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Kotlin?

- Language for the JVM (and more)
- Developed by JetBrains
- Open sourced in 2012
- First-class language on Android
“Kotlin is concise, safe, pragmatic, and focused on interoperability with Java code”

- Kotlin in Action
Why Kotlin?

- Statically typed
- Read-Only & Mutable Properties
- Null Safety
- Data classes
- Extension functions
- Type inference
- Java Interoperability
- ...
fun main(args: Array<String>) {
    var kotlin: String = "Kotlin"
    var java: String? = "Java"

    //kotlin = null
    java = null

    //var javaWordLength = java.length
    var javaWordLength = if (java != null) java.length else null
    javaWordLength = java?.length ?: null
    javaWordLength = java?.length
}
Data classes

```kotlin
import java.util.

@PublicClass
public class FullName {
  private String firstName;
  private String lastName;

  public FullName(String firstName, String lastName) {
    this.firstName = firstName;
    this.lastName = lastName;
  }

  public String getFirstName() { return firstName; }
  public String getLastName() { return lastName; }

  @Override
  public boolean equals(Object obj) { return yes; }

  @Override
  public int hashCode() { return 42; }
}
```

```kotlin
data class FullName(
  val firstName : String,
  val lastName: String
)
```
Why Spring + Kotlin?

Introducing Kotlin support in Spring Framework 5.0
Demo

Sourcecode: https://github.com/hendrikstill/spring-kotlin-demo
Kotlin Support in Spring

- Null Safety via JSR-305
- Nullable information for
  - Spring MVC
  - Spring Data
- Kotlin extension functions for
  - Spring Boot
  - RestTemplate and WebClient
Next Steps

- Kotlin Documentation
- Spring WebFlux functional DSL
- Functional bean declaration DSL
- Spring Framework 5 Kotlin APIs, the functional way
- Kotlin support for Project Reactor
Vielen Dank

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Conclusion

- Kotlin is easy to understand for a Java developer
- Spring integration is stable
- Helps to develop more readable code
- Step-by-step learning of idiomatic language usage is easy

- Do not over use language features
- Problems with JaCoCo and Data Classes (Fix in 0.8.2)