Testing a Spring Service that Connects to a Third-party API

INTRODUCTION

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Overview

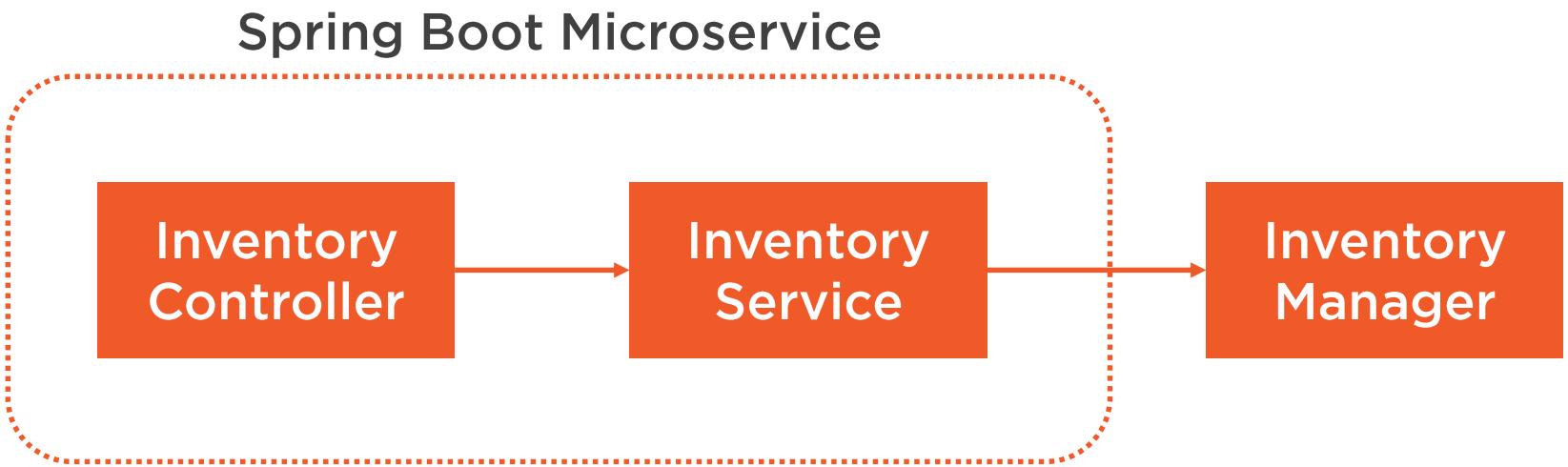
Overview of Globomatics Inventory Service

