Testing with Spring Boot

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Overview

Testing
- Unit tests
- Integration tests

@SpringBootTest

@WebMvcTest

Mock environment

TestRestTemplate

Testing

Dependencies

```xml
<dependency>

    <groupId>org.springframework.boot</groupId>

    <artifactId>spring-boot-starter-test</artifactId>

    <scope>test</scope>

</dependency>
```
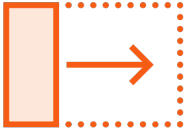
Unit Tests

Unit Tests

JUnit, Mockito, Spring Test

Test individual units of code

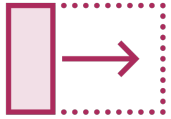Mocking framework and @MockBean annotation

@WebMvcTest

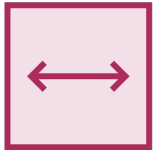An annotation used for controller layer unit testing.

@WebMvcTest

Scans @Controller and @RestController

Does not load the full application context

Dependent beans must be mocked

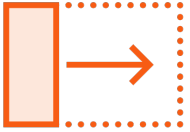Speeds up testing by loading small portion of application

Demo

Unit testing in action

Integration Tests

Integration Tests

Tests entire application

Tests all layers

Can test without deployment of an application

@SpringBootTest

An annotation used for integration testing.

@SpringBootTest

Locates the main configuration class

Demo

Integration testing in action

Summary

Unit testing

Integration testing

@WebMvcTest

@SpringBootTest

Mock environment with MockMVC

Mockito example

TestRestTemplate

Course Completion

Summary

Spring Boot benefits

Spring Initializr

Data access

Spring MVC

RESTful service

GraphQL

Actuator

Testing