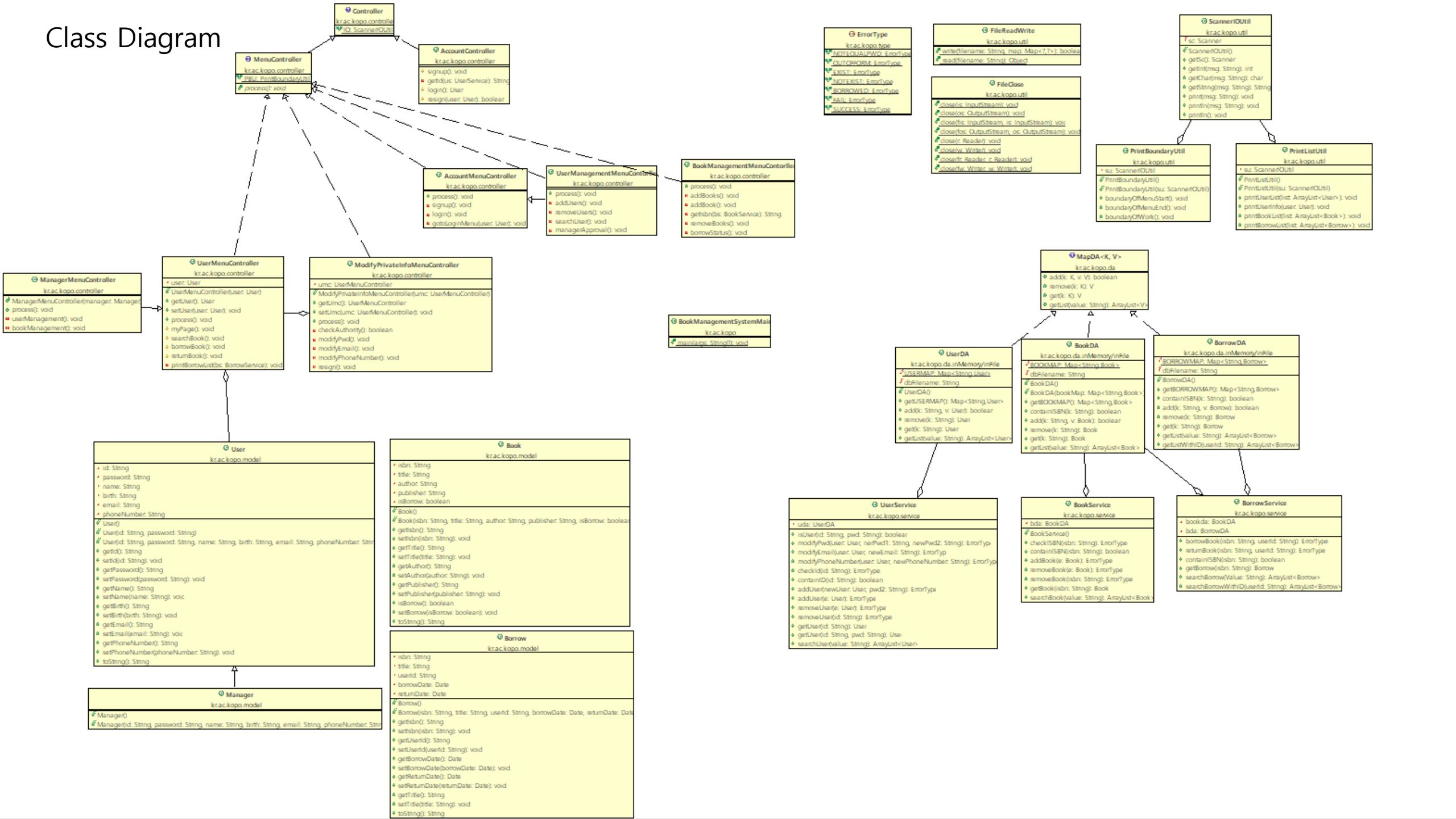