Testing the Controller

Testing the Service

- Wiremock

Globomatics Inventory Service



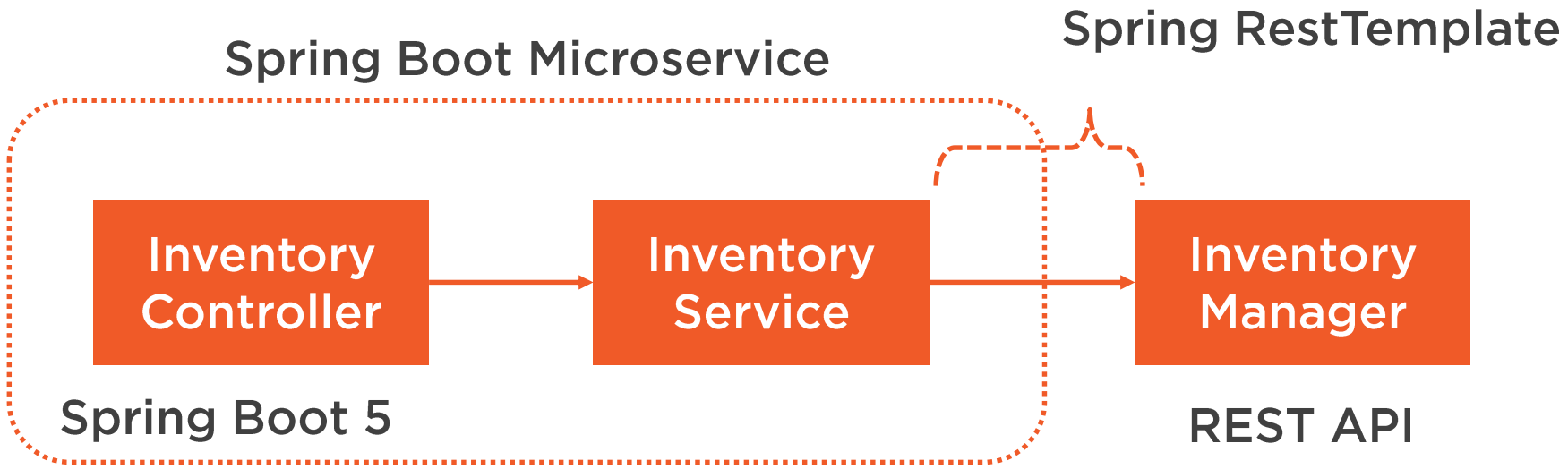
Inventory Record

Product ID	Product ID
Quantity	Current Quantity
Product Name	Name of Product
Product Category	Category of Product

