

# The MathServices App Case Study: Implementing Client-related Classes

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# Learning Objectives in this Part of the Lesson

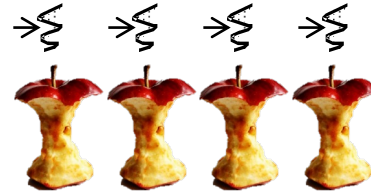
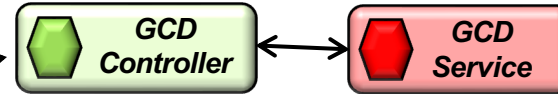
- Understand the implementation of the client-related classes that send/ receive HTTP GET requests/responses to/from the MathServices App microservices

## MathServicesDriver

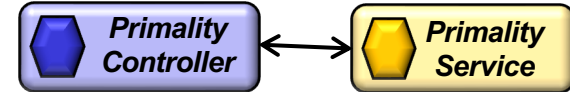
```
20 //
21 // This program tests the PrimeCheckClient and its ability to
22 // communicate with the PrimeCheckServerController.
23 //
24 @SpringBootTest
25 @ContextConfiguration(classes = {
26     Components.class,
27     PrimeCheckClient.class,
28     PrimeCheckController.class
29 })
30 public class PrimeCheckTest {
31     //
32     // Debugging tag used by the logger.
33     //
34     private final String TAG = getClass().getSimpleName();
35
36     //
37     // This object connects to the TestClient. The @code @Autowired
38     // annotation ensures this field is initialized via Spring
39     // dependency injection, where an object receives another object
40     // it depends on (e.g., by creating a @Link PrimeCheckClient).
41 }
```

*HTTP GET  
requests/  
responses*

## GCDApplication



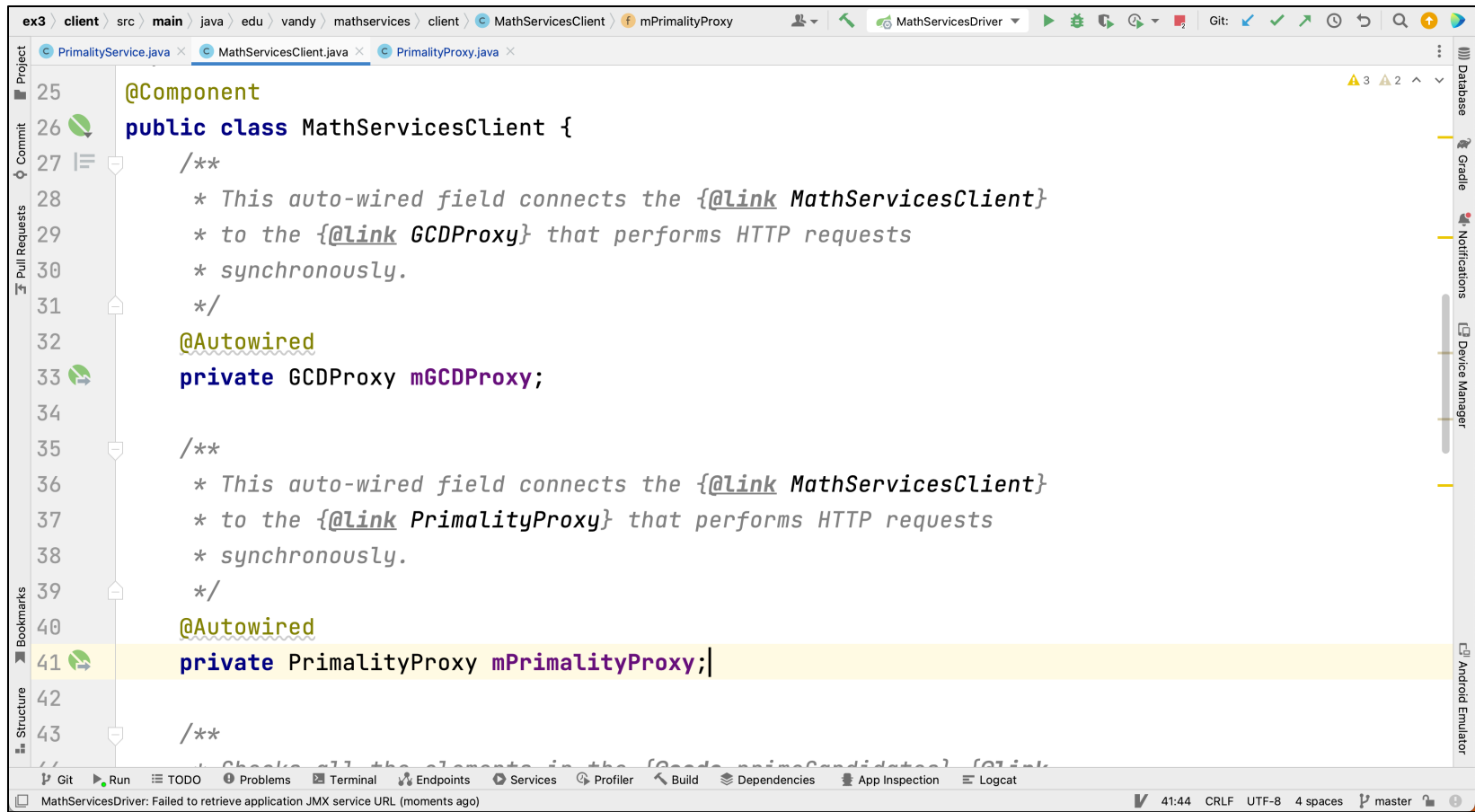
## PrimalityApplication



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# Implementing the MathServices Client-related Classes

# Implementing the MathServices Client-related Classes



```
ex3 > client > src > main > java > edu > vandy > mathservices > client > MathServicesClient > mPrimalityProxy
PrimalityService.java MathServicesClient.java PrimalityProxy.java
@component
25 public class MathServicesClient {
26 /**
27  * This auto-wired field connects the {@link MathServicesClient}
28  * to the {@link GCDProxy} that performs HTTP requests
29  * synchronously.
30  */
31
32 @Autowired
33 private GCDProxy mGCDProxy;
34
35 /**
36  * This auto-wired field connects the {@link MathServicesClient}
37  * to the {@link PrimalityProxy} that performs HTTP requests
38  * synchronously.
39  */
40 @Autowired
41 private PrimalityProxy mPrimalityProxy;
42
43 /**
```

See [github.com/douglasraigschmidt/LiveLessons/tree/master/WebMVC/ex3](https://github.com/douglasraigschmidt/LiveLessons/tree/master/WebMVC/ex3)

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# End of the MathServices App Case Study: Implement- ing Client-related Classes