

Week 5: Creating Microservices for account and loan

Process:

Part 1: Create Account Microservice

Step 1: Use Spring Initializr to Generate Project

- Open <https://start.spring.io>.
- Fill in the following:
 - Group: com.cognizant
 - Artifact: account
- Select dependencies:
 - Spring Boot DevTools (Developer Tools)
 - Spring Web (Web)
- Click Generate.
- A ZIP file (account.zip) will be downloaded.

Step 2: Set Up Project

- Extract the ZIP file.

Step 3: Build the Project

- Open Command Prompt.
- Navigate to the account folder:
`cd C:\6427402\microservices\account`
- Run:
`mvn clean package`

Step 4: Import Project in Eclipse

- Open Eclipse.
- Go to: File > Import > Maven > Existing Maven Projects
`C:\6427402\microservices\account`

Step 5: Create the Controller

```
package com.cognizant.account;
```

```
import org.springframework.web.bind.annotation.*;
```

```
@RestController
```

```
@RequestMapping("/accounts")
```

```
public class AccountController {
```

```

@GetMapping("/{number}")
public Account getAccount(@PathVariable String number) {
    return new Account(number, "savings", 234343);
}

static class Account {
    private String number;
    private String type;
    private double balance;

    public Account(String number, String type, double balance) {
        this.number = number;
        this.type = type;
        this.balance = balance;
    }

    public String getNumber() { return number; }
    public String getType() { return type; }
    public double getBalance() { return balance; }
}
}

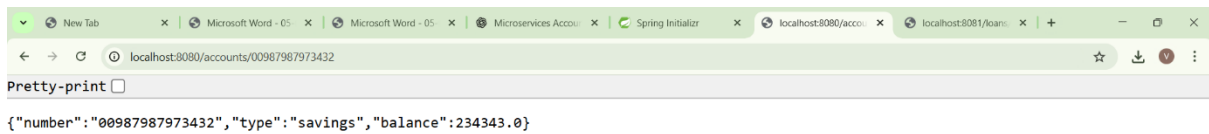
```

Step 6: Run & Test the Application

1. Locate AccountApplication.java in the main package and run it as **Java Application**.
2. Open browser or Postman:

<http://localhost:8080/accounts/00987987973432>

Step 7: out put



Part 2: Create Loan Microservice

Step 1: Use Spring Initializr to Generate Project

- Open <https://start.spring.io>.
- Fill in the following:
 - Group: com.cognizant
 - Artifact: loan
- Select dependencies:
 - Spring Boot DevTools (Developer Tools)
 - Spring Web (Web)
- Click Generate.
- A ZIP file (account.zip) will be downloaded.

Step 2: Set Up Project

- Extract the ZIP file.

Step 3: Build the Project

- Open Command Prompt.
- Navigate to the account folder:
cd C:\6427402\microservices\loan
- Run:
mvn clean package

Step 4: Import Project in Eclipse

- Open Eclipse.
- Go to: File > Import > Maven > Existing Maven Projects
C:\6427402\microservices\loan

Step 5: Change Port

1. In the loan project, go to src/main/resources/application.properties.
2. Add:

```
server.port=8081
```

Step 6: Create the Controller

```
package com.cognizant.loan;
```

```
import org.springframework.web.bind.annotation.*;
```

```
@RestController
```

```
@RequestMapping("/loans")
```

```
public class LoanController {
```

```
    @GetMapping("/{number}")
```

```
    public Loan getLoan(@PathVariable String number) {
```

```
        return new Loan(number, "car", 400000, 3258, 18);
```

```
    }
```

```
    static class Loan {
```

```
        private String number;
```

```
        private String type;
```

```
        private double loan;
```

```
        private int emi;
```

```
        private int tenure;
```

```
        public Loan(String number, String type, double loan, int emi, int tenure) {
```

```
            this.number = number;
```

```
            this.type = type;
```

```
            this.loan = loan;
```

```
            this.emi = emi;
```

```
        this.tenure = tenure;
    }

    public String getNumber() { return number; }
    public String getType() { return type; }
    public double getLoan() { return loan; }
    public int getEmi() { return emi; }
    public int getTenure() { return tenure; }
}
}
```

Step 7: Run and Test

1. Run LoanApplication.java.
2. Visit:

<http://localhost:8081/loans/H00987987972342>

Step 8:out put

