



Week 2: Microservices

Unit 4: Validation and Exceptions

Validation and Exceptions

Bean validation in Spring MVC

Hibernate Validator

- Reference implementation of Java validation APIs [JSR-303](#) and [JSR-349](#)
- Provides [built-in validators](#) for domain object **fields** and **method arguments**
e.g. @NotNull, @Size, @Min . . .
- Can be enhanced by custom validators

Example for Input Validation of Rest Requests

```
@RestController
@Validated
public class MyController {

    // @Valid raises MethodArgumentNotValidException
    public void handlePut(@NotNull String guid, @Valid MyEntity entity) {
    ... }
}
```



Method-level validators require a
MethodValidationPostProcessor
Bean that might raise a
`javax.validation.ConstraintViolationException`

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Exception handling in Spring MVC

Non-Spring MVC exceptions result by default in HTTP 500 status.

Example for Handling Exceptions across Controllers

```
@RestControllerAdvice
public class GlobalExceptionHandler extends ResponseEntityExceptionHandler

    @ExceptionHandler
    public ResponseEntity handleSQLException(SQLException ex) { ... }
}
```

A ControllerAdvice is the recommended approach to

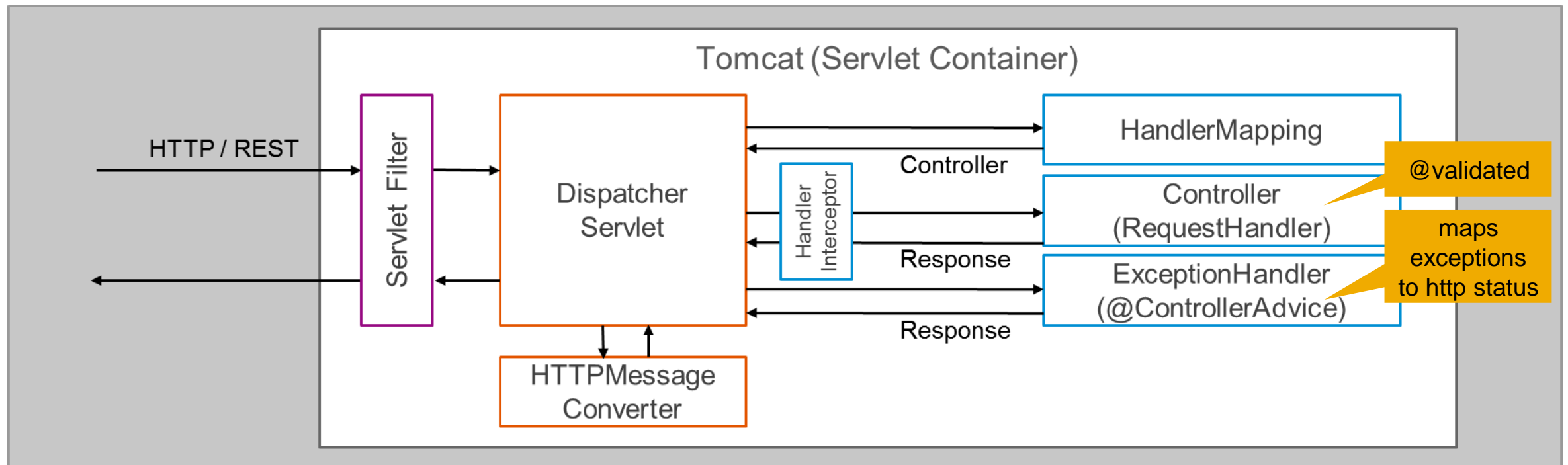
- implement a global handler for specific and generic exceptions
- override Spring MVC exception handler (e.g. for MethodArgumentNotValidException)
- map to HTTP status code and ResponseEntity → serialized to JSON

