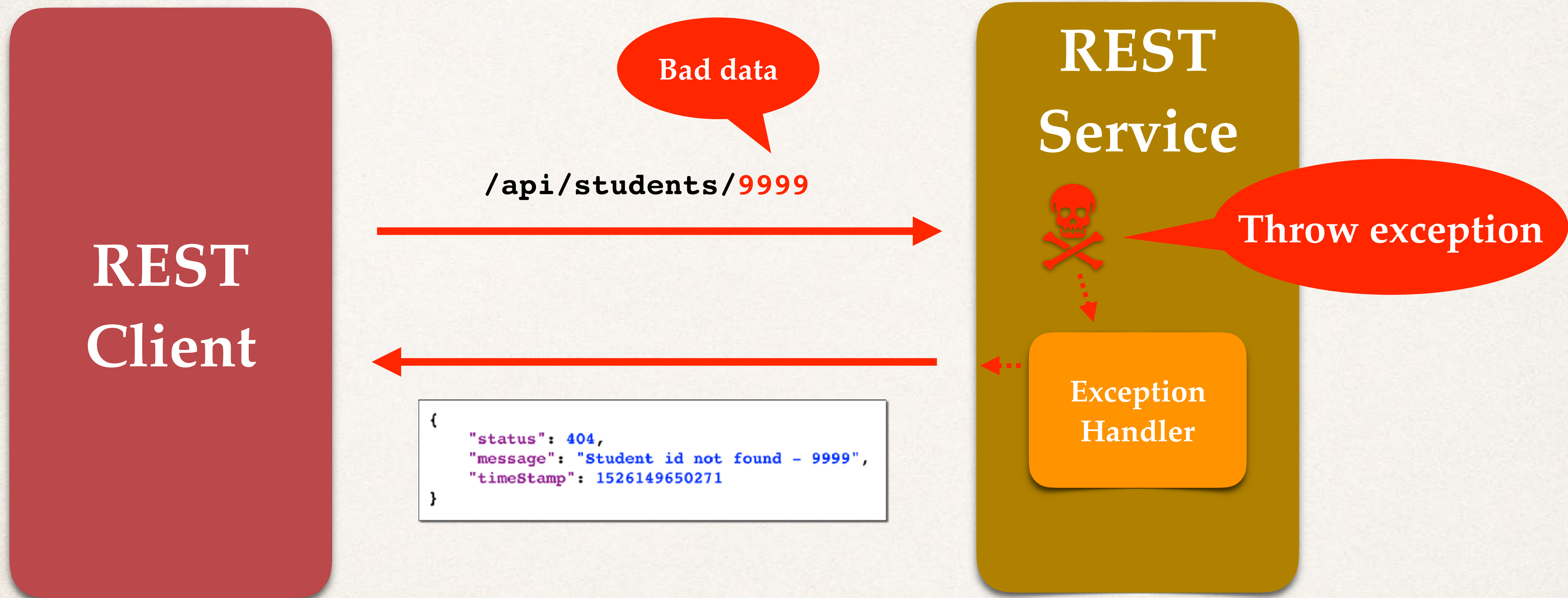


# Spring REST - Global Exception Handling





# Spring REST Exception Handling





# It works, but ...



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- Exception handler code is only for the specific REST controller



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- Can't be reused by other controllers :-(



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**Large projects  
will have  
multiple controllers**



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Large projects  
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# It works, but ...

- Exception handler code is only for the specific REST controller

- Can't be reused by other controllers :-)



Large projects  
will have  
multiple controllers

- We need **global** exception handlers
  - Promotes reuse
  - Centralizes exception handling



# Spring @ControllerAdvice



# Spring @ControllerAdvice

- @ControllerAdvice is similar to an interceptor / filter



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**Real-time  
use of  
AOP**



