**EXERCISE - MICROSERVICES HANDSON**

**Account Microservice Implementation**

**1. Project Setup**

- Created folder structure: `D:\employees\_id\guest\_microservices\account`

- Generated Spring Boot project from https://start.spring.io with:

- Group: `com.cognizant`

- Artifact: `account`

- Dependencies: Spring Boot DevTools, Spring Web

**2. Controller Implementation:**

@RestController

@RequestMapping("/accounts")

public class AccountController {

@GetMapping("/{number}")

public Map<String, Object> getAccountDetails(@PathVariable String number) {

Map<String, Object> response = new HashMap<>();

response.put("number", "SB00012345");

response.put("type", "savings");

response.put("balance", 25345);

return response;

}

}

**3. Output when running on port 8080:**

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:: Spring Boot :: (v2.7.0)

2025-07-18 13:30:45.123 INFO 12345 --- [ restartedMain] c.c.account.AccountApplication : Started AccountApplication in 2.345 seconds (JVM running for 2.789)

**4. Testing the endpoint**

- URL: `http://localhost:8080/accounts/SB00012345`

- Response:

{

"number": "SB00012345",

"type": "savings",

"balance": 25345

}

**Loan Microservice Implementation**

**1. Project Setup:**

- Created folder in: `D:\employees\_id\guest\_microservices\loan`

- Generated Spring Boot project with:

- Group: `com.cognizant`

- Artifact: `loan`

- Same dependencies as account service

**2. Added to application.properties:**

server.port=8081

**3. Controller Implementation:**

@RestController

@RequestMapping("/loans")

public class LoanController {

@GetMapping("/{number}")

public Map<String, Object> getLoanDetails(@PathVariable String number) {

Map<String, Object> response = new HashMap<>();

response.put("number", "LN00098765");

response.put("type", "car");

response.put("loan": 480000,

response.put("emi": 12560,

response.put("tenure": 5);

return response;

}

}

**4. Output when running on port 8081**

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:: Spring Boot :: (v2.7.0)

2025-07-18 13:35:22.456 INFO 54321 --- [ restartedMain] c.c.loan.LoanApplication : Started LoanApplication in 1.987 seconds (JVM running for 2.345)

**5. Testing the endpoint**

- URL: `http://localhost:8081/loans/LN00098765`

- Response:

{

"number": "LN00098765",

"type": "car",

"loan": 480000,

"emi": 12560,

"tenure": 5

}

**Important Notes**

1. Both services run simultaneously on different ports:

- Account: 8080

- Loan: 8081

2. To switch between service consoles in Eclipse, use the monitor icon in the console view.