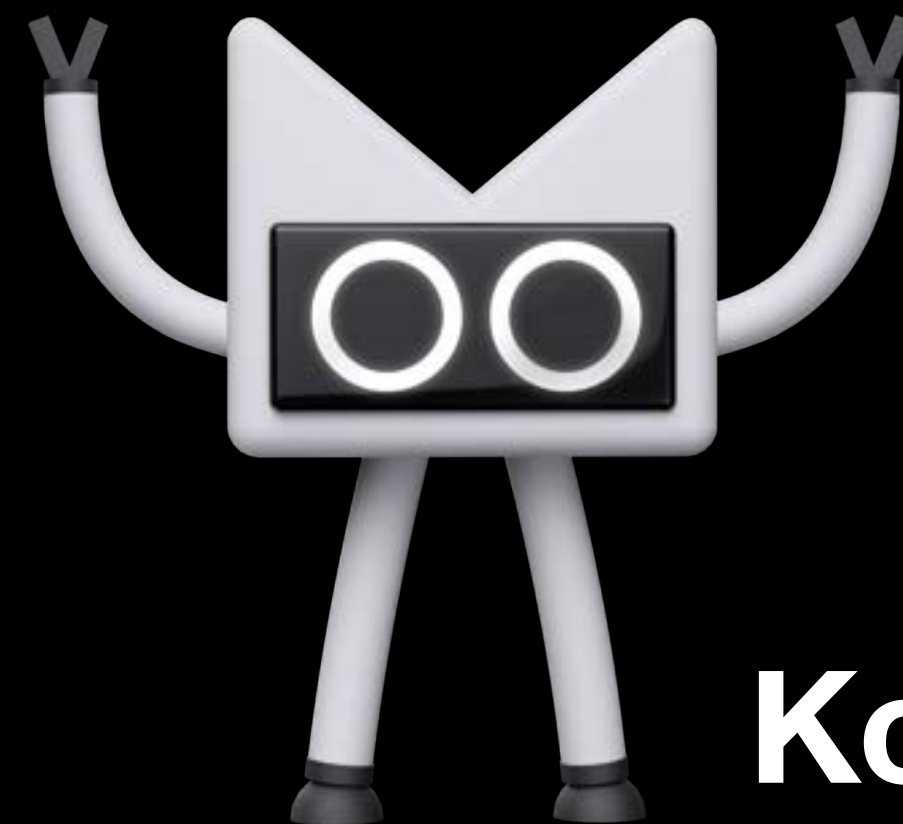




blue4IT

# HOW WE BUILT AND MIGRATED

our Spring Boot Applications to Kotlin



Ko Turk

**70%**

Of devs whose primary language is Kotlin say that Kotlin makes them more productive

- Faster to write, review, and debug
- Language features
- Paradigms like immutability

**87%**

Of Google Server-side Kotlin Developers are "very satisfied" with Kotlin

- Easy on-ramp
- Incremental learning & adoption

**20%**

Less likely to crash (Android apps built with Kotlin)

- Null safety
- More correct code is easier to write

**0%**

Degradation of productivity in mixed Java + Kotlin codebase

- Incremental adoption
- Great Interop

**~5m**

Kotlin users - many doing Android

- Large and mature ecosystem
- Code / library sharing
- Shared tooling



The slide features a dark blue background with a starry space theme. At the top, a string of colorful pennant flags (purple, white, blue, green) is draped across. On the left, a circular portrait of Kevin Bierhoff is set against a bright green background. To the right of the portrait, a quote in white text reads: "We've been working to bring Kotlin to Google engineers for the last few years by adding Kotlin support to all the tools they use. This includes the build system, static analysis tools, libraries and APIs." Below the quote, Kevin's name and title, "Kevin Bierhoff, Lead of Kotlin team | Google", are listed. A purple pill-shaped button contains the hashtag "#Hi5KotlinOnAndroid", and next to it is a small icon of two hands clapping. On the right side of the slide, a video inset shows Kevin Bierhoff standing at a podium with a laptop, speaking. The podium has a sign that says "DEVOXX BELGIUM". At the bottom left, there are logos for "DEV" and "aws". At the bottom right, the "DEVOXX™" logo is displayed in a large, white, stylized font.

"We've been working to bring Kotlin to Google engineers for the last few years by adding Kotlin support to all the tools they use. This includes the build system, static analysis tools, libraries and APIs."