# Spring REST Exception Handling

**REST  
Client**

**REST  
Service**



# Spring REST Exception Handling





# Spring REST Exception Handling



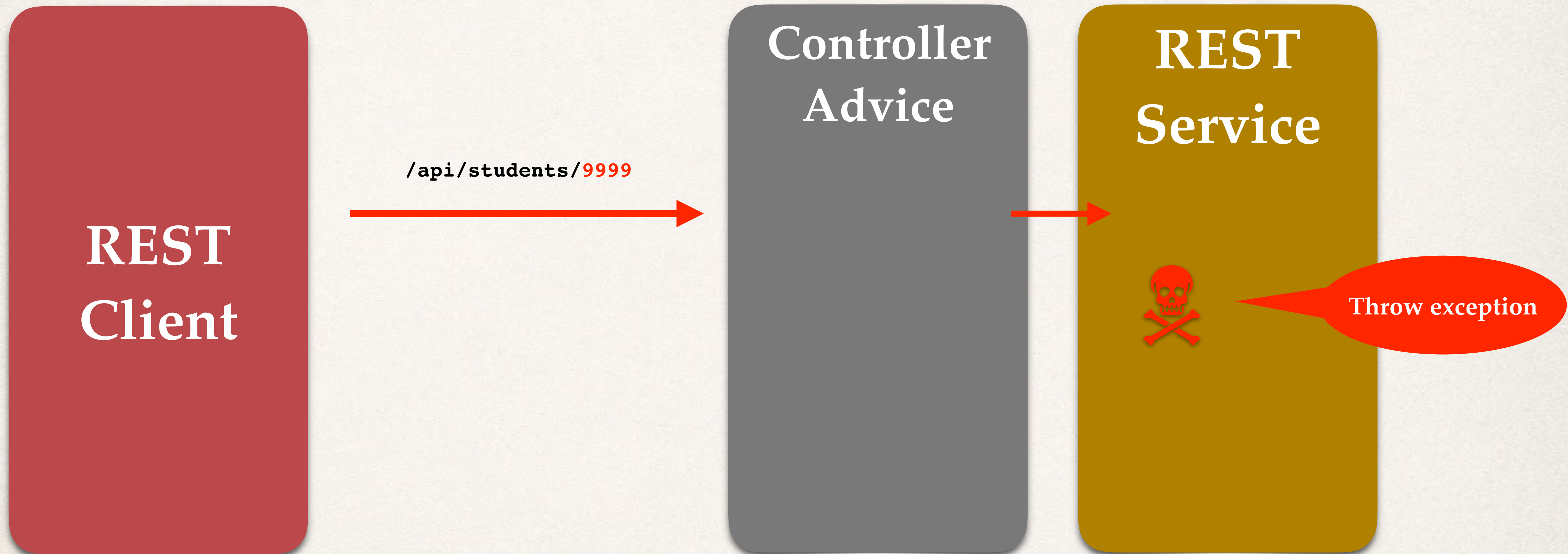


# Spring REST Exception Handling



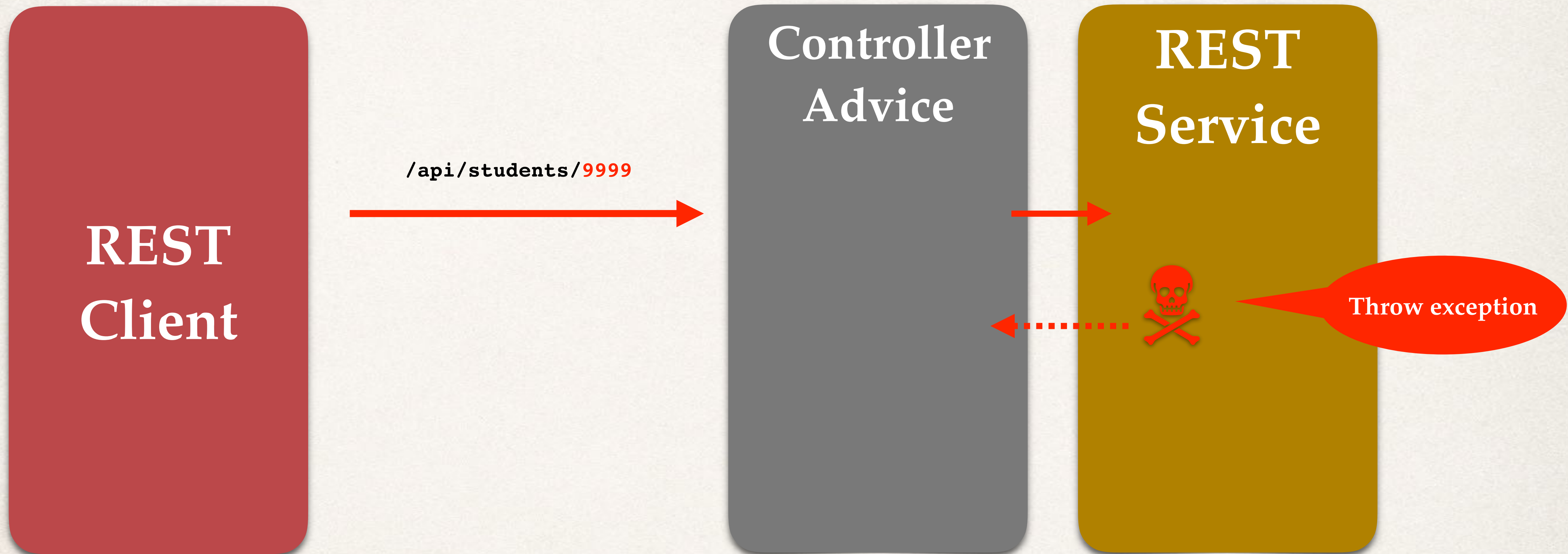


# Spring REST Exception Handling



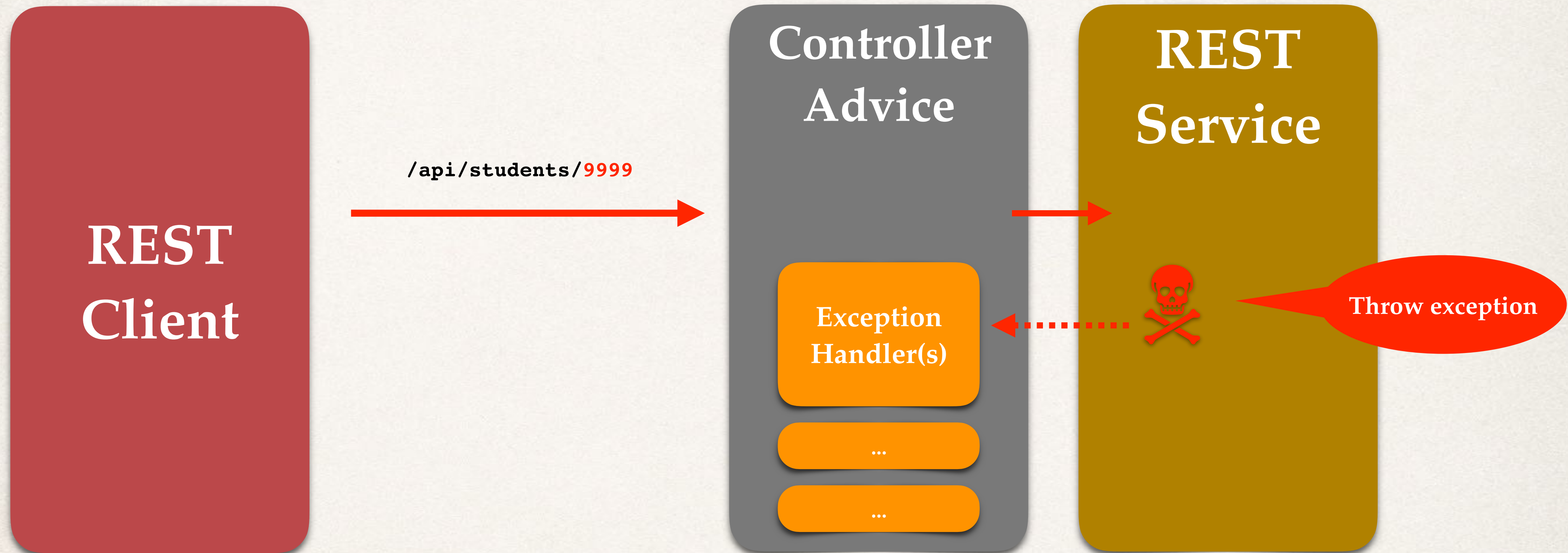


# Spring REST Exception Handling



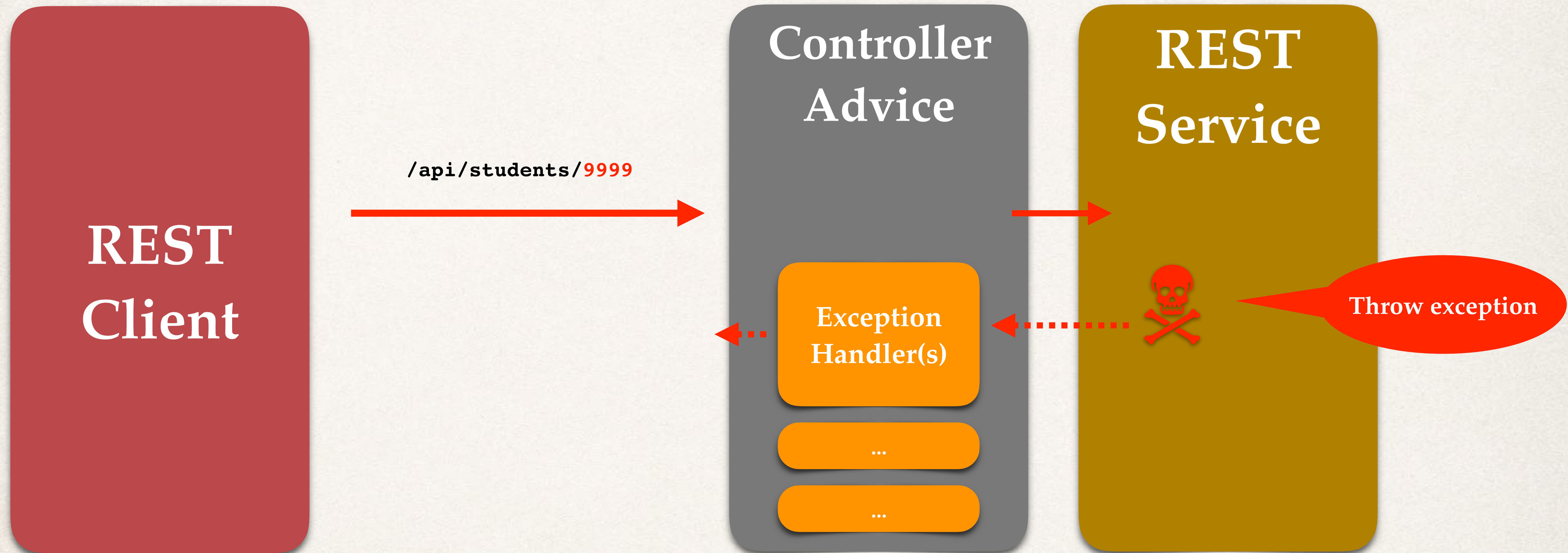


# Spring REST Exception Handling



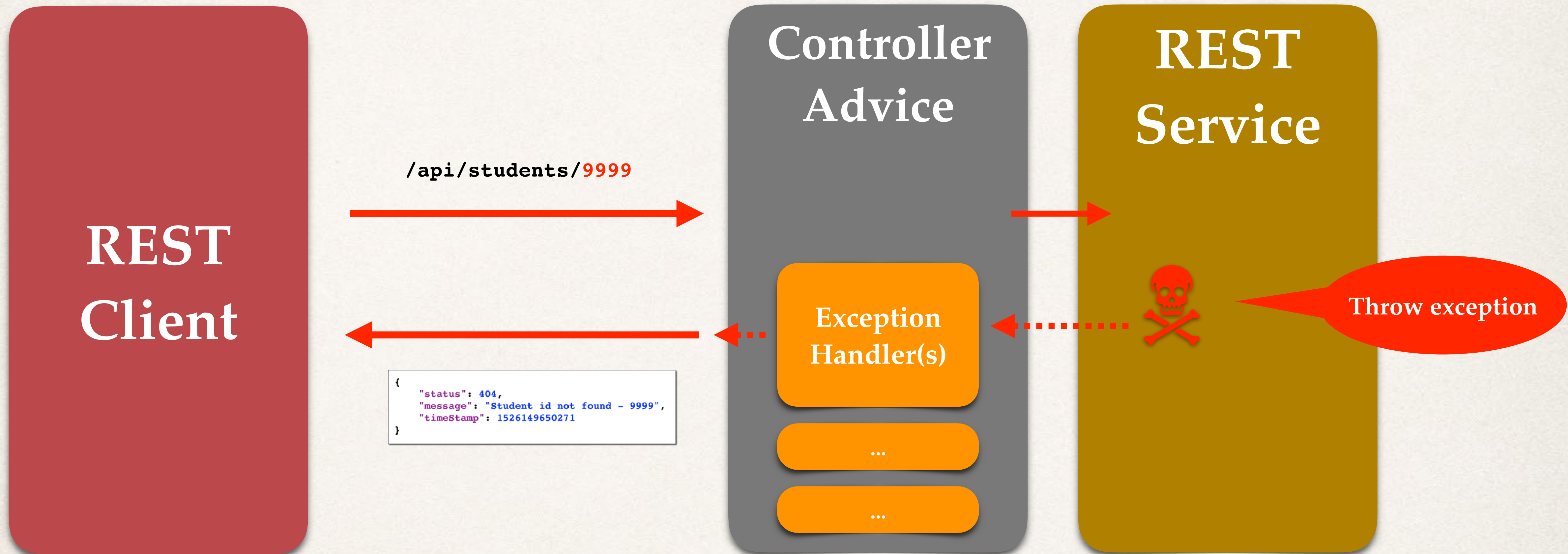


# Spring REST Exception Handling





# Spring REST Exception Handling





# Development Process

**Step-By-Step**



# Development Process

**Step-By-Step**

1. Create new `@ControllerAdvice`



# Development Process

Step-By-Step

1. Create new `@ControllerAdvice`
2. Refactor REST service ... remove exception handling code



# Development Process

Step-By-Step

1. Create new `@ControllerAdvice`
2. Refactor REST service ... remove exception handling code
3. Add exception handling code to `@ControllerAdvice`



# Step 1: Create new @ControllerAdvice

File: StudentRestExceptionHandler.java



# Step 1: Create new @ControllerAdvice

File: StudentRestExceptionHandler.java

```
@ControllerAdvice
public class StudentRestExceptionHandler {

    ...

}
```



# Step 2: Refactor - remove exception handling

File: StudentRestController.java

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

    @ExceptionHandler
    public ResponseEntity<StudentErrorResponse> handleException(StudentNotFoundException exc) {

        StudentErrorResponse error = new StudentErrorResponse();

        error.setStatus(HttpStatus.NOT_FOUND.value());
        error.setMessage(exc.getMessage());
        error.setTimeStamp(System.currentTimeMillis());

