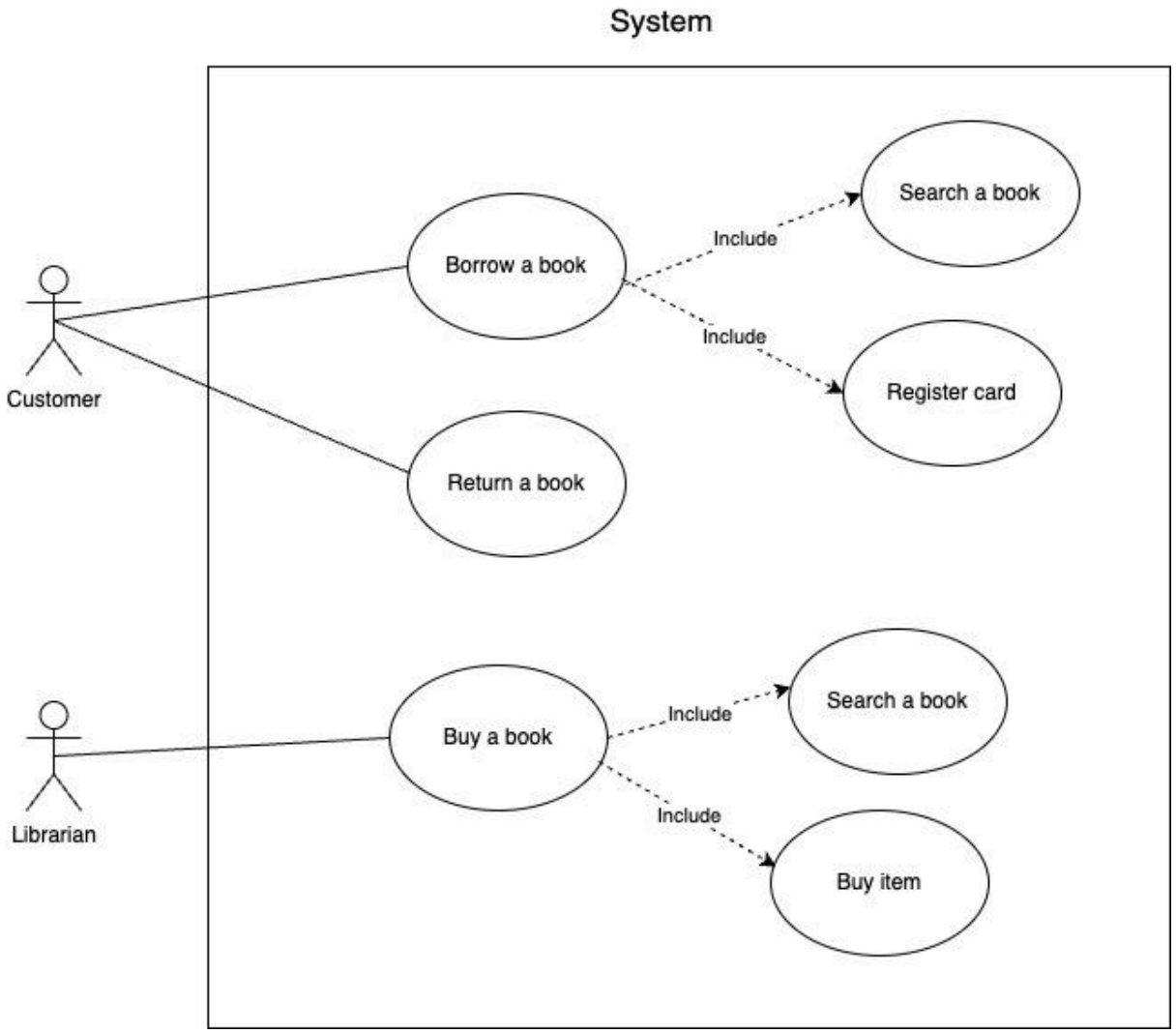
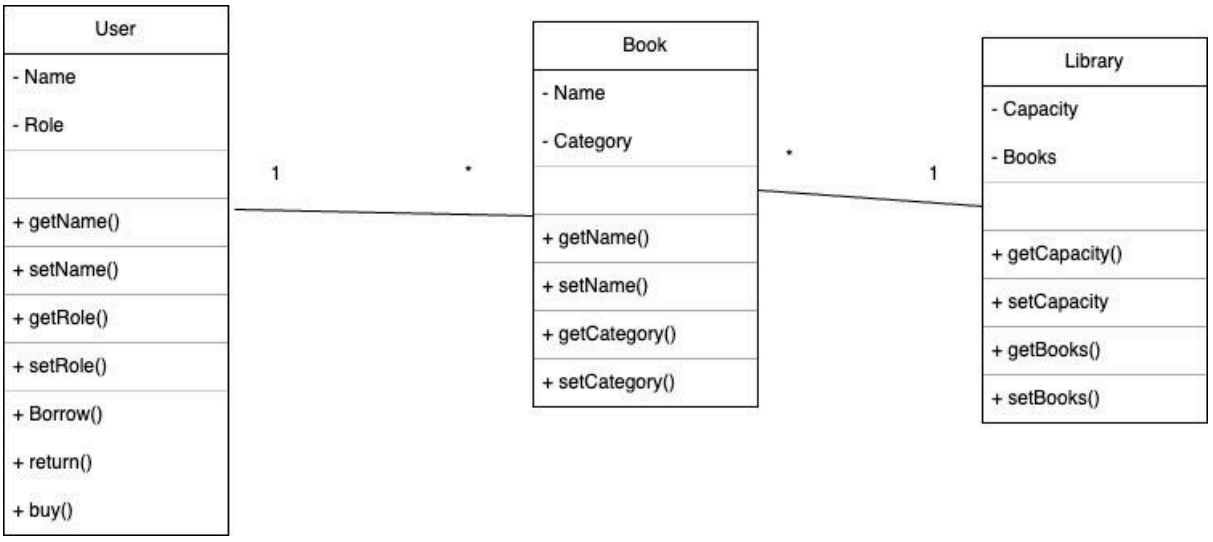
