



[BPF.LI/S](https://bpf.li/s)



KARSTEN SILZ

22. SEPTEMBER 2021

WIE SOLLTEN JAVA-ENTWICKLER HEUTE FRONT- ENDS FÜR WEB, MOBIL UND DESKTOP ERSTELLEN?





FOLIEN & VIDEOS

ZUSATZ-INFOS

FEEDBACK

SELBST LOSLEGEN!

NEWSLETTER

BPF.LI/TEE

AGENDA

JAVA-ENTWICKLER: WUNSCHLISTE FÜR FRONT-ENDS

WEB: NEUE WEB-ANWENDUNG

MOBIL: NEUE, NATIVE IOS- & ANDROID-APPS

DESKTOP: WEB-ANWENDUNG DA – WAS TUN?

ICH GEBE RATSCHLÄGE...

... WAS FÜHRE ICH
IM SCHILDE?



3 PROJEKTE

12 KRITERIEN

KEIN TRAINING/BUCH

ANGULAR + FLUTTER

NICHT LIERT

**ICH GEBE IHNEN
OPTIONEN...**

IHRE KRITERIEN

IHRE UMGEBUNG

IHRE ENTSCHEIDUNG

...SIE ENTSCHEIDEN!

JAVA-ENTWICKLER: WUNSCHLISTE FÜR FRONT-ENDS

WEB: NEUE WEB-ANWENDUNG

MOBIL: NEUE, NATIVE IOS- & ANDROID-APPS

DESKTOP: WEB-ANWENDUNG DA – WAS TUN?

JAVA-ENTWICKLER: WUNSCHLISTE

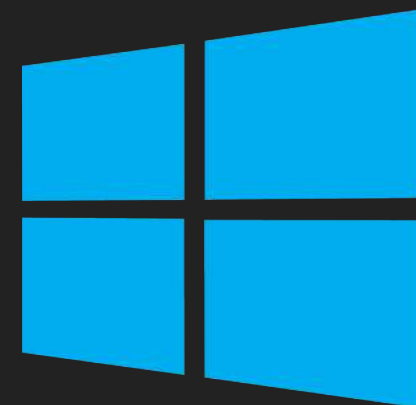
ANWENDUNGEN & GERÄTE

ENTERPRISE-ANWENDUNGEN

FORMULARE, TABELLEN, REPORTS

KEINE SPIELE/MEDIA-PLAYER

PC



MOBIL



**WAS IST WUNSCHLISTE FÜR
JAVA-ENTWICKLER?**

JAVA

WEB

SCHNELL

STATE OF THE ART

MOBIL

**NATIVE
FUNKTIONALITÄT**

SICHER

DESKTOP

1 CODE-BASIS

POPULÄR

ERWEITERBAR

**SCHNELLES BUILD,
DEPLOY & DEBUG**

TECHNOLOGIEN WECHSELN

JOB-SICHERHEIT

WARUM STATE OF THE ART?

STATE OF THE ART:

DEKLARATIV

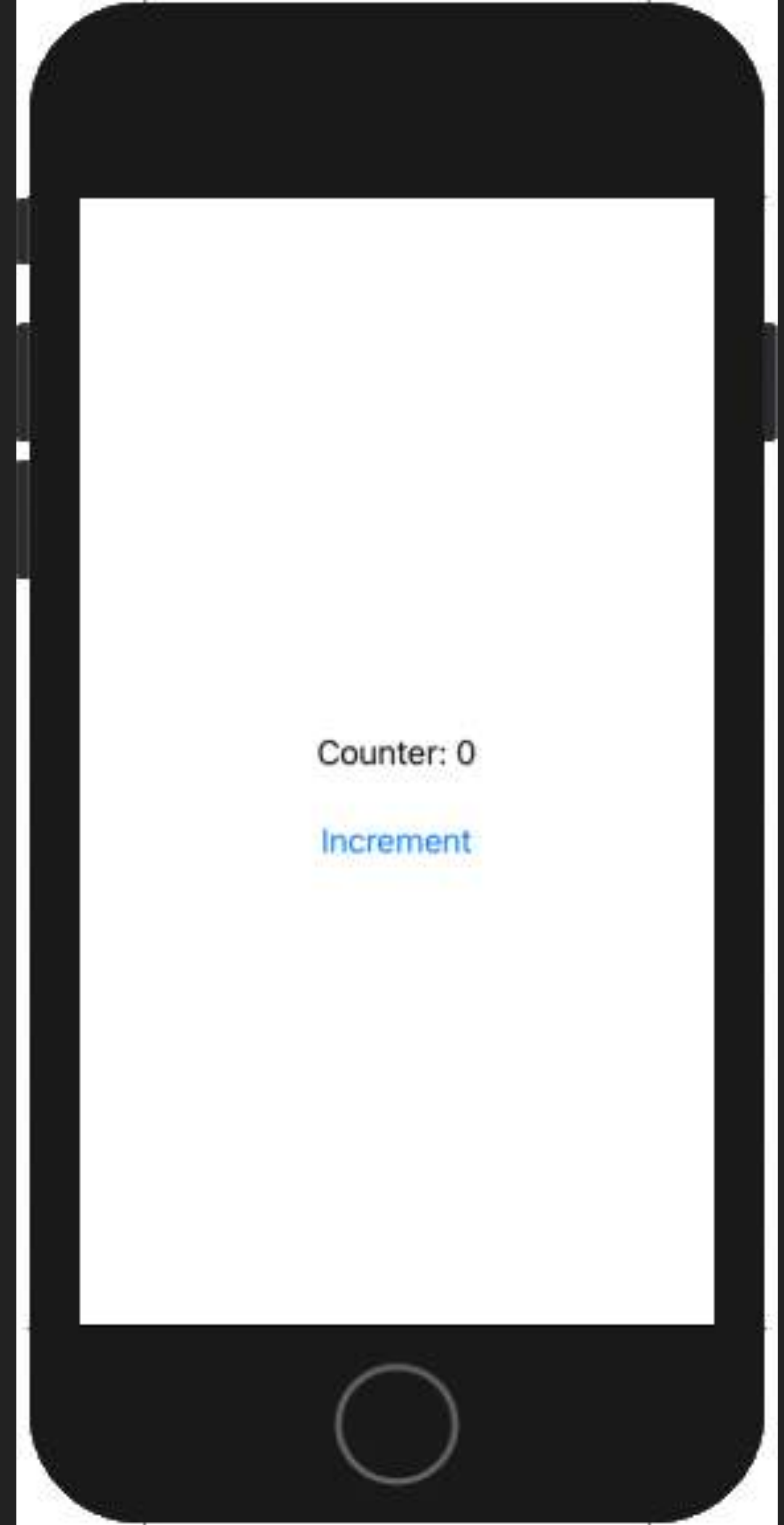
BEISPIEL:
APPLE SWIFTUI

Counter: 0

Increment

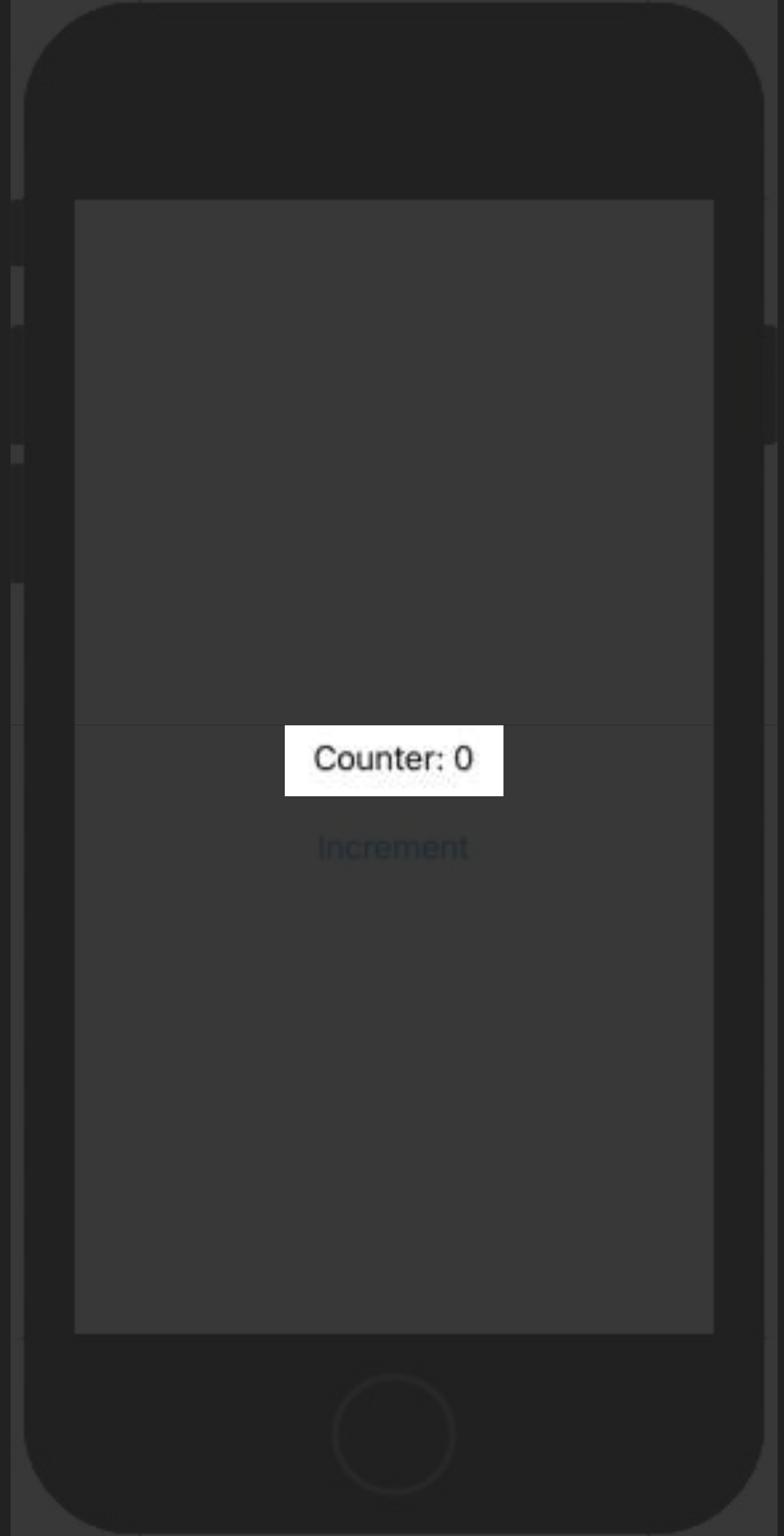

```
@State var count: Int = 0

var body: some
View {
    VStack(alignment: .center,
        content: {
            Text("Counter: \ (count) ")
                .padding()
            Button(action: {
                self.count += 1
            }, label: {
                Text("Increment")
            })
        })
    })
}
```



