**Day3: Lab: Service Discovery Pattern – Client-side**

**Case Study: Library Management System**

We will simulate:

* **Eureka Server**: Service registry.
* **Book Service**: Holds book data and registers itself to Eureka.
* **Library Service**: Discovers Book Service from Eureka and fetches book details using client-side discovery.

**Step 1: Eureka Server**

**1.1: Create Spring Boot Project: eureka-server**

* Dependencies: Spring Web, Eureka Server

**Step 2: Book Service**

**2.1: Create project: book-service**

* Dependencies: Eureka Discovery Client, Spring Web

**Step 3: Library Service**

**3.1: Create project: library-service**

* Dependencies: Eureka Discovery Client, Spring Web, Spring Cloud LoadBalancer

**Step 4: Run and Test**

1. Start eureka-server on localhost:8761
2. Start book-service → it will appear on Eureka UI
3. Start library-service

**Test with:**

GET http://localhost:8082/api/library/book/978-0134685991

Output:

Book details for ISBN: 978-0134685991

**Summary**

| **Service Name** | **Port** | **Role** |
| --- | --- | --- |
| eureka-server | 8761 | Central service registry |
| book-service | 8081 | Registers book info |
| library-service | 8082 | Discovers & calls book svc |