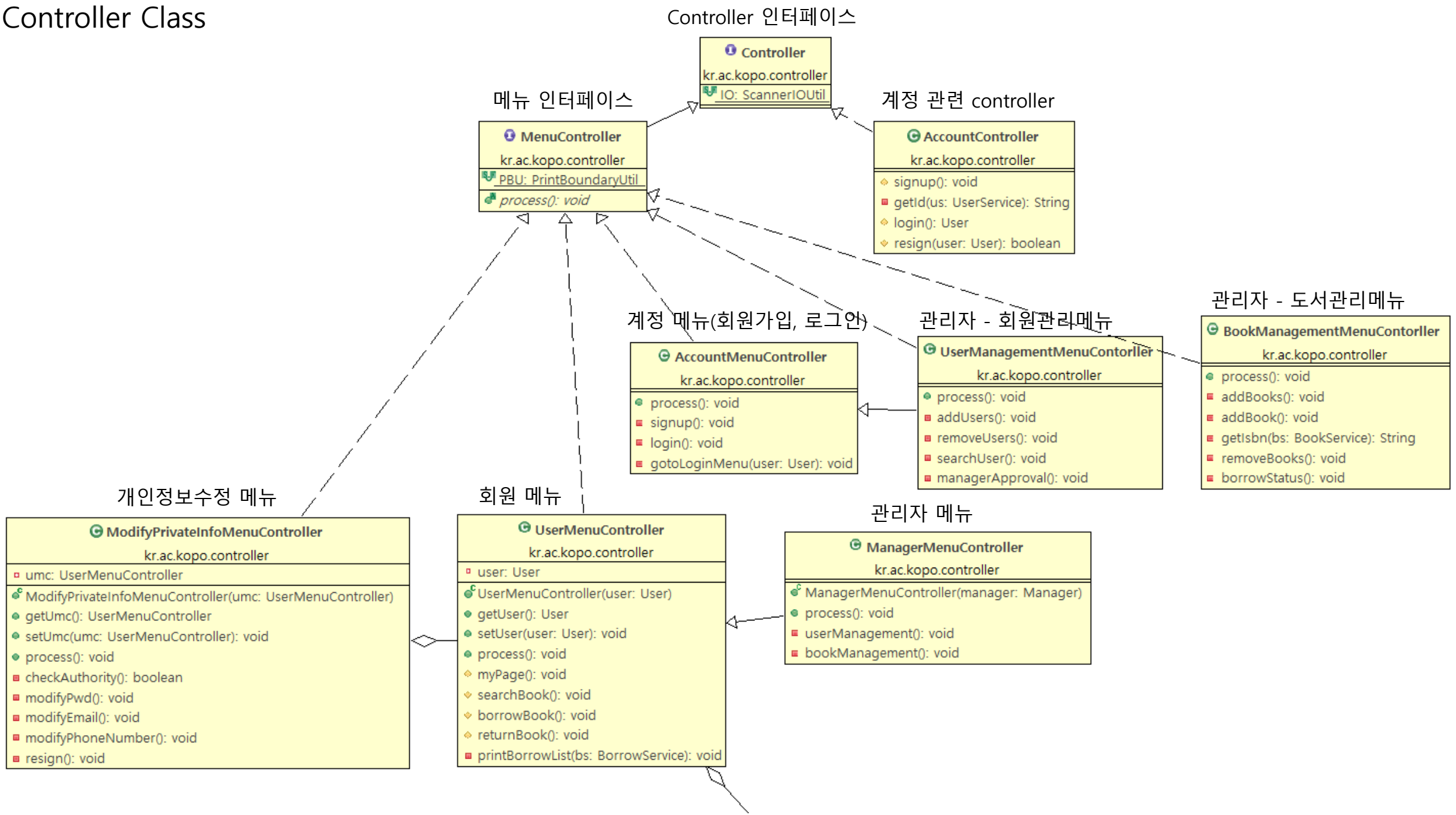