Purchase Record

Product ID	Product ID
Quantity	Quantity Sold

Inventory Service Technology Stack



Spring Boot 5

RestController

Autowiring, Convention over Configuration

Inventory Manager

Third-party API

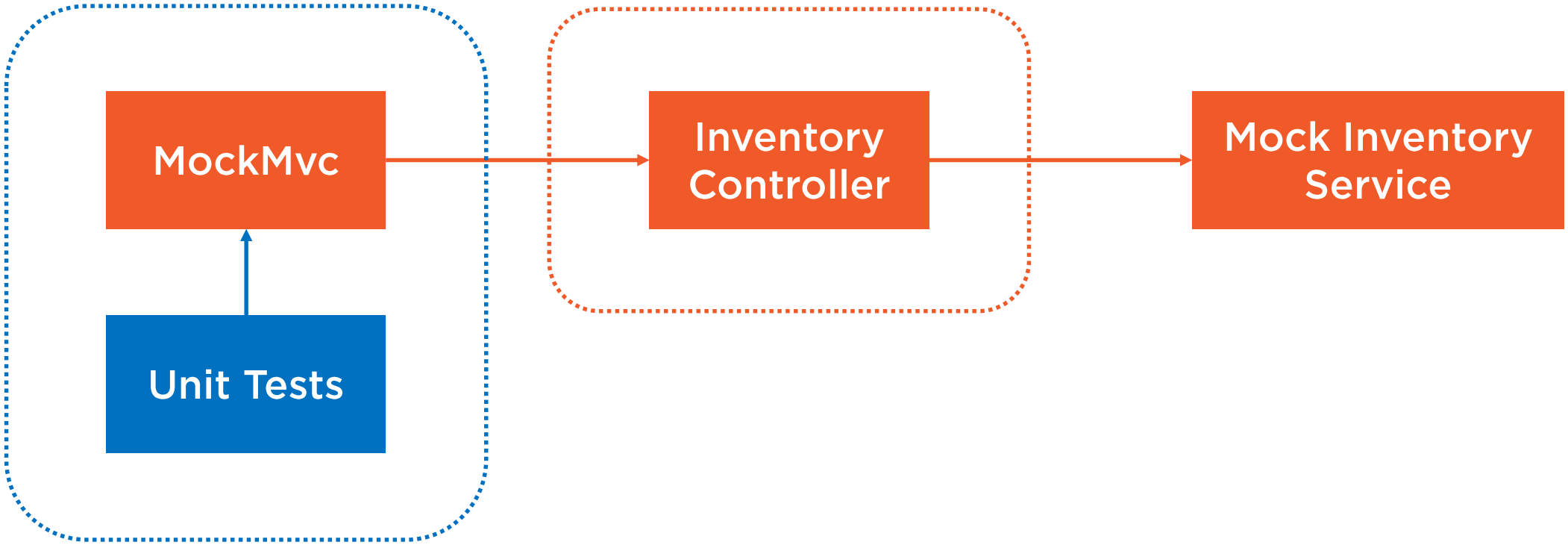
RESTful Interface

RestTemplate

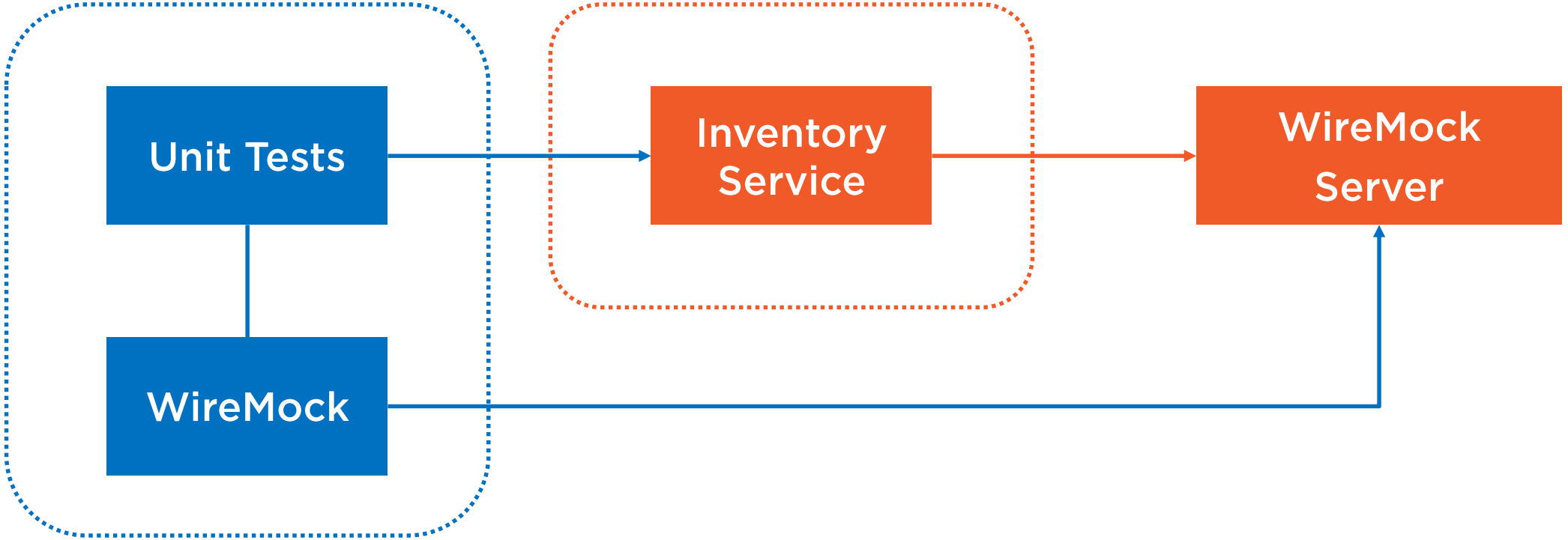
Template Pattern

