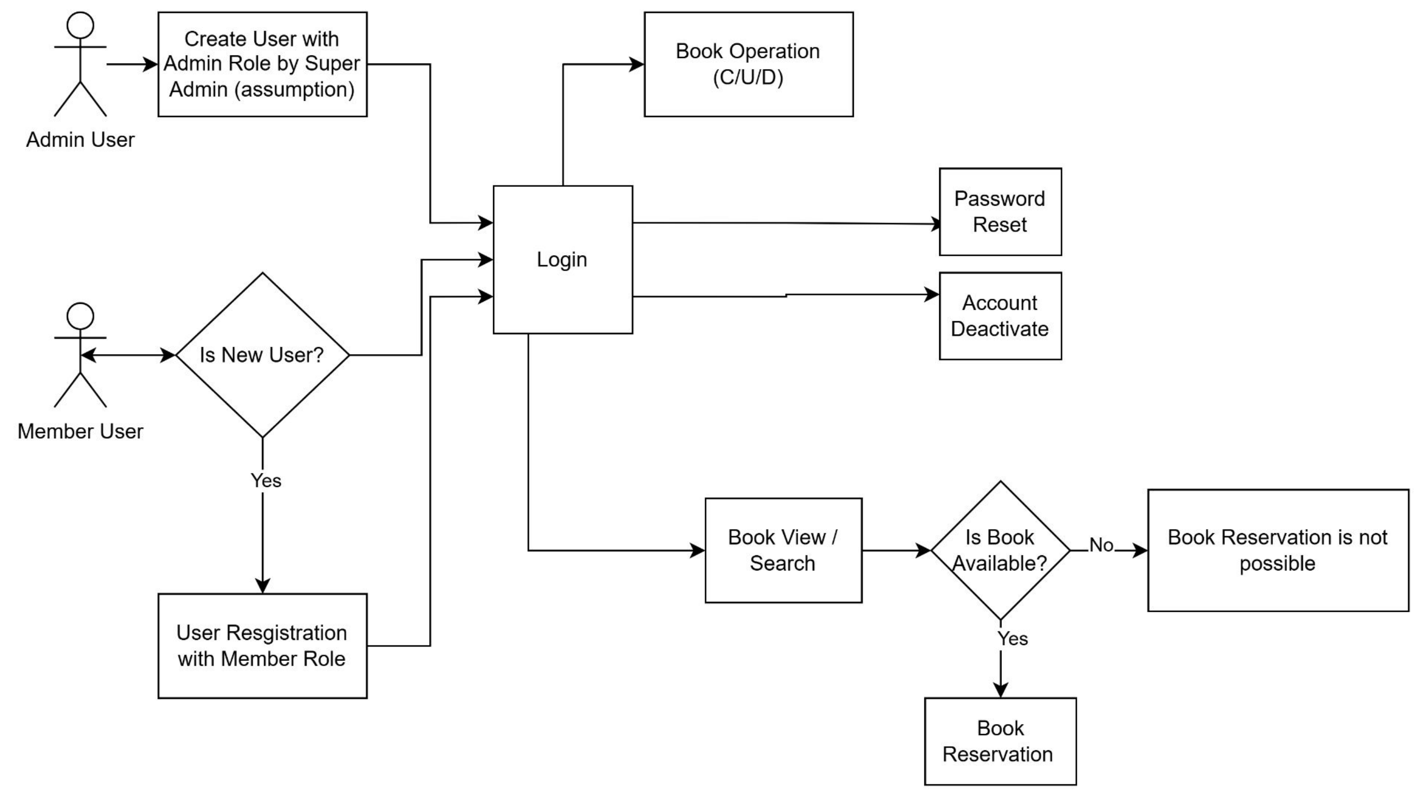
