Error Handling

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Introduction

Problem

- **Why Error Handling?**

Solution

- **Happy Path**
- **Exception Paths**

Demo

- **PUT**
- **POST**
- **Validation**

Problem

Why Error Handling?

Database pollution

Client does not know

Solution

Happy Path

Default Scenario

Exception Paths

Block write actions

Send an error message

PUT

Problem

- PUT (update) adds a new friend

Solution

- Only update an existing friend
- Otherwise send an error message

POST

Problem

- POST adds empty friend

Solution

- Only add a complete friend
- Otherwise send an error message

Error Messages

HTTP Status Codes

Text Messages

JSON Messages

ErrorMessage

HTTP Status

200 OK

304 Not Modified

400 Bad Request
404 Not Found

500 Internal Server Error

Spring

ResponseEntity

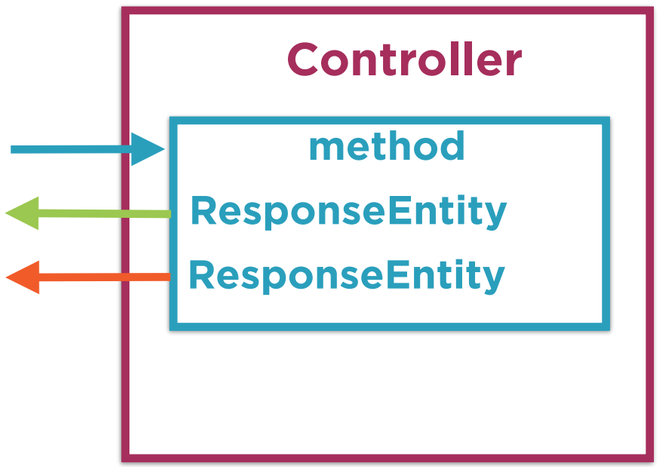
@ResponseStatus

@ExceptionHandler

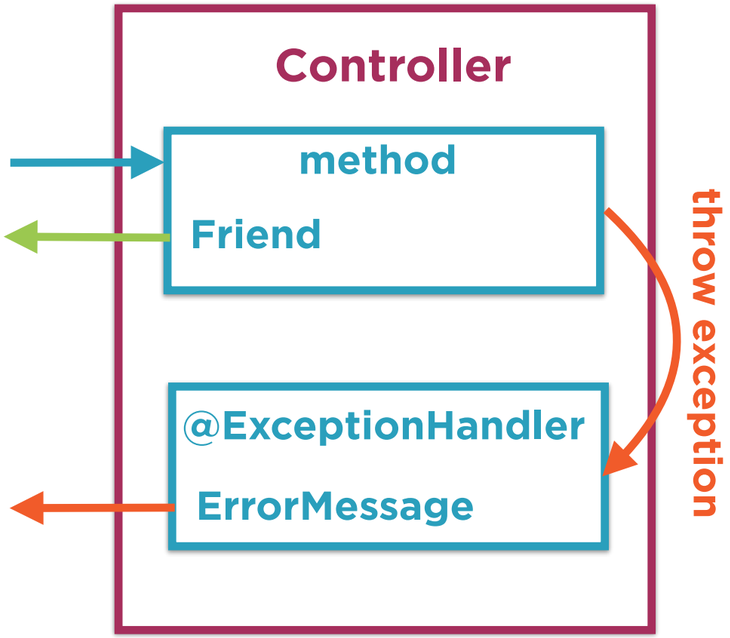
@ControllerAdvice

ErrorMessage

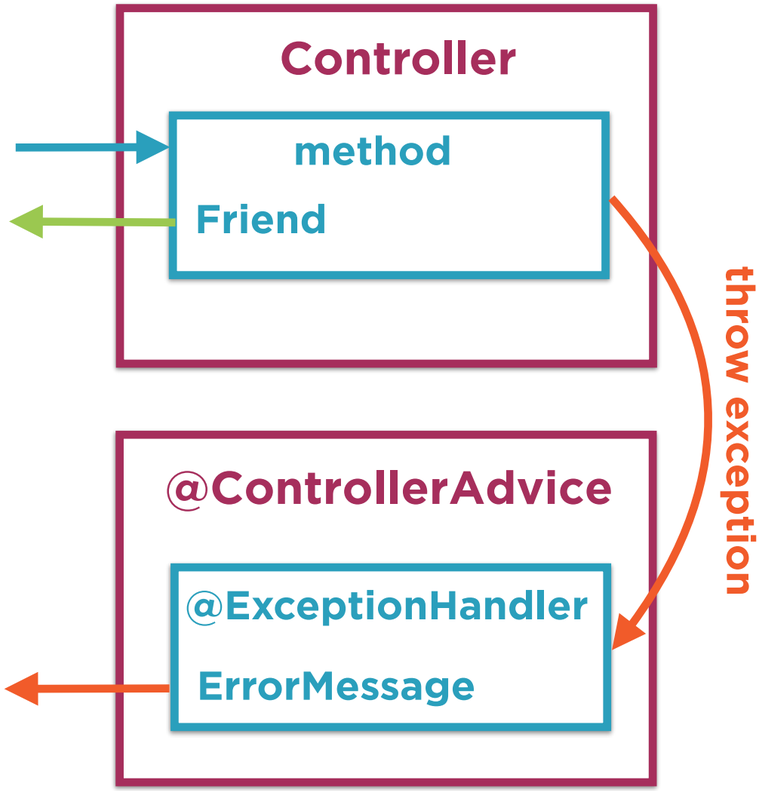
Error Handling



Local



Class



Global

Demo

Add Error Handling to Update Method

- PUT
  - Demo the Problem
  - HTTP Status Codes
  - Using Response Entity

Demo

Add Error Handling to Create Method

- POST
  - Demo the problem
  - @ErrorHandler method
  - ErrorMessage class

Demo

Add @ControllerAdvice

- Move @ErrorHandler method
- ErrorMessage class

Java Validation JSR-380

Validation in Model

Constraints on Properties

Add @Valid to Input

MethodArgumentNotValidException

Validation Constraints

@NotNull

@AssertTrue

@Min @Max

@Size

@Digits

@Pattern

@NotBlank

@NotEmpty

@Positive

@Email

@Past

@Future

Demo

Add Validation to Friend class

- @NotBlank

In the Controller Add

- @Valid
- @ExceptionHandler MethodArgumentNotValidException

Error Handling

is part of the

Software Architecture.

Architectural Decisions

Consistency

- **Name of Exceptions**
- **Shape of Error Messages**
- **Flow of Exception Handling**
- **Local vs Global**

Summary

Error Handling

- Happy Path
- Exception Paths

Spring Classes

- Many Helper Classes and Annotations

Be Consistent

- Think like an Architect