Easy to translate REST calls to objects

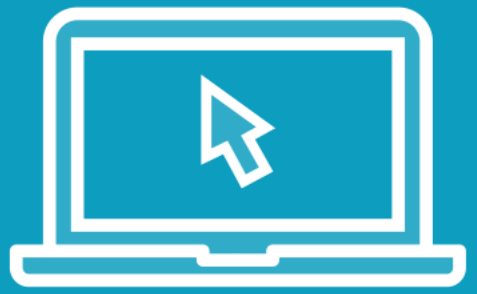
Strategy: Testing the Controller



Strategy: Testing the Service

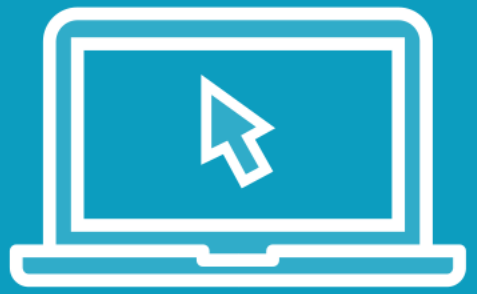


Demo



Inventory Web Service Walkthrough

Demo

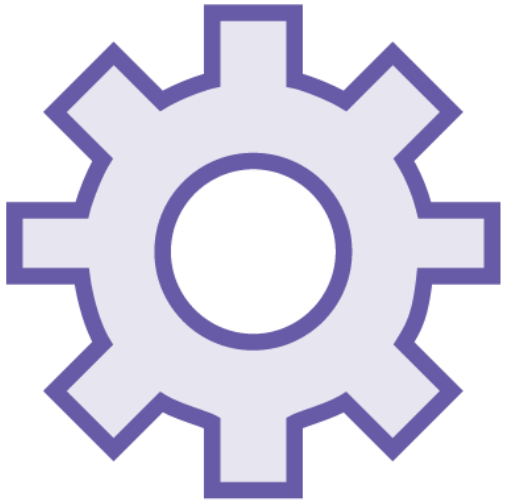


InventoryControllerTest walkthrough

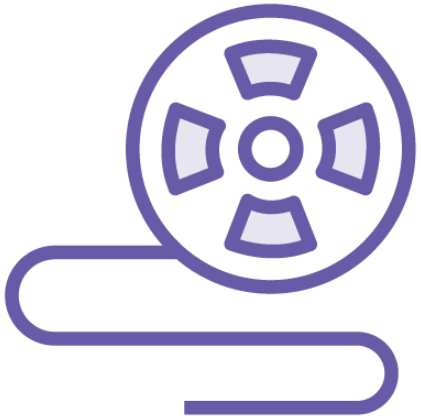