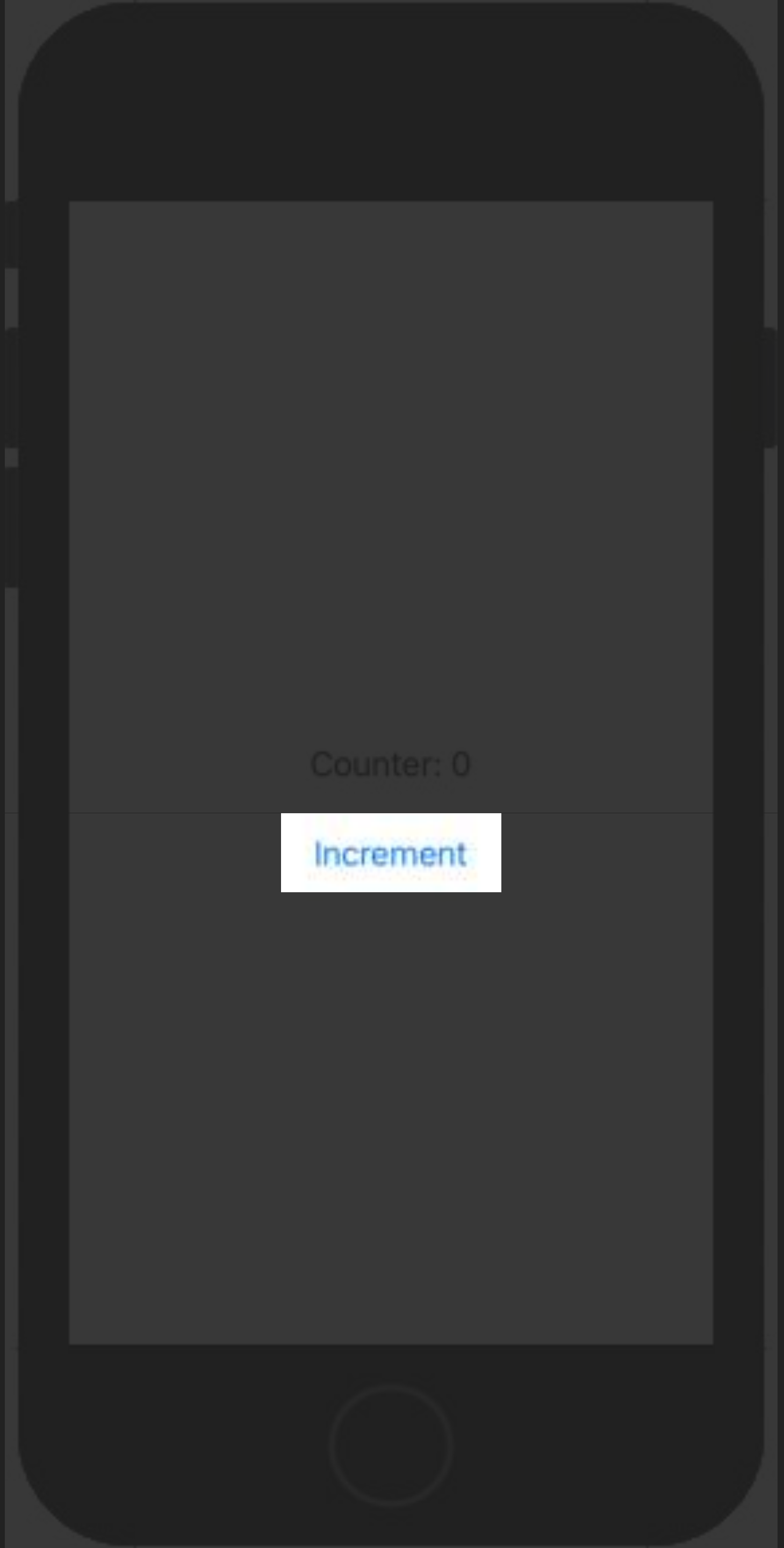
```
@State var count: Int = 0

var body: some
View {
    VStack(alignment: .center,
        content: {
            Text("Counter: \ (count) ")
                .padding()
            Button(action: {
                self.count += 1
            }, label: {
                Text("Increment")
            })
        })
    })
}
```



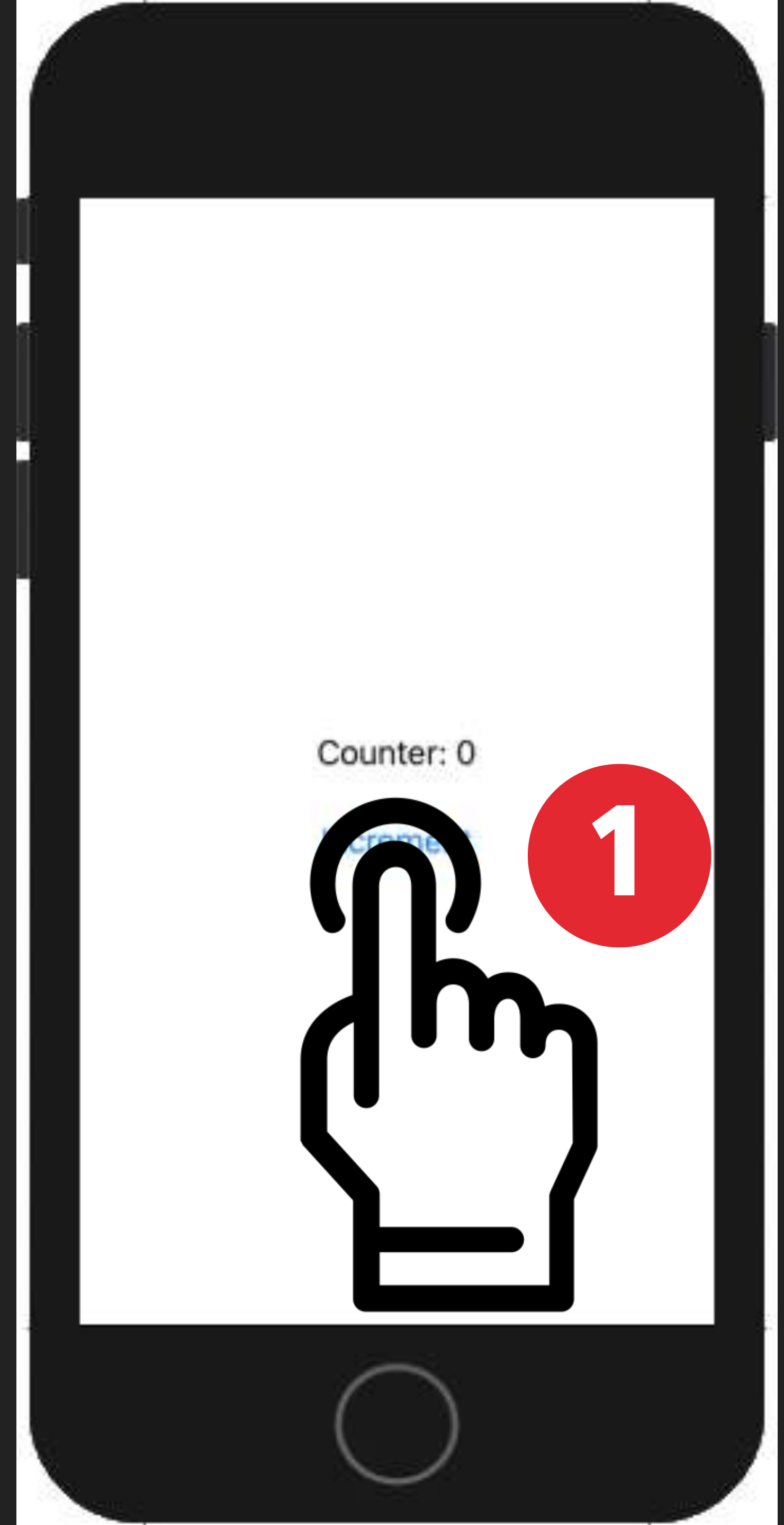
```
@State var count: Int = 0

var body: some
View {
    VStack(alignment: .center,
        content: {
            Text("Counter: \ (count) ")
                .padding()
            Button(action: {
                self.count += 1
            }, label: {
                Text("Increment")
            })
        })
    })
}
```




```
@State var count: Int = 0

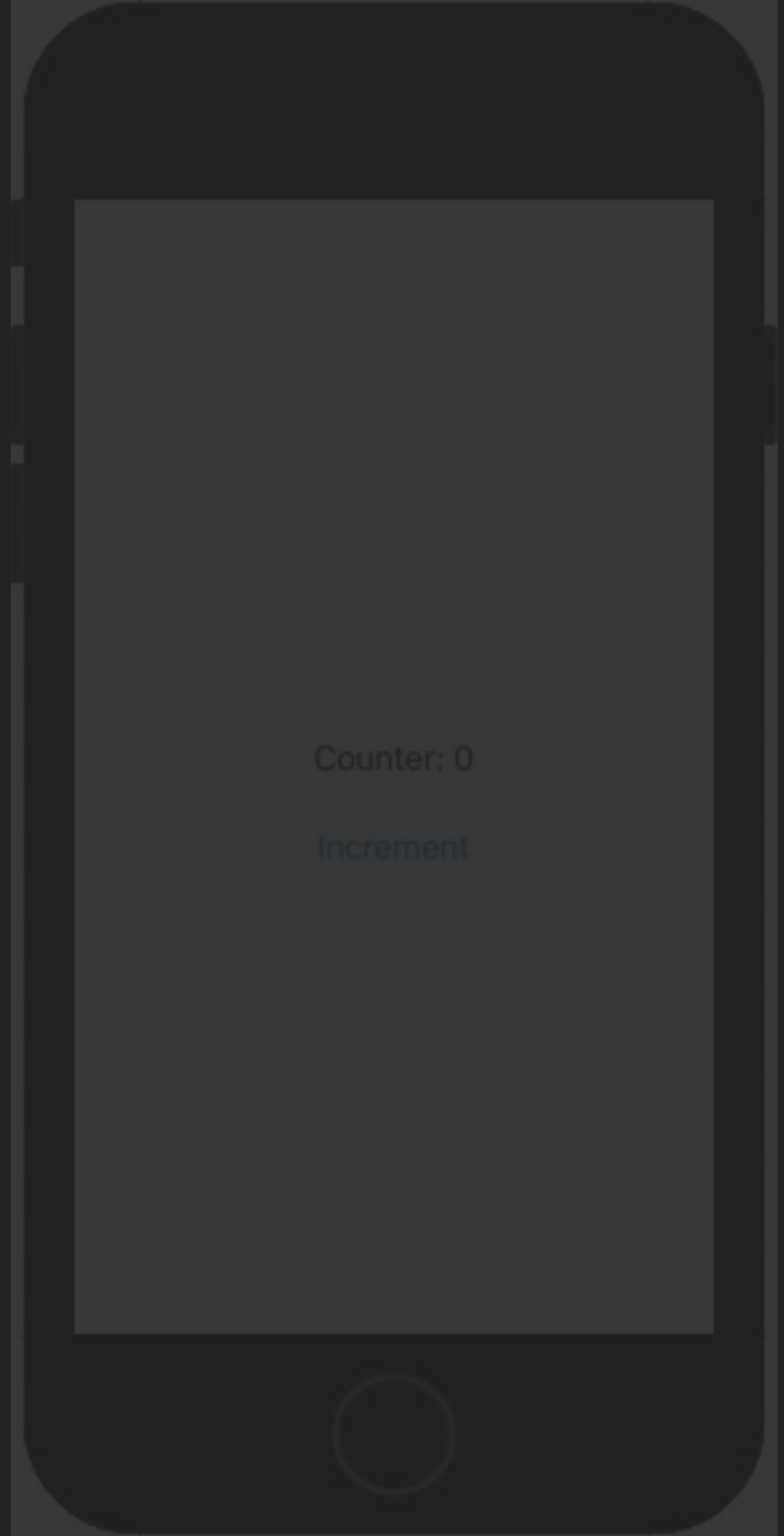
var body: some
View {
    VStack(alignment: .center,
        content: {
            Text("Counter: \ (count) ")
                .padding()
            Button(action: {
                self.count += 1
            }, label: {
                Text("Increment")
            })
        })
    })
}
```



```
@State var count: Int = 0

var body: some
View {
    VStack(alignment: .center,
        content: {
            Text("Counter: \ (count) ")
                .padding()
            Button(action: {
                self.count += 1
            }, label: {
                Text("Increment")
            })
        })
    })
}
```

