

**SOURCE**LABS



Kotlin

# Speaker: Stephan Oudmaijer



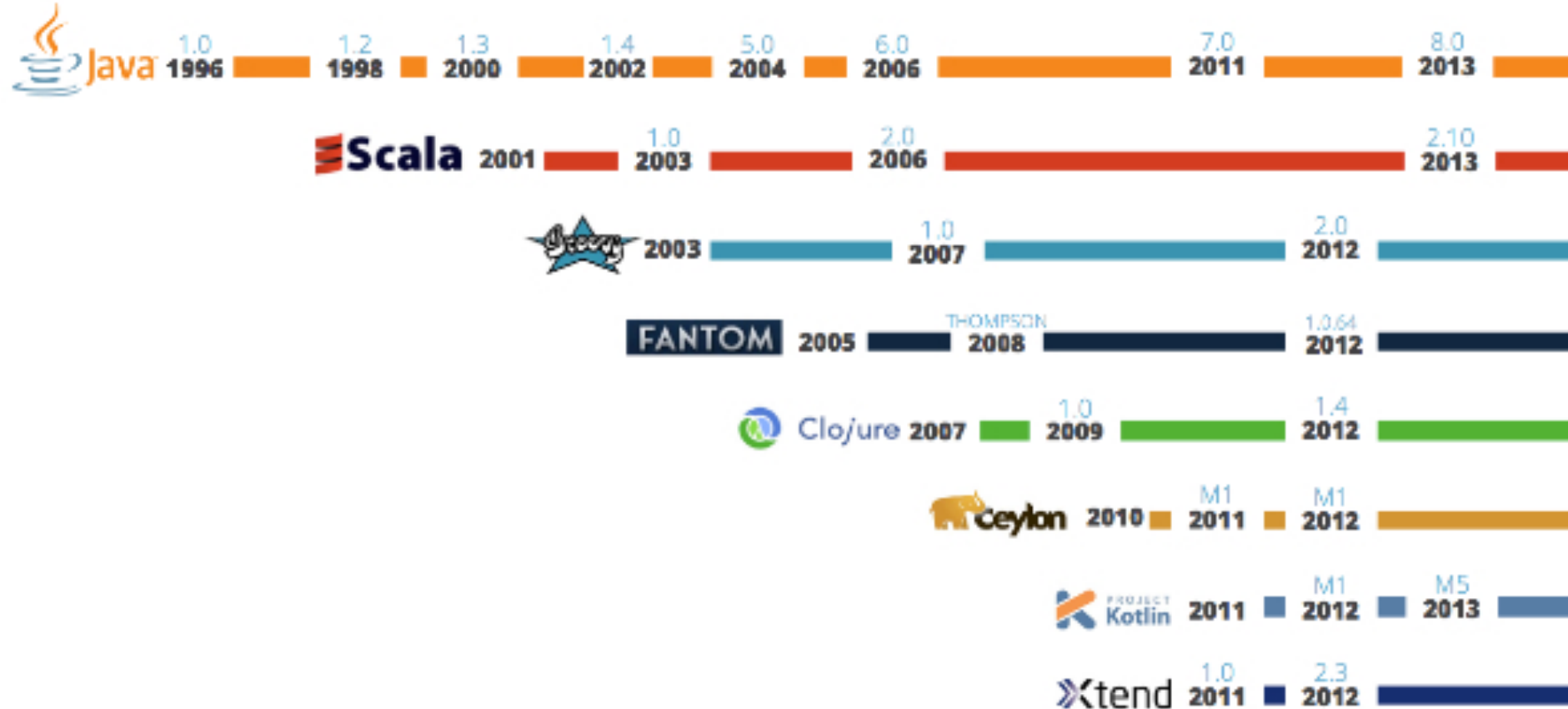
- Switched to Java ~2002 (.NET 1.0 launch)
- Using Kotlin in production since 1.0 release (2016)
- Tried different kinds of languages: Java, JavaScript, Go, Scala, Groovy, NodeJS, VisualBasic, PHP, Ruby

# Speaker: Jarno Walgemoed



- ...

# Kotlin



# Kotlin



- OSS: Apache 2.0
- Developed by JetBrains
- Project started in 2010
- 1.0 release in february 2016, current version: 1.1.3-2
- F.a.q: <https://kotlinlang.org/docs/reference/faq.html>

# Kotlin philosophy



- Pragmatic
  - Things you do most often should be default
  - Be explicit about the rest
- Safe
  - Null safety
  - Smart cast
- But, most ideas implemented in Kotlin are (very) old
  - Implementation is new (coroutines, lambdas, etc)

# Kotlin: cross-platform



- JVM
- Android
- JavaScript
- Native: using LLVM
  - iOS applications (reusing code with Android)
  - Embedded systems/IoT (e.g., Arduino and beyond)
  - Data analysis and Scientific Computing
  - Server-side and Microservices (low-footprint executables, utilizing the power of coroutines)
  - Game Development

# Kotlin popularity



- Major boost since Google I/O 2017 announcement
  - <https://youtu.be/d8ALcQiuPWs?t=17>

## TIOBE Index for July 2017



### July Headline: Go language at all time high and in the top 10

The Go programming language continues to rise. This month it is at an all time high and enters the top 10. This is an important landmark for the Go programming language, but it also makes you wonder what's next. Is Go really able to join the big stars in the programming language world and leave languages such as JavaScript and Python behind? We will see. The hipster programming languages Kotlin, Elixir and Hack didn't progress much this month. Kotlin lost 5 positions, Hack lost 6 positions and Elixir is still not in the top 50 losing also 5 positions.



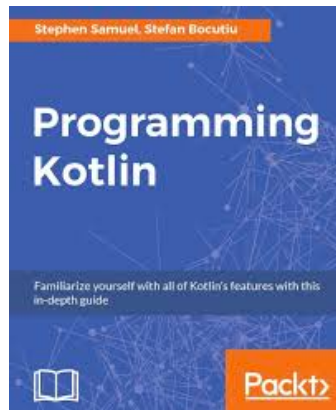
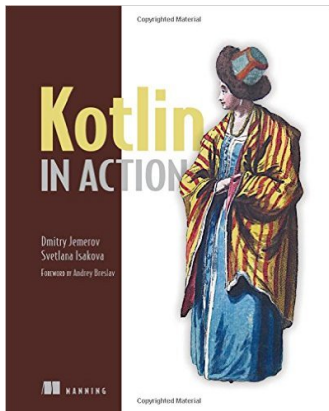
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# Learning Kotlin



- Documentation: <https://kotlinlang.org/docs/reference/>
- Try online: <https://try.kotlinlang.org/>
- Youtube
  - <https://www.youtube.com/watch?v=X1RVYt2QKQE>
  - <https://www.youtube.com/watch?v=a7QpoMj2uIA>



# One year with kotlin in production



- The good
  - Easy to start with Kotlin in Hybrid mode
  - Low learning curve
  - Codebase much smaller and maintainable
- The bad?
  - Requires some 'work' for Java -> Kotlin interop
  - Refactoring in a Hybrid codebase can be a real pain!
  - Additional configuration for frameworks required
    - Spring, Jackson, JPA but also build tools like Maven and Gradle

# Demo time!

- Live coding