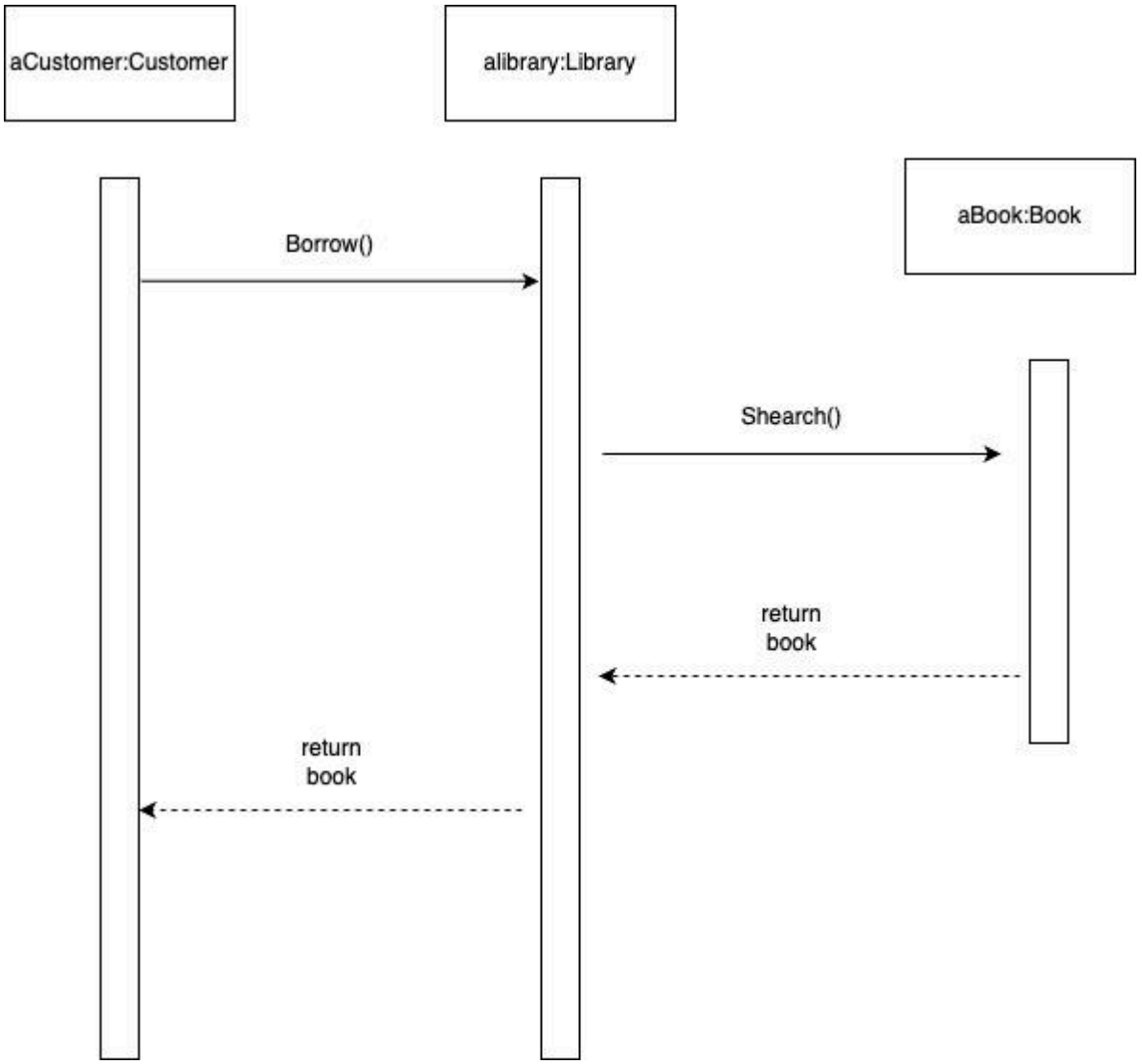
1.


