Syntax Institut

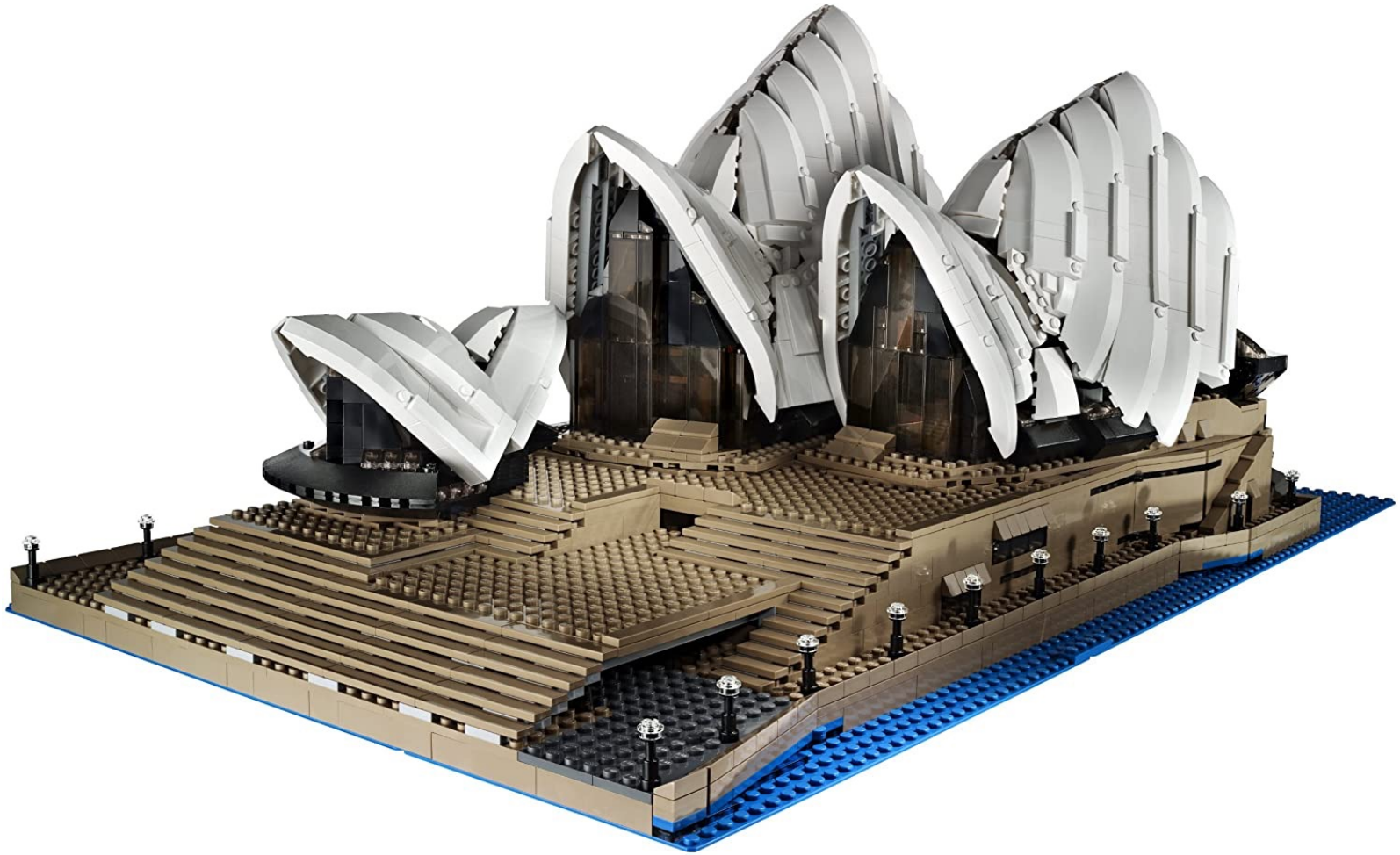
Modul 3 – Android App Entwicklung mit Kotlin

Kotlin Basics III

(Klassen, Vererbung, ...)

