

Applying Key Operators in the Flux Class: Case Study ex1 (Part 1)

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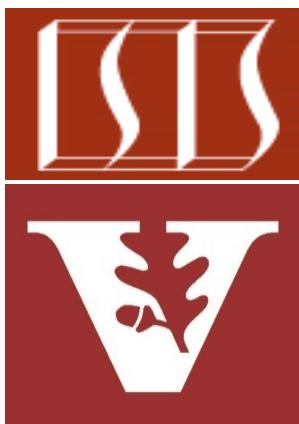
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Learning Objectives in this Part of the Lesson

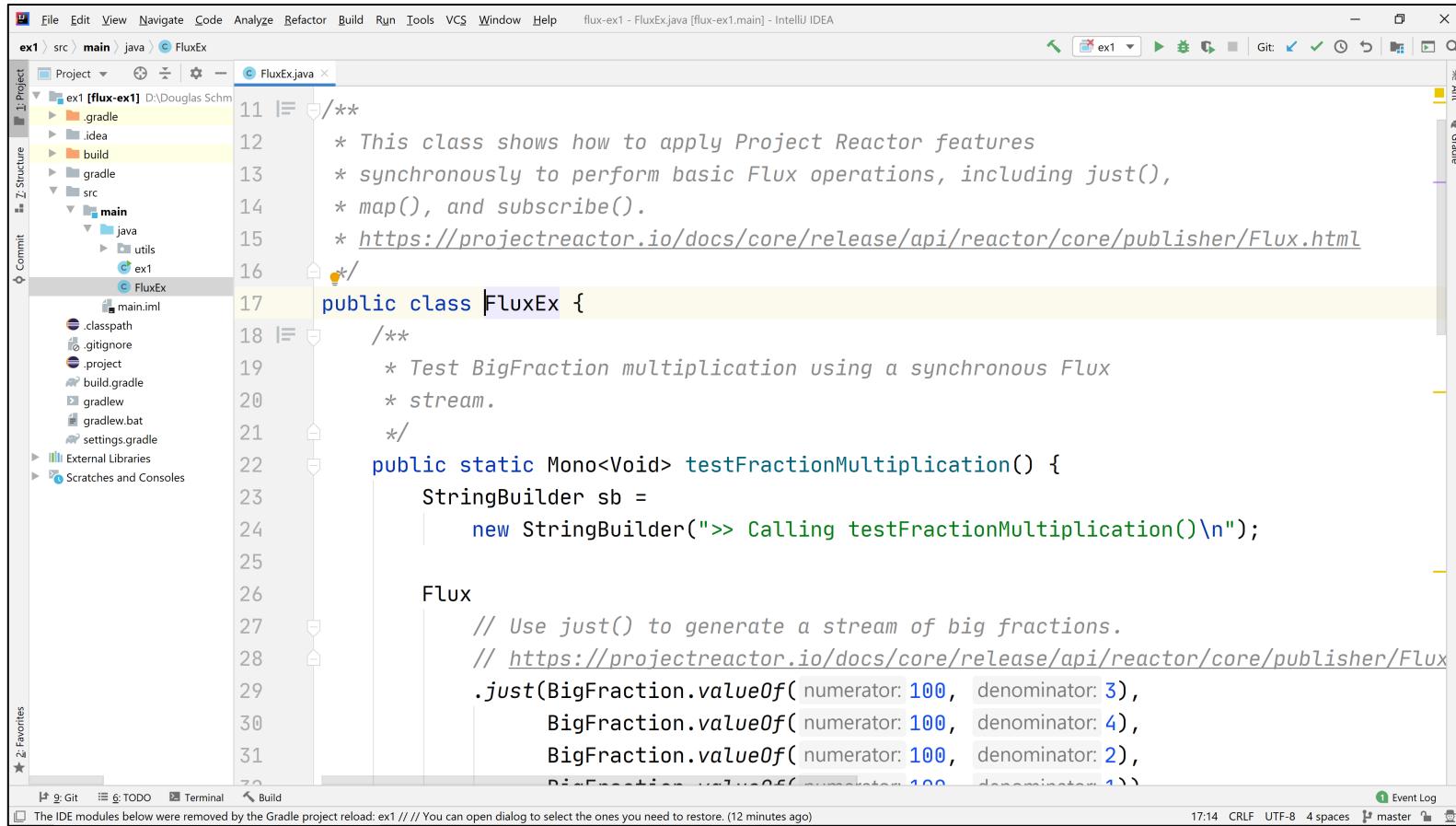
- Part 1 of case study ex1 shows how to use Flux operators fromIterable(), just(), fromArray(), from(), map(), doOnNext(), mergeWith(), repeat(), & subscribe() to create, reduce, multiply, & display BigFraction objects synchronously

Flux

```
.just(BigFraction.valueOf(100,3),  
      BigFraction.valueOf(100,4),  
      BigFraction.valueOf(100,2),  
      BigFraction.valueOf(100,1))  
  
.map(fraction -> fraction  
      .multiply(sBigReducedFraction))  
  
.subscribe  
  
(fraction -> sb.append(" = "  
    + fraction.toMixedString()  
    + "\n"),  
error -> sb.append("error"),  
() -> BigFractionUtils  
      .display(sb.toString()));
```

Applying Key Operators in the Flux Class to ex1

Applying Key Operators in the Flux Class to ex1



The screenshot shows the IntelliJ IDEA interface with the project 'ex1 [flux-ex1]' open. The 'FluxEx.java' file is the active editor. The code demonstrates how to use the Project Reactor's Flux class to perform synchronous operations like just(), map(), and subscribe(). It includes comments explaining the purpose of each section and links to the official documentation for further reading.

```
11 /**
12 * This class shows how to apply Project Reactor features
13 * synchronously to perform basic Flux operations, including just(),
14 * map(), and subscribe().
15 * https://projectreactor.io/docs/core/release/api/reactor/core/publisher/Flux.html
16 */
17 public class FluxEx {
18 /**
19 * Test BigFraction multiplication using a synchronous Flux
20 * stream.
21 */
22 public static Mono<Void> testFractionMultiplication() {
23     StringBuilder sb =
24         new StringBuilder(">> Calling testFractionMultiplication()\n");
25
26     Flux
27         // Use just() to generate a stream of big fractions.
28         // https://projectreactor.io/docs/core/release/api/reactor/core/publisher/Flux.html#just\(T\)
29         .just(BigFraction.valueOf( numerator: 100, denominator: 3 ),
30               BigFraction.valueOf( numerator: 100, denominator: 4 ),
31               BigFraction.valueOf( numerator: 100, denominator: 2 ),
32               BigFraction.valueOf( numerator: 100, denominator: 1 ) );
```

End of Applying Key Operators in the Flux Class: Case Study ex1 (Part 1)