

Spring REST - Path Variables



Path Variables

Path Variables

- Retrieve a single student by id

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GET

/api/students/{**studentId**}

Retrieve a single student

Path Variables

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Retrieve a single student

Known as a
"path variable"

Path Variables

- Retrieve a single student by id

GET

/api/students/{**studentId**}

Retrieve a single student

/api/students/0

/api/students/1

/api/students/2



Known as a
"path variable"

Spring REST Service

Spring REST Service

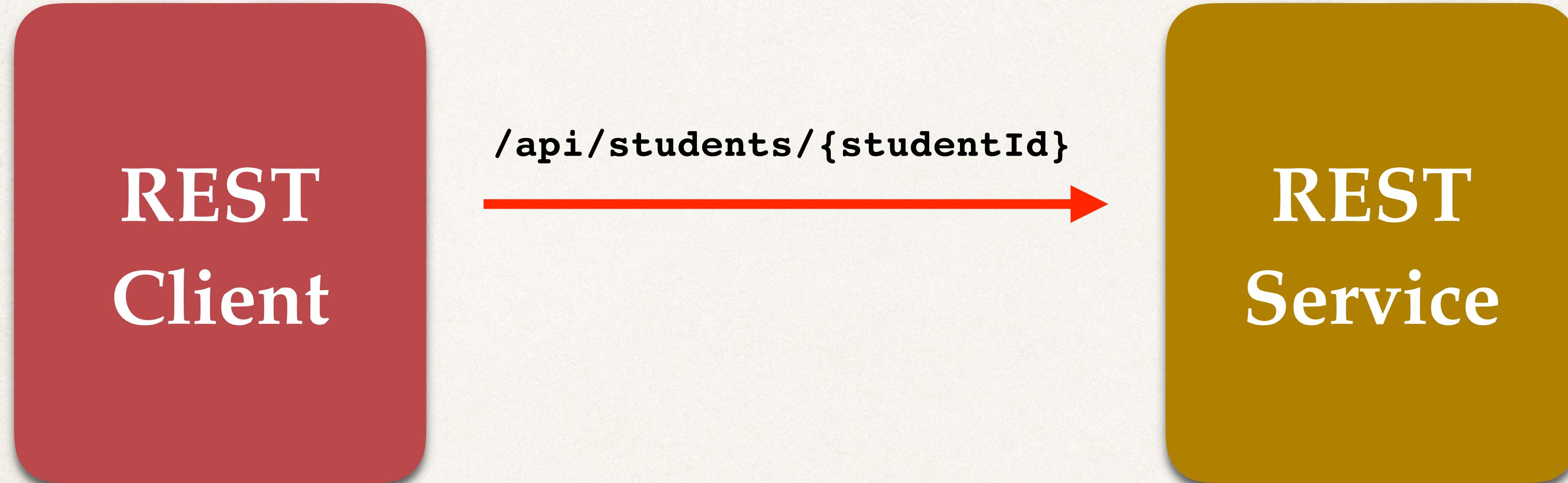
REST
Client

Spring REST Service

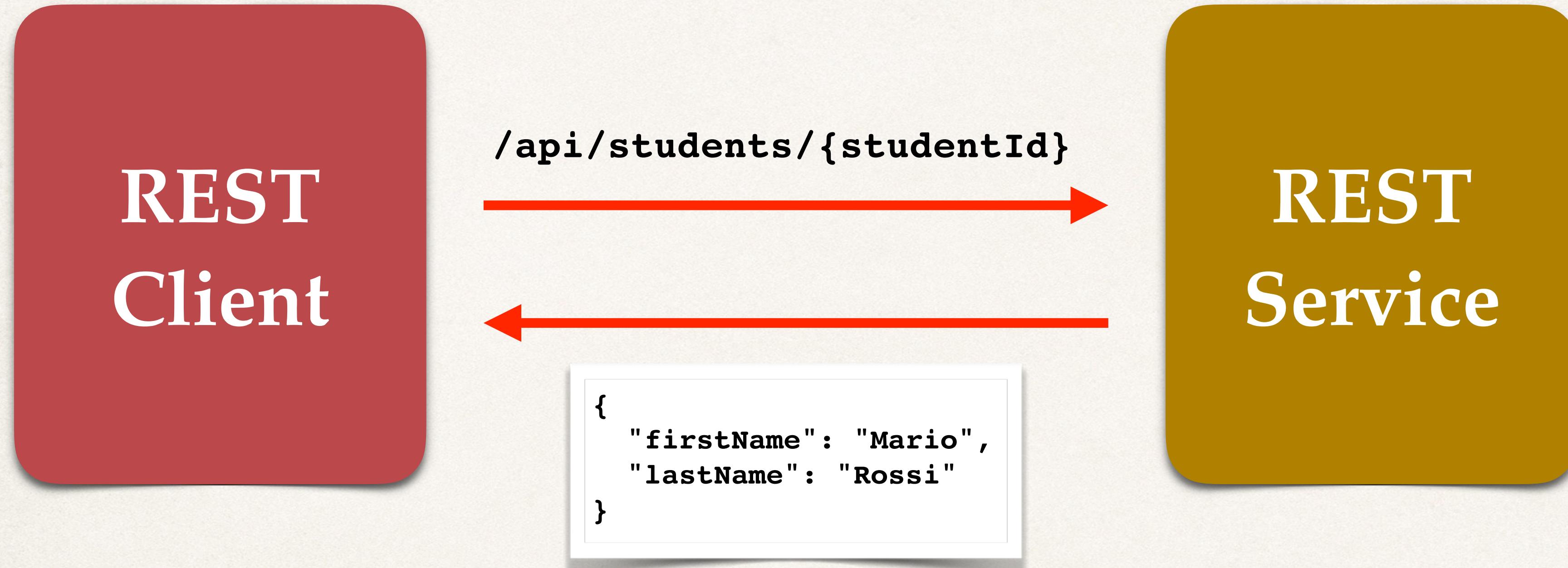
REST
Client

REST
Service

Spring REST Service



Spring REST Service

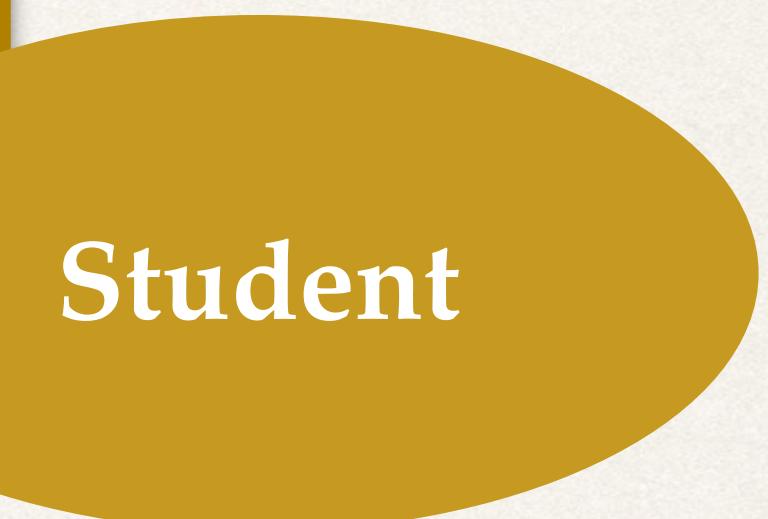
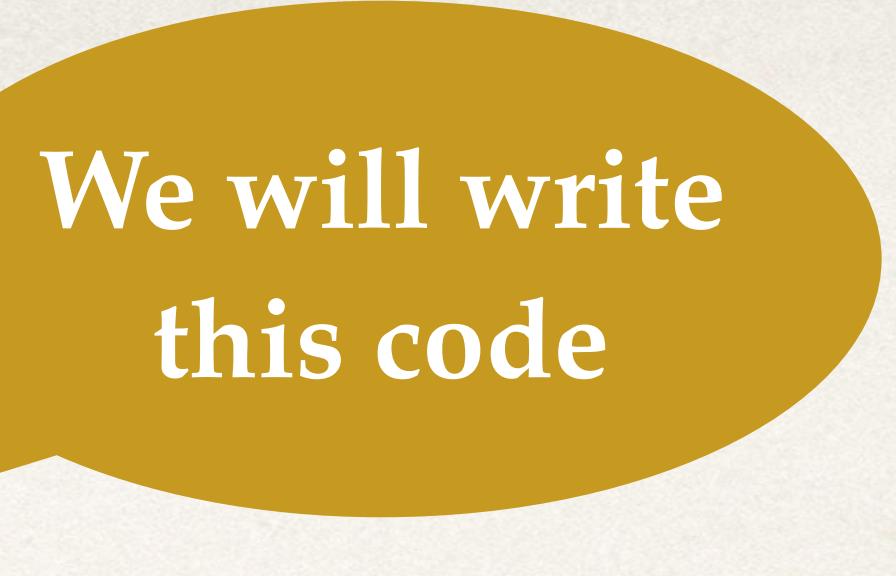


Spring REST Service



We will write
this code

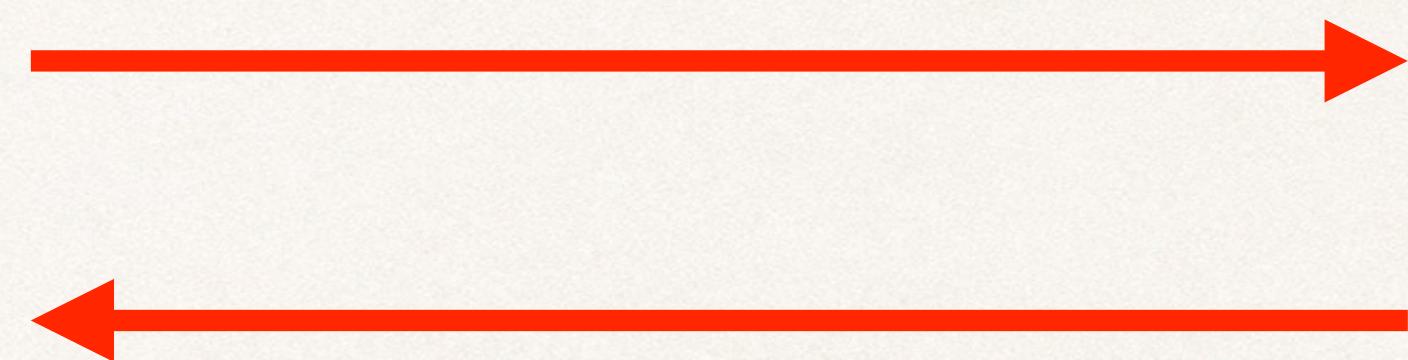
Spring REST Service



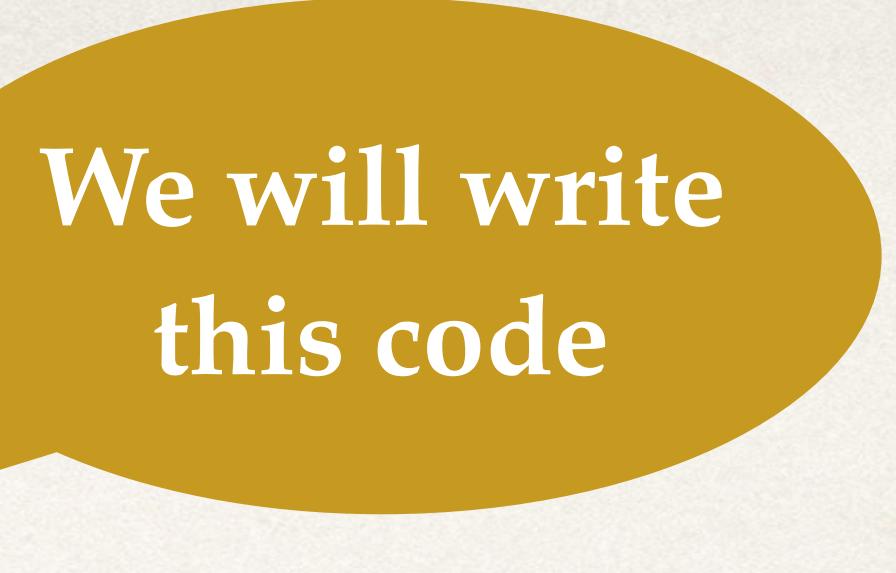
Spring REST Service



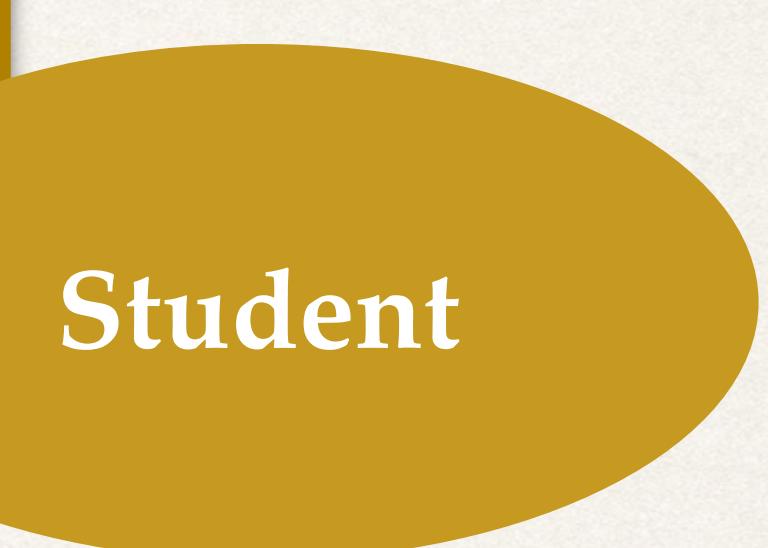
/api/students/{studentId}



```
{  
    "firstName": "Mario",  
    "lastName": "Rossi"  
}
```



