

# The PrimeCheck App Case Study: Test Driver Implementation & Performance

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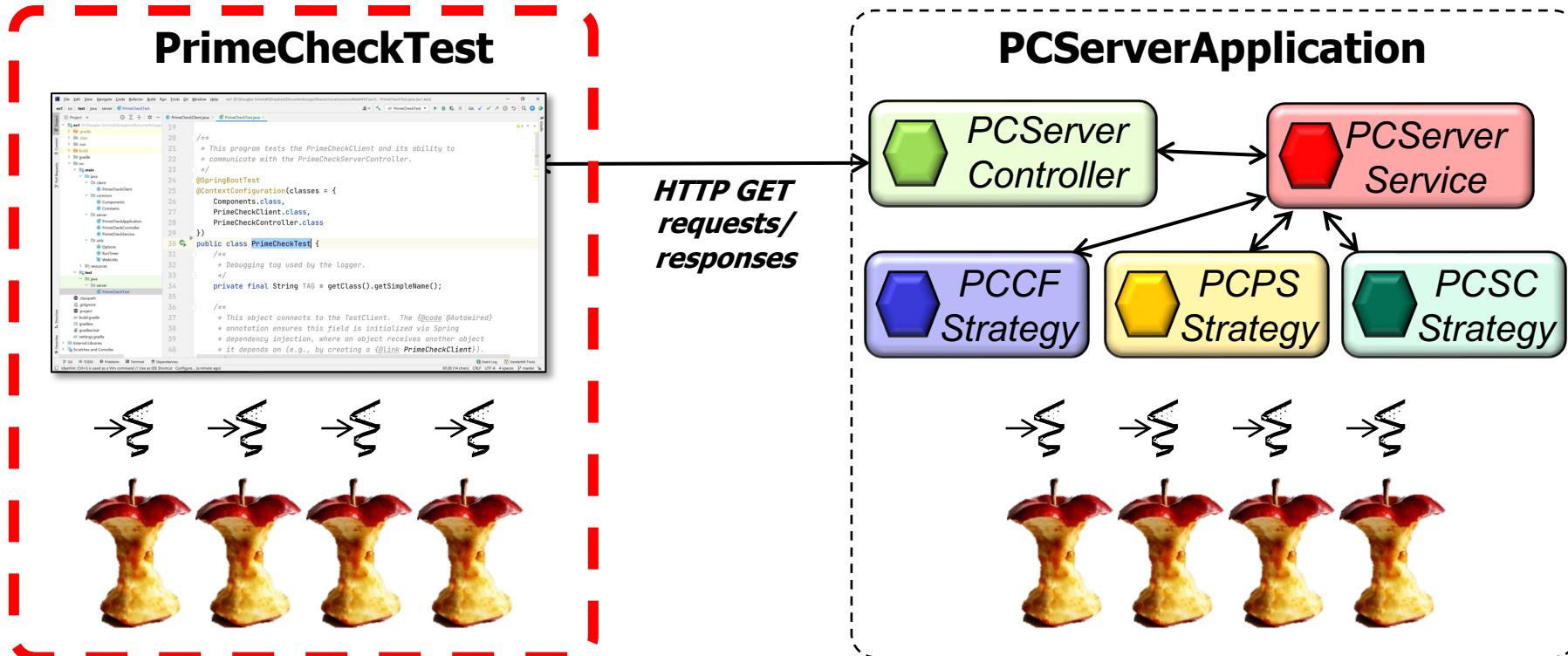
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# Learning Objectives in this Part of the Lesson

