

Mobile Application Development

Produced
by

David Drohan (ddrohan@wit.ie)

Dr. Siobhan Drohan (sdrohan@wit.ie)

Department of Computing & Mathematics
Waterford Institute of Technology

<http://www.wit.ie>



Waterford Institute *of* Technology

INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE



Introducing Kotlin

Overview – Part 1



Agenda

- ❑ What is Kotlin?
- ❑ Context - Java Vs JVM
- ❑ Kotlin History
- ❑ Milestones
- ❑ General Overview & Features
- ❑ Kotlin & IntelliJ IDEA
- ❑ Conclusion

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So What is Kotlin?

- ❑ A (fairly) new statically-typed language from JetBrains (creators of IntelliJ IDEA which it works seamlessly with)
- ❑ Tries to fix many of Java's shortcomings
- ❑ Compiles to **JVM** bytecode, JavaScript and Kotlin native
- ❑ Created with focus on Java interoperability – Kotlin and Java classes can be used together in a project
- ❑ Gaining more traction and is being increasingly adopted, especially in the last few years (see later slides)
- ❑ Has very good support from JetBrains, an established company, who use Kotlin to develop their own products

Context - JAVA Vs JVM



" Most people talk about Java the language, and this may sound odd coming from me, but I could hardly care less. At the core of the Java ecosystem is the JVM. "

James Gosling,

Creator of the Java Programming Language(2011, TheServerSide)



Context - JVM Language History



Figure 1. JVM language History (image created by [zeroturnaround](#))

The next JVM language to learn



December 23, 2014

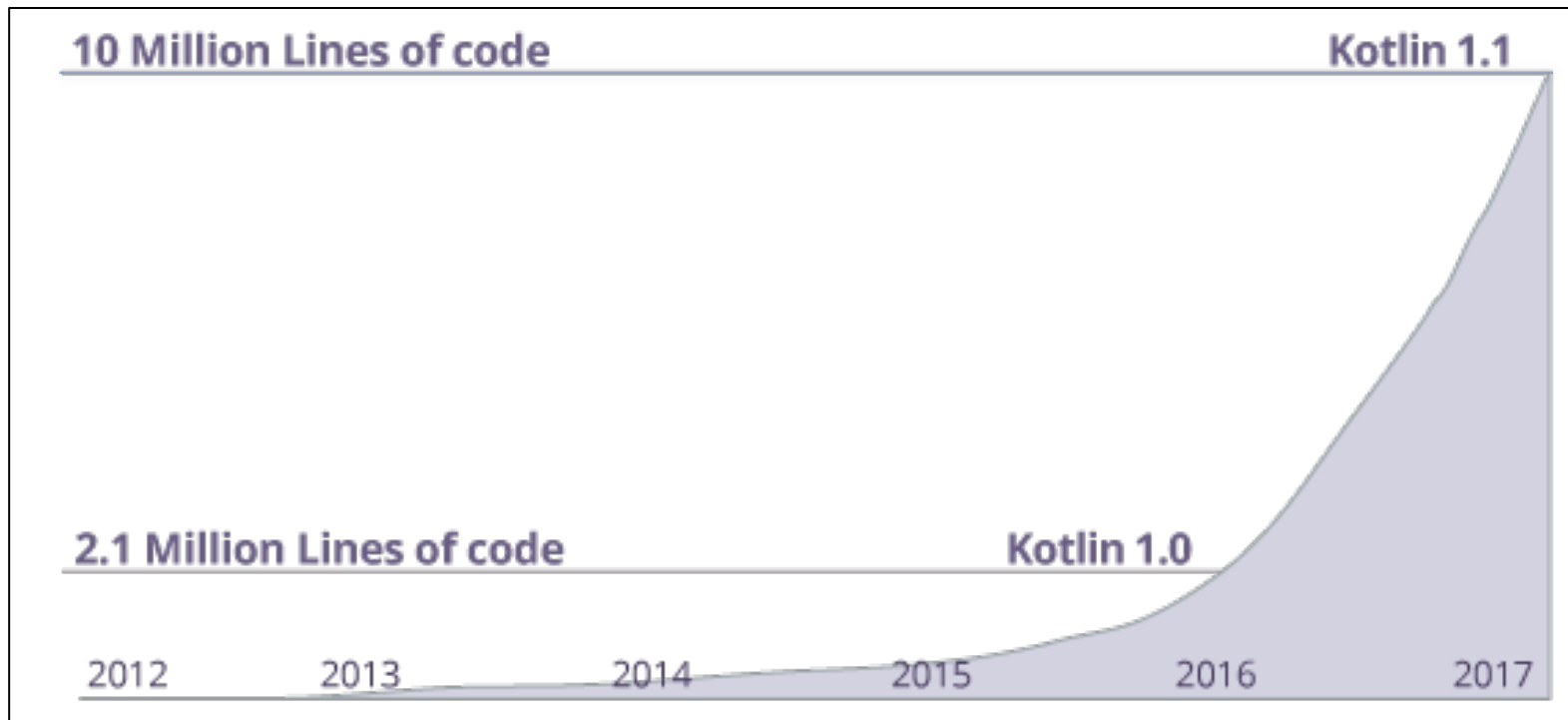
<https://zeroturnaround.com/rebellabs/a-month-of-jvm-languages-groovy-ceylon-kotlin-and-scala/>

History of Kotlin



- ❑ In July 2011 JetBrains Start Project Kotlin, a new language for the JVM, which had been under development for a year.
- ❑ JetBrains hopes that the new language will drive IntelliJ IDEA sales.
- ❑ Kotlin v1.0 released on February 15, 2016.
- ❑ In May 2017 Google make an announcement that changes the Kotlin roadmap completely (see later)





Many companies like Netflix, Uber, Trello, Pinterest, Corda etc. are using Kotlin (along with other programming languages) to create applications.