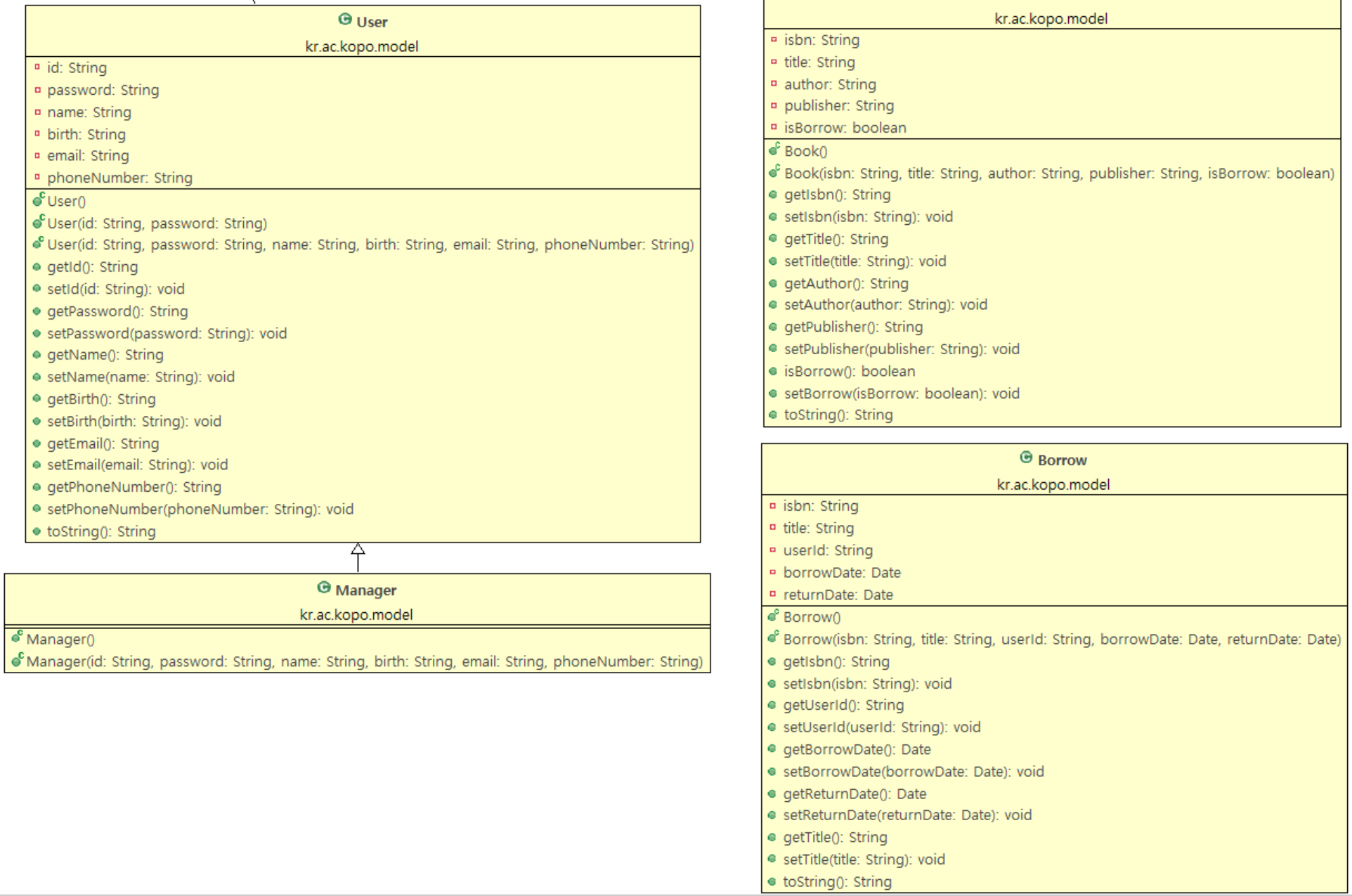
Class Diagram



