

INLINE CLASSES

KotlinConf Recap

AGENDA

- Why?
- Example
- Restrictions
- Performance implications
- Applications

Performant code

Concise/Safe code



Ideal code

Ref: <https://www.youtube.com/watch?v=-IVVfxsRjcY&t=0s&list=PLQI76FUlyIUbVvFMqDc2jhXS-t562uytr&index=28>

EXAMPLE

RESTRICTIONS

PERFORMANCE IMPLICATIONS

Autoboxing of Inline Classes by Nullability: Reference Types

Scenario	Nullability of Underlying Type	Nullability of Usage	Resulting Compiled Type
A	NOT NULLABLE <code>inline class X(val x: String)</code>	NOT NULLABLE <code>fun exec(arg: X)</code>	UNDERLYING TYPE (no autoboxing) <code>void exec(String arg)</code>
B	NOT NULLABLE <code>inline class X(val x: String)</code>	NULLABLE <code>fun exec(arg: X?)</code>	UNDERLYING TYPE (no autoboxing) <code>void exec(String arg)</code>
C	NULLABLE <code>inline class X(val x: String?)</code>	NOT NULLABLE <code>fun exec(arg: X)</code>	UNDERLYING TYPE (no autoboxing) <code>void exec(String arg)</code>
D	NULLABLE <code>inline class X(val x: String?)</code>	NULLABLE <code>fun exec(arg: X?)</code>	WRAPPING TYPE (autoboxing) <code>void exec(X arg)</code>

Autoboxing of Inline Classes by Nullability: Primitives

Scenario	Nullability of Underlying Type	Nullability of Usage	Resulting Compiled Type
A	<div>NOT NULLABLE</div> <div>inline class X(val x: Int)</div>	<div>NOT NULLABLE</div> <div>fun exec(arg: X)</div>	<div>UNDERLYING TYPE</div> <div>(no autoboxing)</div> <div>void exec(int arg)</div>
B	<div>NOT NULLABLE</div> <div>inline class X(val x: Int)</div>	<div>NULLABLE</div> <div>fun exec(arg: X?)</div>	<div>WRAPPING TYPE</div> <div>(autoboxing)</div> <div>void exec(X arg)</div>
C	<div>NULLABLE</div> <div>inline class X(val x: Int?)</div>	<div>NOT NULLABLE</div> <div>fun exec(arg: X)</div>	<div>UNDERLYING TYPE</div> <div>(no autoboxing)</div> <div>void exec(Integer arg)</div>
D	<div>NULLABLE</div> <div>inline class X(val x: Int?)</div>	<div>NULLABLE</div> <div>fun exec(arg: X?)</div>	<div>WRAPPING TYPE</div> <div>(autoboxing)</div> <div>void exec(X arg)</div>

POSSIBLE APPLICATIONS

REFERENCES

- <https://github.com/Kotlin/KEEP/blob/master/proposals/inline-classes.md>
- <https://kotlinlang.org/docs/reference/inline-classes.html>
- <https://typealias.com/guides/introduction-to-inline-classes/>
- <https://typealias.com/guides/inline-classes-and-autoboxing/>
- <https://www.youtube.com/watch?v=-IVVfxsRjcY&t=0s&list=PLQI76FUIyIUbVvFMqDc2jhxS-t562uytr&index=28>

Q&A