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Exercise 5

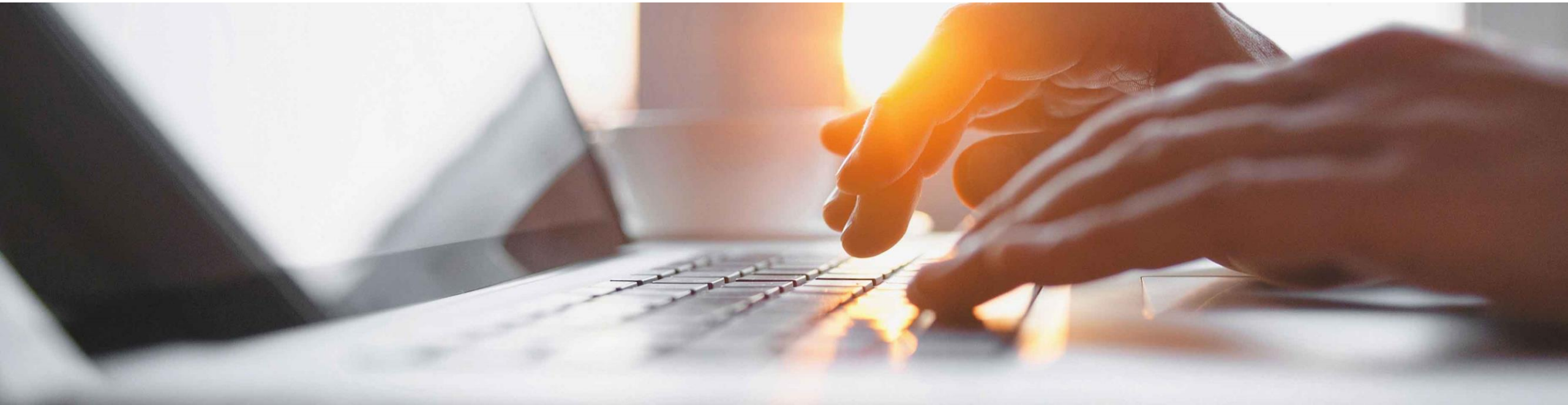


[Optional] Exercise 5: Introduce Validations and Exception Handler



Validation and Exceptions

Review of sample solution



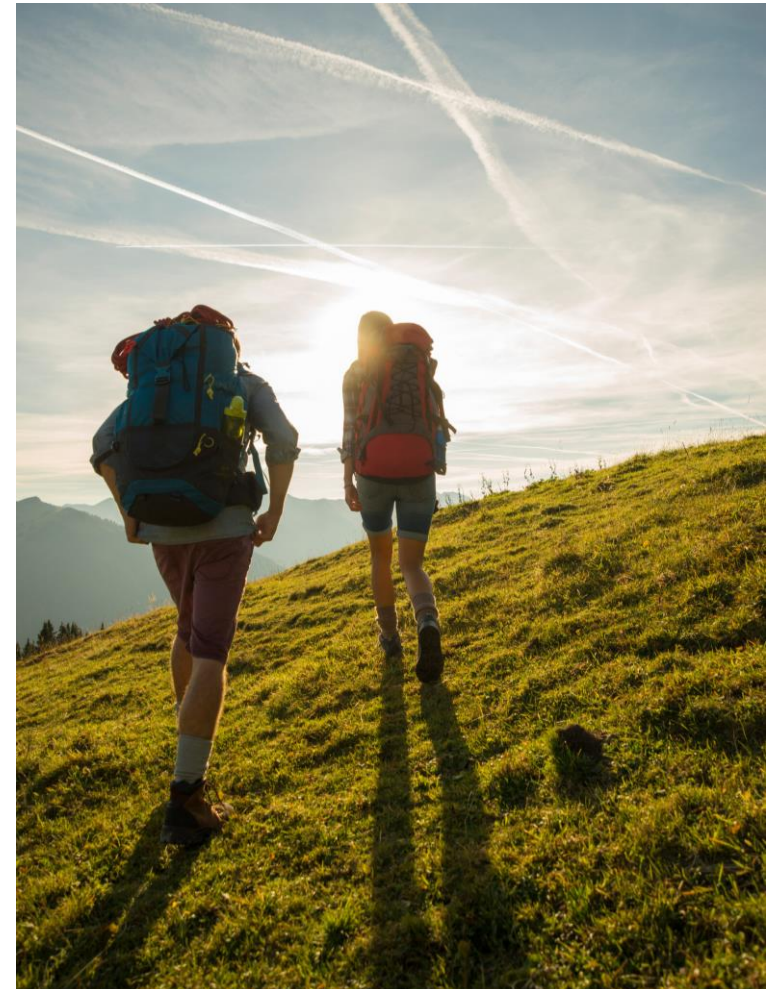
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Further reading



Additional Material

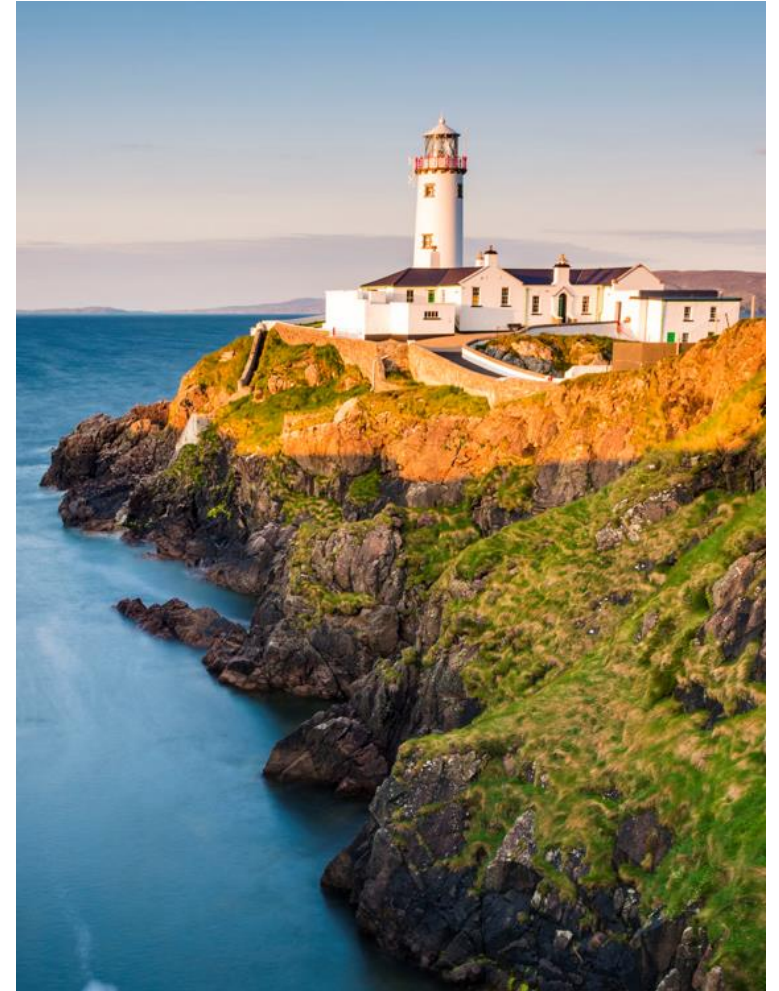
- [Java Docs: javax.validation.constraints](#)
- [Hibernate Validator Docs: Declaring and validating bean constraints](#)
- [Blog: Exception Handling in Spring MVC](#)



Validation and Exceptions

What you've learned in this unit

- How to validate Beans in Spring MVC
- How to handle exceptions in Spring MVC



Thank you.

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