Testing Services with WireMock

Wiremock Benefits

Stubs
Integrating with services that do not yet exist

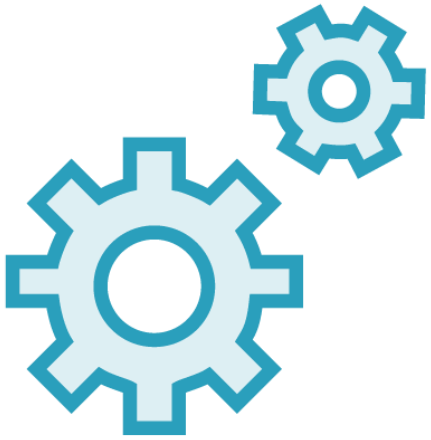


Unit Tests
Test service integrations in unit tests

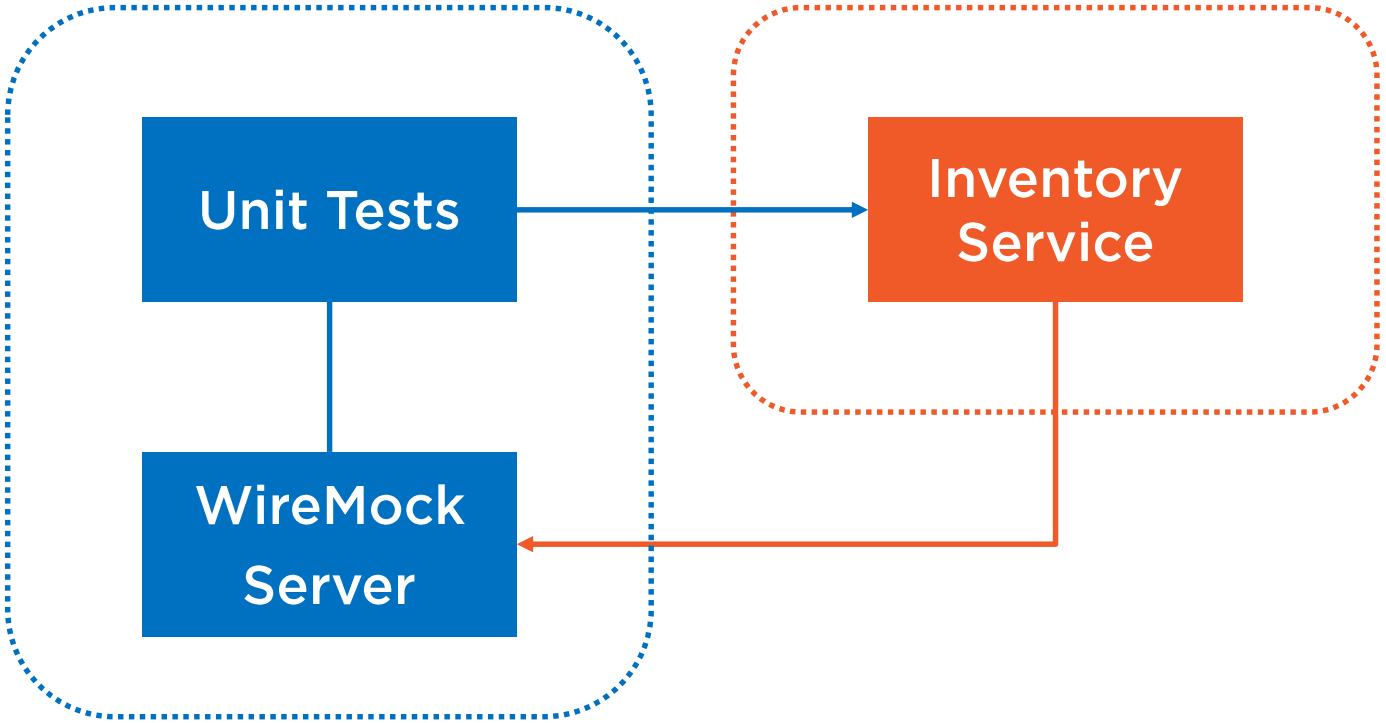


Record/Playback
Record service responses and test against them

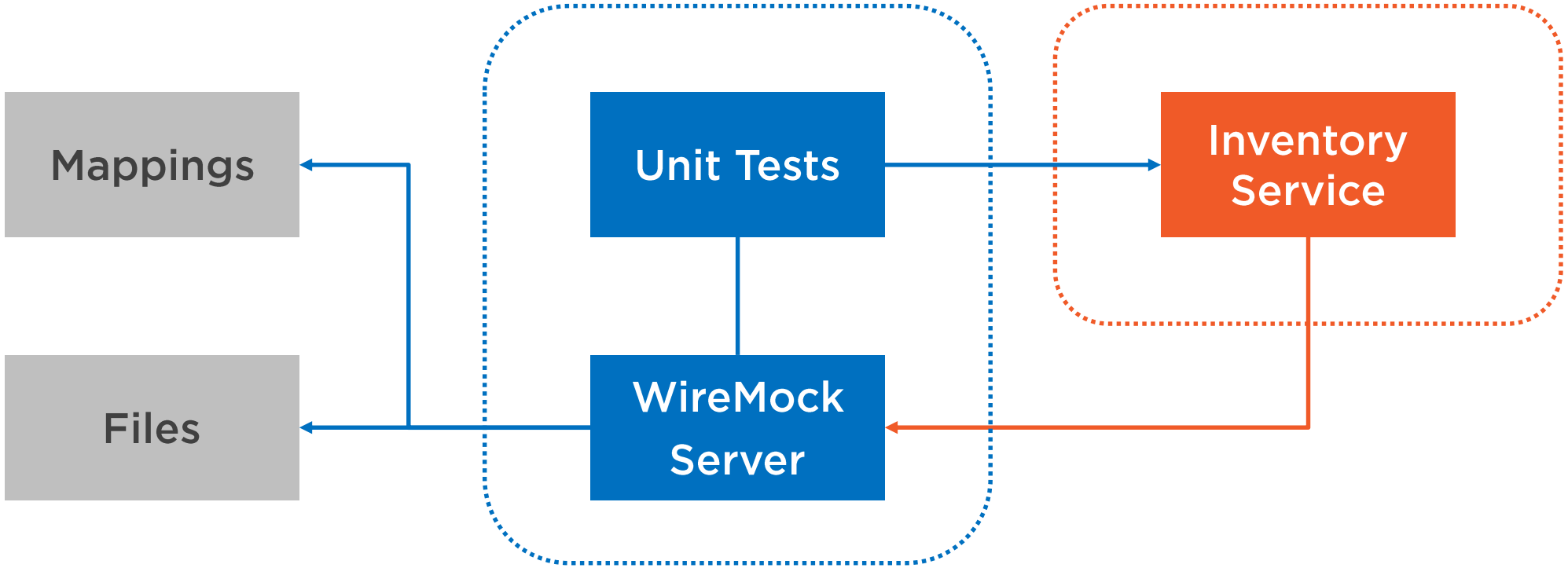
How Does It Work?