Kevin Bierhoff  
Lead of Kotlin team | Google

#Hi5KotlinOnAndroid

DEVOXX  
BELGIUM

DEV aws

DEVOXX™

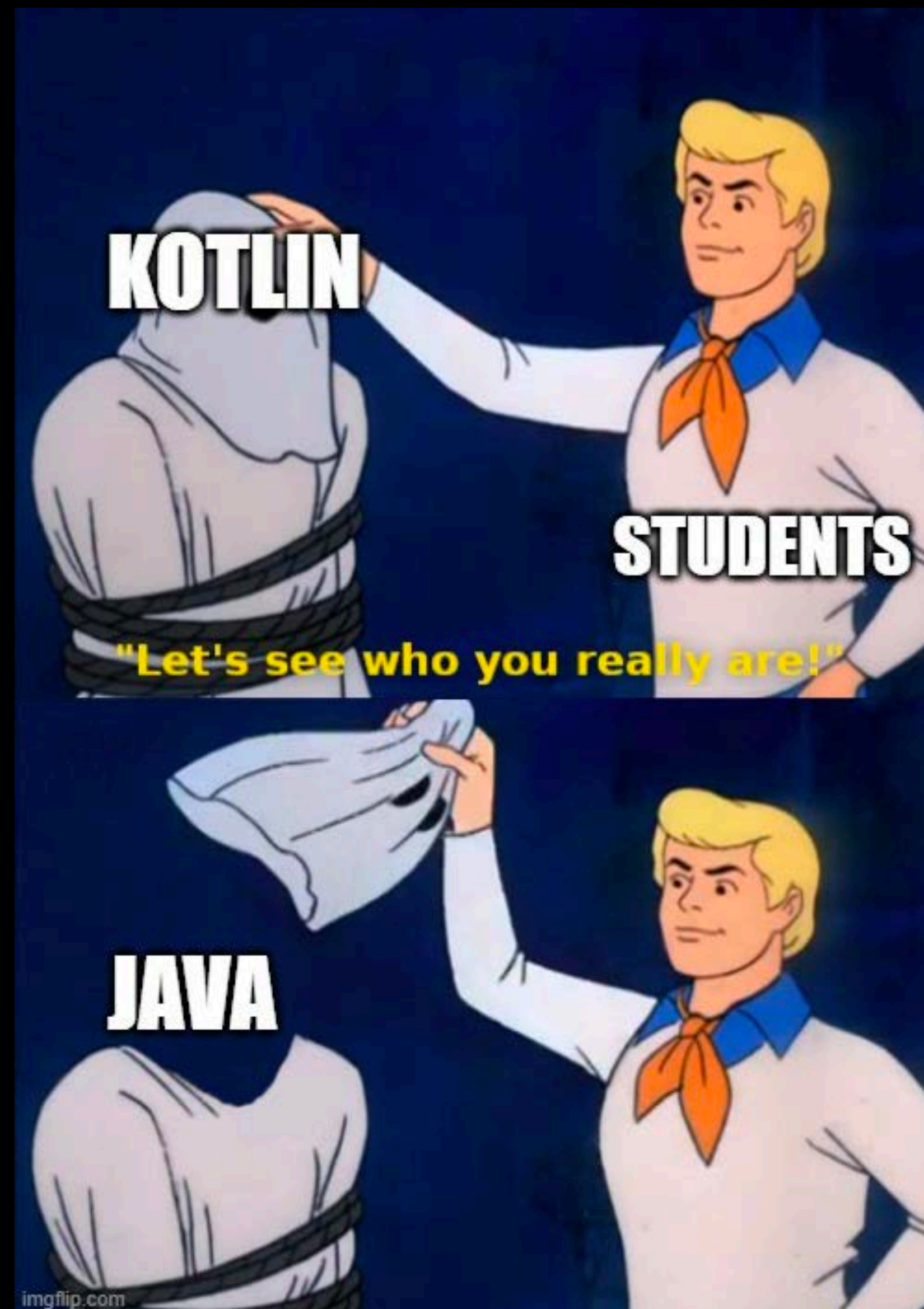
Google's Journey from Java to Kotlin for Server Side Programming















**KOTLIN ISLAND**



# What's in it for





# You will learn

How to:

- Migrate to Kotlin
- Improve your code




--> IntelliJ IDEA

--> scoped functions

--> replace loops

--> reactive



++ Posted by u/vlakreeh   2 years ago  

## 828 How Kotlin developers see Java developers

-- Meme





Me looking at Java code  
after learning Kotlin





# WARNING

This meeting will contain live coding,  
so everything could (potentially) go wrong.