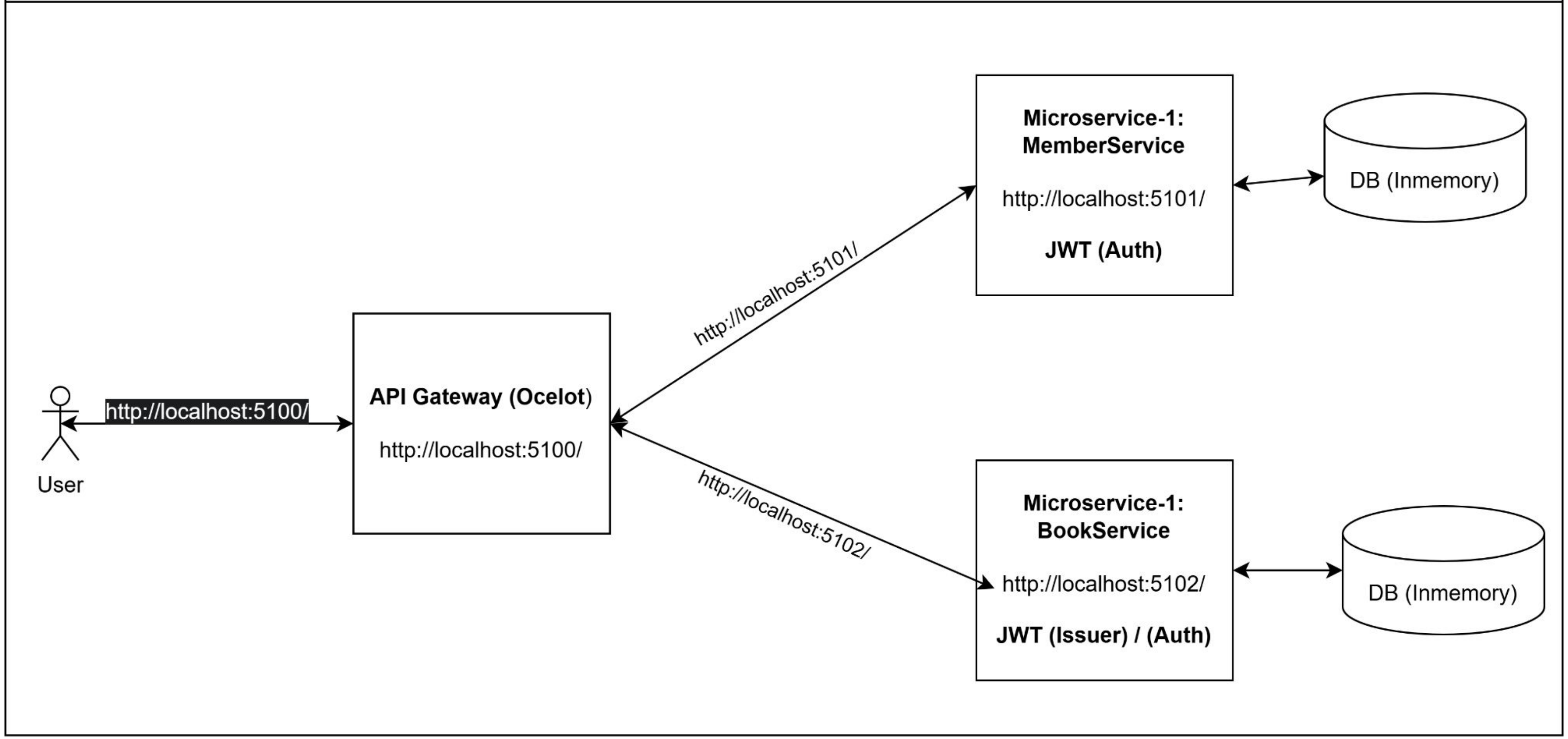
Library Book Reservation System