Request / Response Configuration



Mapping Files



```
@SpringBootTest
class InventoryServiceTest {

  @Autowired
  private InventoryService service;

  private WireMockServer server;


  @BeforeEach
  void beforeEach() {
    server = new WireMockServer();
    server.start()

    // Configure req/res
  }

  @AfterEach
  void afterEach() {
    server.stop();
  }

}
```

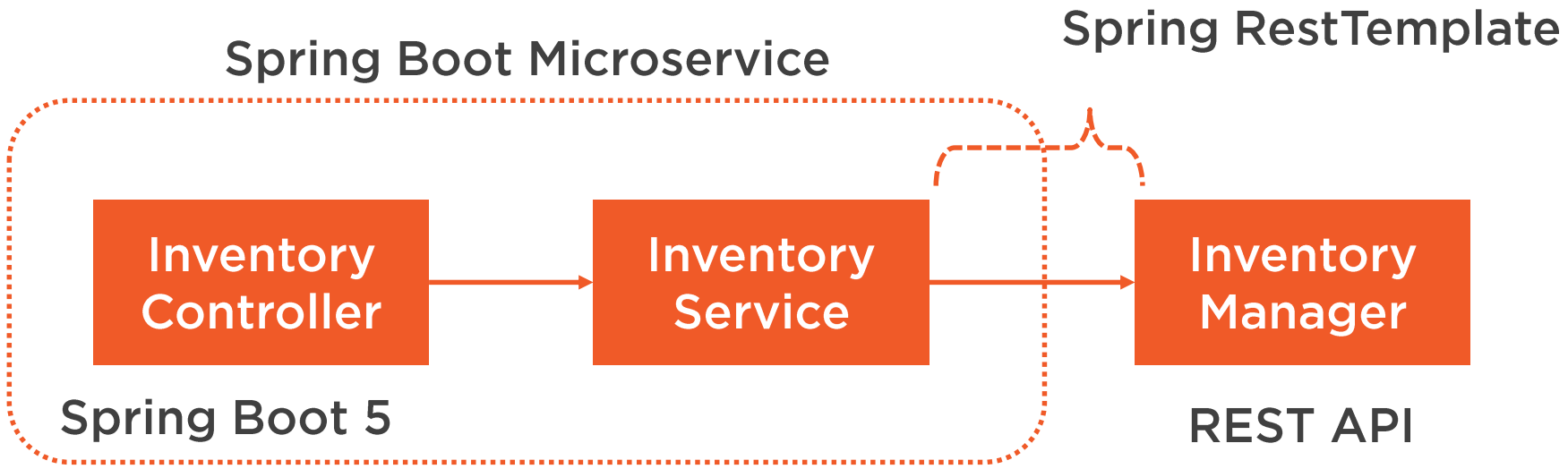
- Service we're testing
- WireMockServer
- Create and start the WireMockServer
- Configure requests & responses
- Stop the WireMockServer