REST
Service



Jackson will
convert to
JSON

Behind the scenes

REST
Client

We will write
this code

REST
Service

Behind the scenes

REST
Client

`/api/students/{studentId}`



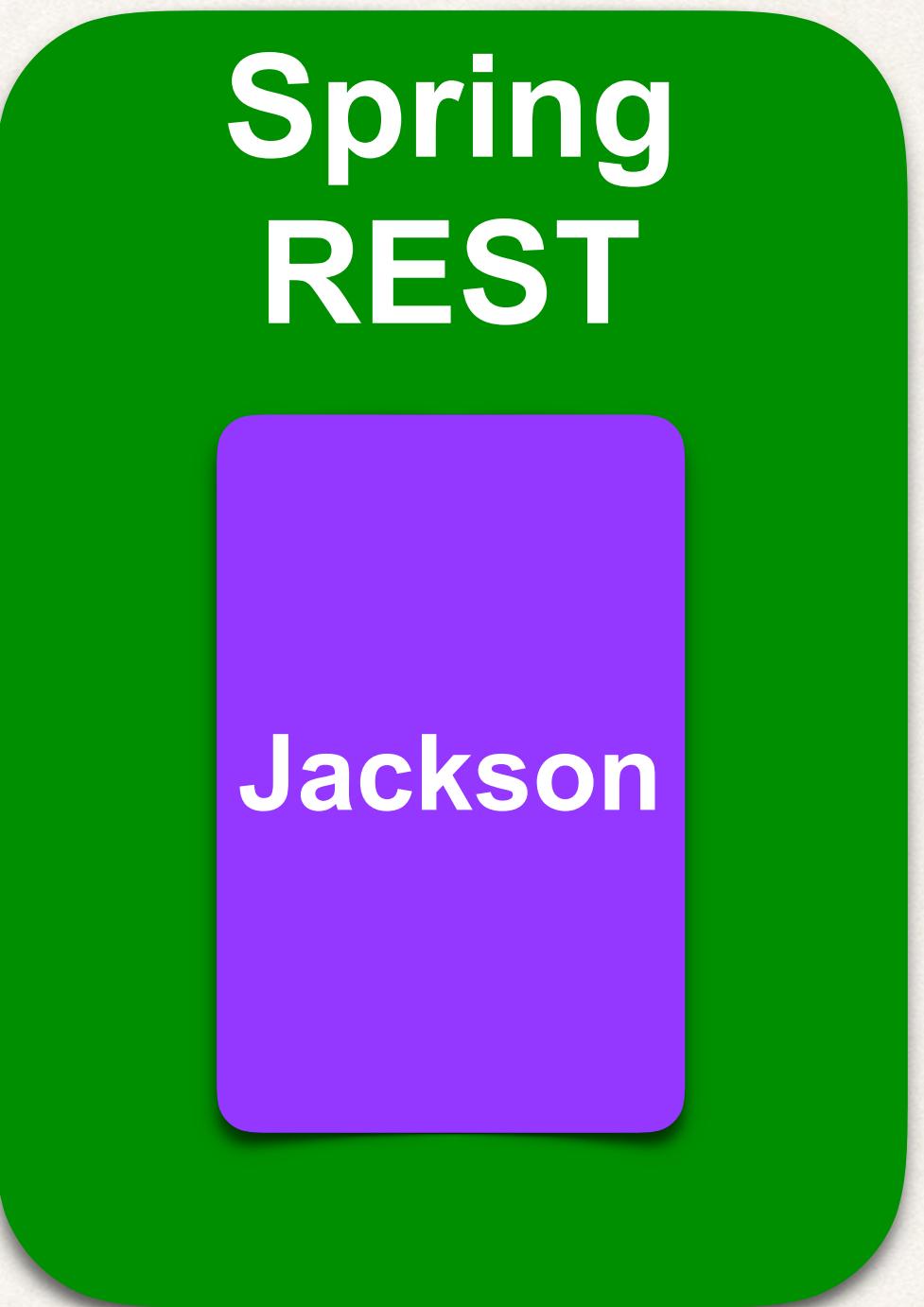
REST
Service

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Behind the scenes



`/api/students/{studentId}`

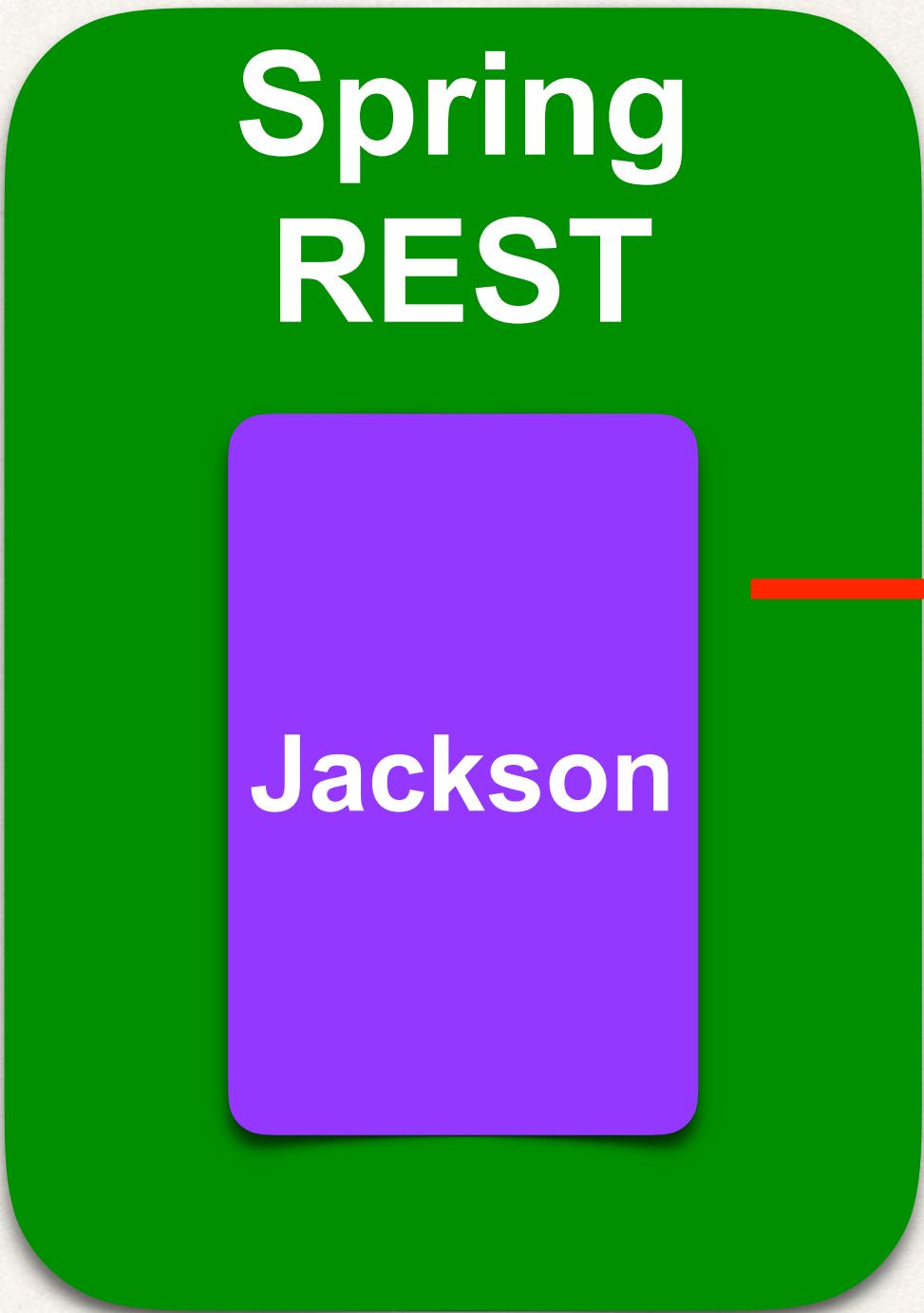


We will write
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Behind the scenes



