The PrimeCheck App Case Study: Implementing the Client

Douglas C. Schmidt
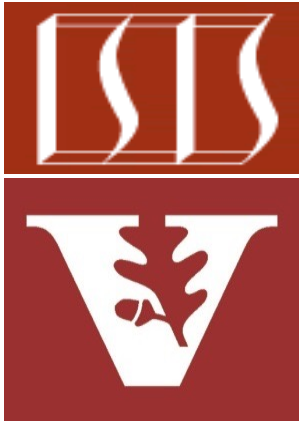d.schmidt@vanderbilt.edu
www.dre.vanderbilt.edu/~schmidt

Professor of Computer Science

Institute for Software
Integrated Systems

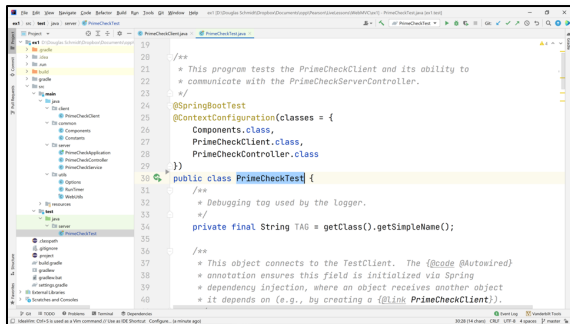Vanderbilt University
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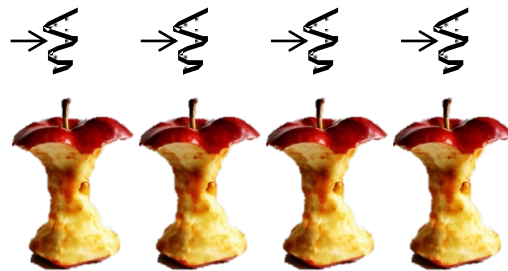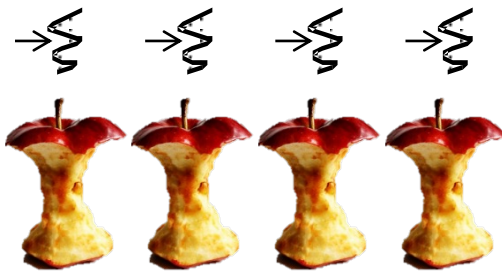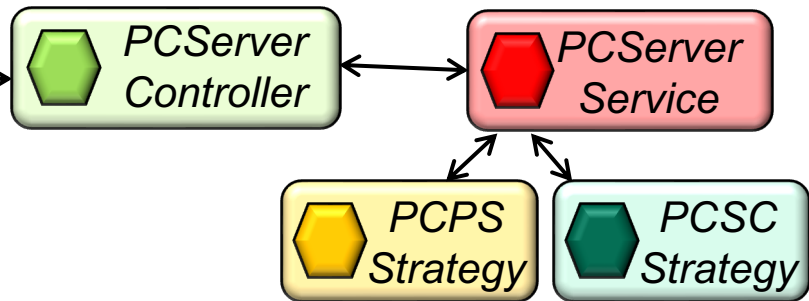# Learning Objectives in this Part of the Lesson

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

Implementing the PrimeCheck App Client

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```
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
```

Project tree (left panel):
- ex2 ~/Dropbox/Documents/LiveLessons
  - .gradle
  - .idea
  - .run
  - build
  - gradle
  - src
    - main
      - java
        - primechecker
          - common
          - server
            - strategies
              - PCAbstractStrateg
              - PCConcurrentFlux
              - PCParallelFluxStra
            - PCServerApplication
            - PCServerController
            - PCServerService
          - utils
            - PrimeUtils
            - RunTimer
      - resources
        - application.properties
    - test
      - java
        - primechecker
          - client
            - PCClientConcurrentF
            - PCClientParallelFlux
            - PCProxyAPI
          - common
            - ClientBeans

Open tabs: PrimeCheckTest.java, PCServerController.java, PCParallelFluxStrategy.java, PCClientParallelFlux.java, Options.java, RandomUtils.java

End of the PrimeCheck App Case Study: Implementing the Client