2




```
@State var count: Int = 0
```

3

```
var body: some
```

```
View {
```

```
    VStack(alignment: .center,
```

```
        content: {
```

```
            Text("Counter: \ (count) ")
```

```
                .padding()
```

```
            Button(action: {
```

```
                self.count += 1
```

```
            }, label: {
```

```
                Text("Increment")
```

```
            })
```

```
        })
```

```
    }
```

Counter: 0

Increment

```
@State var count: Int = 1
```

3

```
var body: some
```

```
View {
```

```
    VStack(alignment: .center,
```

```
        content: {
```

```
            Text("Counter: \ (count) ")
```

```
                .padding()
```

```
            Button(action: {
```

```
                self.count += 1
```

```
            }, label: {
```

```
                Text("Increment")
```

```
            })
```

```
        })
```

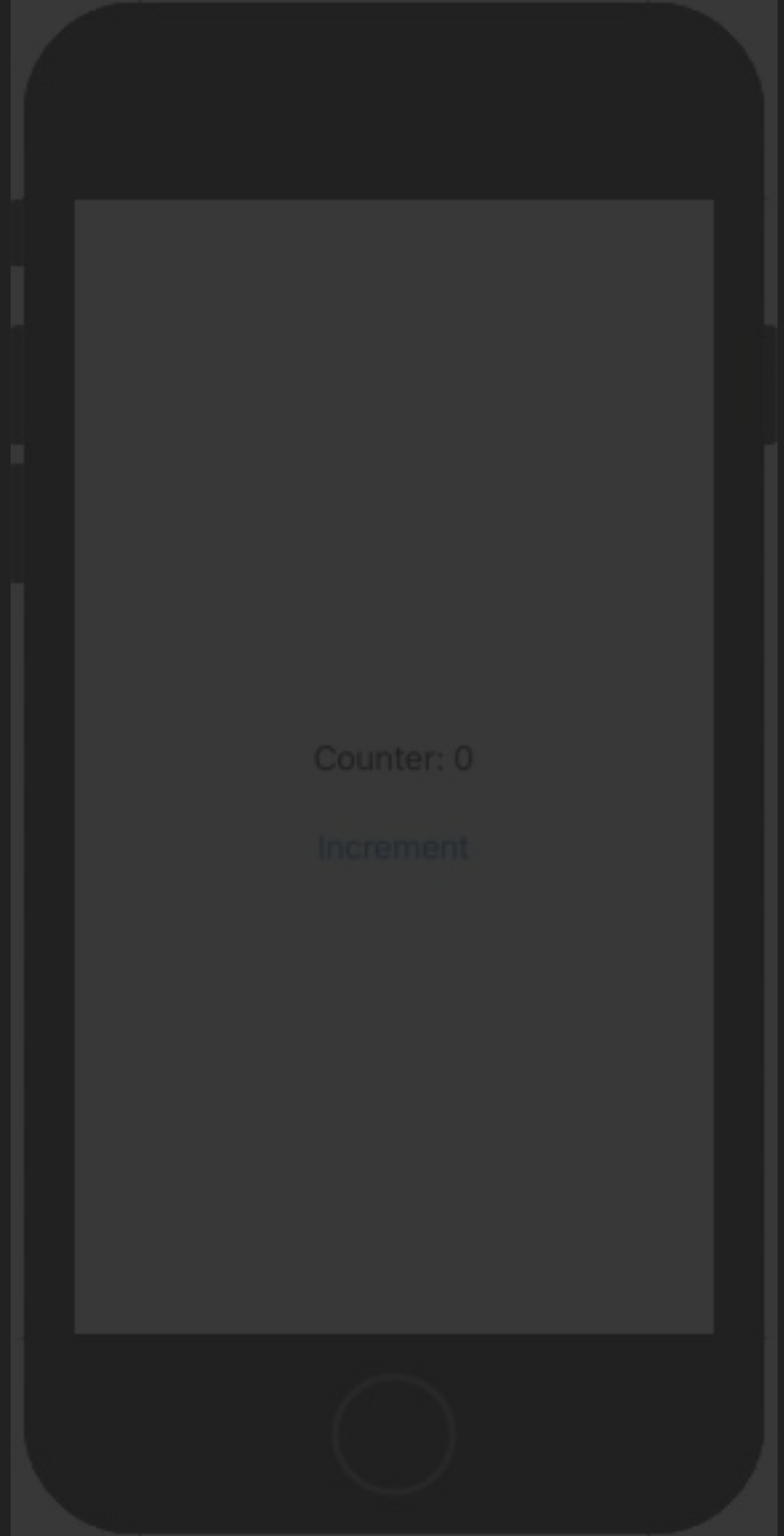
```
    }
```

Counter: 0

Increment

```
@State var count: Int = 1

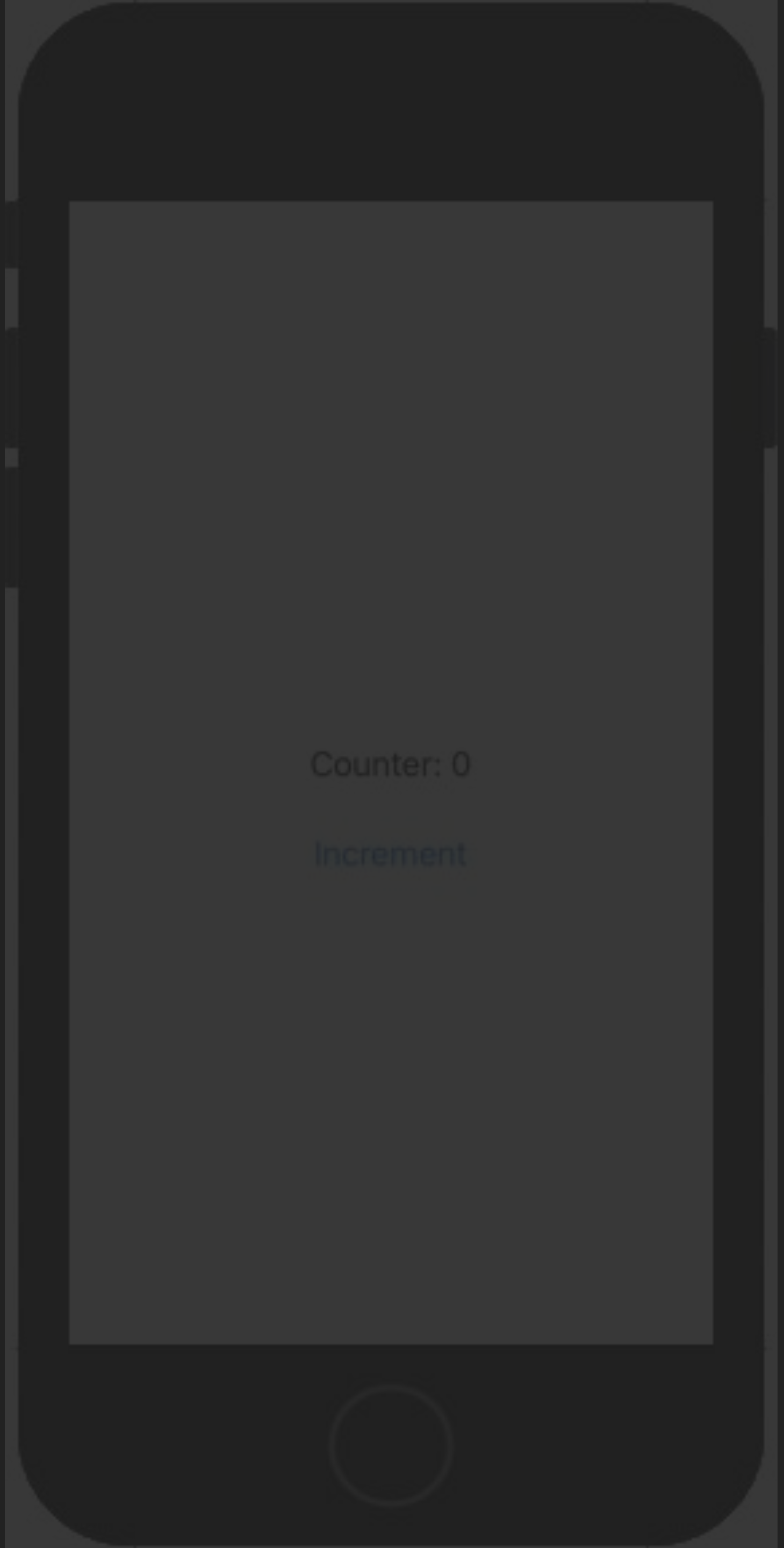
var h: some
View 4
  VStack(alignment: .center,
    content: {
      Text("Counter: \ (count) ")
        .padding()
      Button(action: {
        self.count += 1
      }, label: {
        Text("Increment")
      })
    })
  })
}
```




```
@State var count: Int = 1

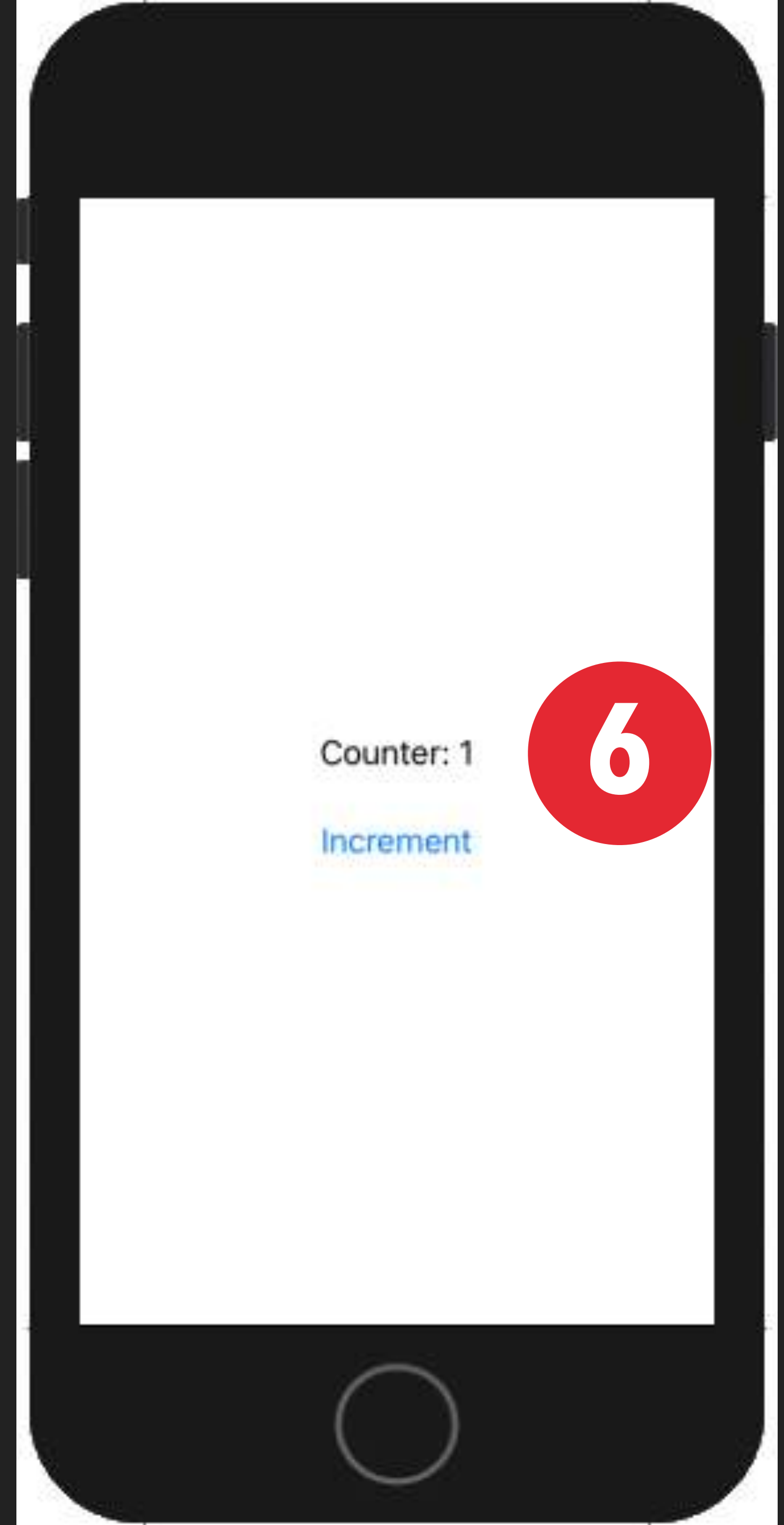
var body: some
View {
    VStack(alignment: .center,
        content: {
            Text("Counter: \ (count) ")
                .padding()
            Button(action: {
                self.count += 1
            }, label: {
                Text("Increment")
            })
