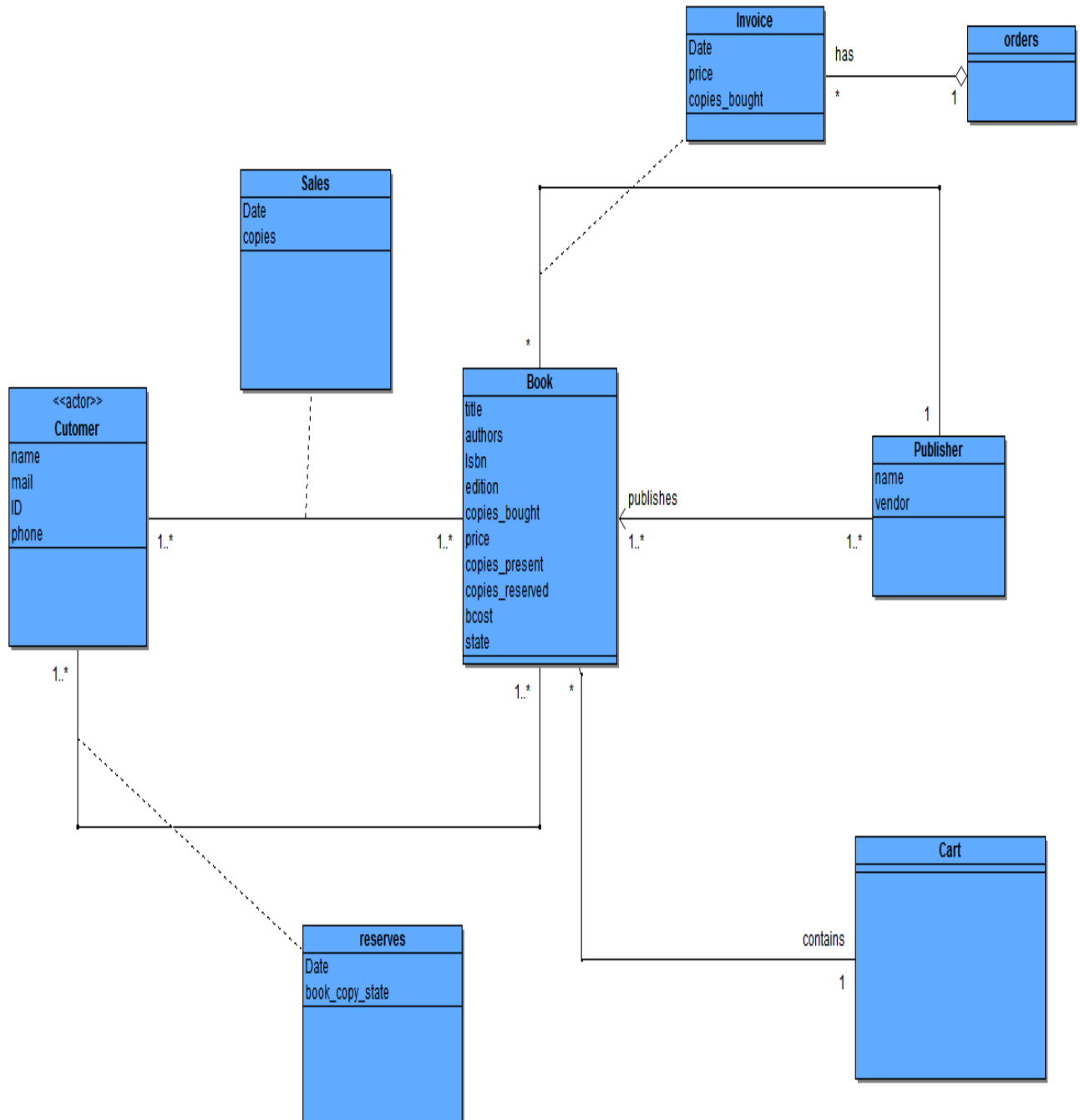
2.3 Employee
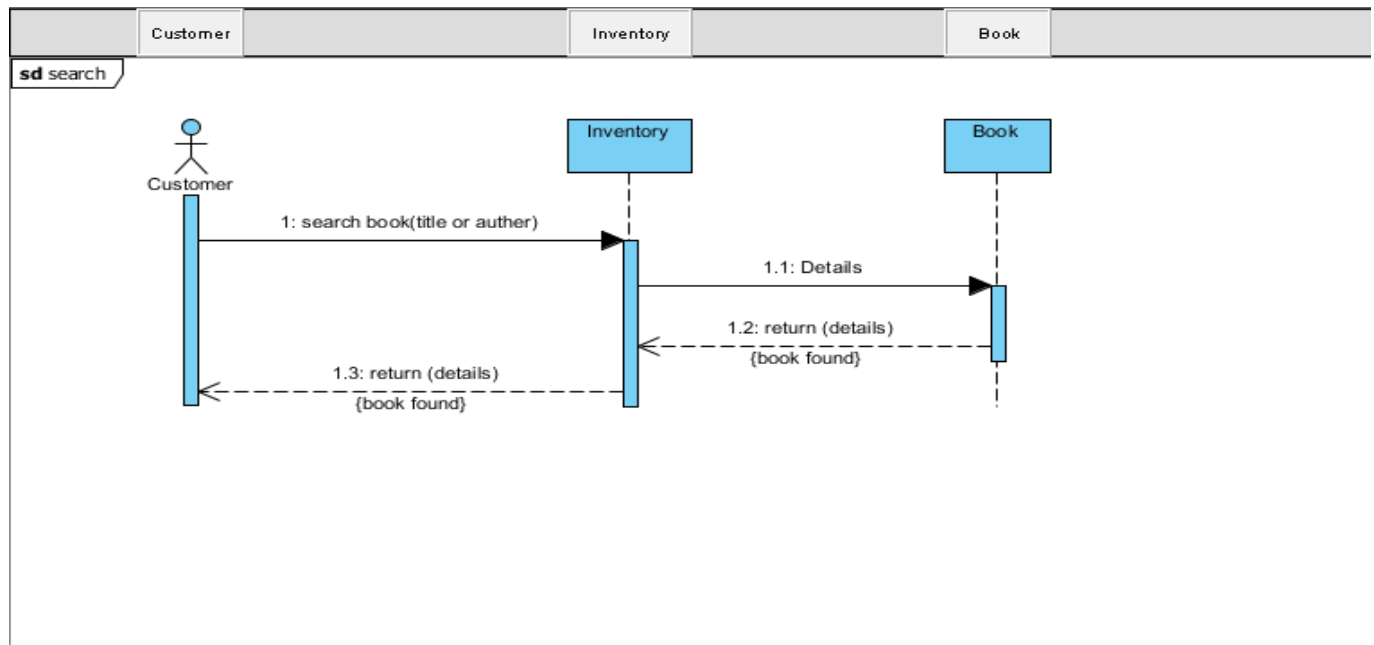