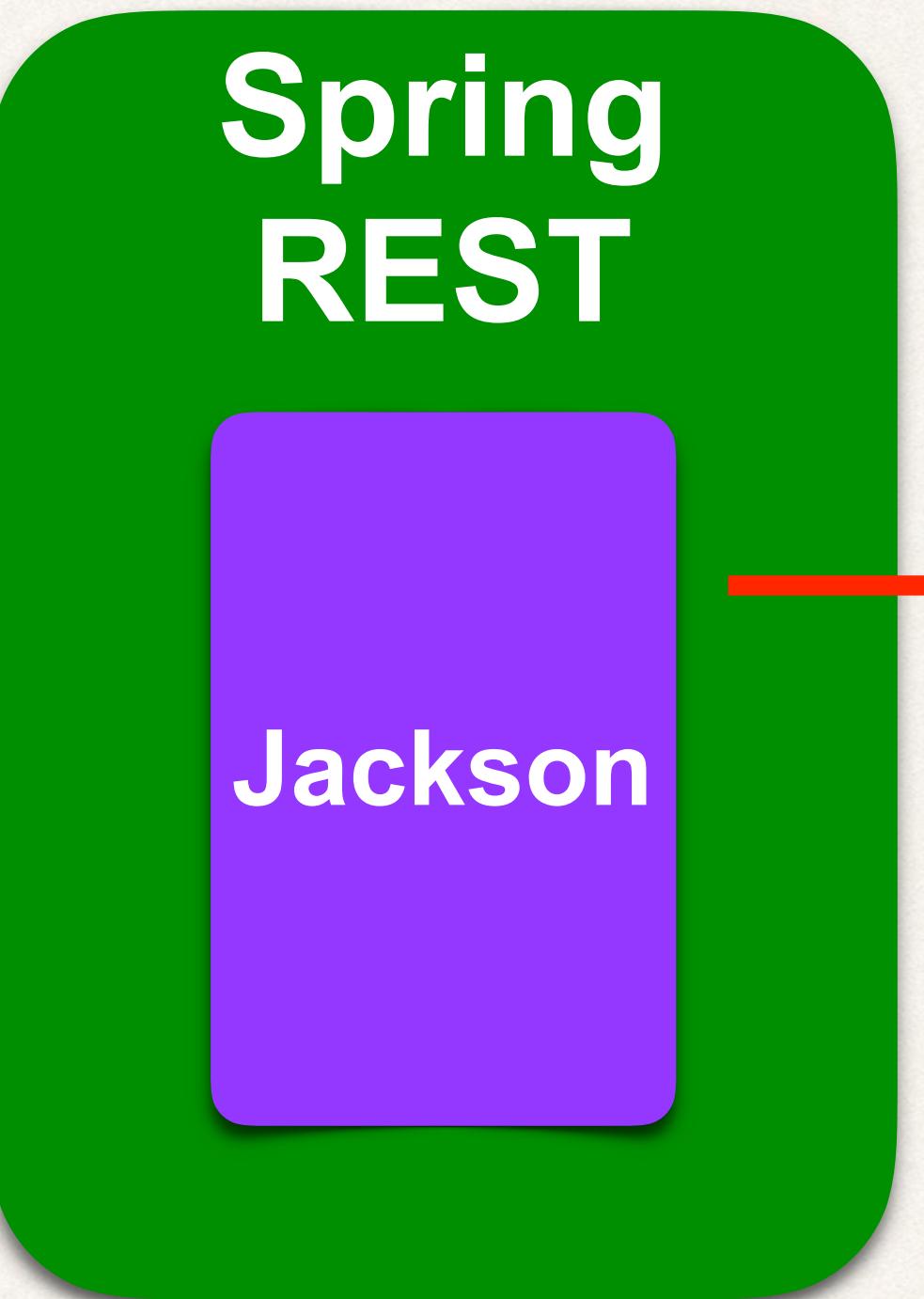
`/api/students/{studentId}`



Behind the scenes



`/api/students/{studentId}`



REST
Service

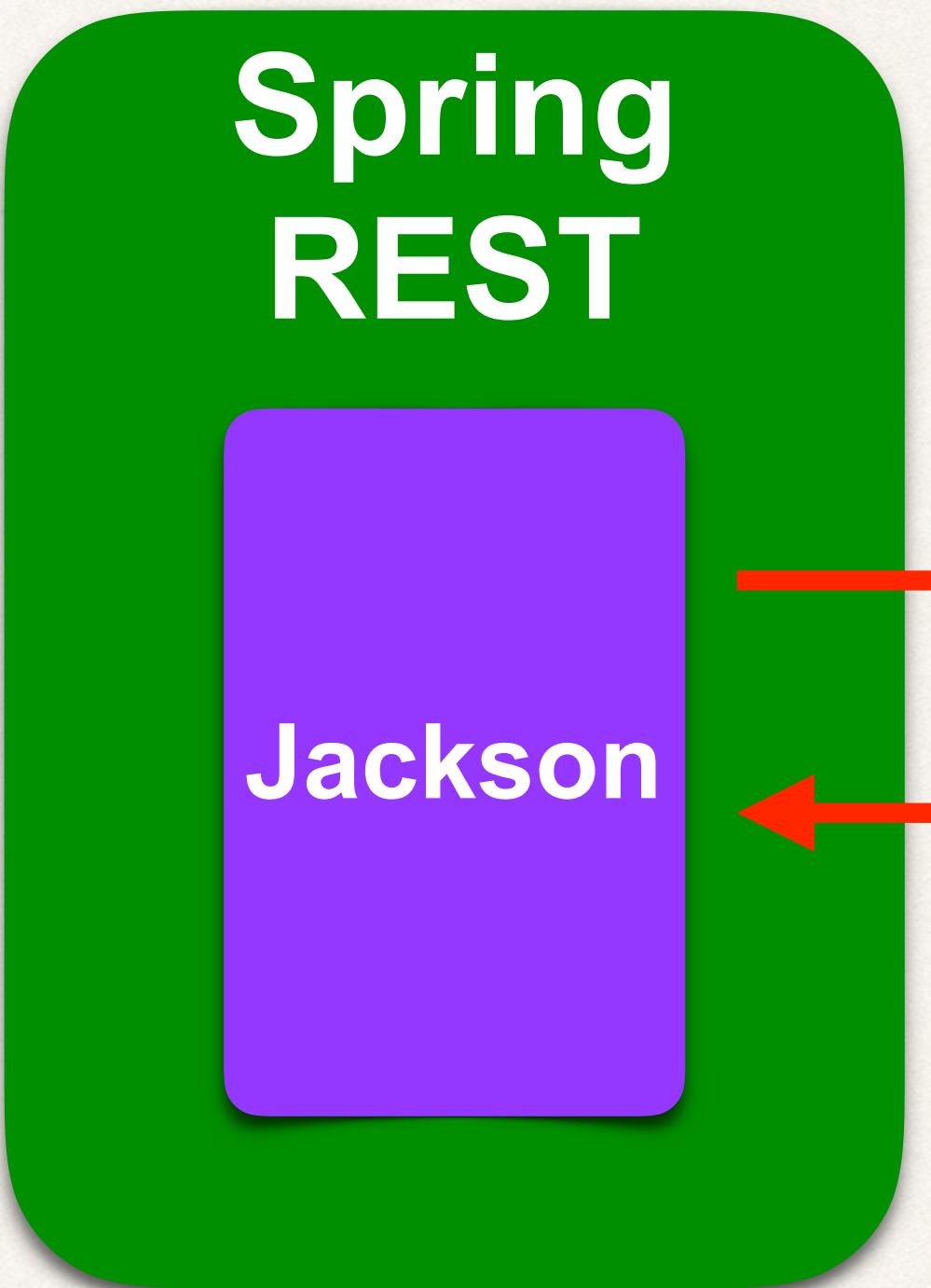
We will return
Student

We will write
this code

Behind the scenes



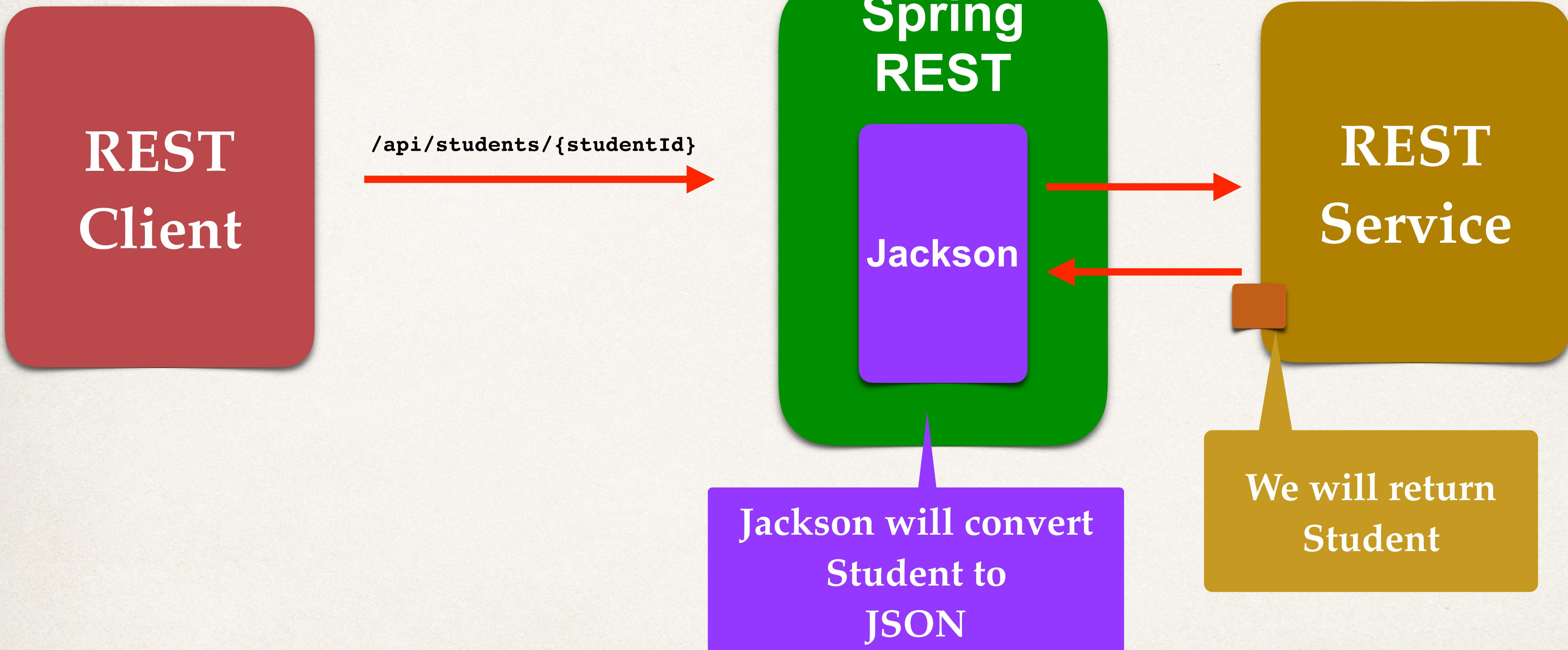
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We will write
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Behind the scenes



Behind the scenes

REST
Client

/api/students/{studentId}



```
{  
    "firstName": "Mario",  
    "lastName": "Rossi"  
}
```