        })
    })
}
```

5



```
@State var count: Int = 1

var body: some
View {
    VStack(alignment: .center,
        content: {
            Text("Counter: \ (count) ")
                .padding()
            Button(action: {
                self.count += 1
            }, label: {
                Text("Increment")
            })
        })
    })
}
```



WAS WAR DAS?


```
@State var count: Int = 0

var body: some
View {
    VStack(alignment: .center,
        content: {
            Text("Counter: \ (count) ")
                .padding()
            Button(action: {
                self.count += 1
            }, label: {
                Text("Increment")
            })
        })
    })
}
```

UI ALS CODE

```
@State var count: Int = 0

var body: some
View
    VStack(alignment: .center,
        content: {
            Text("Counter: \($count)")
                .padding()
            Button(action: {
                self.count += 1
            }, label: {
                Text("Increment")
            })
        })
    })
}
```

STATUS & EVENTS


```
@State var count: Int = 0

var body: some
View
    VStack(alignment: .center,
        content: {
            Text("Counter: \ (count) ")
                .padding()
            Button(action: {
                self.count += 1
            }, label: {
                Text("Increment")
            })
        })
    })
}
```

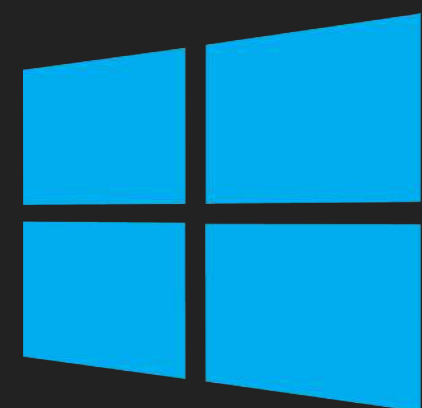
FRAMEWORK
AKTUALISIERT UI

UI ALS CODE

STATUS & EVENTS

FRAMEWORK AKTUALISIERT UI

DEKLARATIV



.NET MAUI (NOVEMBER 2021)



SWIFTUI (2019)



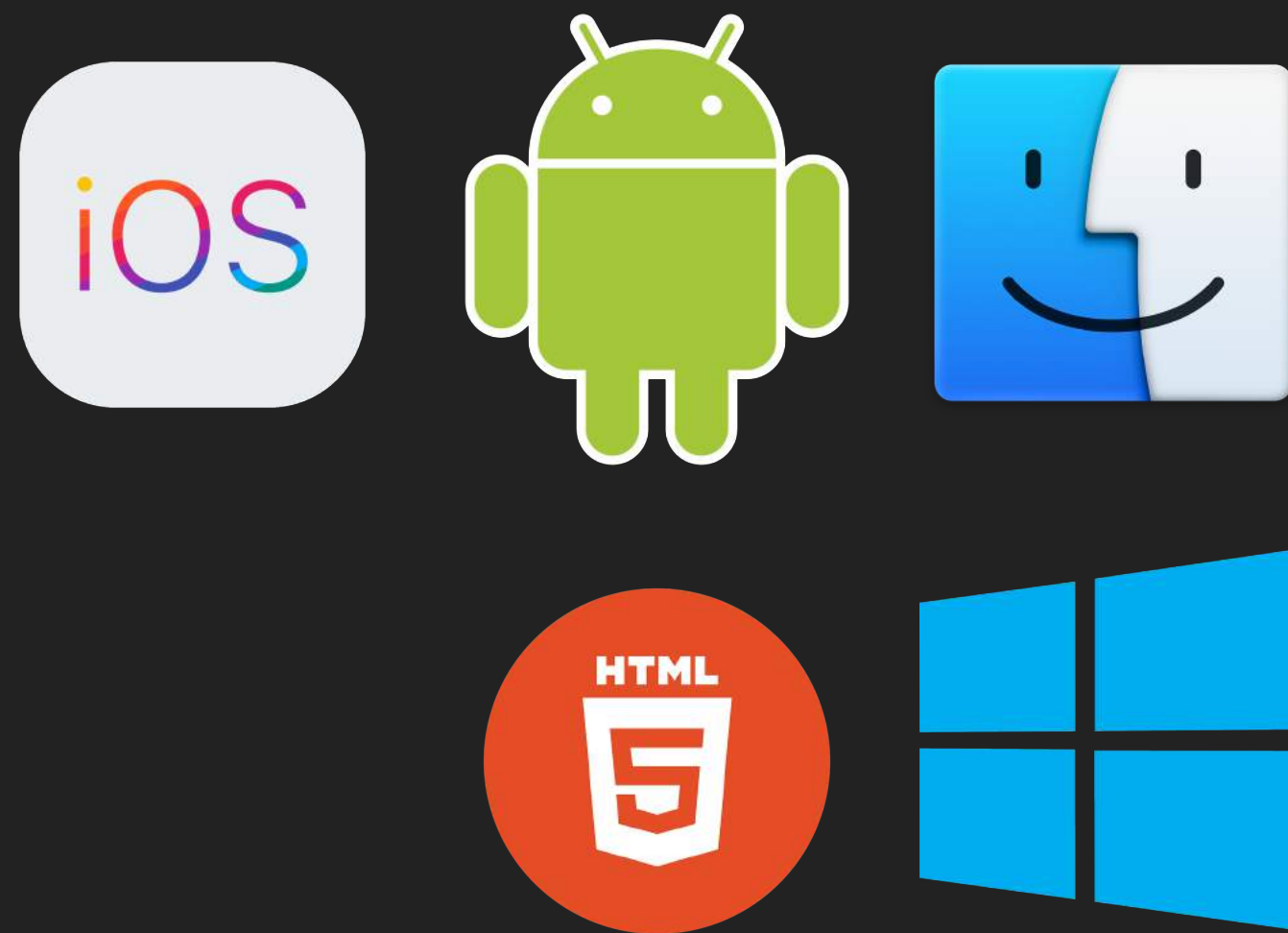
REACT (2013)