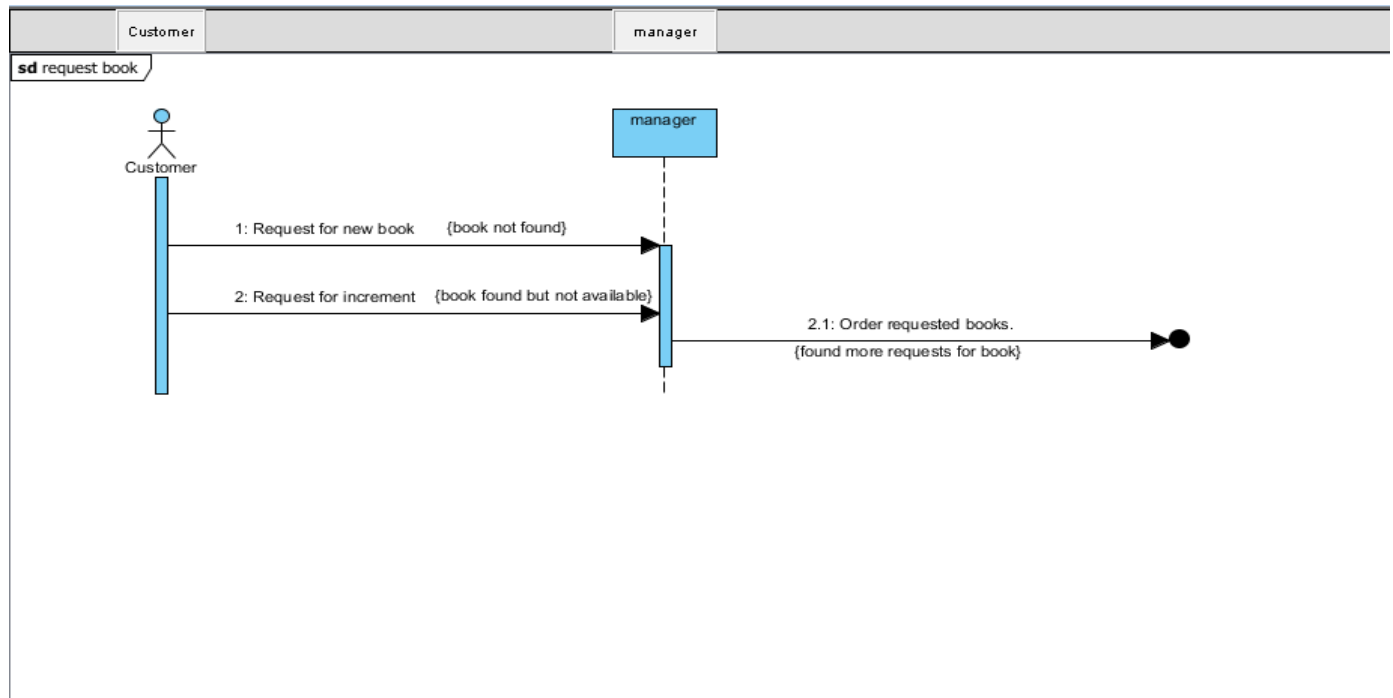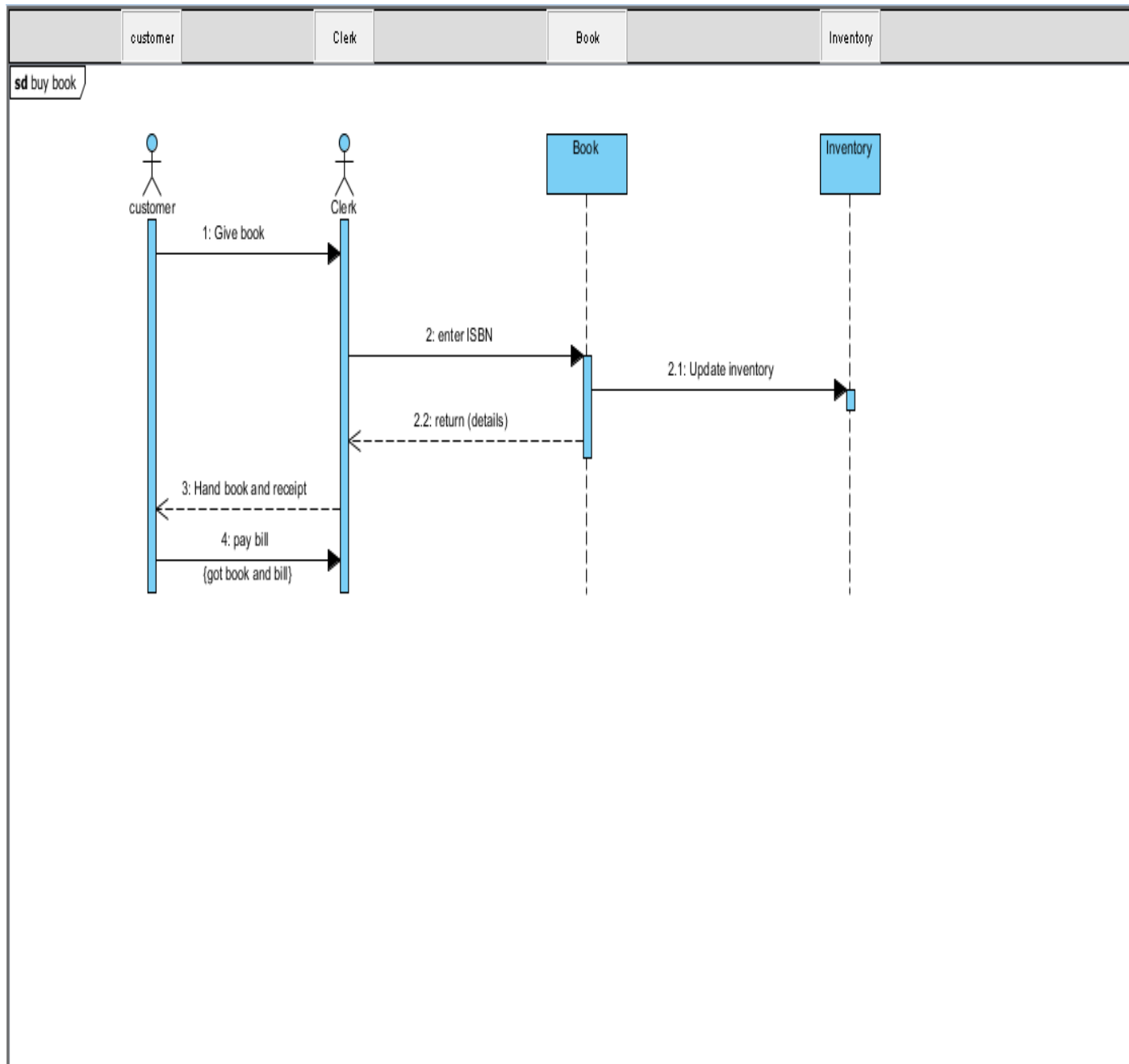