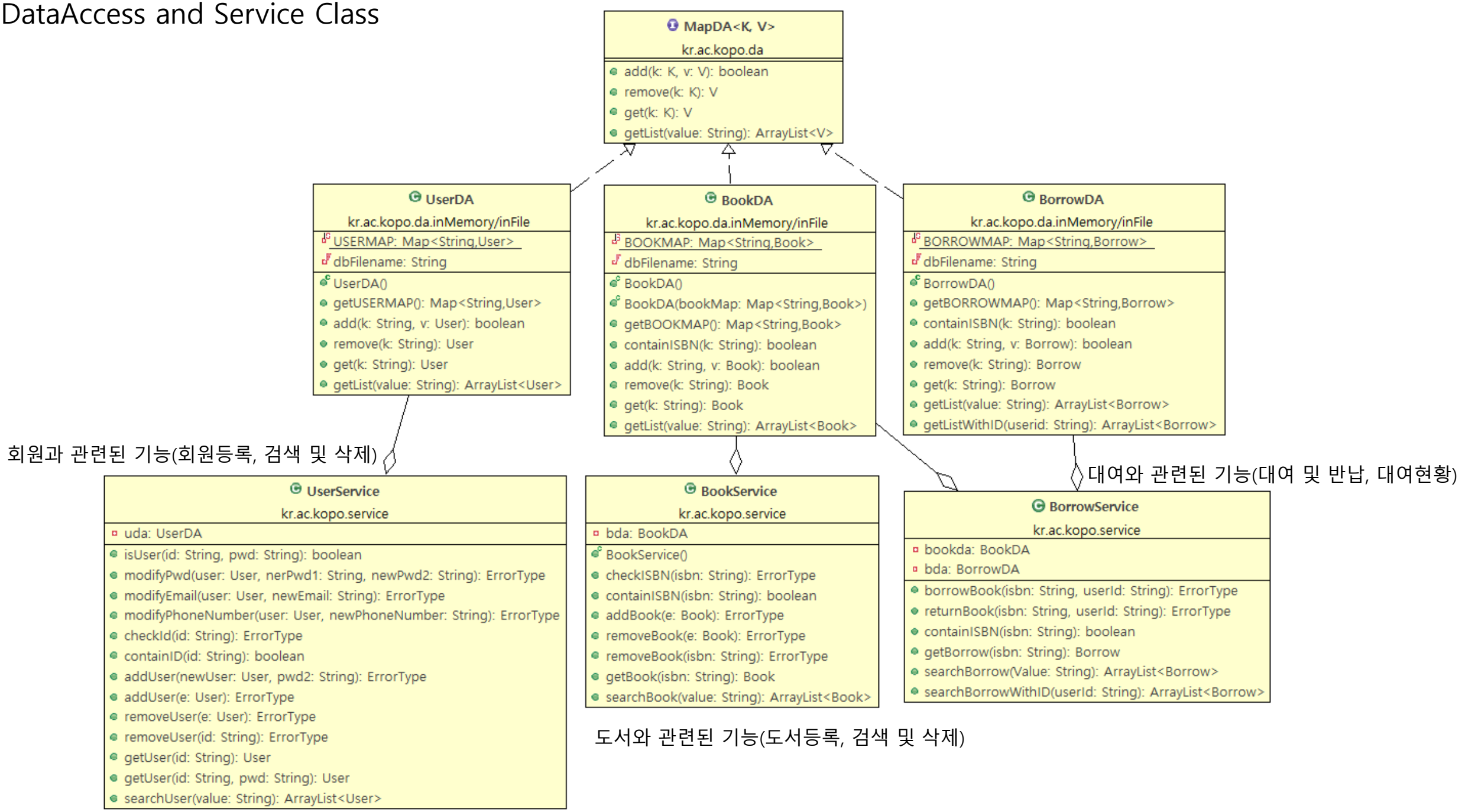
Controller Class



Model Class


User
kr.ac.kopo.model
id: String
password: String
name: String
birth: String
email: String
phoneNumber: String
User()
User(id: String, password: String)
User(id: String, password: String, name: String, birth: String, email: String, phoneNumber: String)
getId(): String
setId(id: String): void
getPassword(): String
setPassword(password: String): void
getName(): String
setName(name: String): void
getBirth(): String
setBirth(birth: String): void
getEmail(): String
setEmail(email: String): void
getPhoneNumber(): String
setPhoneNumber(phoneNumber: String): void
toString(): String
Manager
kr.ac.kopo.model
Manager()
Manager(id: String, password: String, name: String, birth: String, email: String, phoneNumber: String)
Book
kr.ac.kopo.model
isbn: String
title: String
author: String
publisher: String
isBorrow: boolean
Book()
Book(isbn: String, title: String, author: String, publisher: String, isBorrow: boolean)
getIsbn(): String
setIsbn(isbn: String): void
getTitle(): String
setTitle(title: String): void
getAuthor(): String
setAuthor(author: String): void
getPublisher(): String
setPublisher(publisher: String): void
isBorrow(): boolean
setBorrow(isBorrow: boolean): void
toString(): String
Borrow
kr.ac.kopo.model
isbn: String
title: String
userId: String
borrowDate: Date
returnDate: Date
Borrow()
Borrow(isbn: String, title: String, userId: String, borrowDate: Date, returnDate: Date)
getIsbn(): String
setIsbn(isbn: String): void
getUserId(): String
setUserId(userId: String): void
getBorrowDate(): Date
setBorrowDate(borrowDate: Date): void
getReturnDate(): Date
setReturnDate(returnDate: Date): void
getTitle(): String
setTitle(title: String): void
toString(): String