SWIFTUI (2019)



JETPACK COMPOSE (2021)



EMPFOHLEN

OPTION

DEKLARATIV

STATE OF THE ART:

DEKLARATIV

JAVA

WEB

SCHNELL

DEKLARATIV

MOBIL

**NATIVE
FUNKTIONALITÄT**

SICHER

DESKTOP

1 CODE-BASIS

POPULÄR

ERWEITERBAR

**SCHNELLES BUILD,
DEPLOY & DEBUG**

"IN 5 JAHREN NOCH DA"

VERTRAUEN

SICHER

JAVA

WEB

SCHNELL

DEKLARATIV

MOBIL

**NATIVE
FUNKTIONALITÄT**

SICHER

DESKTOP

1 CODE-BASIS

POPULÄR

ERWEITERBAR

**SCHNELLES BUILD,
DEPLOY & DEBUG**

LERNEN

BUILD, DEPLOY & DEBUG

ENTWICKLER

"X GEWINNT"

WARUM POPULÄR?

GOOGLE-SUCHE

KÄUFER VON UDEMY-KURSEN

FRAGEN BEI STACK OVERFLOW

NENNUNGEN IN JOB-ANZEIGEN

WIE POPULÄR?

INDEED.COM

MEHRERE NENNUNGEN

63 LÄNDER

92% DES GLOBALEN BSP

JOB-ANZEIGEN

JAVA

WEB

SCHNELL

DEKLARATIV

MOBIL

**NATIVE
FUNKTIONALITÄT**

SICHER

DESKTOP

1 CODE-BASIS

POPULÄR

ERWEITERBAR

**SCHNELLES BUILD,
DEPLOY & DEBUG**

ENTERPRISE-ANWENDUNGEN AUF PC & MOBIL

WUNSCHLIST: 12 KRITERIEN FÜR JAVA-ENTWICKLER

STATE OF THE ART: DEKLARATIVE FRONT-ENDS

POPULARITÄT MESSEN

FAZIT: WUNSCHLISTE

~~JAVA ENTWICKLER. WUNSCHLISTE FÜR FRONT ENDS~~

WEB: NEUE WEB-ANWENDUNG

MOBIL: NEUE, NATIVE IOS- & ANDROID-APPS

DESKTOP: WEB-ANWENDUNG DA – WAS TUN?

ANGULAR (GOOGLE)

THYMELEAF

JSF (ECLIPSE)

VAADIN (VAADIN LTD.)

REACT (FACEBOOK)