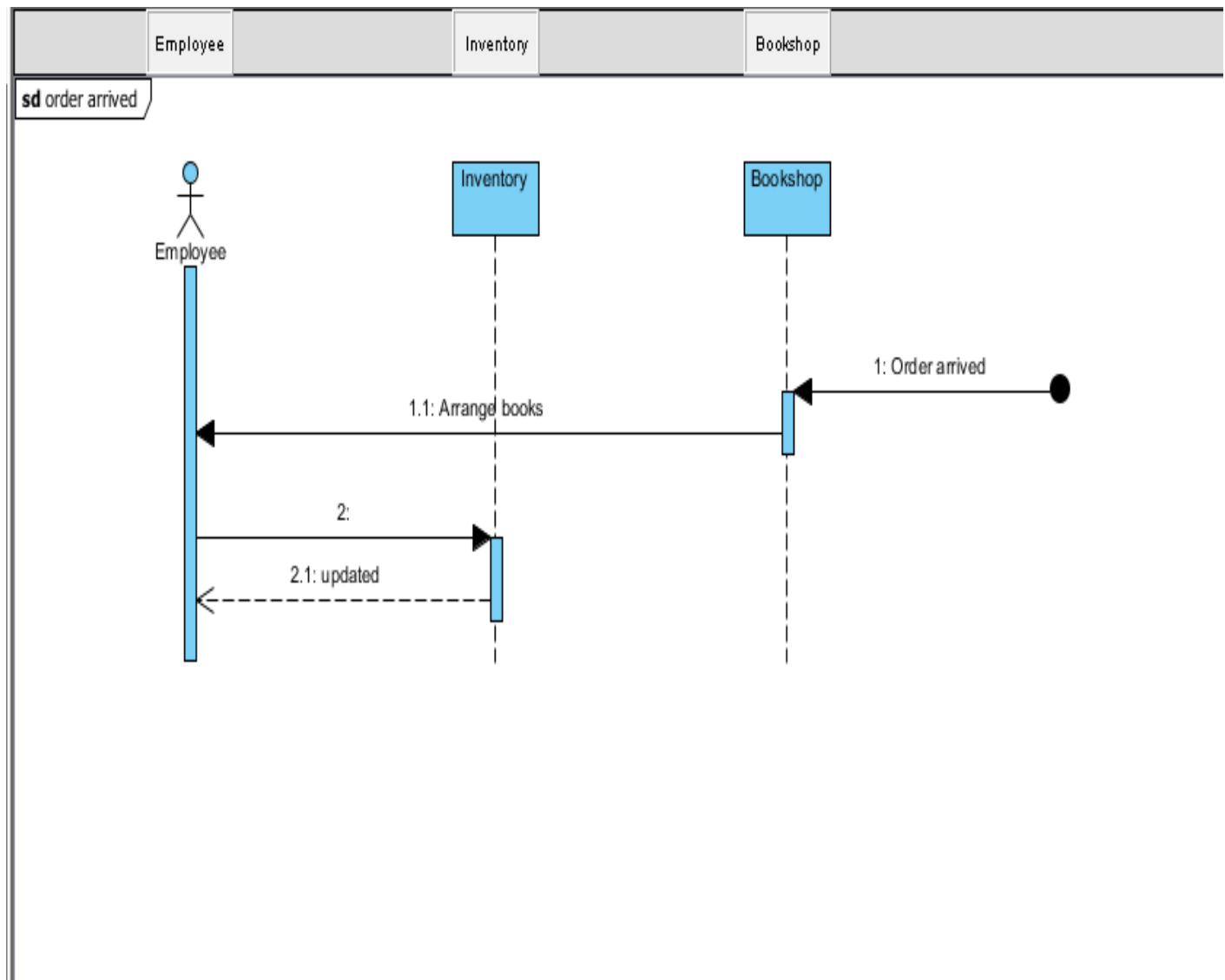
3.0 Sequence Diagrams

