The LockManager App Case Study: Test Driver & Client Implementation

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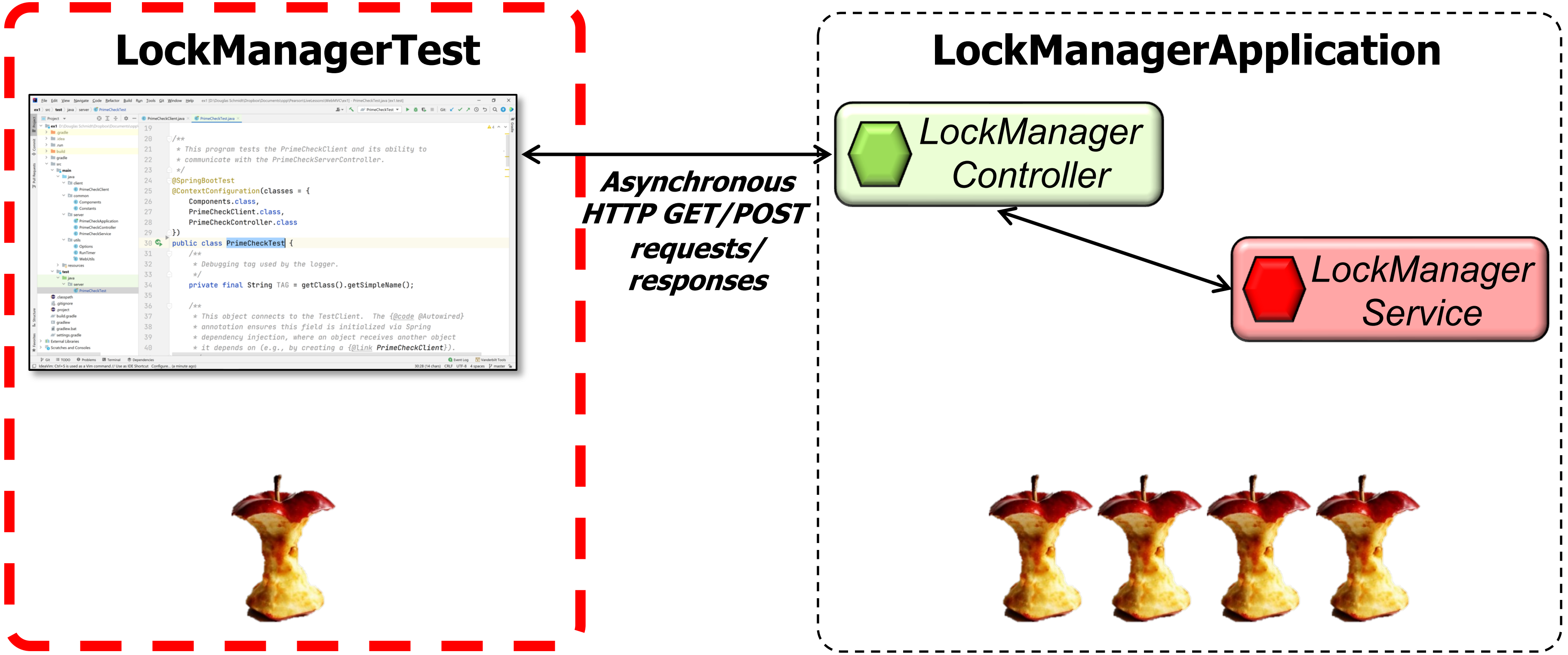
Learning Objectives in this Part of the Lesson

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



```
/**
 * This program tests the PrimeCheckClient and its ability to
 * communicate with the PrimeCheckServerController.
 */
@SpringBootTest
@ContextConfiguration(classes = {
    Components.class,
    PrimeCheckClient.class,
    PrimeCheckController.class
})
public class PrimeCheckTest {
    /**
     * Debugging tag used by the logger.
     */
    private final String TAG = getClass().getSimpleName();

    /**
     * This object connects to the TestClient.  The {@code @Autowired}
     * annotation ensures this field is initialized via Spring
     * dependency injection, where an object receives another object
     * it depends on (e.g., by creating a {@link PrimeCheckClient}).
```