        return new ResponseEntity<>(error, HttpStatus.NOT_FOUND);
    }
}
```



# Step 2: Refactor - remove exception handling

File: StudentRestController.java

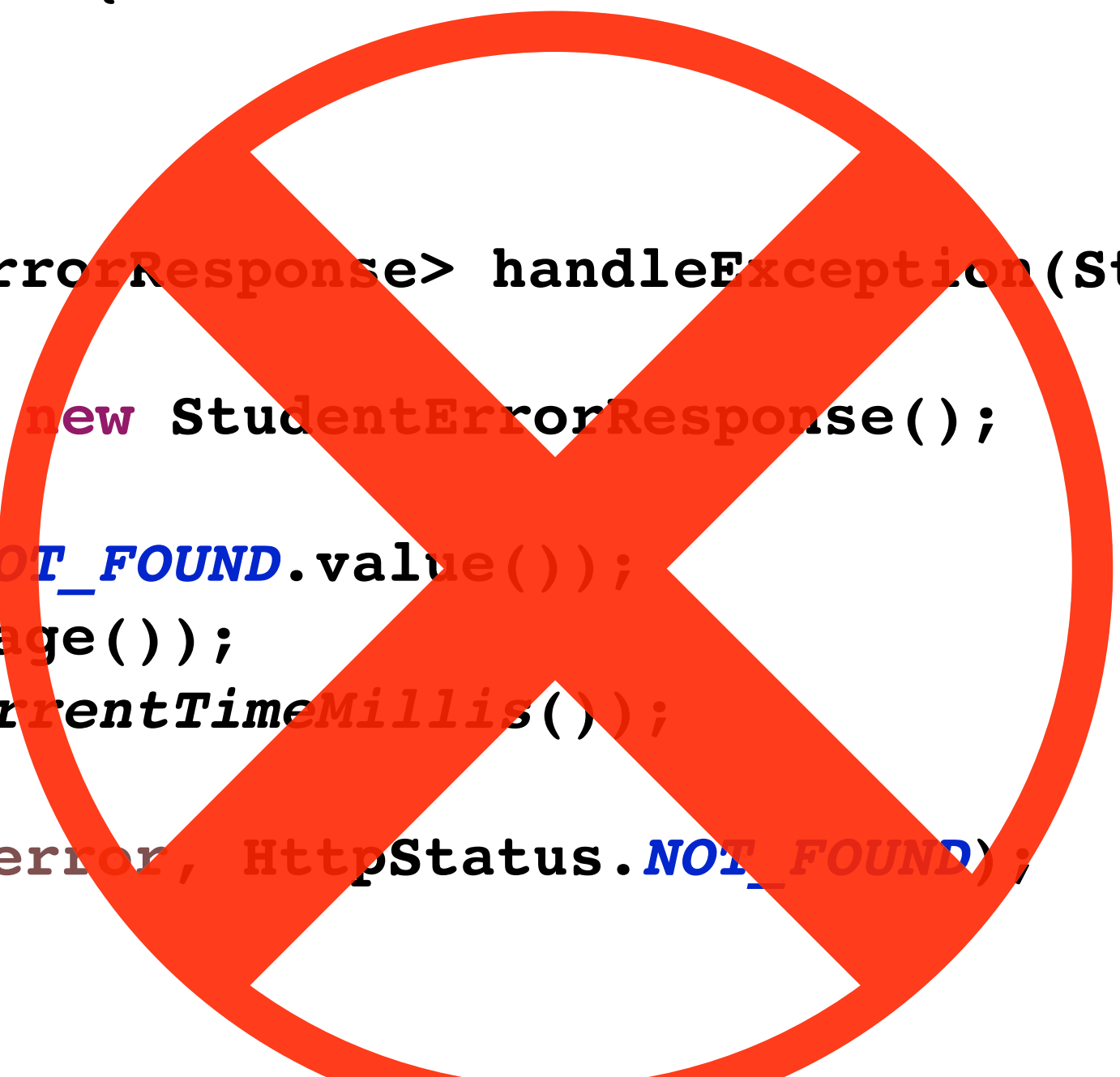
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# Step 2: Refactor - remove exception handling