3.1 Customer

3.2 Search book

	Customer		Inventory		Book	

sd search

3.3 Request for book

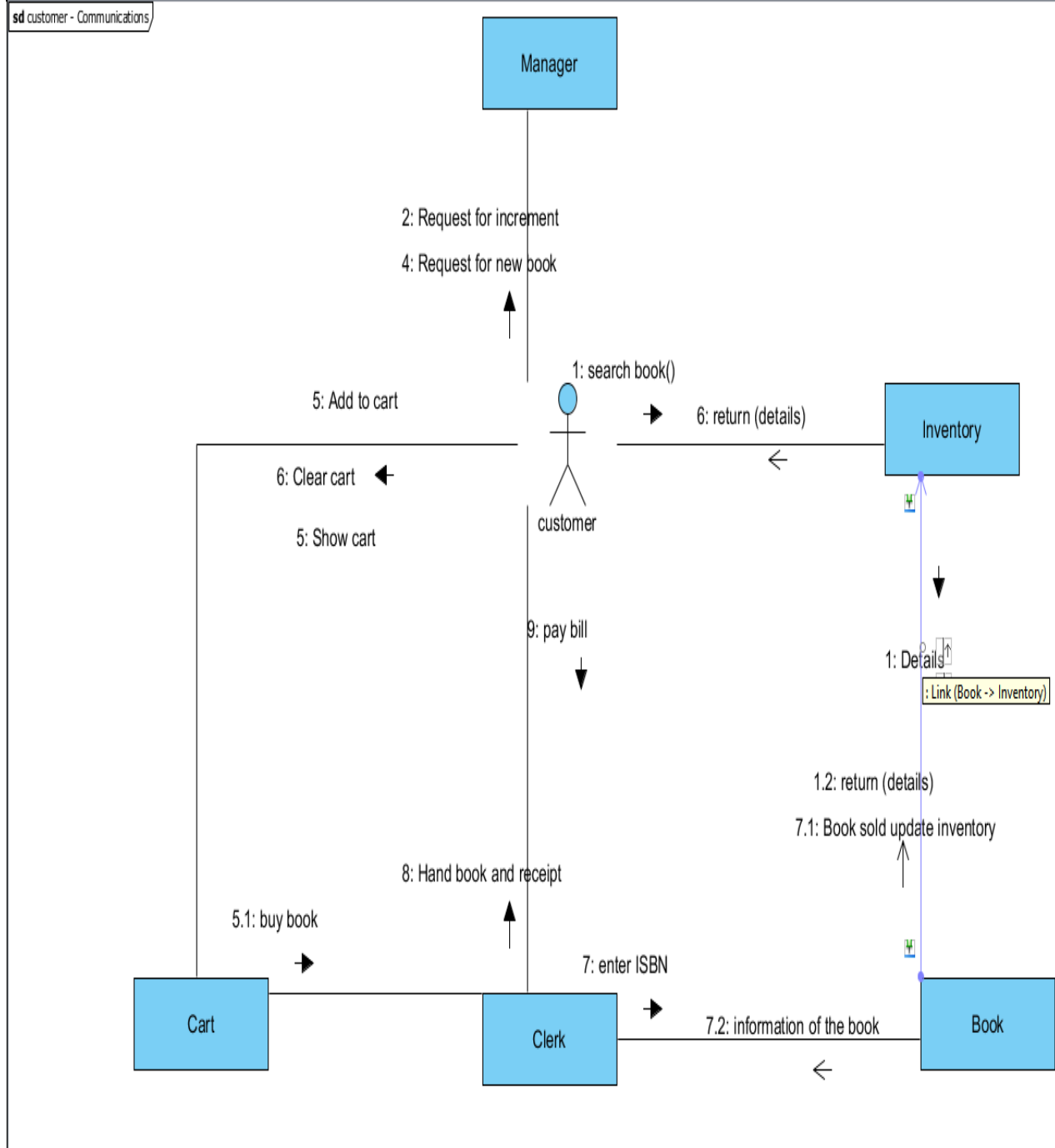|	Customer		manager	

sd request book

3.4 Buy book

3.5 Order arriver

4.0 Communication Diagrams

4.1 Customer

sd customer - Communications

Manager

2: Request for increment

4: Request for new book

1: search book()

5: Add to cart

6: return (details)

Inventory

6: Clear cart

5: Show cart

customer

9: pay bill

1: Details

: Link (Book -> Inventory)

1.2: return (details)

7.1: Book sold update inventory

8: Hand book and receipt

5.1: buy book

7: enter ISBN

Cart

Clerk

7.2: information of the book

Book

4.2 Search book

`sd` search - Communications

Book

1.2: return (details)   ↓

1.1: Details

1.3: return (details)

Inventory   →   1: search book(title or auther)   Customer
         ◄
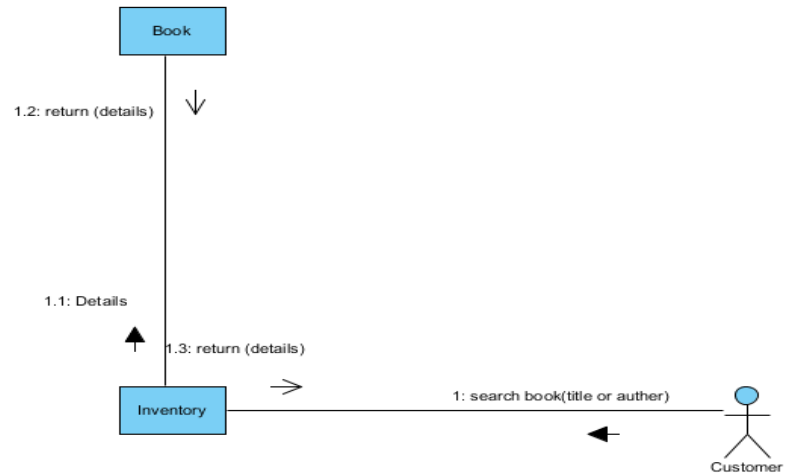
4.3 Request book

`sd` request book - Communications

manager

1: Request for new book
2: Request for increment
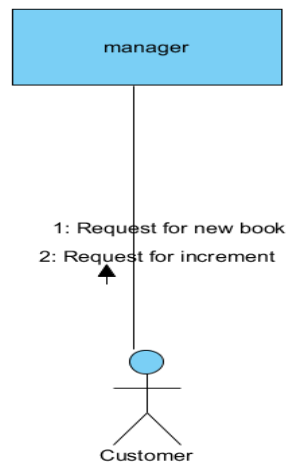
Customer