VUE.JS

NEUE WEB-ANWENDUNG

THYMELEAF, JSF: NICHT DEKLARATIV

NICHT POPULÄR

THYMELEAF, VAADIN: NICHT SICHER

JSF, THYMELEAF, VAADIN:
RAUS

ANGULAR

THYMELEAF

JSF

VAADIN

REACT

VUE.JS

NEUE WEB-ANWENDUNG

ANGULAR

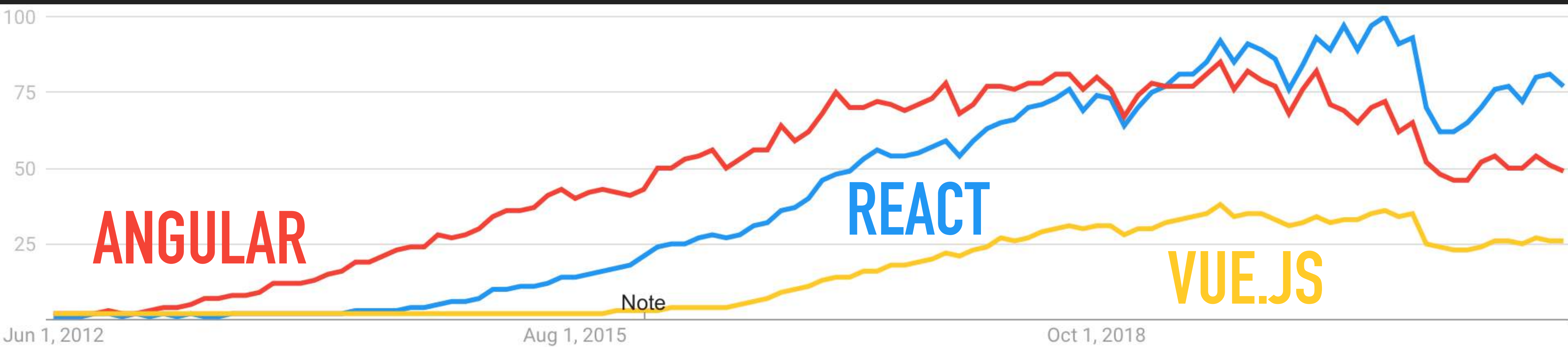
REACT

VUE.JS

NEUE WEB-ANWENDUNG

POPULARITÄT

GOOGLE-SUCHE



ANGULAR

REACT

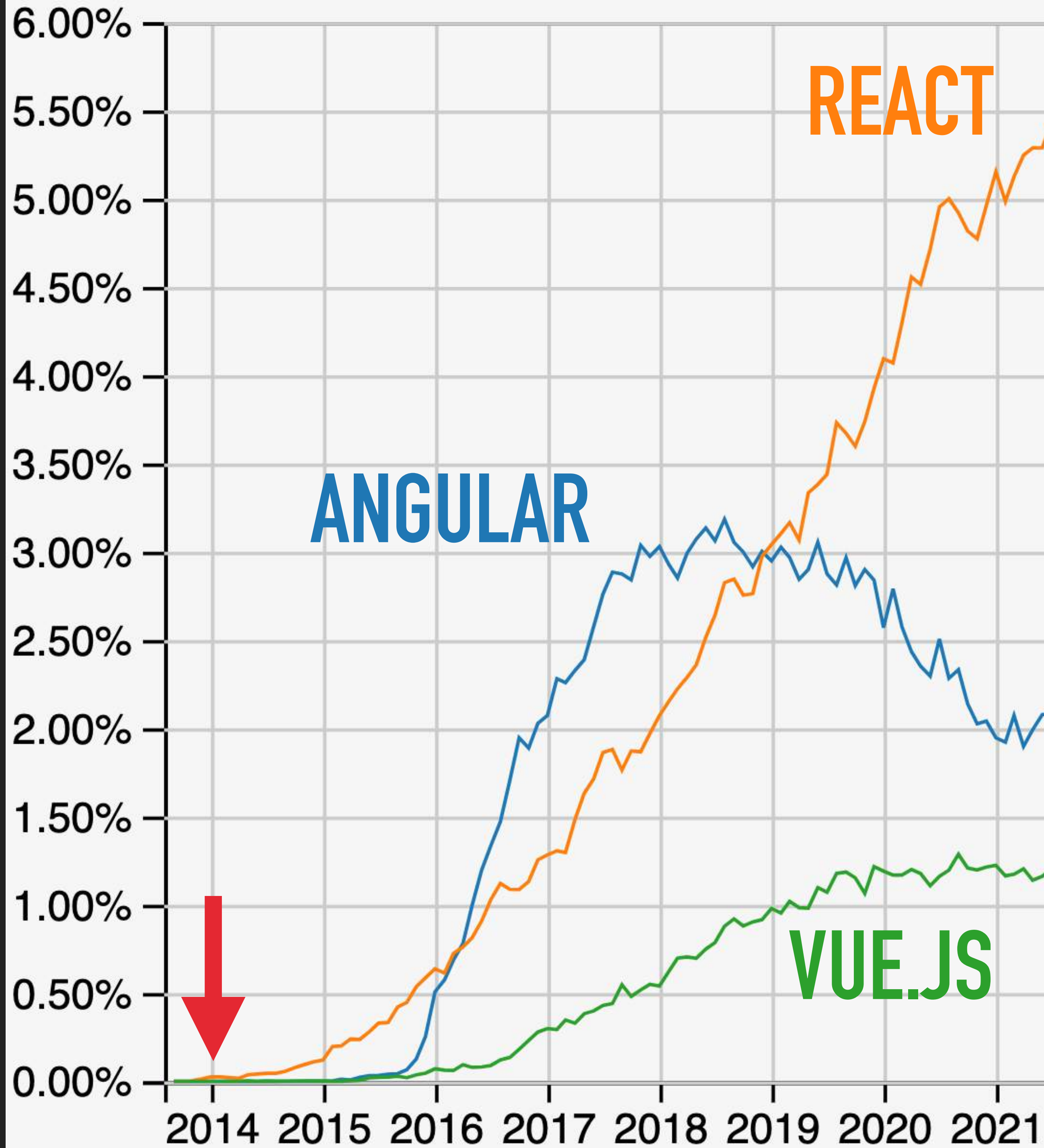
VUE.JS

ANGULAR: 185%

REACT: 293%

VUE.JS: 100%

FRAGEN BEI STACK OVERFLOW

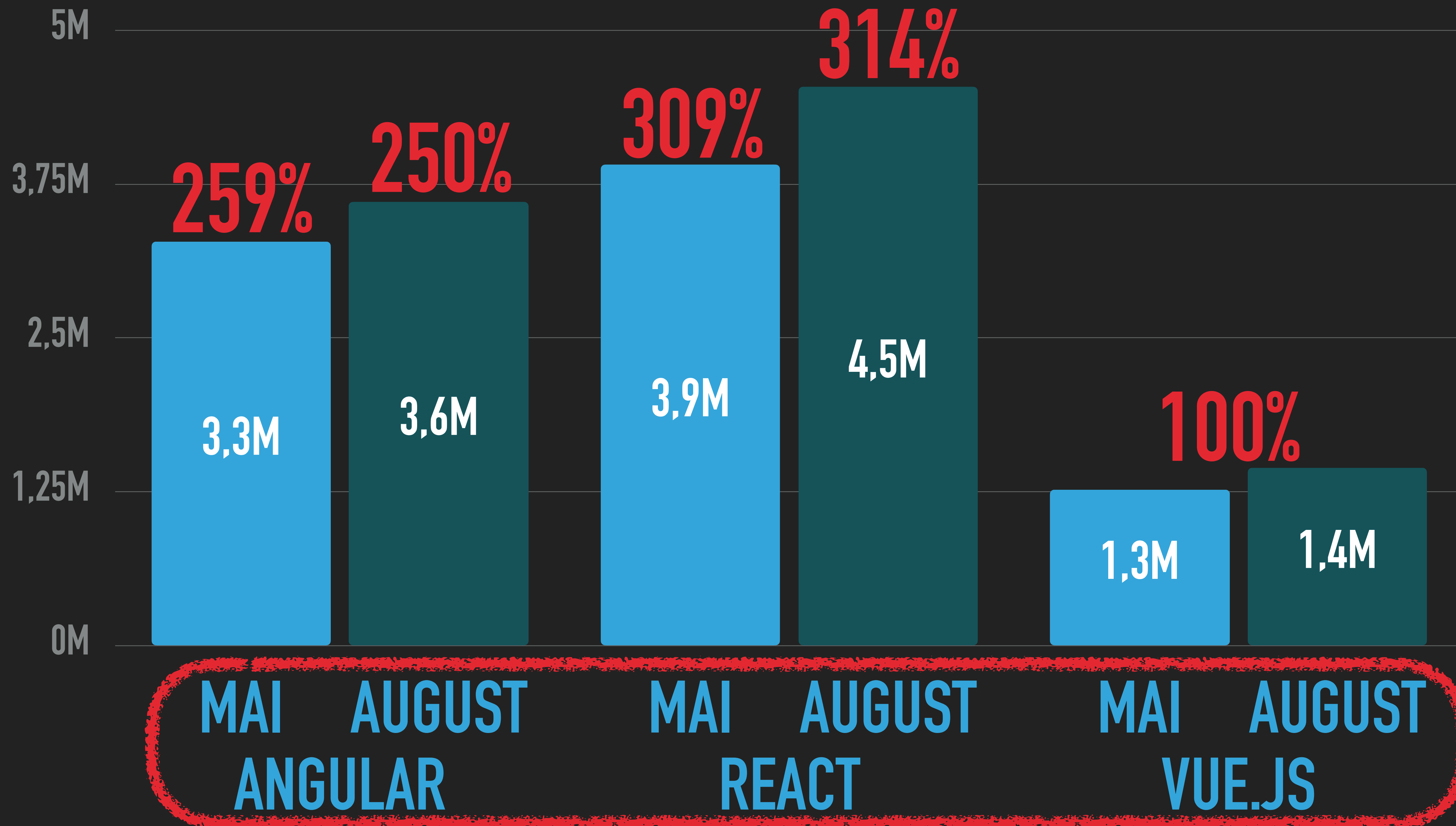


REACT: 448%

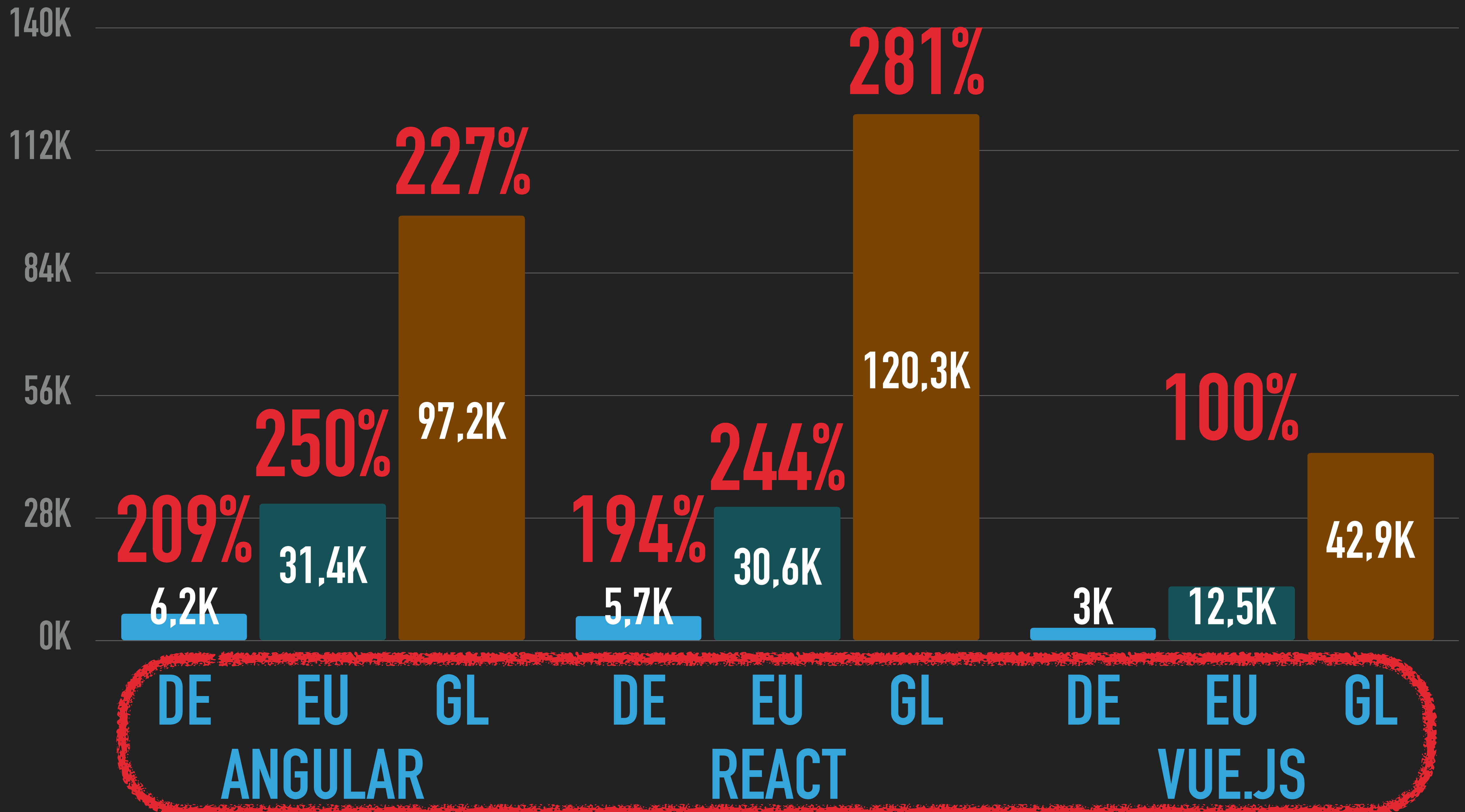
ANGULAR: 171%

VUE.JS: 100%

KÄUFER VON UDEMY-KURSEN



NENNUNGEN IN JOB-ANZEIGEN



1. REACT

2. ANGULAR

3. VUE.JS

POPULARITÄT: WEB

WUNSCHLISTE: WEB

JAVA

WEB

SCHNELL

DEKLARATIV

MOBIL

**NATIVE
FUNKTIONALITÄT**

SICHER

DESKTOP

1 CODE-BASIS

POPULÄR

ERWEITERBAR

**SCHNELLES BUILD,
DEPLOY & DEBUG**

JAVA

WEB

SCHNELL

DEKLARATIV

SICHER

POPULÄR

ERWEITERBAR

**SCHNELLES BUILD,
DEPLOY & DEBUG**

JAVA ANG

WEB -

SCHNELL REA

DEKLARATIV REA

SICHER REA

POPULÄR REA

ERWEITERBAR ???

SCHNELLES BUILD, DEPLOY & DEBUG
???

1. REACT

2. ANGULAR

3. VUE.JS

SIEGER: WEB

SCHON BENUTZT: WEITER REACT, ANGULAR, VUE.JS

SONST: REACT, ANGULAR, VUE.JS

RAT: WEB

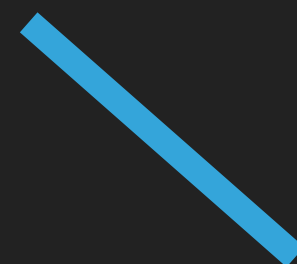
~~JAVA ENTWICKLER. WUNSCHLISTE FÜR FRONT ENDS~~

~~WEB. NEUE WEB ANWENDUNG~~

MOBIL: NEUE, NATIVE IOS- & ANDROID-APPS

DESKTOP: WEB-ANWENDUNG DA – WAS TUN?

**WIE NEUE, NATIVE
IOS- & ANDROID-APPS?**



WEB



NATIV



NATIV



+ 1 CODE-BASIS

− LANGSAMER

− WENIGER FUNKTIONEN

− JAVASCRIPT

− DEBUGGEN SCHWER

WEB

− 2 CODE-BASEN

+ SCHNELL

+ ALLE FUNKTIONEN

− 2 SPRACHEN

+ DEBUGGEN LEICHT

NATIV

+ 1 CODE-BASIS

+ SCHNELL

+ ALLE FUNKTIONEN

+ DEBUGGEN LEICHT

CROSS-PLATFORM

FLUTTER (GOOGLE)

JAVAFX (GLUON)

REACT NATIVE (FACEBOOK)

XAMARIN (MICROSOFT)