Demo

InventoryServiceTest walkthrough

Summary

Inventory Service Technology Stack



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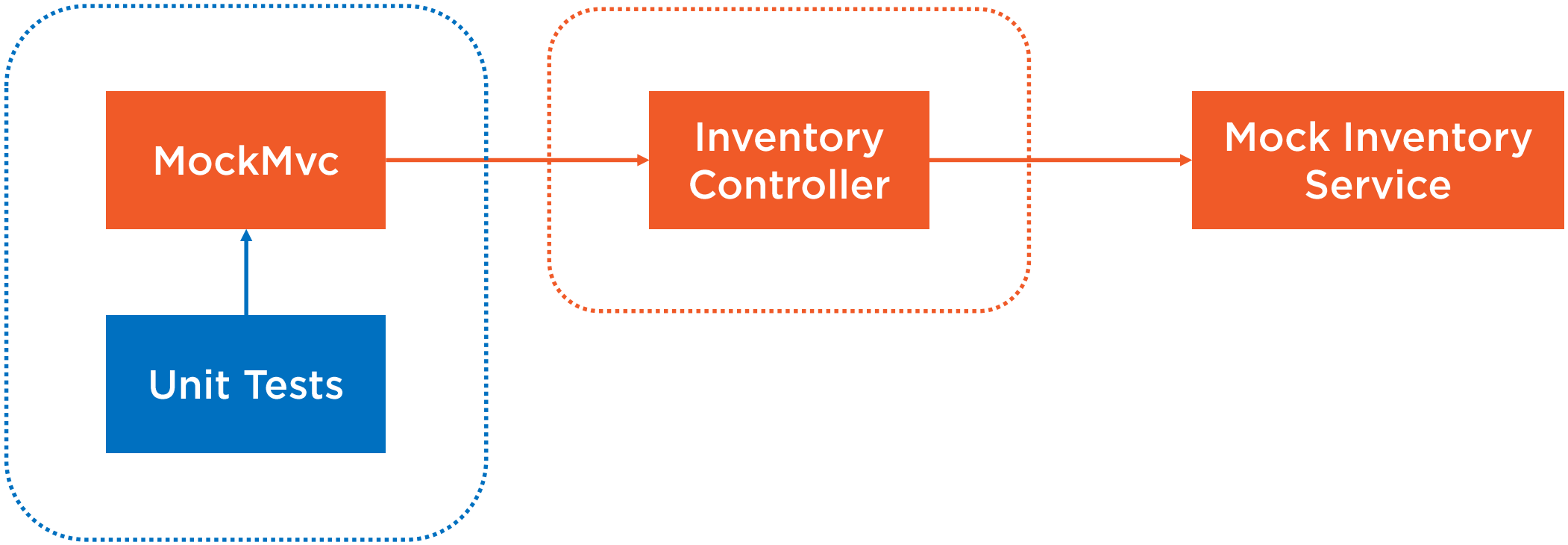
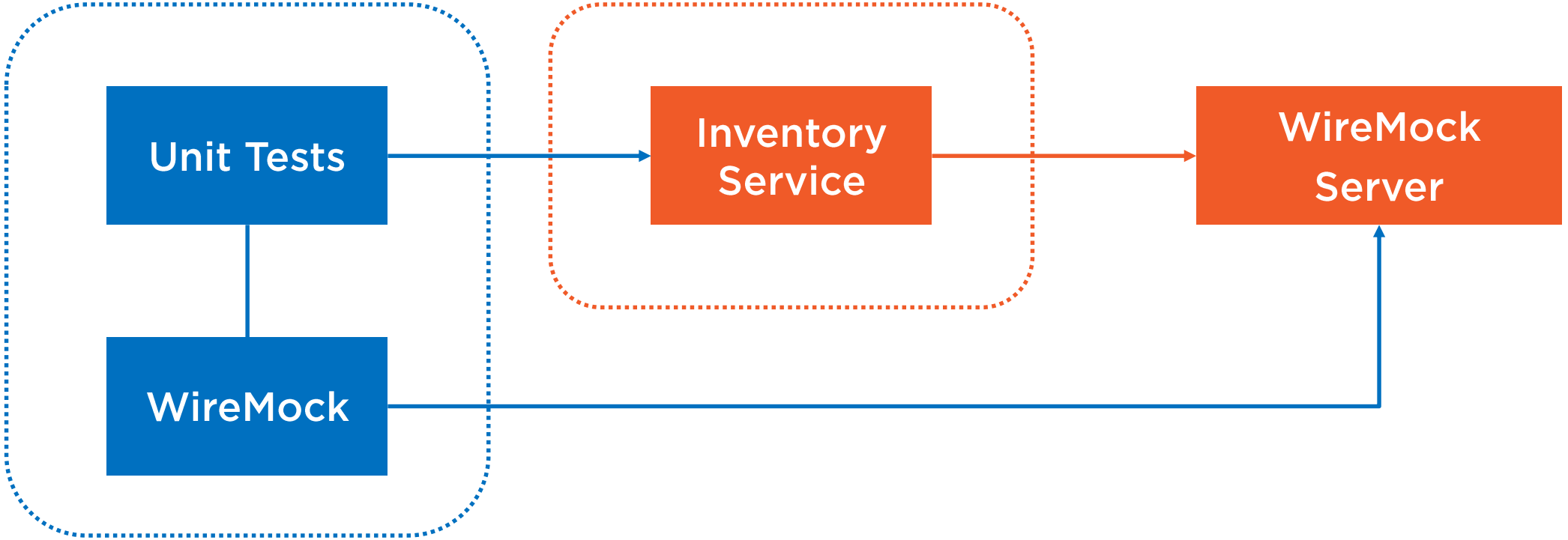


Strategy: Testing the Service



Summary

Testing Services that connect to third-party APIs using WireMock