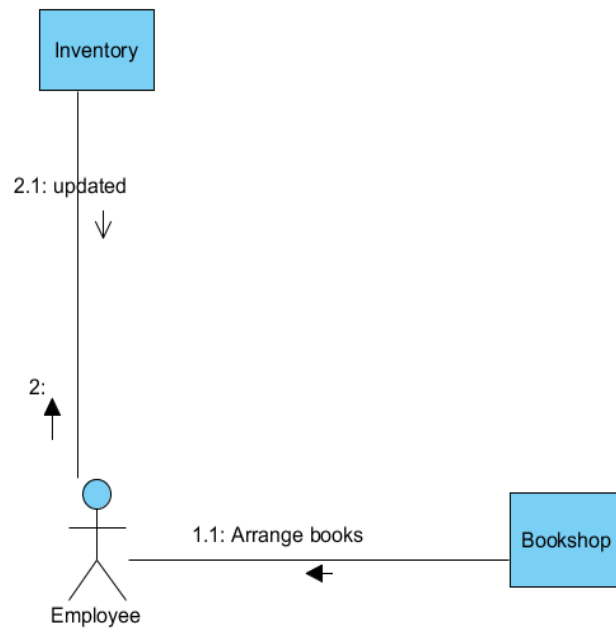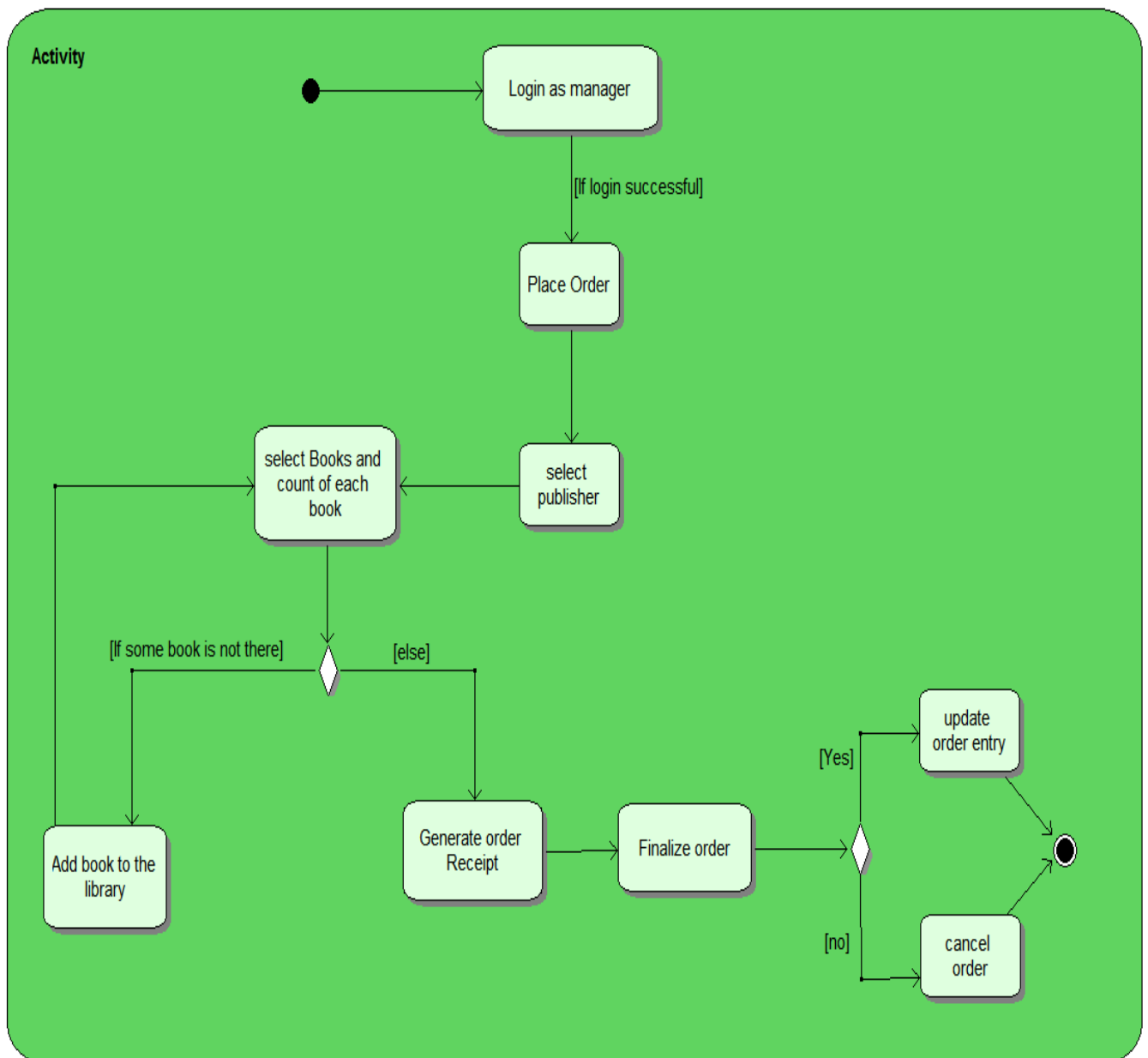## 4.4 Buy book
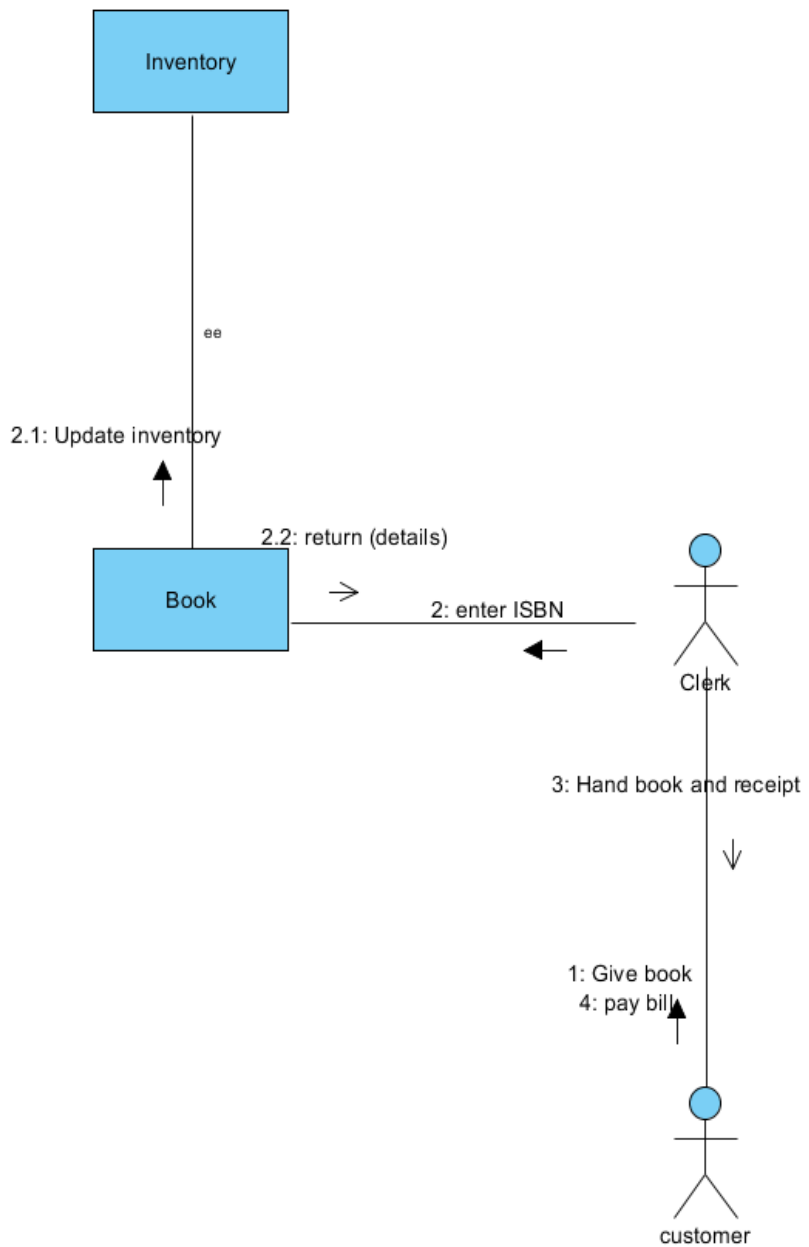
4.5 Order arrived