<https://www.programiz.com/kotlin-programming>

April 21st 2017

Dzone Article (Why You Should Consider Kotlin For Android Development)

“Java is the primary and official language for Android development, but that doesn’t mean it is the best or the only choice.”

“To give Java credit, it is a robust language that has been around for a while, but it comes with a specific set of challenges that can be a deterrent for developers.”

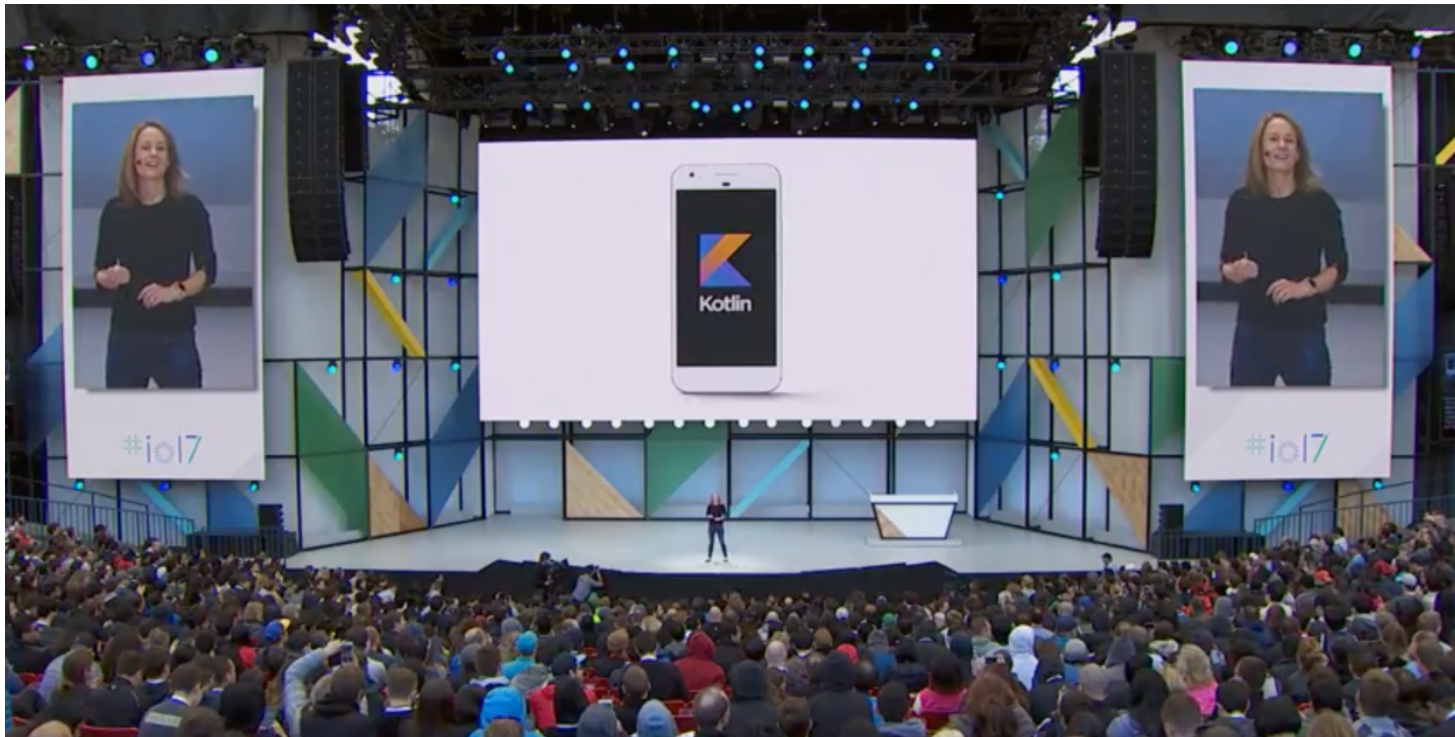
“A new breed of modern JVM languages is slowly gaining traction within the Android community, and Kotlin is leading the pack.”

Source: [Dzone](#), April 21st 2017



May 17th 2017

Google I/O 2017 - Google announces that Kotlin would receive **first-class support** for Android development



JetBrains Posted (same day)

*“For Android developers, Kotlin support is a chance to use a modern and powerful language, helping solve common headaches such as runtime exceptions and **source code verbosity**.*

*Kotlin is easy to get started with and **can be gradually introduced into existing projects**, which means that your existing skills and technology investments are preserved.”*

“Starting now, Android Studio 3.0 ships with Kotlin out of the box, meaning Android developers no longer need to install any extras or worry about compatibility. It also means that moving forward, you can rest assured that both JetBrains and Google will be supporting Android development in Kotlin.”

<https://blog.jetbrains.com/kotlin/2017/05/kotlin-on-android-now-official/>

Agenda Recap

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