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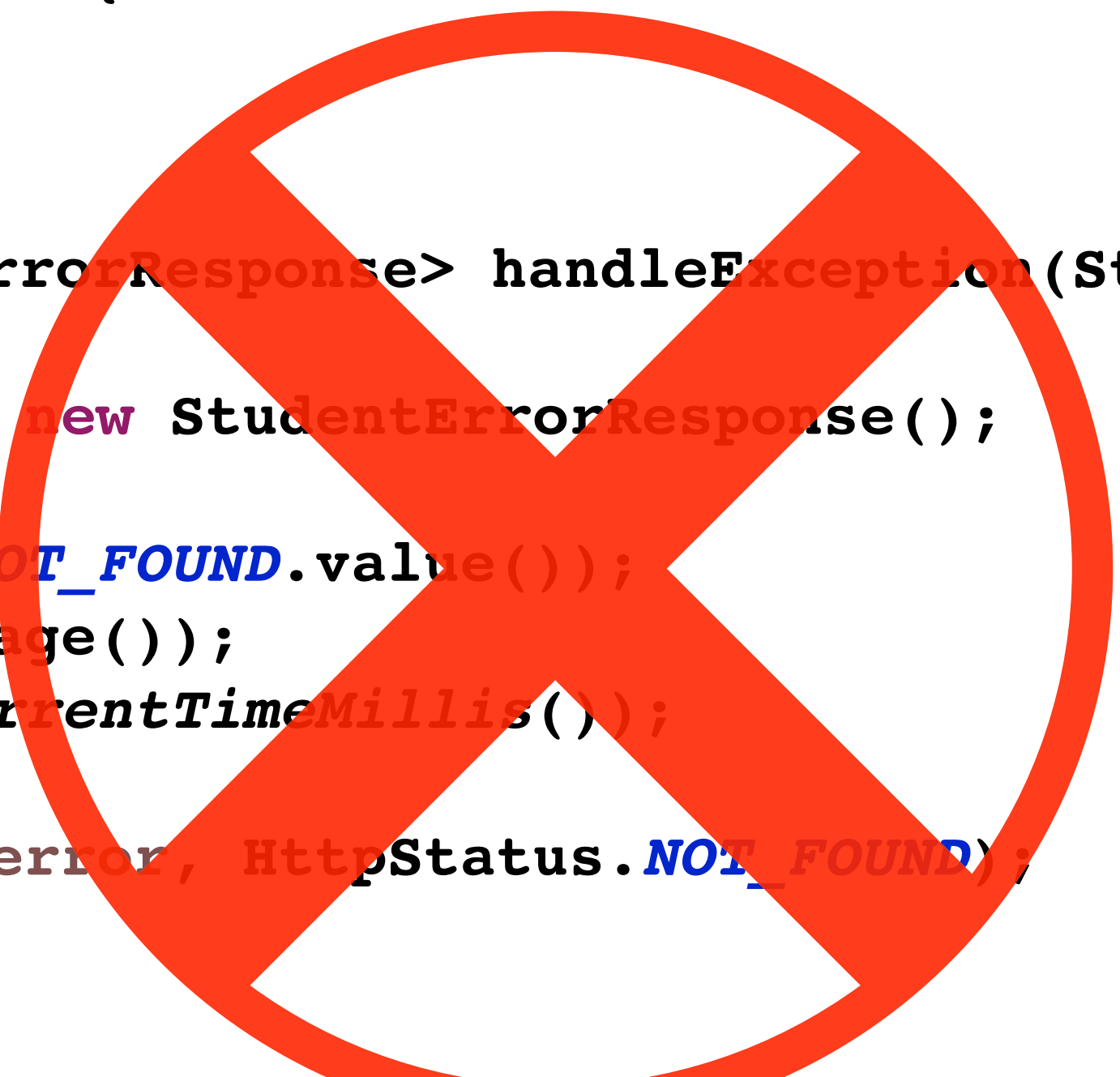
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```



Remove  
this code



# Step 3: Add exception handler to @ControllerAdvice

File: StudentRestExceptionHandler.java

