

The PrimeCheck App Case Study: Implementing the Client

Douglas C. Schmidt

d.schmidt@vanderbilt.edu

www.dre.vanderbilt.edu/~schmidt

Professor of Computer Science

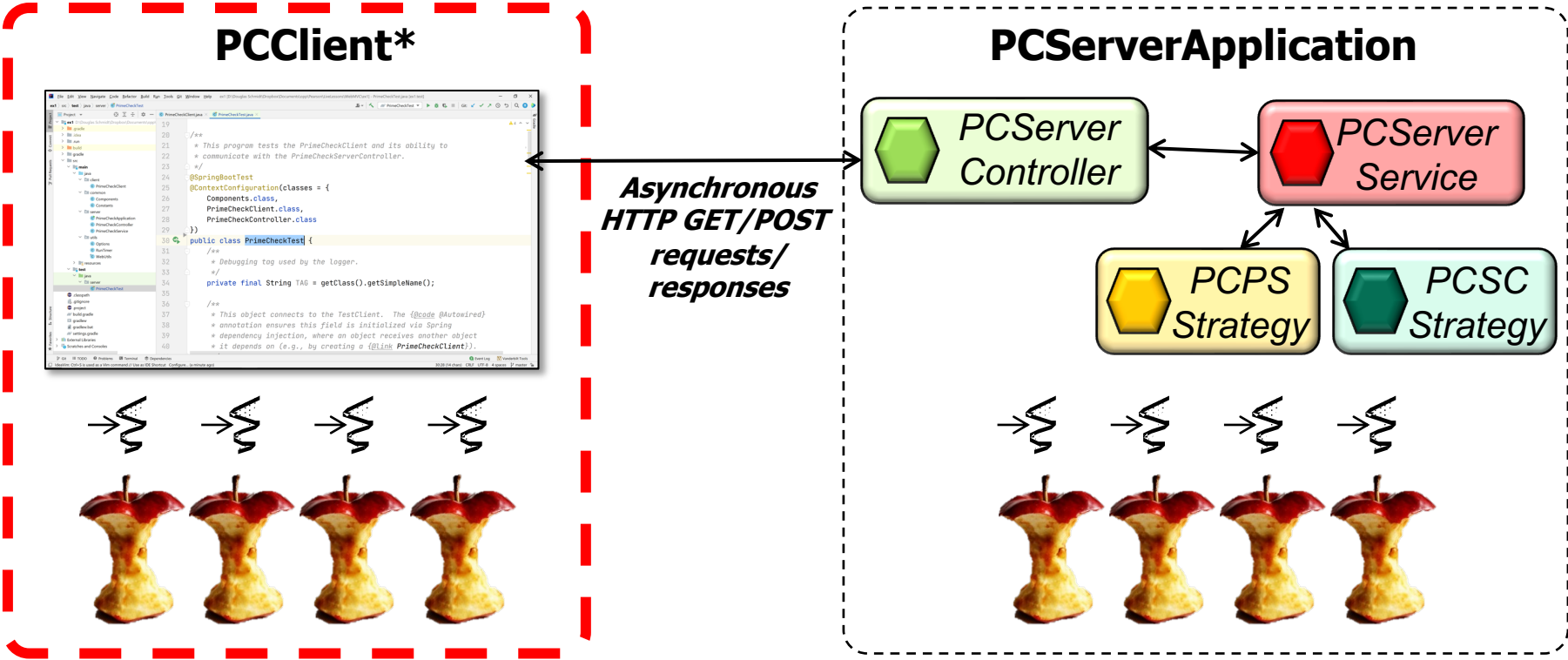
**Institute for Software
Integrated Systems**

**Vanderbilt University
Nashville, Tennessee, USA**



Learning Objectives in this Part of the Lesson

- Understand the PCClient* class implementations that send/receive HTTP GET /POST requests/responses to/from the PCServiceApplication asynchronously



Implementing the PrimeCheck App Client

Implementing the PrimeCheck App Client

The screenshot shows an IDE window with the following components:

- Project Structure:** A tree view on the left showing the project hierarchy. The 'test' directory is highlighted in green, and the 'client' subdirectory is highlighted in grey. The file 'PCClientParallelFlux.java' is selected.
- Code Editor:** The main area displays the Java code for the `PCClientParallelFlux` class. The code is as follows:

```
27 @Component
28 public class PCClientParallelFlux {
29     /**
30      * This auto-wired field connects the {@link PCClientParallelFlux}
31      * to the {@link PCProxyAPI} that performs HTTP requests
32      * synchronously.
33      */
34     @Autowired
35     private PCProxyAPI mPCProxy;
36
37     /**
38      * Send individual HTTP GET requests to the server to check if a
39      * the {@code primeCandidates} {@link Flux} of {@link Integer}
40      * objects are prime or not.
41      *
42      * @param primeCandidates A {@link Flux} that emits {@link
43      * Integer} objects to check for primality
44      * @return A {@link Flux} that emits {@link Integer} objects
45      * indicating the primality of the corresponding {@code
```
- IDE Interface:** The top bar shows the current file is 'PrimeCheckTest'. The bottom bar shows the status 'daemon started successfully (7 minutes ago)' and the current mode is 'master'.

See github.com/douglasraigschmidt/LiveLessons/tree/master/WebFlux/ex2

End of the PrimeCheck App Case Study: Implementing the Client