Library Book Reservation System
High-Level Workflow Design



Library Book Reservation System
Software Architecture



List of completed components on the Test Projects

- Microservice projects with multi-tier architecture
    - Member Service project
    - Book Service project
- API Gateway project using Ocelot
- Implemented JWT based authentication & role-based authorization
- Implemented Pagination
- Implemented Serilog for daily rolling logs
- Implemented error handling with logging

List of Role and Method names

Allow Anonymous can access the methods below:

- Member > Userlogin
- Member > UserAdd
- Member > AdminAdd

Admin Role can access the methods below:

- Book > Add Book
- Book > Update Book
- Book > Delete Book
- Member > Update
- Member > GetbyUserID
- Member > GetAll
- Member > Update

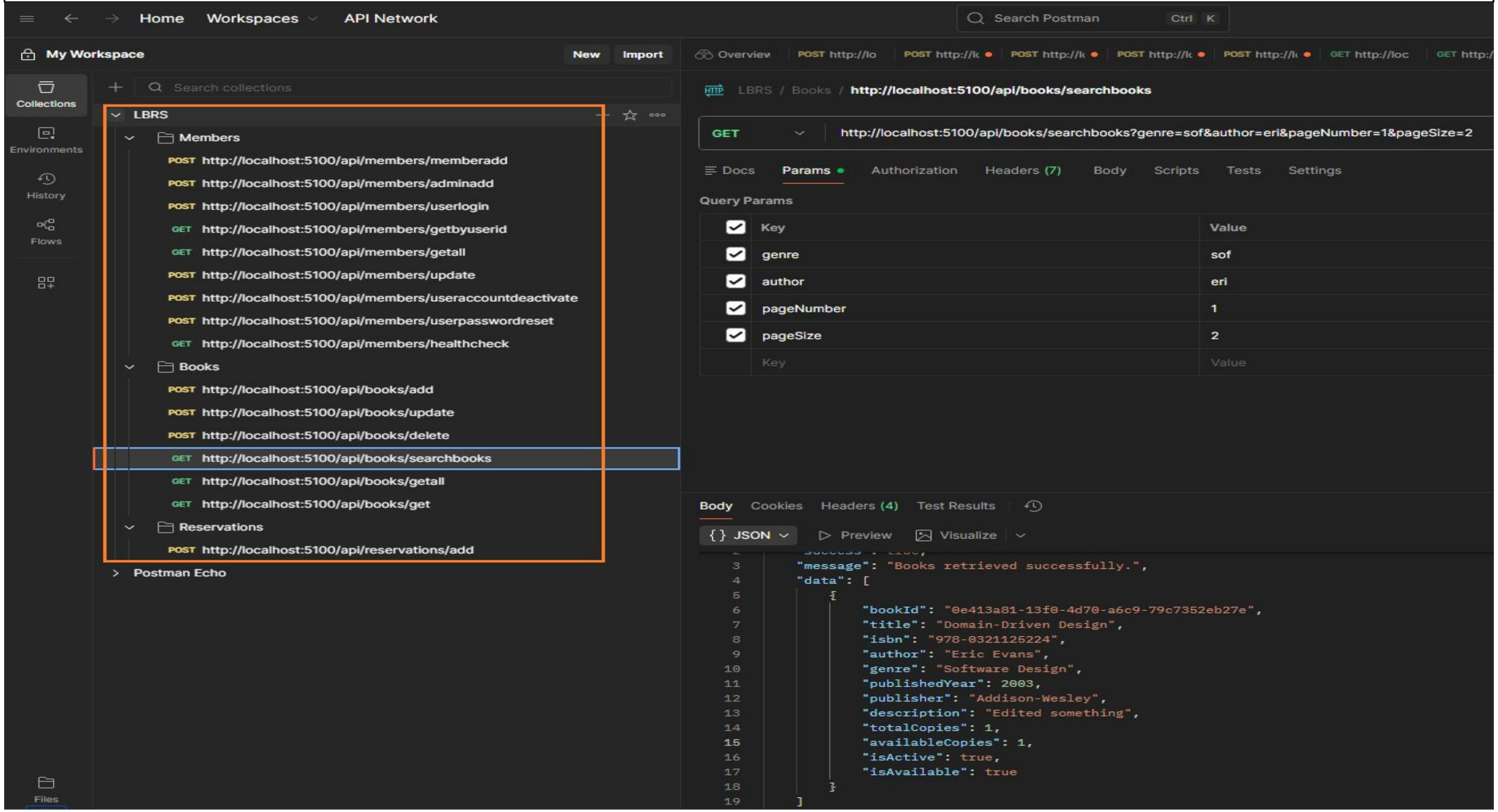
Member Role can access the methods below:

- Reservation > AddReservation
- Book > Search Books
- Book > GetReservedBooks

Both roles can access the methods below:

- Book > Get book by ID
- Book > Get all books
- Member > useraccountdeactivate
- Member > UserPasswordReset

Postman collection list : Collection file attached for your reference



LBRS
- Members
  - POST http://localhost:5100/api/members/memberadd
  - POST http://localhost:5100/api/members/adminadd
  - POST http://localhost:5100/api/members/userlogin
  - GET http://localhost:5100/api/members/getbyuserid
  - GET http://localhost:5100/api/members/getall
  - POST http://localhost:5100/api/members/update
  - POST http://localhost:5100/api/members/useraccountdeactivate
  - POST http://localhost:5100/api/members/userpasswordreset
  - GET http://localhost:5100/api/members/healthcheck
- Books
  - POST http://localhost:5100/api/books/add
  - POST http://localhost:5100/api/books/update
  - POST http://localhost:5100/api/books/delete
  - GET http://localhost:5100/api/books/searchbooks
  - GET http://localhost:5100/api/books/getall
  - GET http://localhost:5100/api/books/get
- Reservations
  - POST http://localhost:5100/api/reservations/add

Postman Echo

LBRS / Books / http://localhost:5100/api/books/searchbooks

GET http://localhost:5100/api/books/searchbooks?genre=sof&author=eri&pageNumber=1&pageSize=2

Docs | Params | Authorization | Headers (7) | Body | Scripts | Tests | Settings

Query Params

	Key	Value
✓	genre	sof
✓	author	eri
✓	pageNumber	1
✓	pageSize	2
	Key	Value

Body | Cookies | Headers (4) | Test Results

{ } JSON | Preview | Visualize

```
    "success": true,
    "message": "Books retrieved successfully.",
    "data": [
        {
            "bookId": "0e413a81-13f0-4d70-a6c9-79c7352eb27e",
            "title": "Domain-Driven Design",
            "isbn": "978-0321125224",
            "author": "Eric Evans",
            "genre": "Software Design",
            "publishedYear": 2003,
            "publisher": "Addison-Wesley",
            "description": "Edited something",
            "totalCopies": 1,
            "availableCopies": 1,
            "isActive": true,
            "isAvailable": true
        }
    ]
```

Thank you