CROSS-PLATFORM

NICHT DEKLARATIV

NICHT POPULÄR

JAVAFX: NICHT SICHER

XAMARIN: REWRITE

XAMARIN & JAVAFX: RAUS

FLUTTER

JAVAFX

REACT NATIVE

XAMARIN

CROSS-PLATFORM

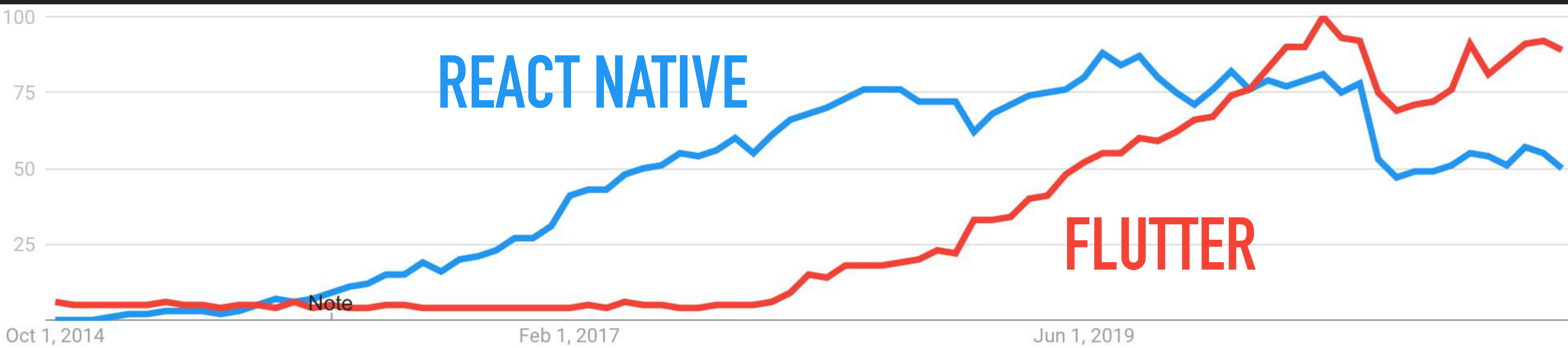
FLUTTER

REACT NATIVE

CROSS-PLATFORM

POPULARITÄT

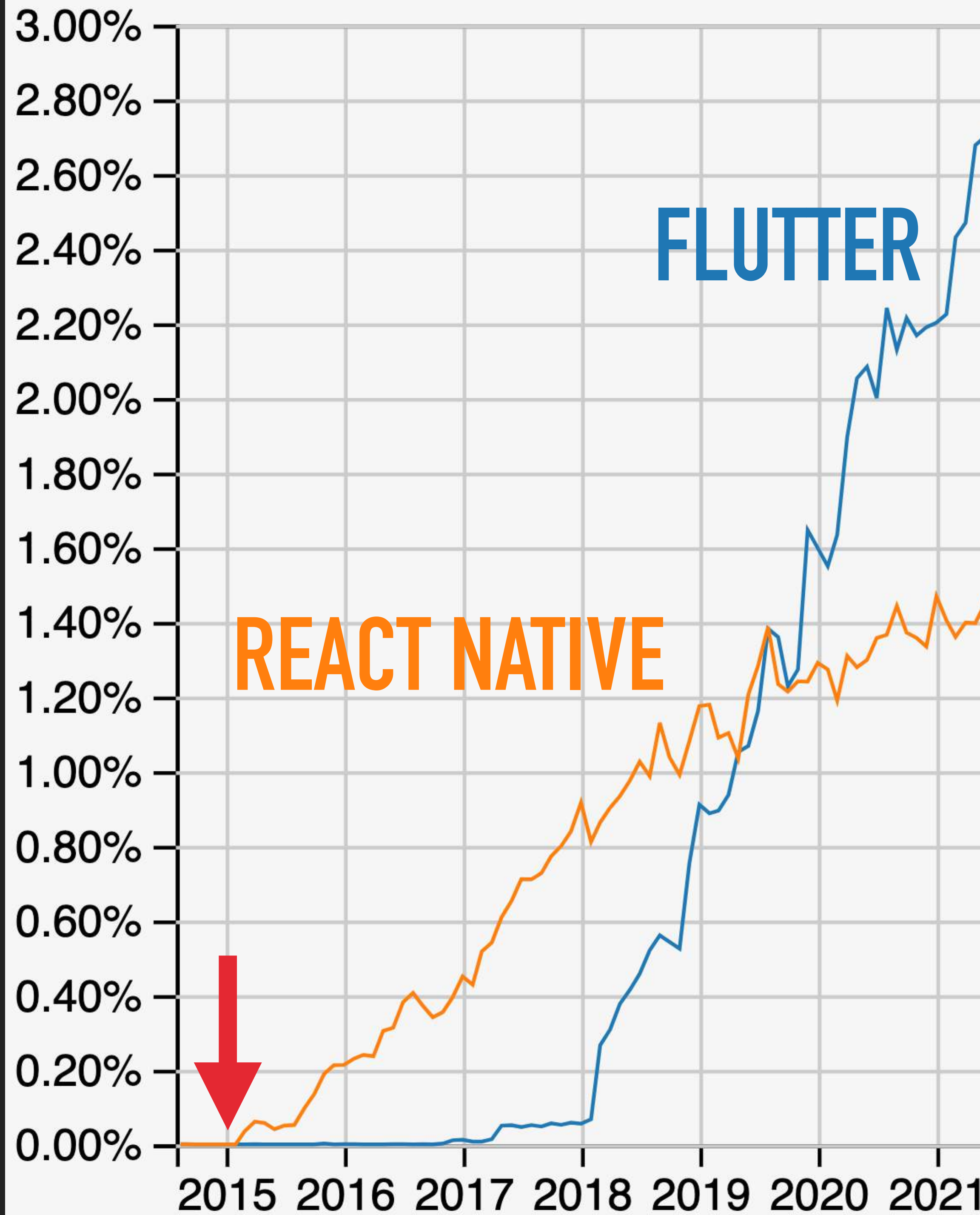
GOOGLE-SUCHE



REACT NATIVE: 100%

FLUTTER: 175%

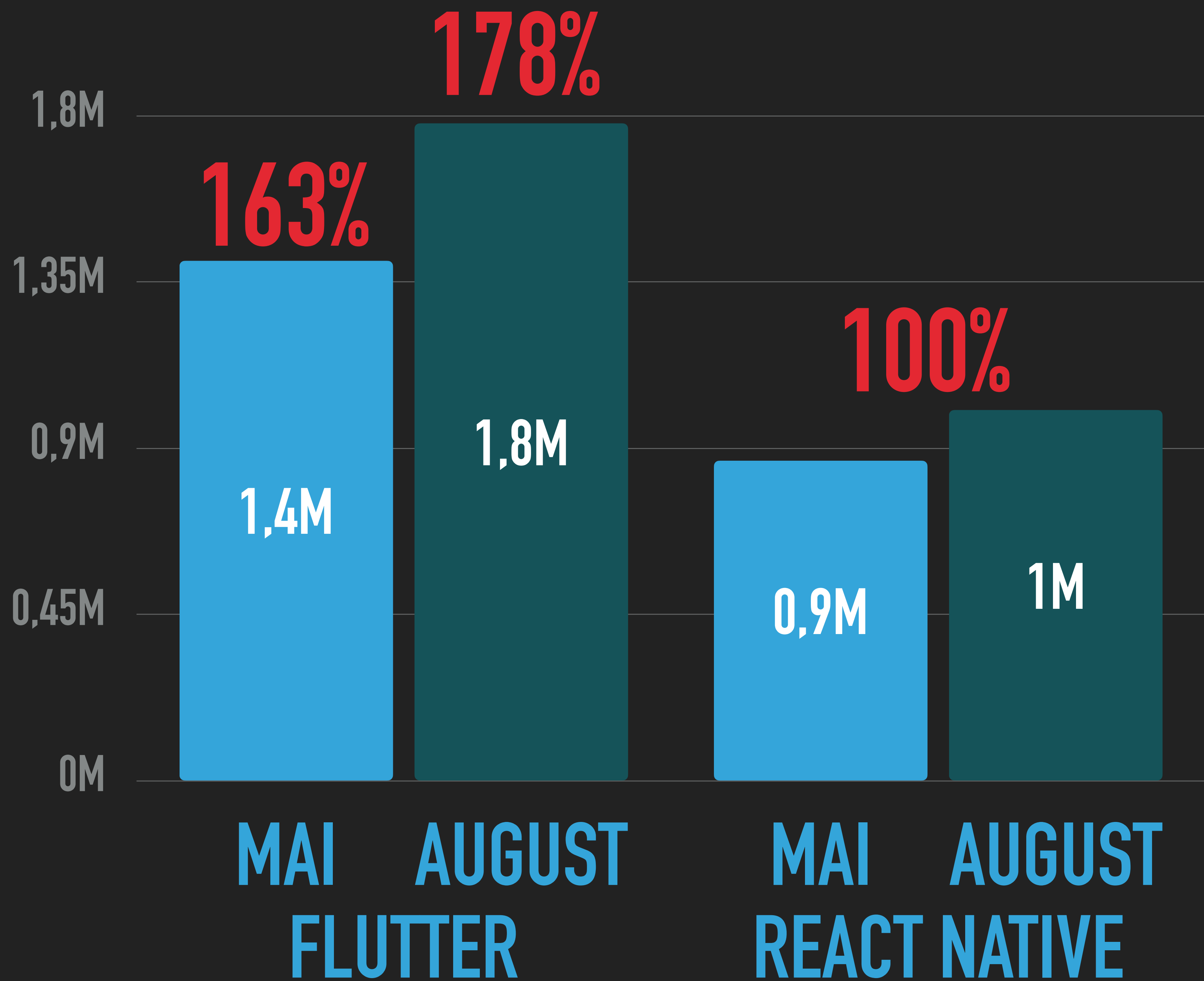
FRAGEN BEI STACK OVERFLOW



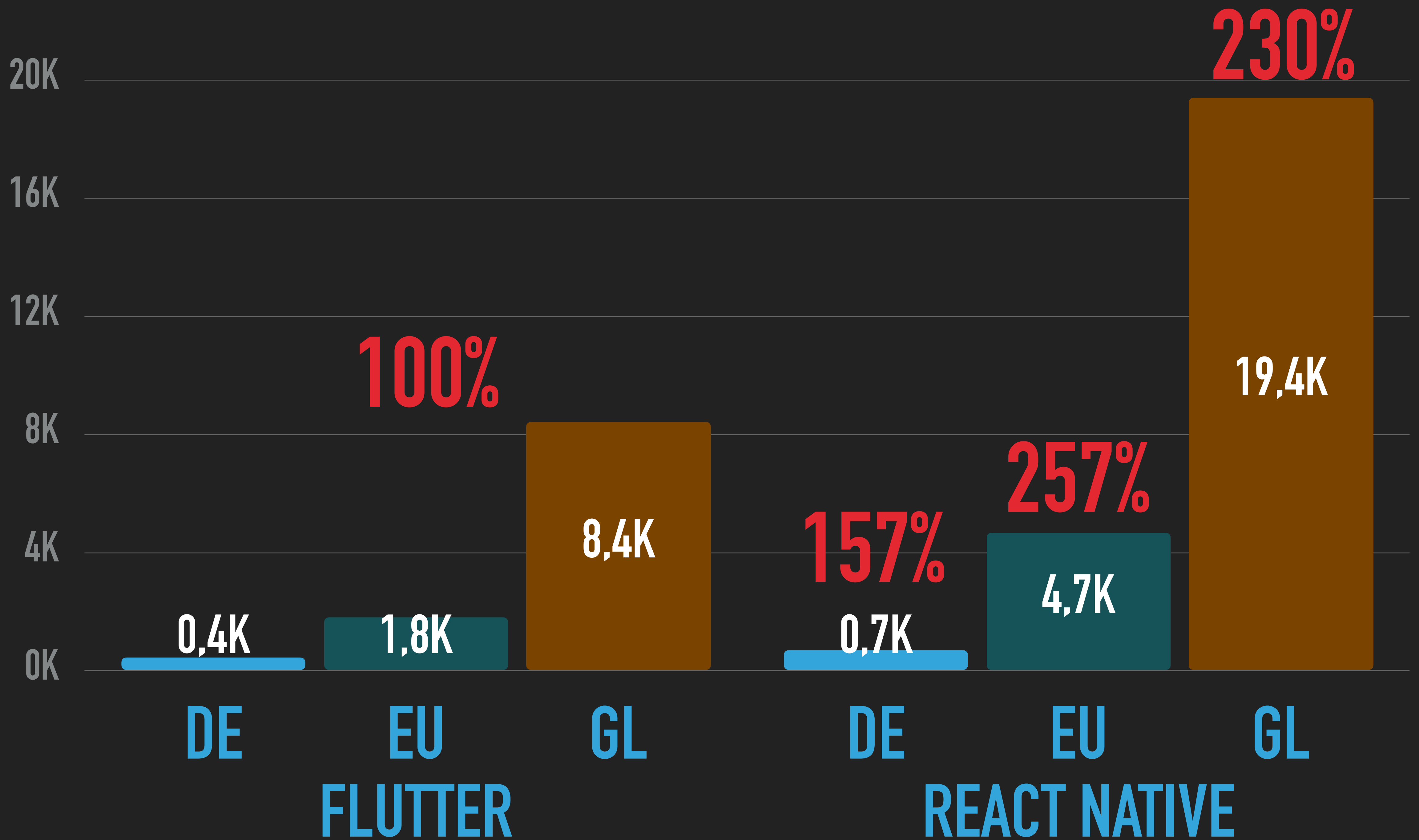
FLUTTER: 180%

REACT NATIVE: 100%

KÄUFER VON UDEMY-KURSEN



NENNUNGEN IN JOB-ANZEIGEN



1. REACT NATIVE

2. FLUTTER

POPULÄR: MOBIL

MEINE ERFAHRUNGEN:
FLUTTER FÜR MOBIL

WAS IST FLUTTER?

**"GOOGLE'S UI TOOLKIT FOR
BUILDING BEAUTIFUL, NATIVELY
COMPILED APPLICATIONS FOR
MOBILE, WEB, AND DESKTOP FROM
A SINGLE CODEBASE."**

**"GOOGLE'S UI TOOLKIT FOR
BUILDING BEAUTIFUL, NATIVELY
COMPILED APPLICATIONS FOR
MOBILE, WEB, AND DESKTOP FROM
A SINGLE CODEBASE."**

⊖ JAVASCRIPT

⊖ LANGSAMES RENDERING

+ NATIVE UI-ELEMENTE

⊖ (WINDOWS & MACOS)

⊖ REACT + REACT NATIVE

+ DART

+ SCHNELLES RENDERING

⊖ EMULIERTE UI-ELEMENTE

+ WINDOWS, MAC, LINUX

+ 1 CODE-BASIS

REACT NATIVE

FLUTTER

**KÖNNEN WIR NICHT JAVA
STATT DART NEHMEN?**


```
class MyClass extends AnotherClass {  
    String myString;  
    int myInt;  
    List<String> myList = new List<String>();  
  
    String sayHello(String name) {  
        var feedback = "Hello, " + name;  
        return feedback;  
    }  
}
```

DAS IST DART!

```
class MyClass extends AnotherClass {  
    String myString;  
    int myInt;  
    List<String> myList = new LinkedList<>();  
  
    String sayHello(String name) {  
        var feedback = "Hello, " + name;  
        return feedback;  
    }  
}
```

DAS IST JAVA

BROWSER

"EINFACHERES JAVA FÜR UI"

VM & NATIV COMPILIERT

WAS IST DART?

MATERIAL DESIGN

IOS-ELEMENTE

FORMEN

UI-ELEMENTE

KOMPLETT

SEITEN

WIE **LAUFEN** FLUTTER-APPS?

PLUGINS

NATIVE SEITEN

CHANNELS & C-API

NATIVE INTEGRATION

LAHME IOS/ANDROID BUILDS

HOT RESTART

HOT RELOAD

BUILD & DEPLOY SCHNELL!

19.000

OPEN-SOURCE

PORTAL

FORKEN

PLUGINS

DART = "EINFACHERES **JAVA** FÜR UI"

EINFACHE NATIVE INTEGRATION

CODE, BUILD & DEPLOY **SCHNELL**

PLUGINS SPAREN **ZEIT**

FAZIT: FLUTTER **GUT**

MEINE FLUTTER-PROBLEME

KILLT GOOGLE FLUTTER?



Killed by Google

Search

All (225)



Join a bunch of others and follow
@killedbygoogle on Twitter.



June
2022

Google Chrome Apps

"Off with their heads!" in over 1 year, Google Chrome Apps were hosted or packaged web applications that ran on the Google Chrome browser. It will be over 11 years old.