The story.....







**MY VERSION OF**

**MOVING DAY!!!**















I'm gonna sue  
you for this!!!!





A security guard is shown from the back, wearing a black uniform jacket with the word "SECURITY" in large white capital letters. He is also wearing a black cap and a blue earpiece. He is holding a black walkie-talkie to his mouth with his right hand. The background is a blurred view of a building with white railings and a blue sky.

**SECURITY**







Surprise!

All these steps are  
also applied when  
migrating

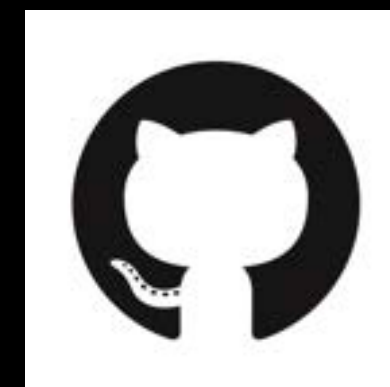
# HOW WE BUILD AND MIGRATED

**our Spring Boot Applications to Kotlin**





**Ko Turk**  
Developer



KoTurk/Kotlin/EngineersWeek

**Team Inkpot**

**Part of the Ignite, Kotlin and Java  
community**

**Speaker**



<https://twitter.com/KoTurk77>



**I HATE PROGRAMMING**  
**I HATE PROGRAMMING**  
**I HATE PROGRAMMING**  
**IT WORKS!**  
**I LOVE PROGRAMMING**



**YOU DON'T GET NullPointerException**

**IF YOU DON'T USE NULLS**



String?



There are different  
strategies





To move to Kotlin








## All Courses

 Marketplace JetBrains Academy Stepik Coursera CheckiO Codeforces

## My Courses

0 in progress

 Introductory Kotlin workshop for programmers

Programming Languages



English




Marketplace is a course repository where educators from all over the world can share their knowledge about programming. These courses are specifically designed to provide hands-on experience inside JetBrains IDEs.




## AtomicKotlin

 4.8  7777 JetBrains s.r.o.

## Kotlin Koans

 4.3  18059 JetBrains s.r.o.


## Java for beginners

 4.7  3586 Sebastian Pinzon


## { this is Kotlin }

 4.5  767 Tiberiu Tofan

## Introductory Kotlin workshop for progra...

 4.4  853 David Stibbe, Ali Meshkat

## Enchant Codelabs

Not yet rated  93 Ethan Hsu

Kotlin


English

## Introductory Kotlin workshop for programmers

David Stibbe, Ali Meshkat

START

## Course Details

 4.4 • 853 learners • Updated: Oct 19, 2021

This is an introductory workshop into the wondrous world of Kotlin provided by David Stibbe and Ali Meshkat.

The target audience is anyone with a bit of programming experience and an interest in learning Kotlin.

Through these assignments we will explore the most important aspects of the Kotlin language and how to apply these.

The presented materials are based on the official [Kotlin documentation](#).

## Topics

- Basics
- Nullable Types
- Functions and Lambdas
- Generics





The central part of the slide features a large screenshot of an IDE window. The IDE has a dark theme and a menu bar with options like 'View', 'Navigate', 'Code', 'Refactor', 'Build', 'Run', 'Tools', 'Window', and 'Help'. A small dialog box in the center of the IDE says 'Loading demo Project' and 'Preparing workspace...' with a 'Cancel' button. To the right of the IDE screenshot is a photograph of two men standing behind a podium. The podium has a laptop on it and a sign that reads 'DEVOXX BELGIUM'. The background of the photo is a starry night sky. At the bottom of the slide, there is a dark banner with a starry background. On the left side of the banner are the 'SET AWARDS' logo and the 'aws' logo. On the right side of the banner is the 'DEVOXX™' logo.

