

The LockManager App Case Study: Test Driver & Client Implementation

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Learning Objectives in this Part of the Lesson

- Understand the implementation of the `LockManagerTest` class & associated client code that invoke asynchronous methods on the `LockManagerController`

LockManagerTest

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lockManagerTest.java
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```



*Asynchronous
HTTP GET/POST
requests/
responses*

LockManagerApplication



Implementing the LockManagerTest Driver

Implementing the LockManagerTest Driver

```
15 /**
16  * This program tests the features of the {@link LockManagerApplication}
17  * microservice, which uses Spring WebFlux to provide a distributed
18  * lock manager for asynchronous Spring applications using
19  * asynchronous controller methods that return Project Reactor {@link
20  * Mono} and {@link Flux} reactive objects. It also shows how to use the as
21  * HTTP interface features in Spring framework 6, which enables the
22  * definition of declarative HTTP services using Java interfaces.
23  */
24 @SpringBootTest(classes = LockManagerApplication.class,
25                 webEnvironment = SpringBootTest.WebEnvironment.DEFINED_PORT)
26 class LockManagerTests {
27     /**
28      * The auto-wired {@link LockAPI} that accesses the {@link
29      * LockManagerApplication} microservice.
30      */
31     @Autowired
```

The screenshot shows an IDE window with the following details:

- Project Structure:** ex1 > src > test > java > edu > vandy > lockmanager > LockManagerTests. The 'LockManagerTests' directory is selected.
- Code Editor:** Displays the content of 'LockManagerTests.java' with line numbers 15 to 31. The code includes a multi-line comment, a `@SpringBootTest` annotation, and the start of a `class LockManagerTests` with a comment and an `@Autowired` annotation.
- IDE Interface:** Includes a top toolbar with icons for search, run, and other actions. The bottom status bar shows 'Gradle sync finished in 14 s 669 ms (36 minutes ago)', '129:52 CRLF UTF-8 4 spaces', and 'master'.

See [WebFlux/ex1/src/test/java/edu/vandy/lockmanager](https://github.com/lockmanager/lockmanager/tree/master/ex1/src/test/java/edu/vandy/lockmanager)

End of the LockManager App Case Study: Test Driver & Client Implementation