

The PrimeCheck App Case Study: Test Driver Implementation & Performance

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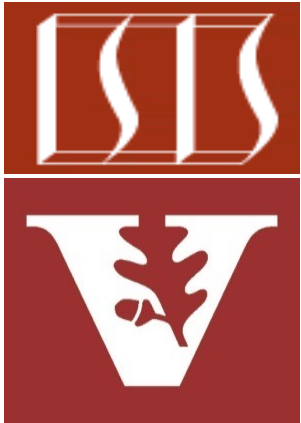
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Learning Objectives in this Part of the Lesson

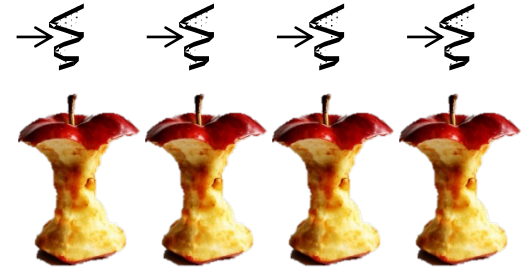
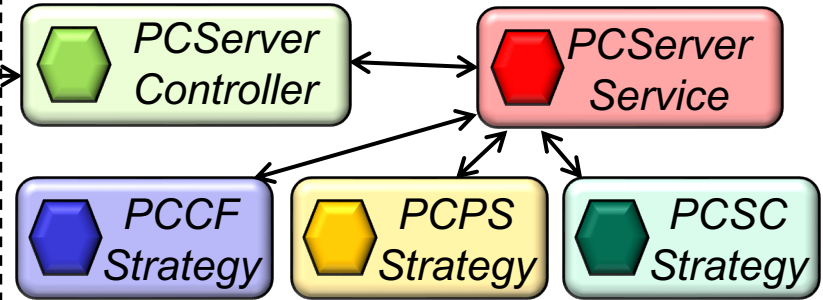
- Understand the implementation of a test driver program that runs the PCClient* classes & measures the performance of various methods

PrimeCheckTest

```
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21 //
22 * This program tests the PrimeCheckClient and its ability to
23 * communicate with the PrimeCheckServerController.
24
25
26
27
28
29 @SpringBootTest
30 @ContextConfiguration(classes = {
31     Components.class,
32     PrimeCheckClient.class,
33     PrimeCheckController.class
34 })
35 public class PrimeCheckTest {
36
37     /**
38      * Debugging tag used by the logger.
39      */
40     private final String TAG = getClass().getSimpleName();
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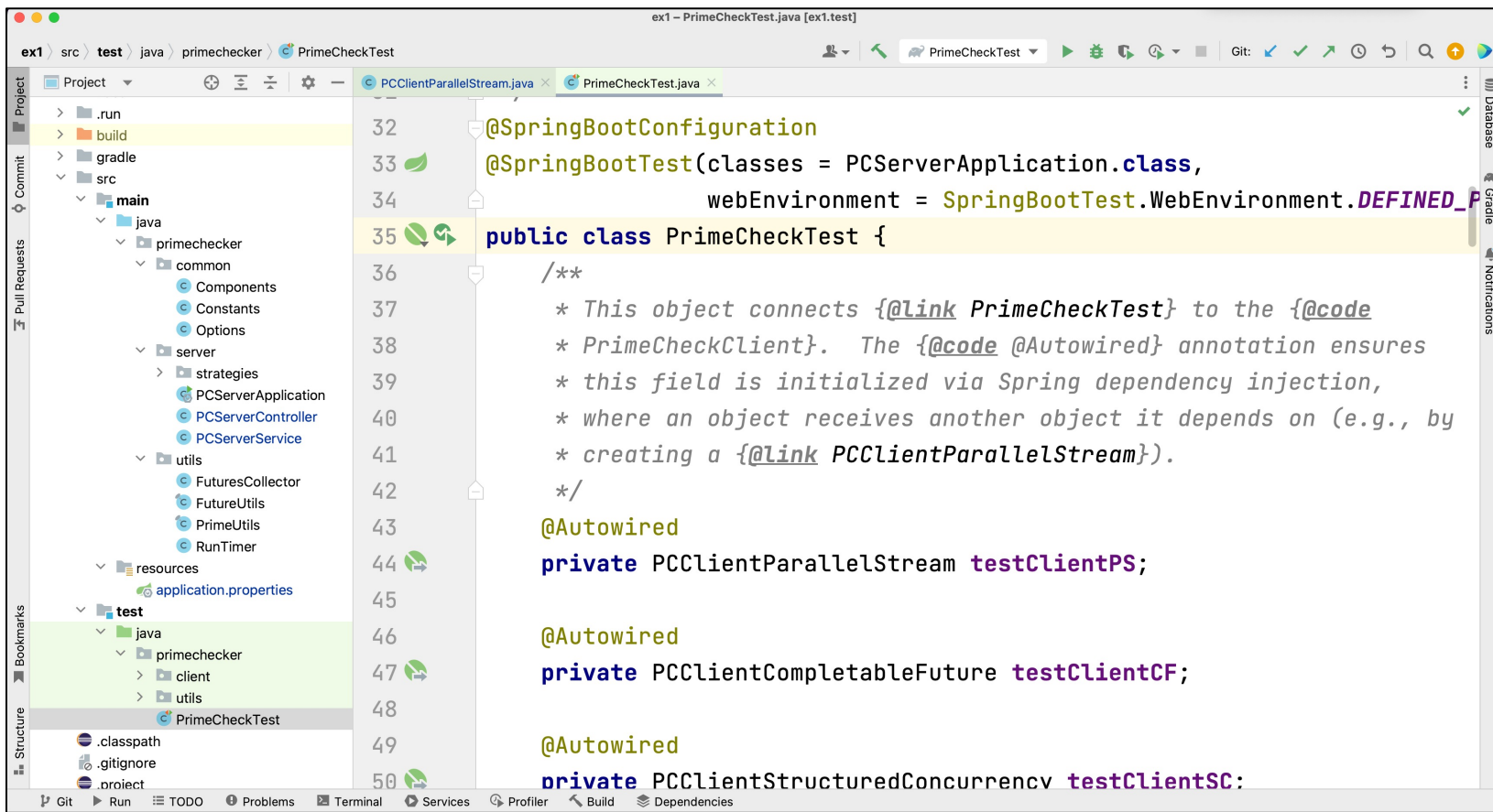
**HTTP GET
requests/
responses**

PCServerApplication



Implementing the PrimeCheckTest Driver

Implementing the PrimeCheckTest Driver



```
32  @SpringBootApplication
33  @SpringBootTest(classes = PCServerApplication.class,
34                    webEnvironment = SpringBootTest.WebEnvironment.DEFINED_P
35  public class PrimeCheckTest {
36      /**
37       * This object connects {@link PrimeCheckTest} to the {@code
38       * PrimeCheckClient}. The {@code @Autowired} annotation ensures
39       * this field is initialized via Spring dependency injection,
40       * where an object receives another object it depends on (e.g., by
41       * creating a {@link PCClientParallelStream}).
42       */
43      @Autowired
44      private PCClientParallelStream testClientPS;
45
46      @Autowired
47      private PCClientCompletableFuture testClientCF;
48
49      @Autowired
50      private PCClientStructuredConcurrency testClientSC;
```

See github.com/douglasraigschmidt/LiveLessons/tree/master/WebMVC/ex1

End of the PrimeCheck App Case Study: Test Driver