See github.com/douglascraigschmidt/LiveLessons/tree/master/WebFlux/ex1

Implementing the LockManagerTest Driver

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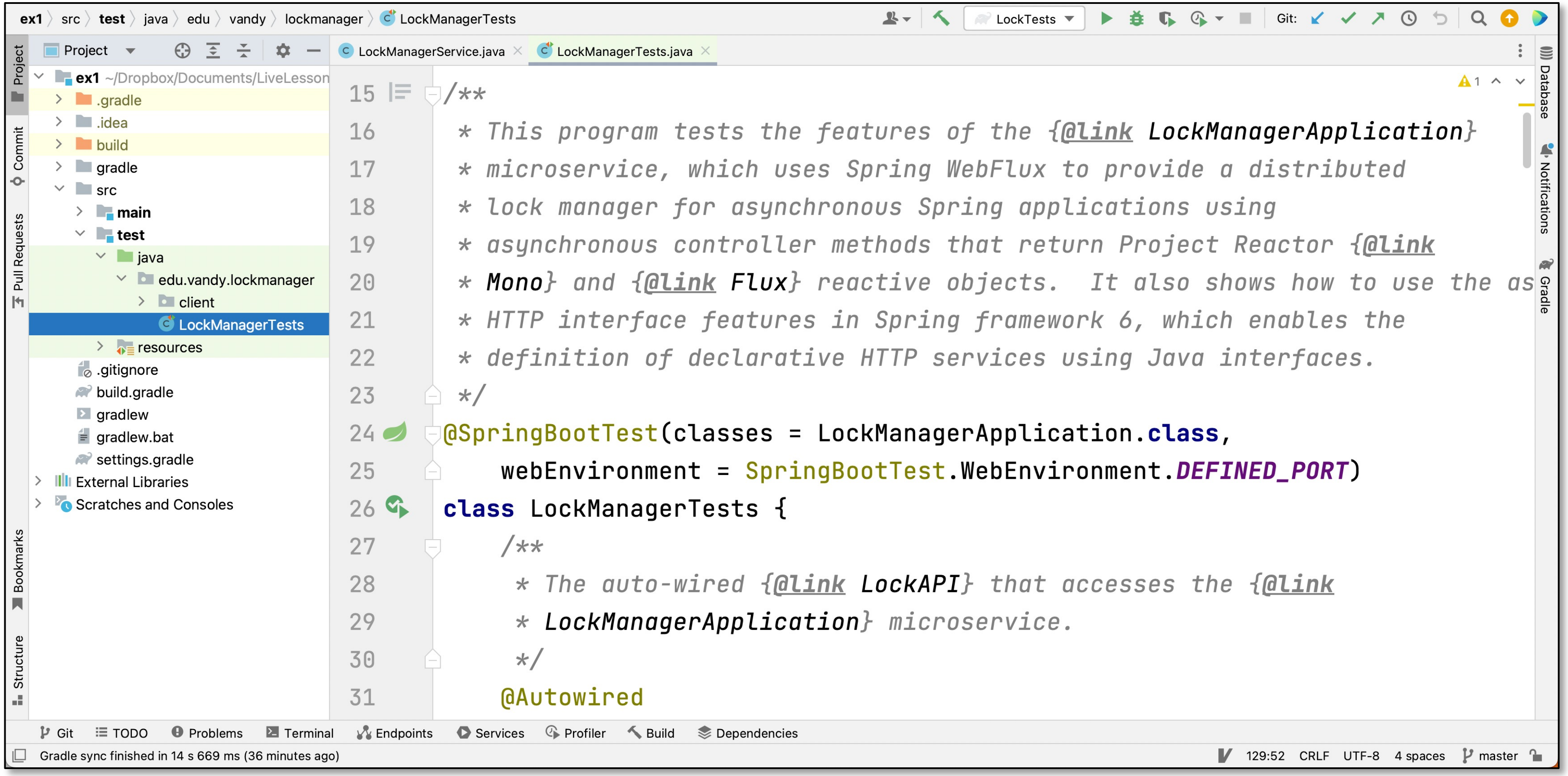

```java
/**
 * This program tests the features of the {@link LockManagerApplication}
 * microservice, which uses Spring WebFlux to provide a distributed
 * lock manager for asynchronous Spring applications using
 * asynchronous controller methods that return Project Reactor {@link
 * Mono} and {@link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

See WebFlux/ex1/src/test/java/edu/vandy/lockmanager

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