Spring
REST

Jackson

Jackson will convert
Student to
JSON

REST
Service

We will write
this code

We will return
Student

Development Process

Step-By-Step

Development Process

Step-By-Step

1. Add request mapping to Spring REST Service

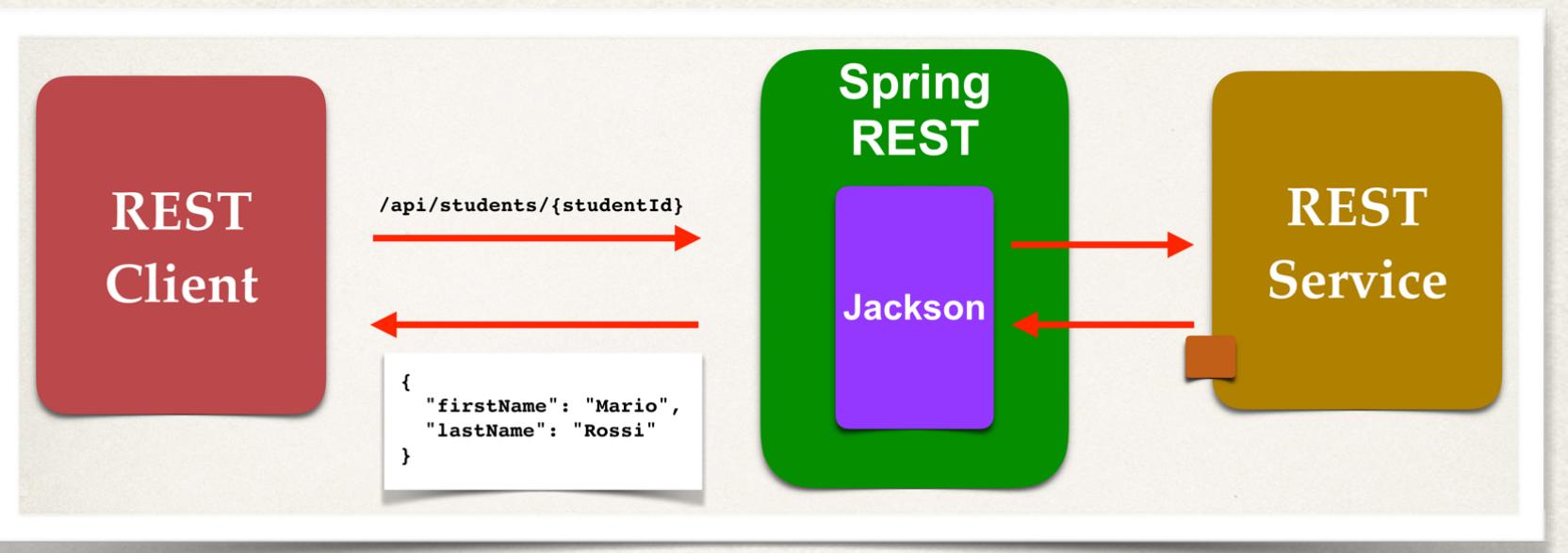
Development Process

Step-By-Step

1. Add request mapping to Spring REST Service

- Bind path variable to method parameter using `@PathVariable`

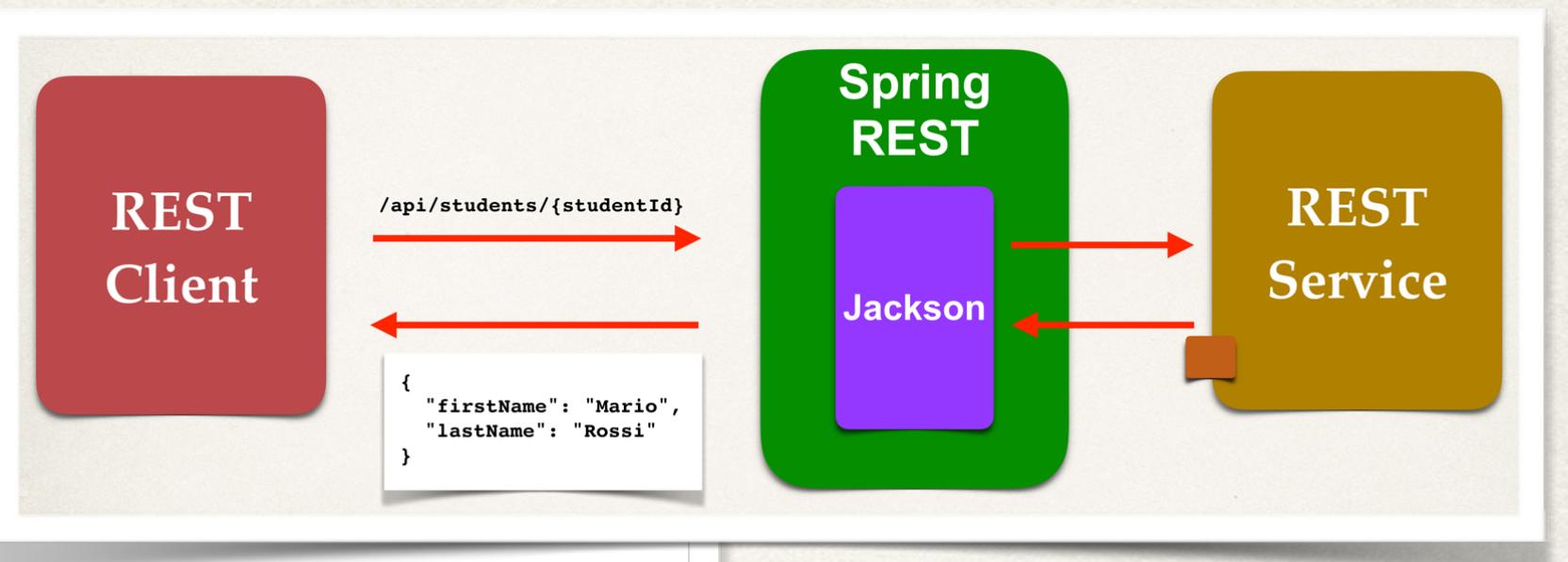
Step 1: Add Request Mapping



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File: StudentRestController.java

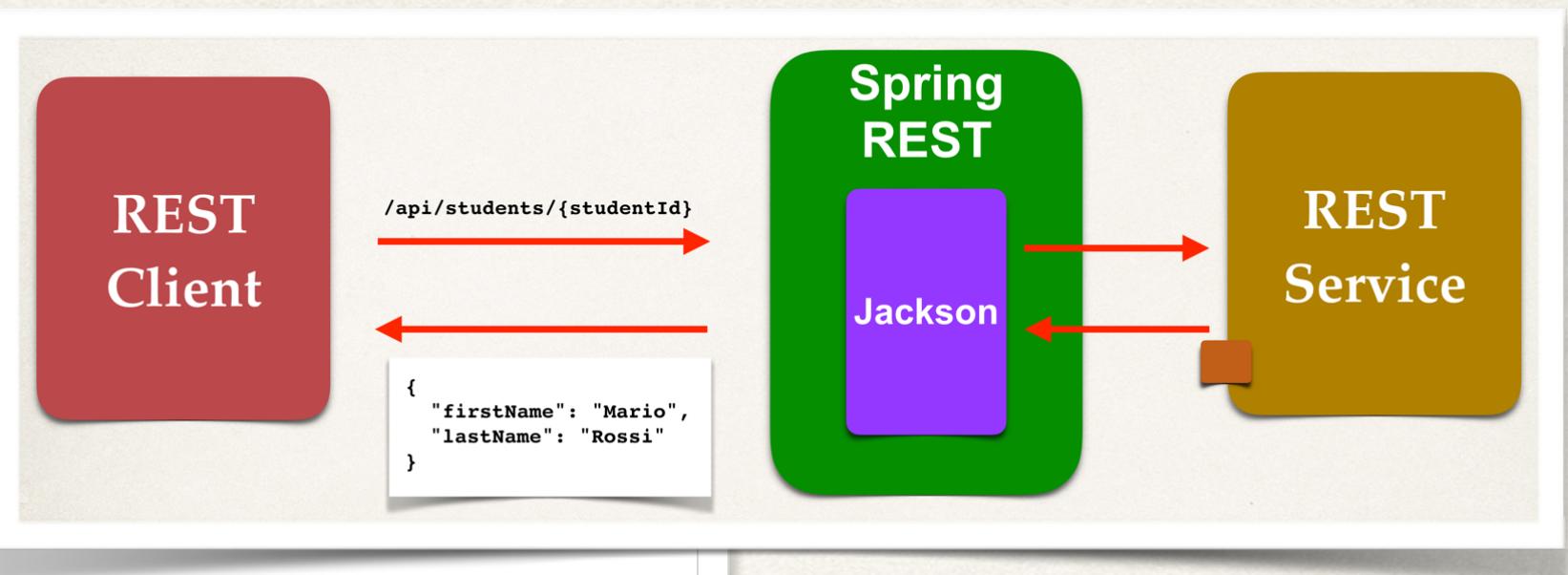
```
@RestController  
@RequestMapping("/api")  
public class StudentRestController {
```



