FOUNDATIONS

of functional programming in Scala

Instructor

Backend developer for 10+ years

Author of Monocle

Run meetups and in-house Scala training

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Practical concepts of functional programming

Why FP matters to you, your colleagues and your business?

Become a Scala expert

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Prerequisites

Basic understanding of the Scala syntax

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Basic understanding of the Scala syntax

Answers and tests

```scala
object GenericFunctionExercises {

  ////////////////////////
  // Exercise 1: Pair
  ////////////////////////

  val names: Pair[String] = Pair("John", "Elisabeth")
  val ages: Pair[Int]     = Pair(32, 46)

  case class Pair[A](first: A, second: A) {
    // 1a. Implement `swap` which exchanges `first` and `second`
    // such as Pair("John", "Doe").swap == Pair("Doe", "John")
    def swap: Pair[A] =
      ???
```
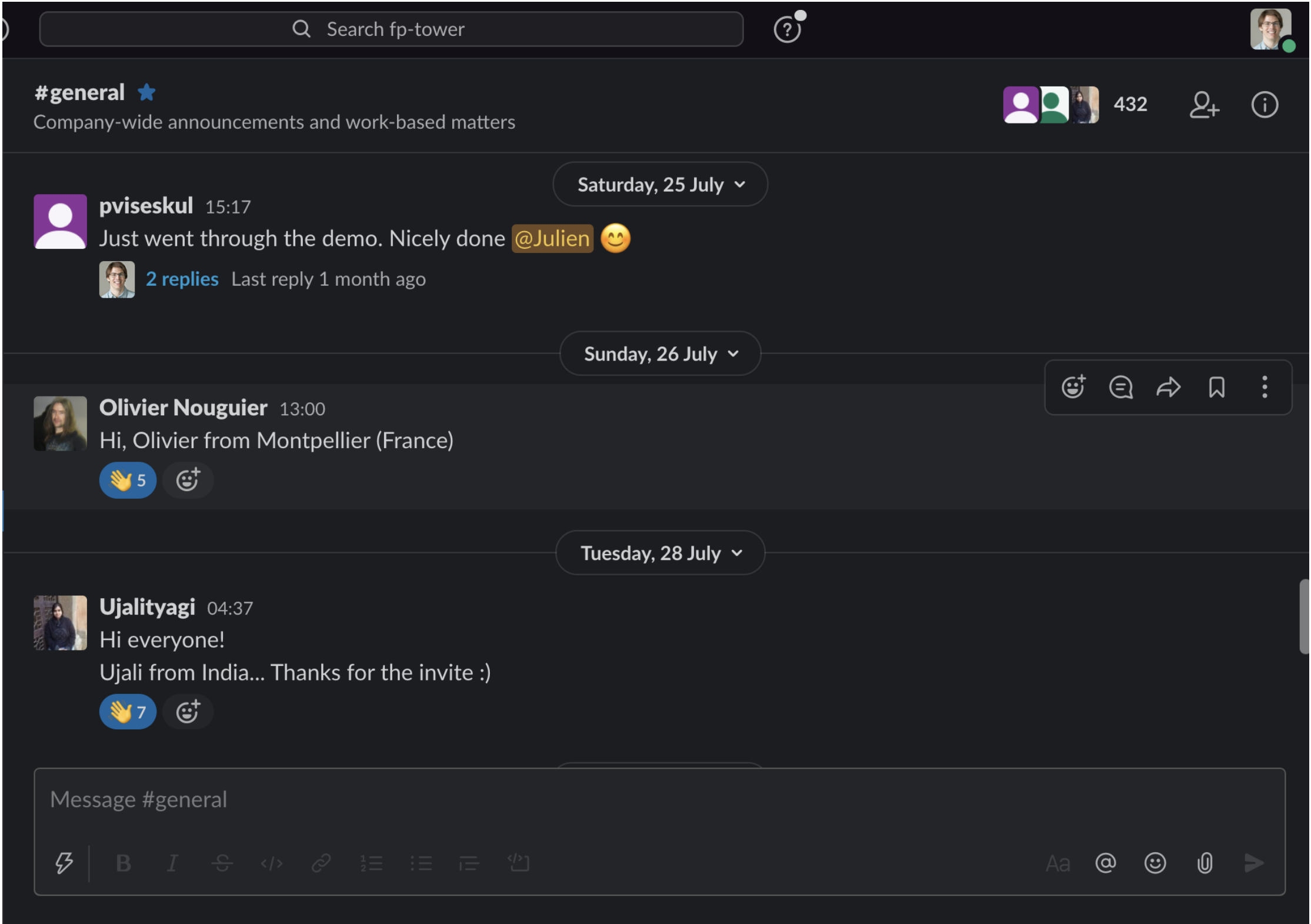
```scala
object GenericFunctionAnswers {

  ////////////////////////
  // Exercise 1: Pair
  ////////////////////////

  val names: Pair[String] = Pair("John", "Elisabeth")
  val ages: Pair[Int]     = Pair(32, 46)

  case class Pair[A](first: A, second: A) {


    def swap: Pair[A] =
      Pair(second, first)
```

```
[info] ScalaTest
[info] Run completed in 280 milliseconds.
[info] Total number of tests run: 67
[info] Suites: completed 5, aborted 0
[info] Tests: succeeded 67, failed 0, canceled 0, ignored 0, pending 0
[info] All tests passed.
[info] Passed: Total 67, Failed 0, Errors 0, Passed 67
[success] Total time: 1 s, completed 27 Aug 2020, 16:10:38
sbt:foundation>
```

Refactoring, syntax and IDE tips, testing strategies

INSERT exercise video sample

Online community

Plan

1. Value functions

2. Generic functions

3. Parallel data processing

4. What's functional programming

5. Actions

6. Error handling

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