System
Customer
Borrow a book
Search a book
Include
Include
Register card
Return a book
Librarian
Buy a book
Search a book
Include
Include
Buy item

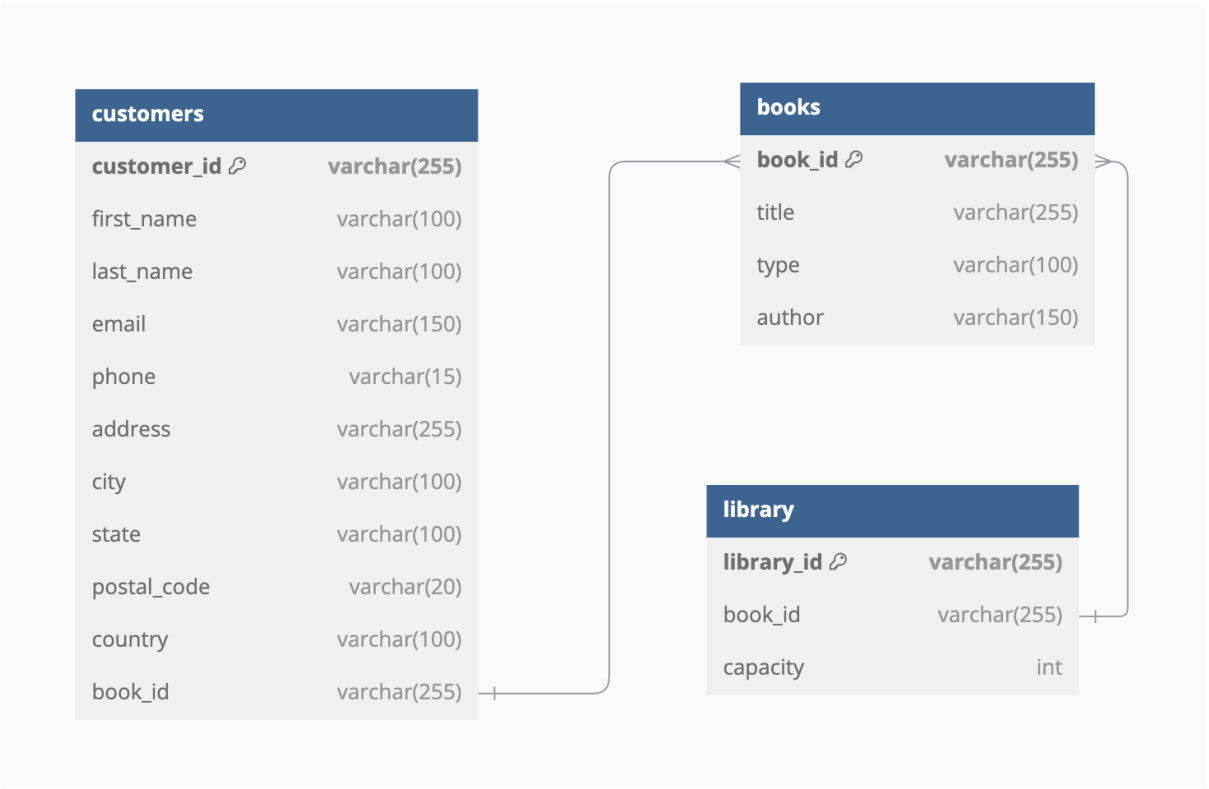
2.


User
- Name
- Role
+ getName()
+ setName()
+ getRole()
+ setRole()
+ Borrow()
+ return()
+ buy()
1
*
Book
- Name
- Category
+ getName()
+ setName()
+ getCategory()
+ setCategory()
*
1
Library
- Capacity
- Books
+ getCapacity()
+ setCapacity
+ getBooks()
+ setBooks()

3.


aCustomer:Customer
alibrary:Library
aBook:Book
Borrow()
Shearch()
return
book
return
book

4.


customers
customer_id varchar(255)
first_name varchar(100)
last_name varchar(100)
email varchar(150)
phone varchar(15)
address varchar(255)
city varchar(100)
state varchar(100)
postal_code varchar(20)
country varchar(100)
book_id varchar(255)
books
book_id varchar(255)
title varchar(255)
type varchar(100)
author varchar(150)
library
library_id varchar(255)
book_id varchar(255)
capacity int