Step 1: Add Request Mapping

File: StudentRestController.java

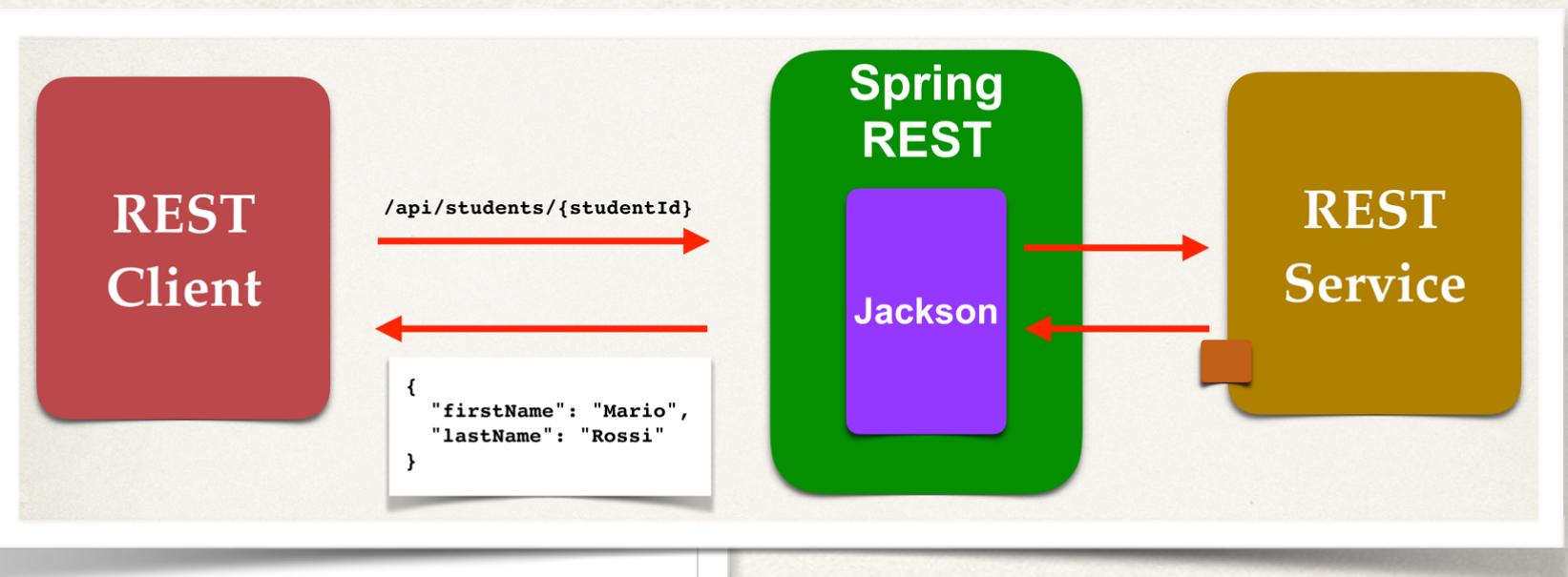
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@RestController  
@RequestMapping("/api")  
public class StudentRestController {  
  
    // define endpoint for "/students/{studentId}" - return student at index
```



Step 1: Add Request Mapping

File: StudentRestController.java

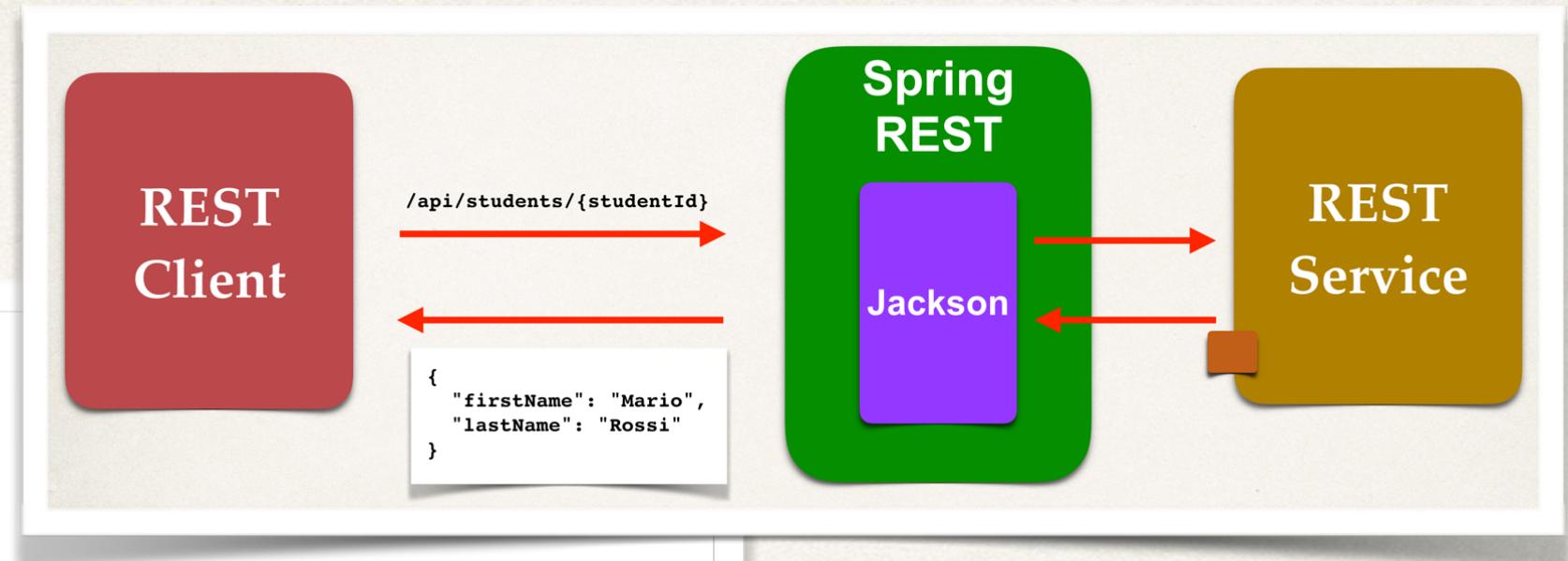
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@RestController  
@RequestMapping("/api")  
public class StudentRestController {  
  
    // define endpoint for "/students/{studentId}" - return student at index  
  
    @GetMapping("/students/{studentId}")  
    public Student getStudent(@PathVariable int studentId) {
```



Step 1: Add Request Mapping

File: StudentRestController.java

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```



Bind the path variable
(by default, must match)