DataAccess and Service Class



DataAccess and Service Class

각 Service의 impor만 바꿔주면 inMemory, inFile 스위치 가능

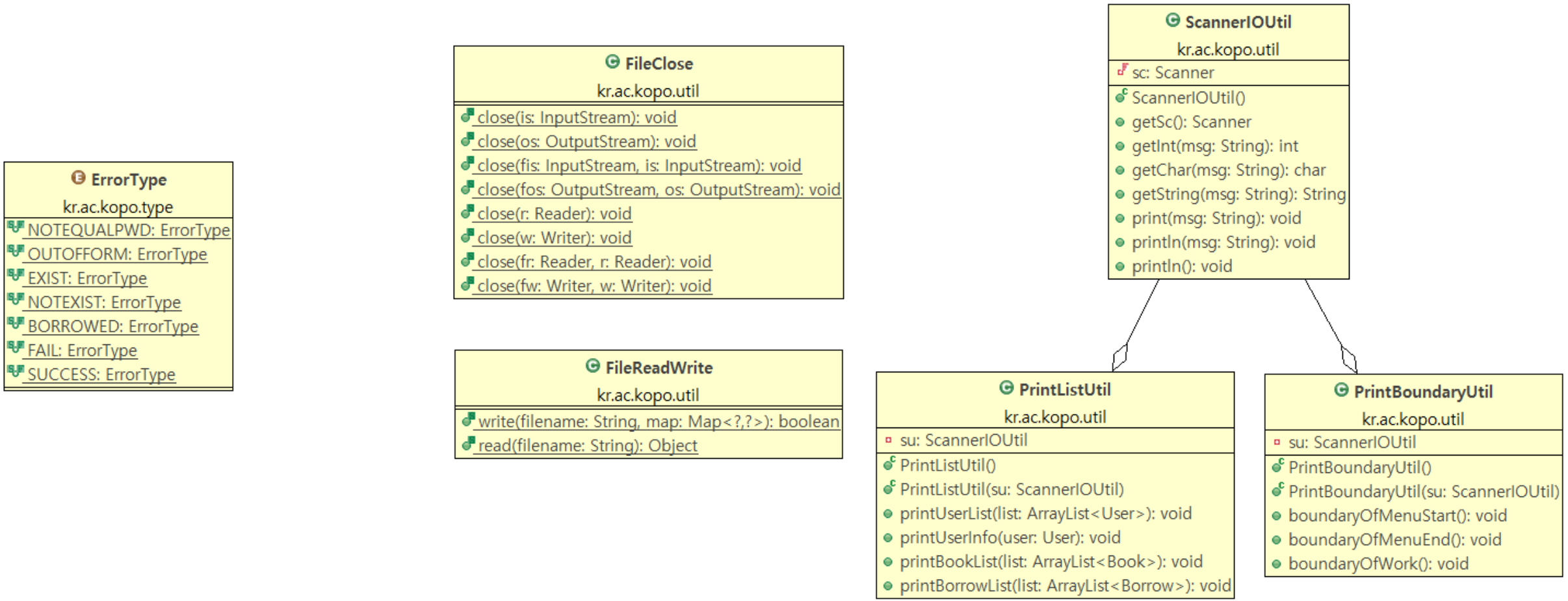
- UserService Class

```
5 //import kr.ac.kopo.da.inMemory.UserDA;
6 import kr.ac.kopo.da.inFile.UserDA;
```

- BookService Class

```
5 //import kr.ac.kopo.da.inMemory.BookDA;
6 import kr.ac.kopo.da.inFile.BookDA;
```

- BorrowService Class

```
7 //import kr.ac.kopo.da.inMemory.BookDA;
8 //import kr.ac.kopo.da.inMemory.BorrowDA;
9 import kr.ac.kopo.da.inFile.BookDA;
10 import kr.ac.kopo.da.inFile.BorrowDA;
```

Type and Util Class