Spring + Kotlin = Modern + Reactive + Productive





The main content area of the slide is a dark blue rectangle with a subtle pattern of glowing blue dots. It contains three main visual elements: a large landscape image of a snow-capped mountain range under a cloudy sky; a smaller, semi-transparent code editor window in the bottom-right of the landscape image showing the text 'declarative and functional' and the date '10/18/2009'; and a smaller inset image on the right showing a man with glasses and a mustache, wearing a dark shirt, standing behind a podium with a laptop. The podium has a sign that reads 'DEVOXX POLAND'. The 'DEVOXX' logo is also visible in the bottom right corner of the slide.

Functional Programming in Kotlin by Venkat Subramaniam















# Live coding



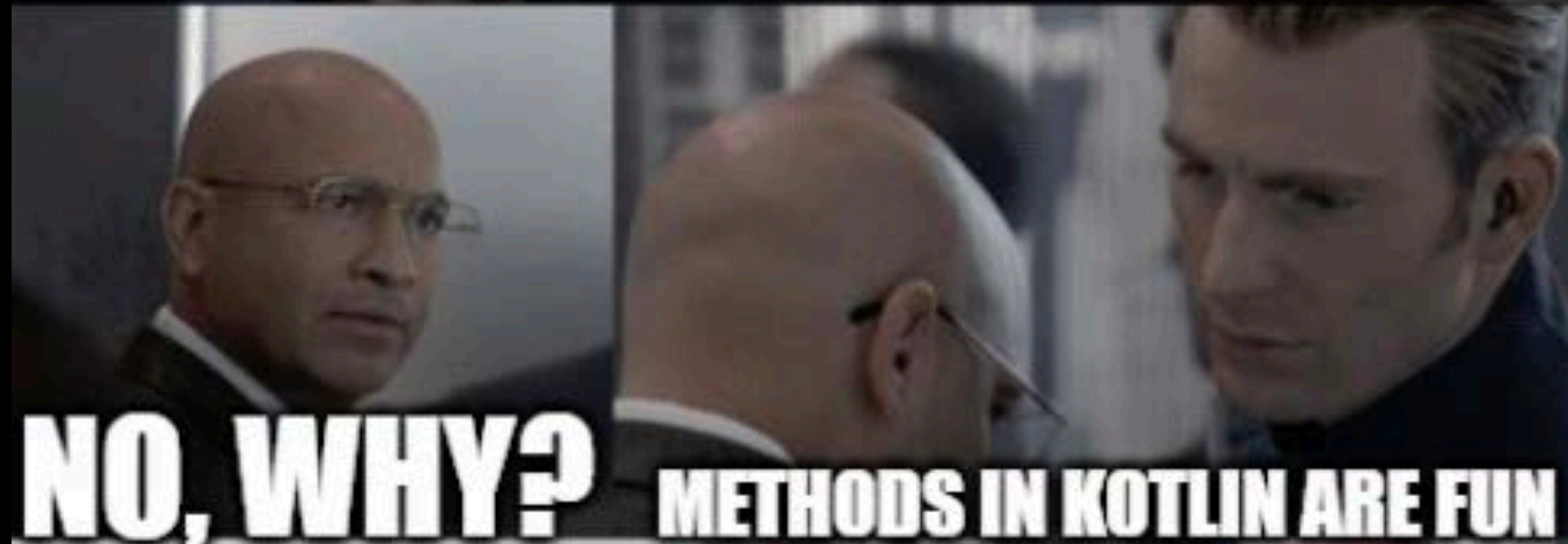








**DO YOU KNOW  
WHY KOTLIN IS  
BETTER THAN JAVA?**



**NO, WHY?** **METHODS IN KOTLIN ARE FUN**





# Key takeaways

- IDEA is your friend
- begin simple
  - > **use data classes, do not start with logic**
- do safe calls
  - > **with .let, .also and ?:**
- make your code readable
  - > **with idiomatic Kotlin!**





# Kotlin

## To



# Java™





**I LIKE TO MOVE IT, MOVE IT**



**I LIKE TO KOTLIN!**



A photograph of two people sitting on a wooden floor, leaning against a white wall. They are wearing cardboard boxes on their heads, which have simple smiley faces drawn on them. The person on the left is wearing a red shirt and blue jeans, and the person on the right is wearing a green shirt and blue jeans. They are both barefoot. There are several stacks of cardboard boxes around them: a stack of three on the left, a stack of two on the right, and a single box in front of the person on the left. The text 'THANK YOU' is overlaid in large white letters across the middle of the image.

# THANK YOU

Github: <https://github.com/KoTurk/>

Twitter: @KoTurk77