sd order arrived - Communications
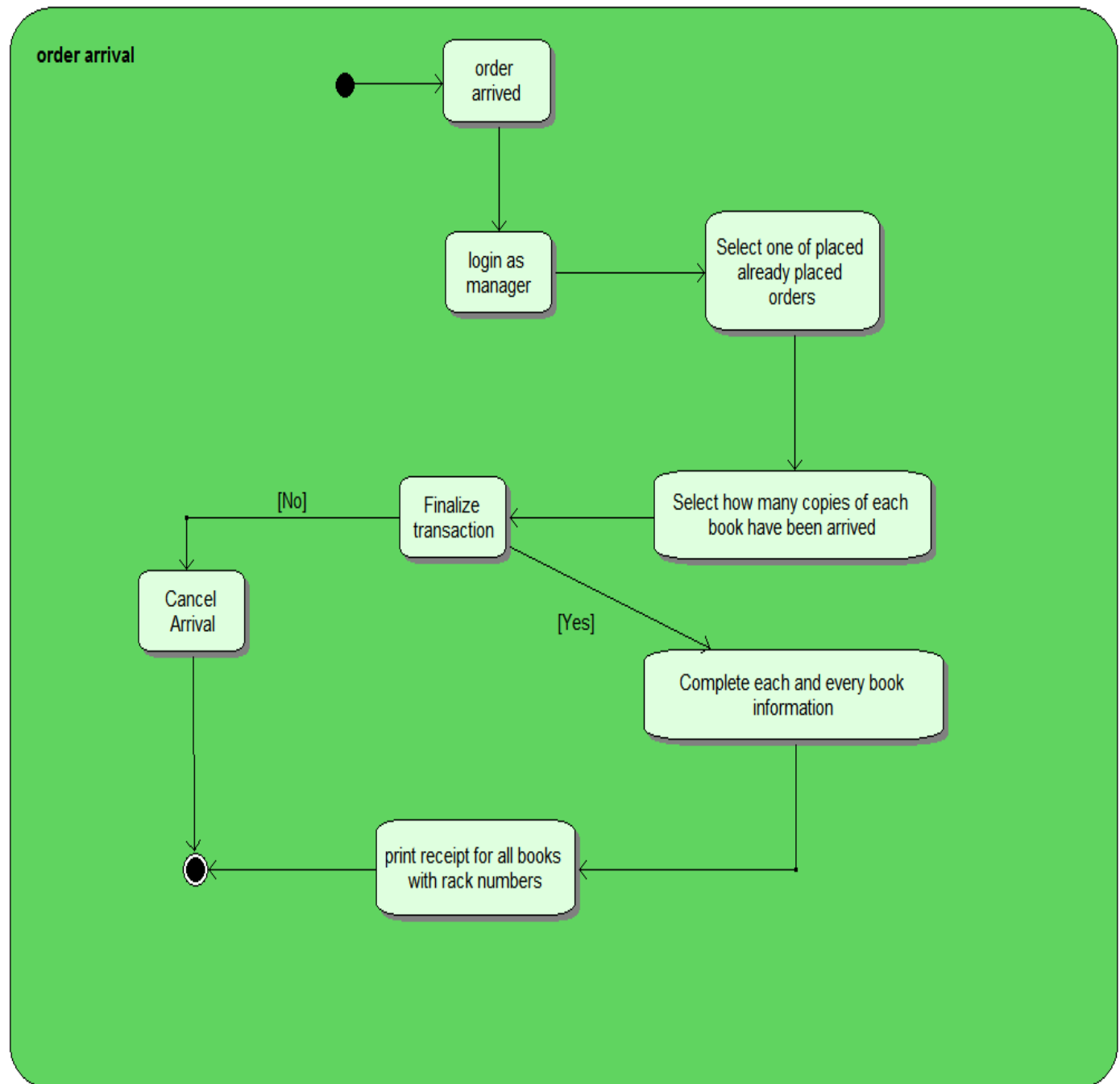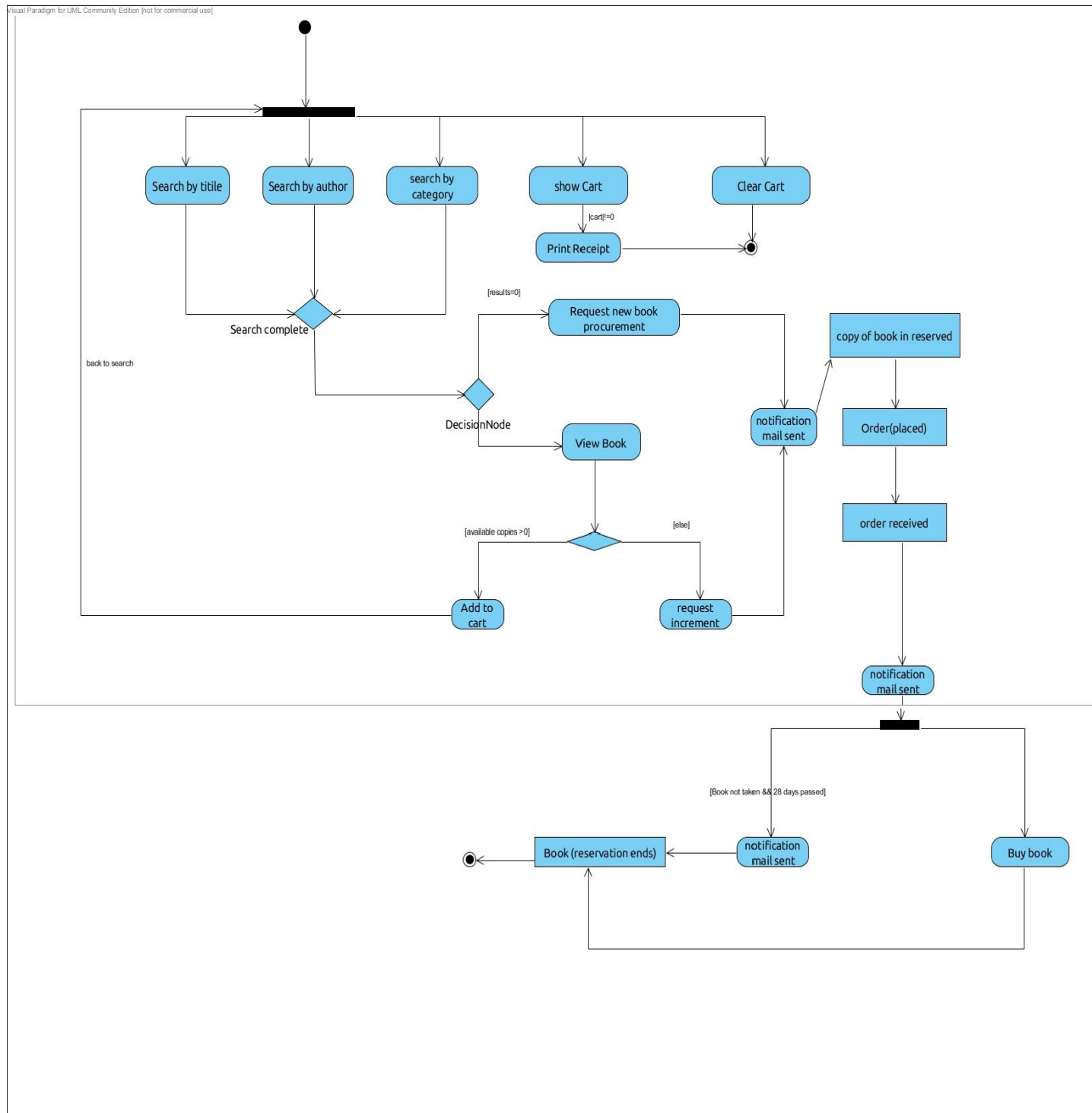
5.0 Activity Diagrams