```
@ControllerAdvice
public class StudentRestExceptionHandler {

}
}
```



# Step 3: Add exception handler to @ControllerAdvice

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```
@ControllerAdvice
public class StudentRestExceptionHandler {

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}
```



# Step 3: Add exception handler to @ControllerAdvice

File: StudentRestExceptionHandler.java

Same code  
as before

```
@ControllerAdvice
public class StudentRestExceptionHandler {

    @ExceptionHandler
    public ResponseEntity<StudentErrorResponse> handleException(StudentNotFoundException exc) {

        StudentErrorResponse error = new StudentErrorResponse();

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        return new ResponseEntity<>(error, HttpStatus.NOT_FOUND);
    }
}
```



# Spring REST Exception Handling

**REST  
Client**

**REST  
Service**



# Spring REST Exception Handling





# Spring REST Exception Handling



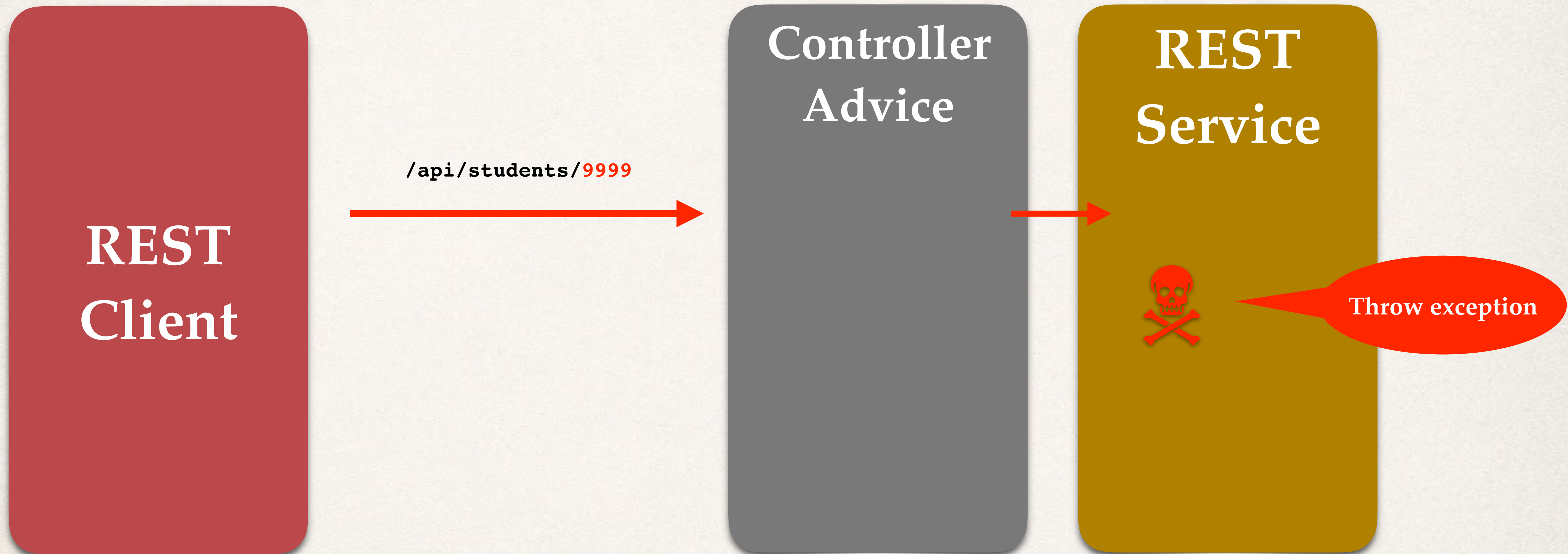


# Spring REST Exception Handling



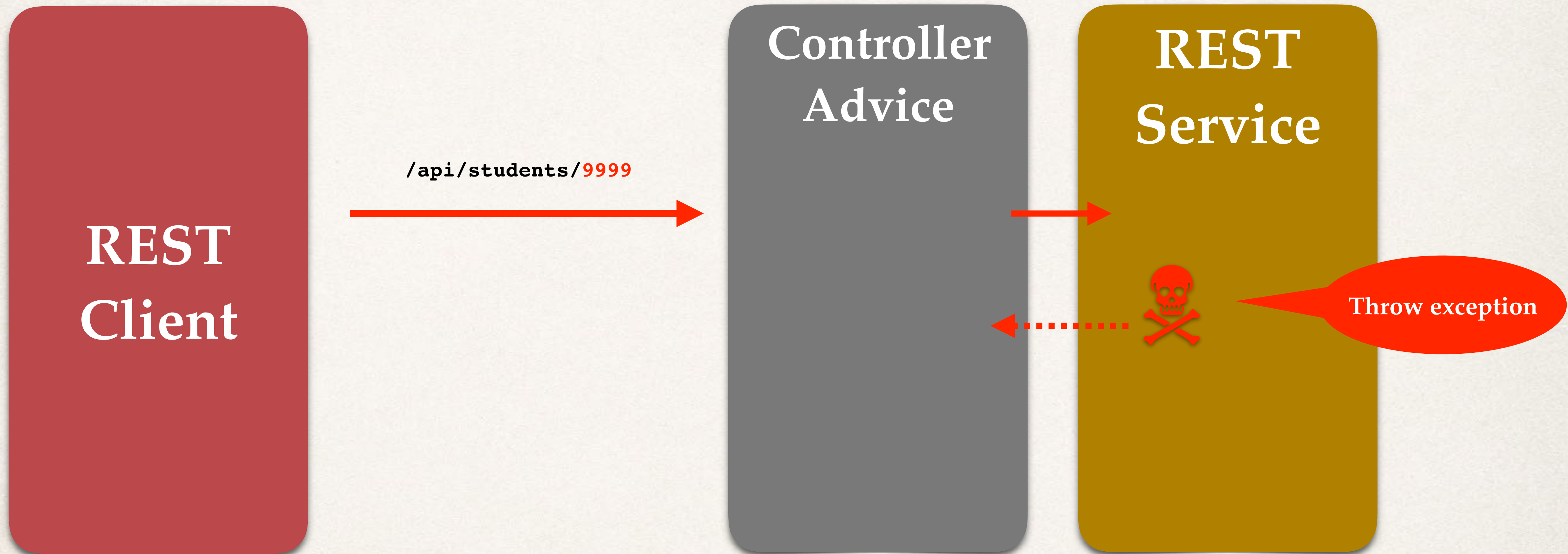


# Spring REST Exception Handling



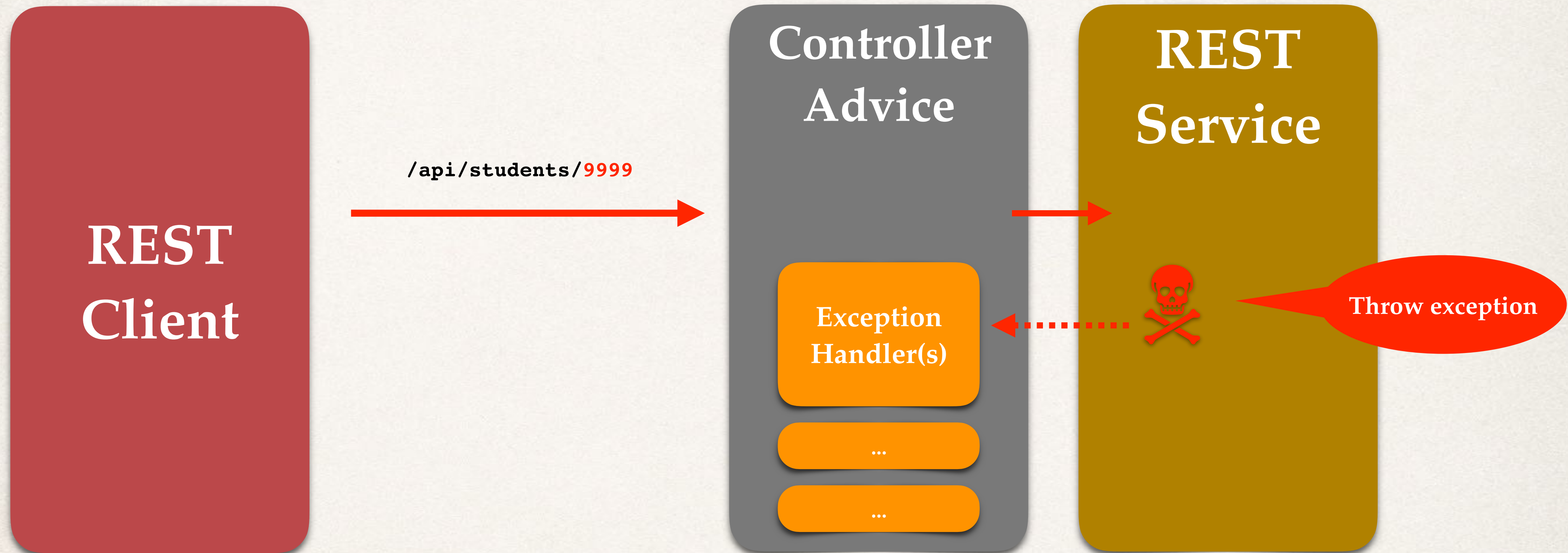


# Spring REST Exception Handling



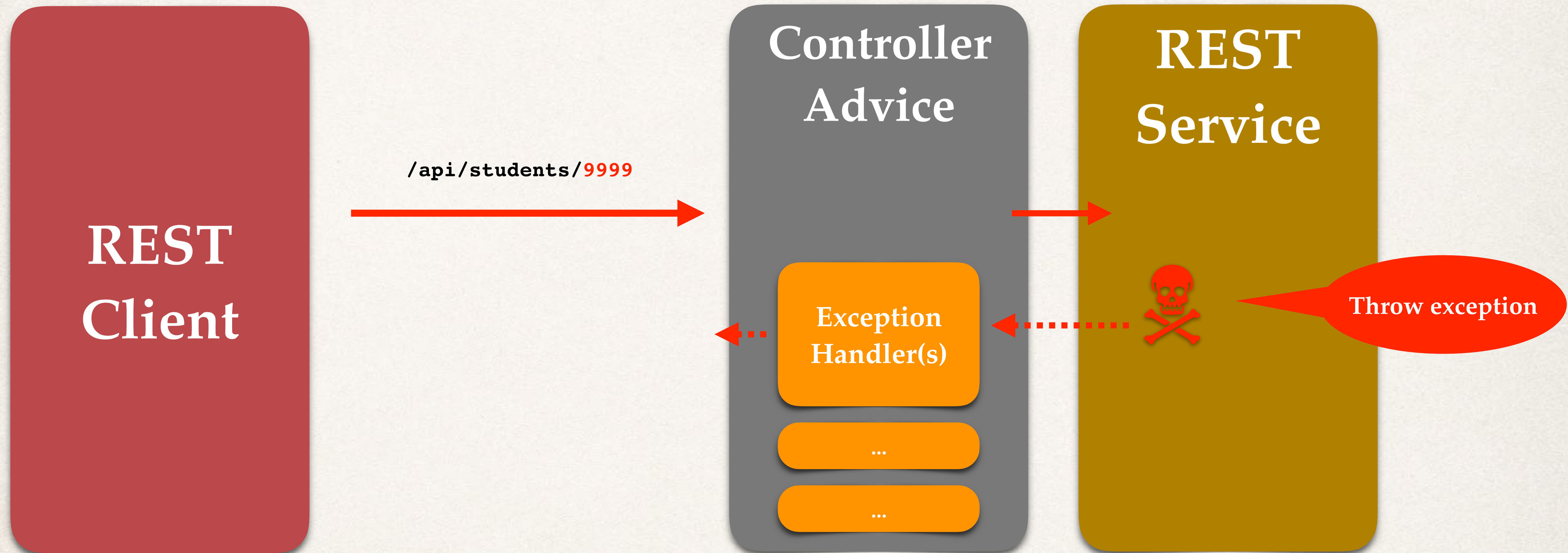


# Spring REST Exception Handling





# Spring REST Exception Handling





# Spring REST Exception Handling