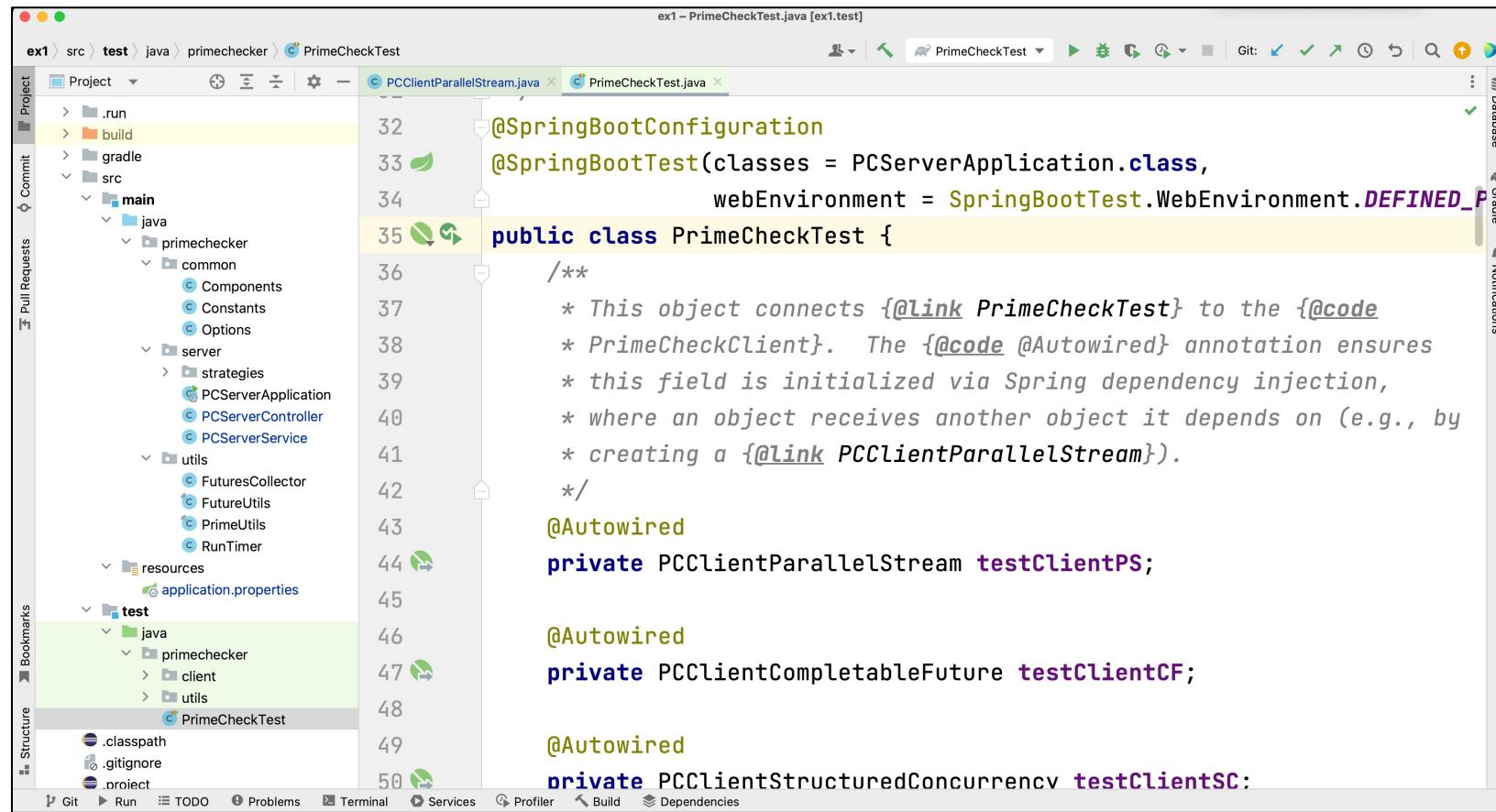
- Understand the implementation of a test driver program that runs the PCClient\* classes & measures the performance of various methods



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# Implementing the PrimeCheckTest Driver

# Implementing the PrimeCheckTest Driver



The screenshot shows an IDE interface with the following details:

- Project Structure:** The project is named "ex1". The "src/test/java/primechecker" package contains the "PrimeCheckTest" class, which is currently selected in the code editor.
- Code Editor:** The code for "PrimeCheckTest.java" is displayed. It includes annotations for Spring Boot configuration and testing, and defines three private fields for testing client objects.
- Toolbars and Menus:** Standard IDE toolbars and menus are visible at the top, including "File", "Edit", "View", "Project", "Run", "Build", "Services", and "Help".
- Bottom Navigation:** A navigation bar at the bottom includes links for "Git", "Run", "TODO", "Problems", "Terminal", "Services", "Profiler", "Build", and "Dependencies".

```
32  @SpringBootTestConfiguration
33  @SpringBootTest(classes = PCServerApplication.class,
34  webEnvironment = SpringBootTest.WebEnvironmentDEFINED_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
44      @Autowired
45      private PCClientParallelStream testClientPS;
46
47      @Autowired
48      private PCClientCompletableFuture testClientCF;
49
50      @Autowired
51      private PCClientStructuredConcurrency testClientSC;
```

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# End of the PrimeCheck App Case Study: Test Driver