5.1 Order placed

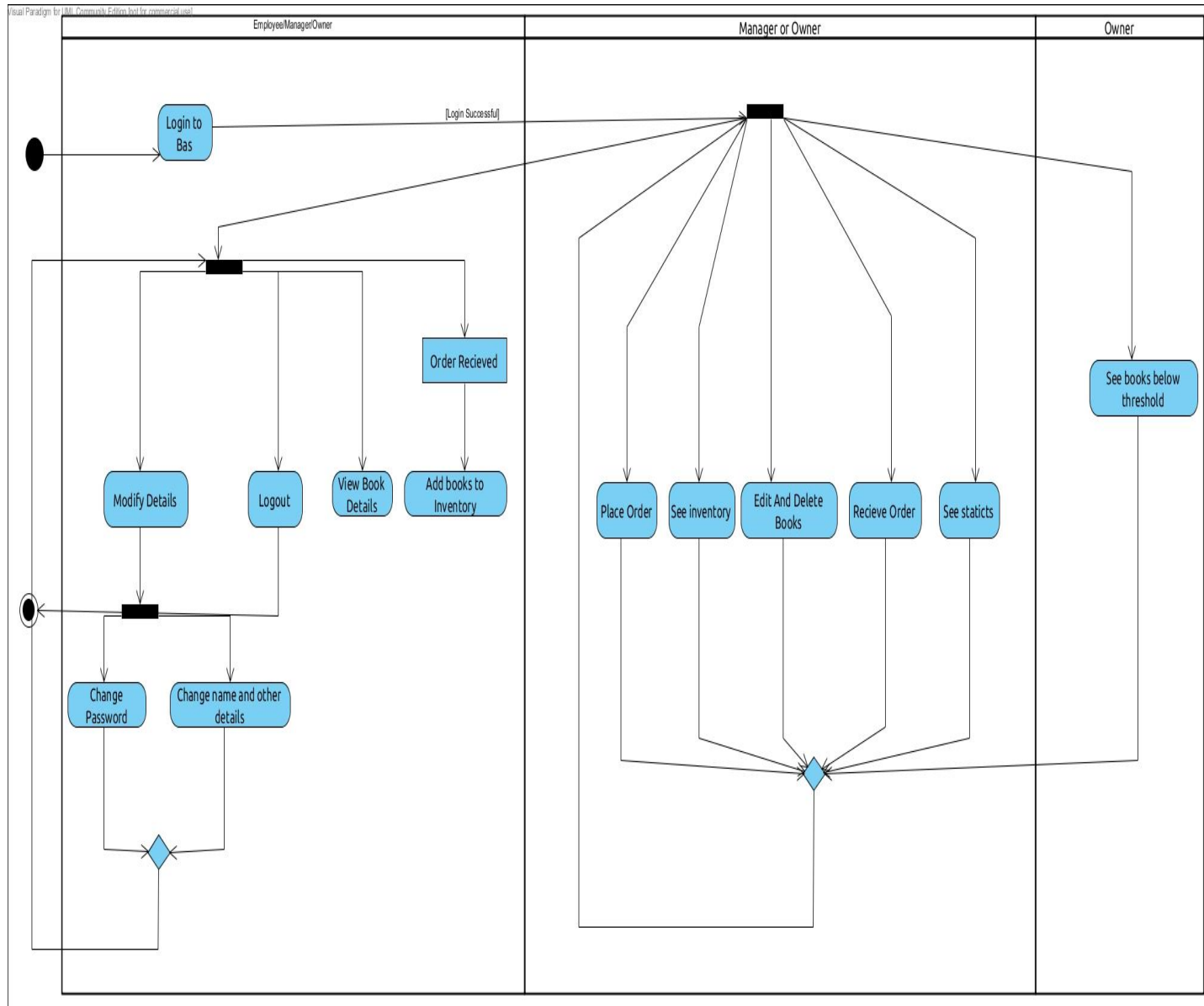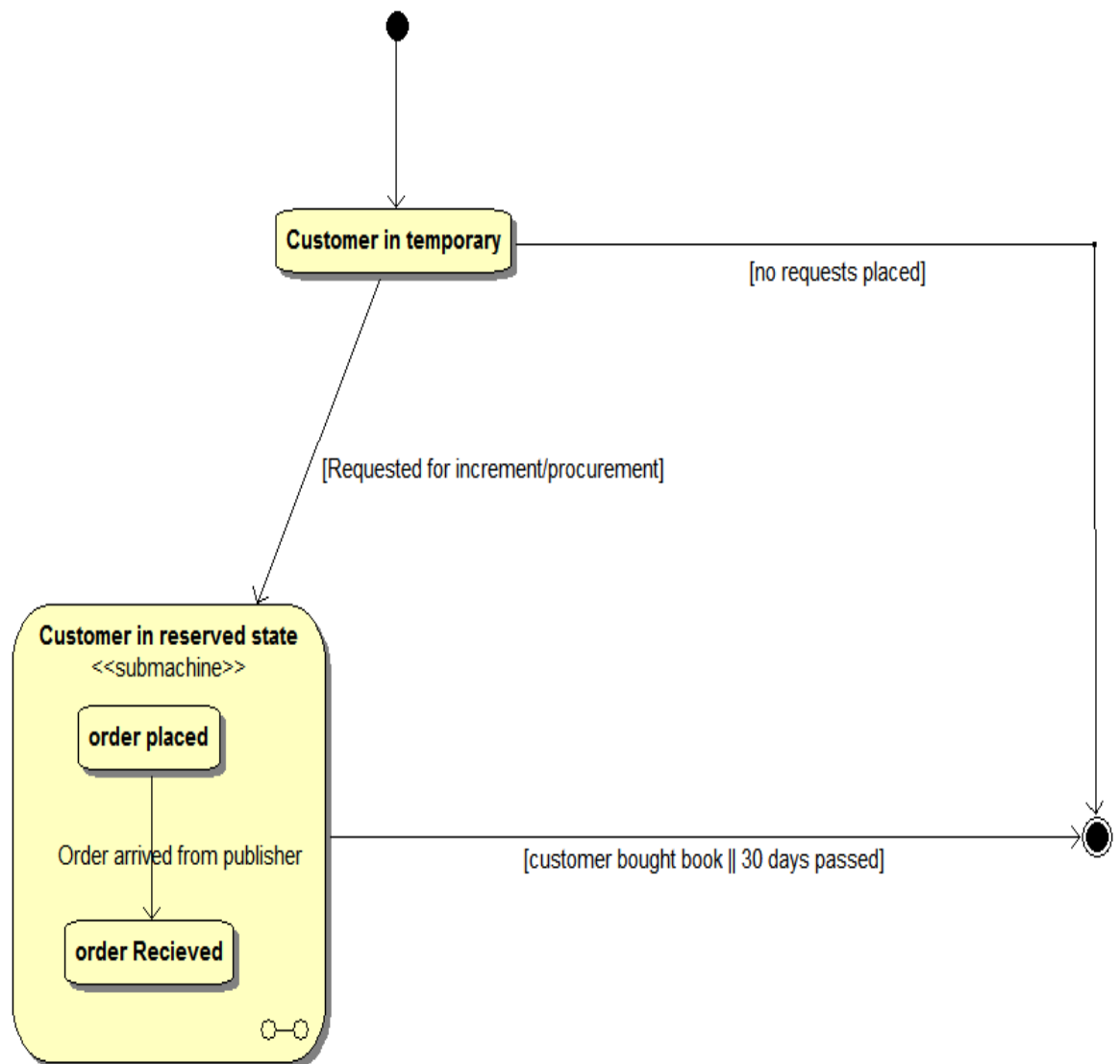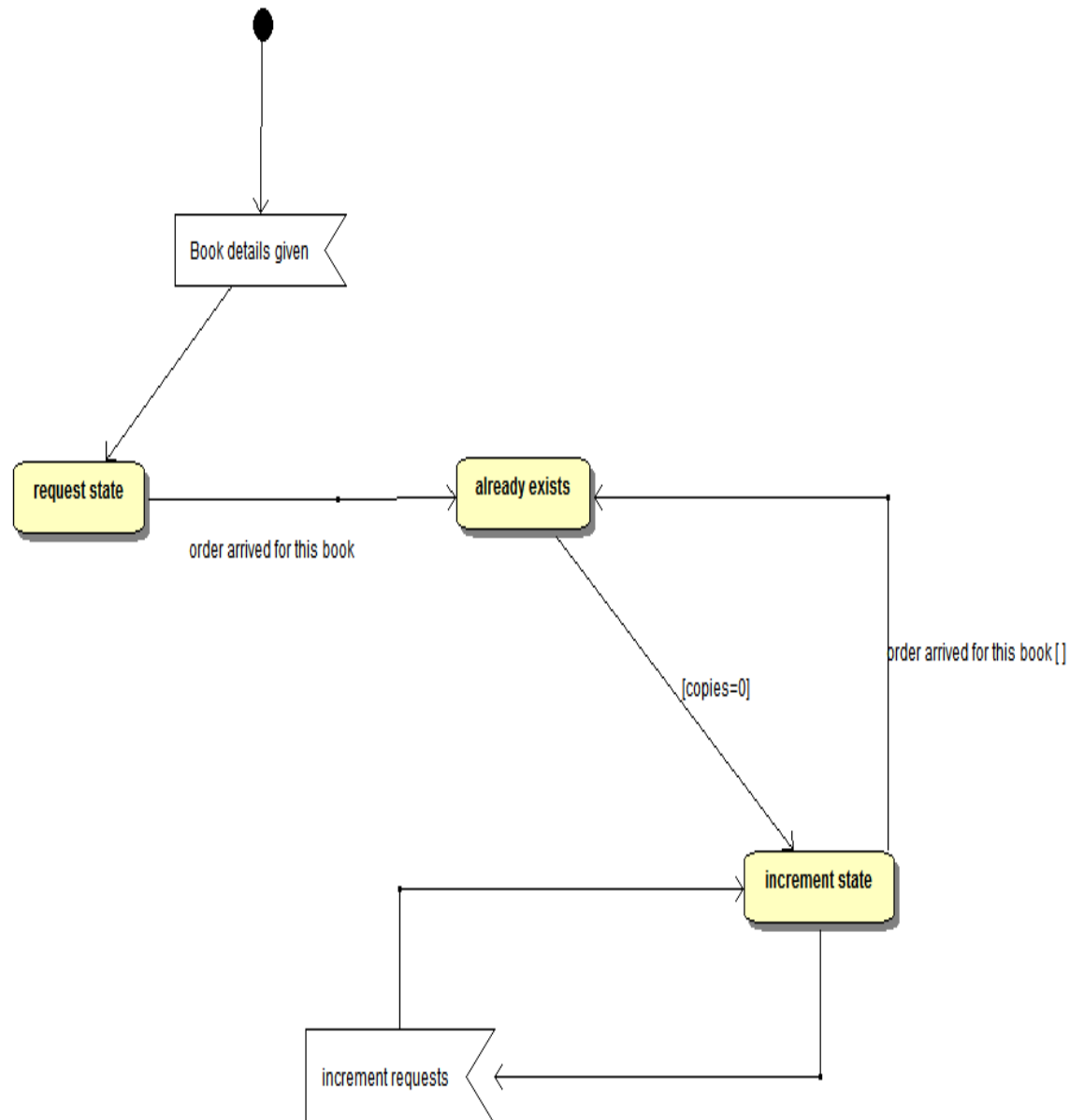## 5.2 Order Arrived

5.3 Customer

5.4 Employee, Manager and Owner

6.0 State chart Diagrams

6.1 Customer

6.2 Book

Book details given

request state   already exists

order arrived for this book

order arrived for this book [ ]

[copies=0]

increment state

increment requests

6.3 Order