Step 1: Add Request Mapping

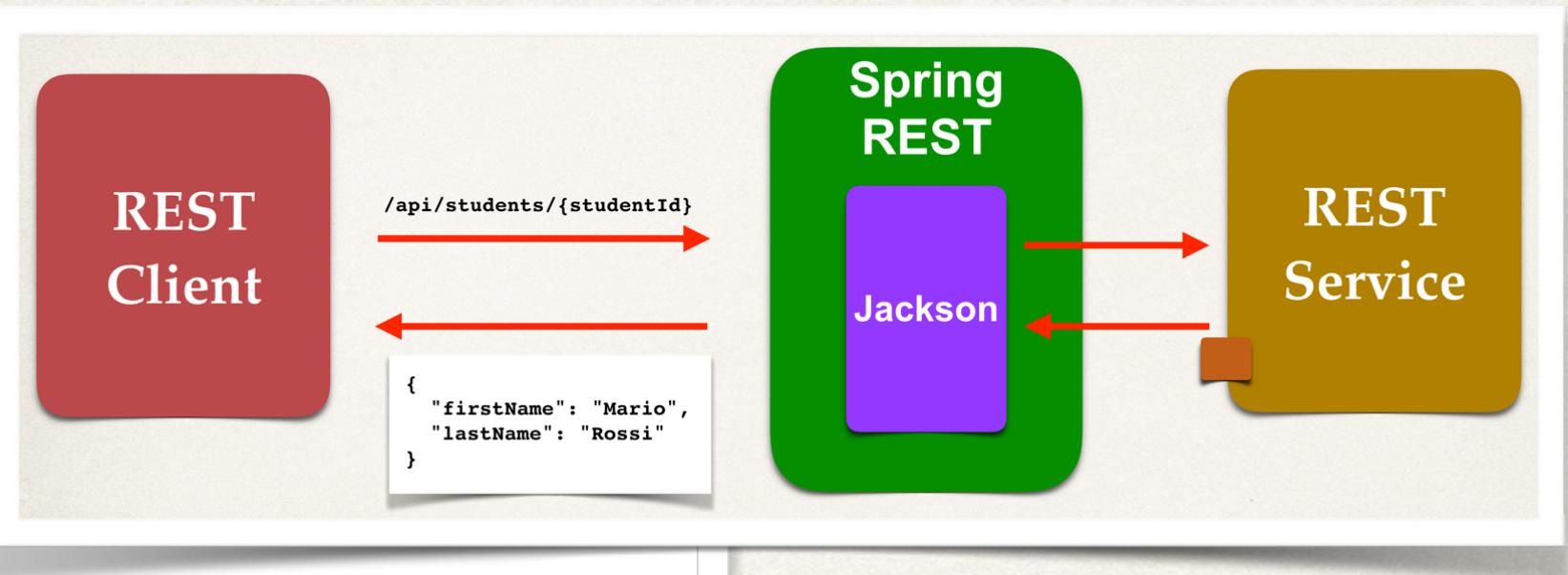
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        List<Student> theStudents = new ArrayList<>();
```



Step 1: Add Request Mapping

File: StudentRestController.java

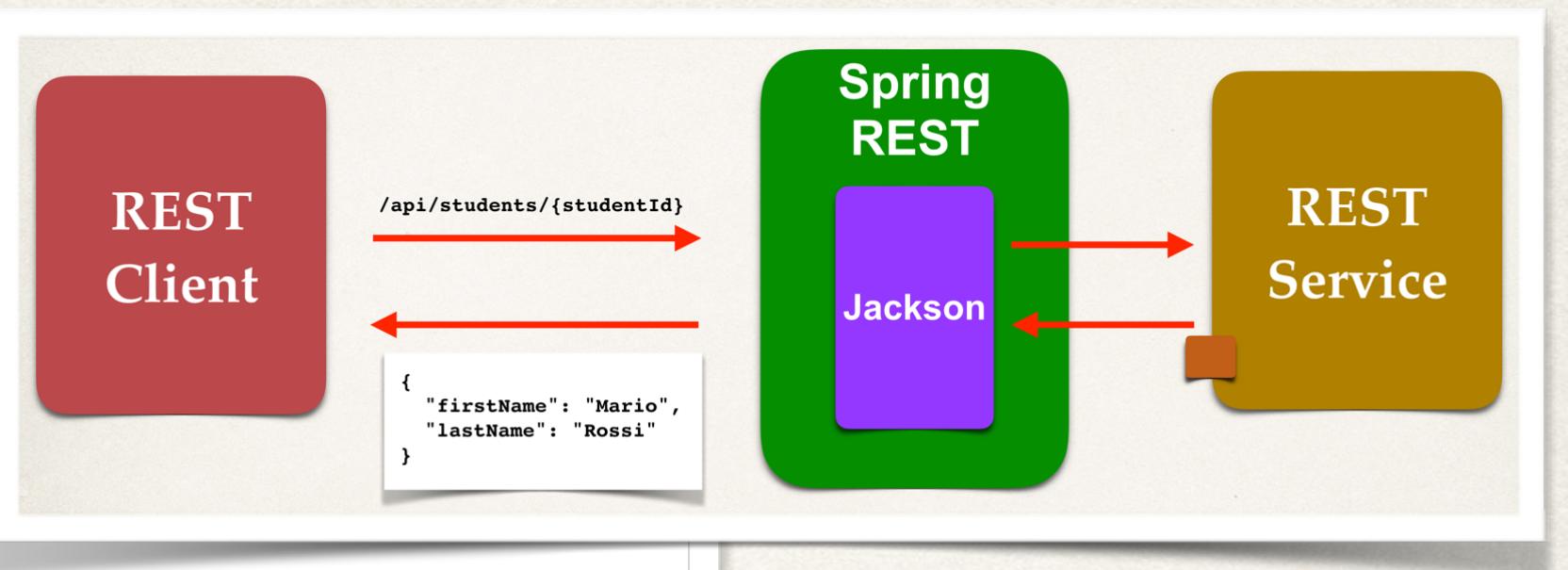
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        List<Student> theStudents = new ArrayList<>();

        // populate theStudents
        ...
    }
}
```



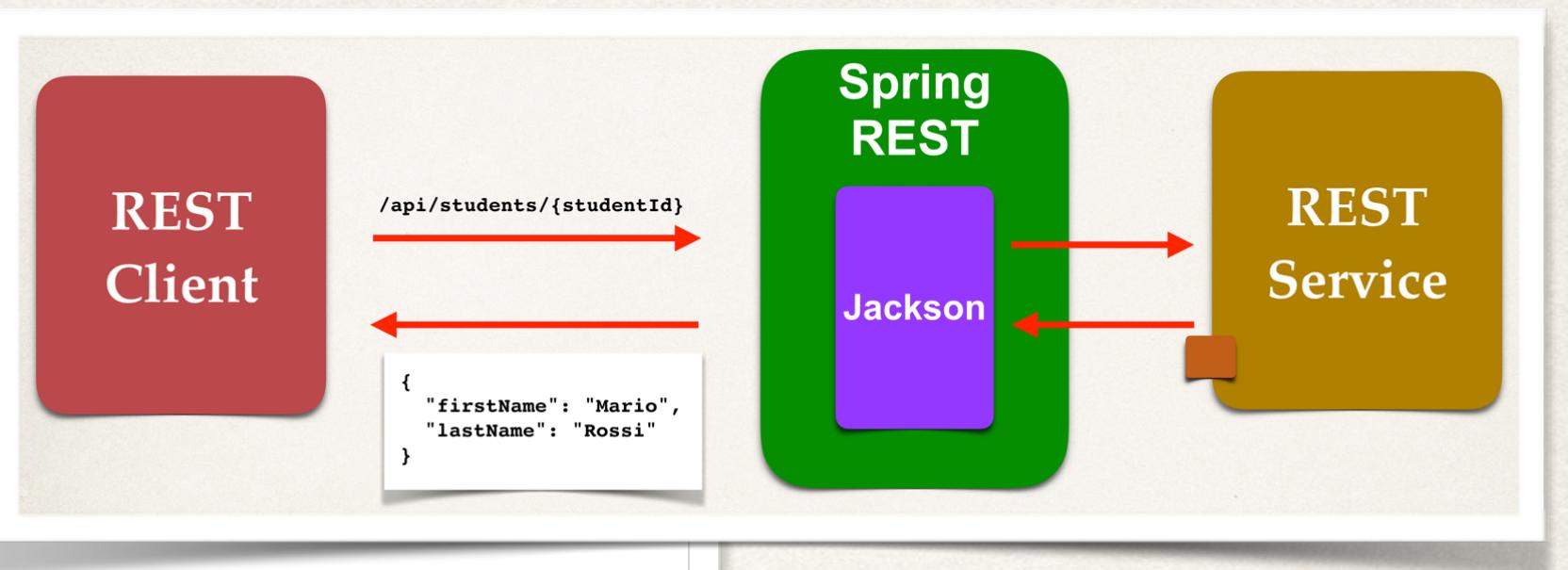
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        List<Student> theStudents = new ArrayList<>();  
  
        // populate theStudents  
        ...  
  
        return theStudents.get(studentId);  
    }  
}
```

Keep it simple,
just index into the list

We'll do fancy DB stuff later



Step 1: Add Request Mapping

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Jackson will convert
Student to JSON