January
2022

Android Things

Turning to ashes in 10 months, Android Things was an Android-based embedded operating system (originally named Brillo) aimed to run on Internet of Things (IoT) devices. It will be over 6 years old.

⊖ KONKURRENZ IM EIGENEN HAUS

⊕ POPULÄR

⊕ FUCHSIA

WIR WISSEN ES NICHT!

MOBIL, WEB & DESKTOP
MIT **1** CODE-BASIS
IN **FLUTTER?**

NEIN

1.0

"MATERIAL UI ANPASSEN"

WEB: KOMPONENTEN-BIBLIOTHEKEN

WEB: NPM

FLUTTER: WEB

PREVIEW

"MATERIAL UI ANPASSEN"

NATIVE UI-ELEMENTE?

FLUTTER: DESKTOP

DREHEN ODER GROSS

IF (WIDTH > X) THEN ... ELSE ...

CSS GRID/FLEX, SIZE CLASSES, ...

BOOTSTRAP GRID PLUGIN

RESPONSIVE DESIGN

IPHONE: IOS-ELEMENTE, ANDROID: MATERIAL UI

IOS-ELEMENTE FEHLEN

ZEITRAUBEND

NATIVES DESIGN FÜR MOBIL

KILLT GOOGLE FLUTTER?

NICHT ALLES MIT 1 CODE-BASIS

RESPONSIVE DESIGN?

NATIVES DESIGN FÜR MOBIL AUFWÄNDIG

FAZIT: FLUTTER SCHLECHT

WUNSCHLISTE: MOBIL

JAVA

WEB

SCHNELL

DEKLARATIV

MOBIL

**NATIVE
FUNKTIONALITÄT**

SICHER

DESKTOP

1 CODE-BASIS

POPULÄR

ERWEITERBAR

**SCHNELLES BUILD,
DEPLOY & DEBUG**

JAVA FLU

SCHNELL FLU

DEKLARATIV – MOBIL –

NATIVE
FUNKTIONALITÄT FLU

SICHER REA

1 CODE-BASIS –

POPULÄR REA

ERWEITERBAR ???

SCHNELLES BUILD, ^{???}
DEPLOY & DEBUG

1. FLUTTER

2. REACT NATIVE

SIEGER: MOBIL

REACT NATIVE

"REACT GEWINNT" => REACT NATIVE

JOB

IHR SIEGER?

SCHON BENUTZT: WEITER FLUTTER, REACT NATIVE

NEU & REACT BENUTZT: REACT NATIVE, FLUTTER

SONST: FLUTTER, REACT NATIVE

RAT: MOBIL

~~JAVA ENTWICKLER. WUNSCHLISTE FÜR FRONT ENDS~~

~~WEB. NEUE WEB ANWENDUNG~~

~~MOBIL. NEUE, NATIVE IOS & ANDROID APPS~~

DESKTOP: WEB-ANWENDUNG DA – WAS TUN?

KEINE GUTE OPTION

VERÄNDERUNG

AUFWÄNDIG

WEB GUT GENUG

DESKTOP: WEB-ANWENDUNG

WEB–ANWENDUNG: BEHALTEN

EIGENES DESIGN/MATERIAL UI:
FLUTTER FÜR DESKTOP **EVALUIEREN**

RAT: DESKTOP

~~JAVA ENTWICKLER. WUNSCHLISTE FÜR FRONT ENDS~~

~~WEB. NEUE WEB ANWENDUNG~~

~~MOBIL. NEUE, NATIVE IOS & ANDROID APPS~~

~~DESKTOP. WEB ANWENDUNG DA WAS TUN?~~

ZUSAMMENFASSUNG

SCHON BENUTZT: WEITER REACT, ANGULAR, VUE.JS

SONST: REACT, ANGULAR, VUE.JS

RAT: WEB

SCHON BENUTZT: WEITER FLUTTER, REACT NATIVE

NEU & REACT BENUTZT: REACT NATIVE, FLUTTER

SONST: FLUTTER, REACT NATIVE

RAT: MOBIL

WEB–ANWENDUNG: BEHALTEN

EIGENES DESIGN/MATERIAL UI:
FLUTTER FÜR DESKTOP **EVALUIEREN**

RAT: DESKTOP

WERBUNG

FEBRUAR 2022

FULL-STACK **JAVA: SPRING BOOT, ANGULAR, FLUTTER**

FREIBERUFLER/BEFRISTET ANGESTELLTER

MILTON KEYNES, LONDON, ODER **REMOTE**

SUCHE **PROJEKT**

The End



FOLIEN & VIDEOS

ZUSATZ-INFOS

FEEDBACK

SELBST LOSLEGEN!

NEWSLETTER

BPF.LI/TEE