Gliederung

- Klassen
- Vererbung
- MainActivity.kt
- shoppinger App



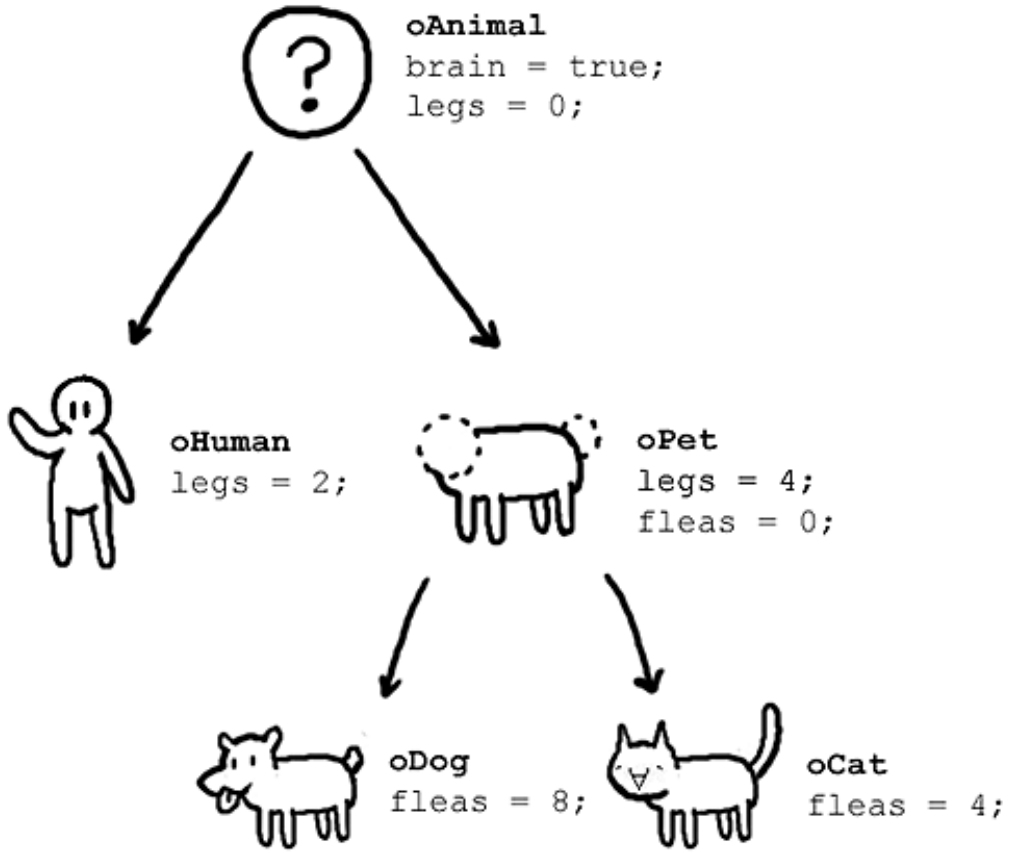
Quelle: https://www.simplemost.com/wp-content/uploads/2016/03/lego-sydney-opera-house.jpg

Klassen

```kotlin
class Car(
    val brandName: String,
    val modelName: String,
    val color: String,
    val builtIn: Int,
    val ps: Int,
    val condition: String = "good",
    val price: Double
)
```

```kotlin
val myCar = Car(
    brandName: "Daihatsu",
    modelName: "Sirion",
    color: "#FF060F38",
    builtIn: 1995,
    ps: 60,
    condition: "okay",
    price: 2345.70
)
```

Vererbung



Quelle: http://www.derekyu.com/tigs/forums/tutorials/gmtut/gmtut-008.png

Vererbung

```
open class Vehicle(
    val brandName: String,
    val color: String,
    val builtIn: Int,
    val condition: String = "good",
    val price: Double
)
```

```
class Bike(
    brandName: String,
    val modelName: String,
    color: String,
    builtIn: Int,
    condition: String,
    val hasGears: Boolean,
    price: Double
) : Vehicle(brandName, color, builtIn, condition, price)
```

```
class Car(
    brandName: String,
    val modelName: String,
    color: String,
    builtIn: Int,
    val ps: Int,
    condition: String = "good",
    price: Double
) : Vehicle(brandName, color, builtIn, condition, price)
```

Vererbung

Funktionen werden mit **override** überschrieben

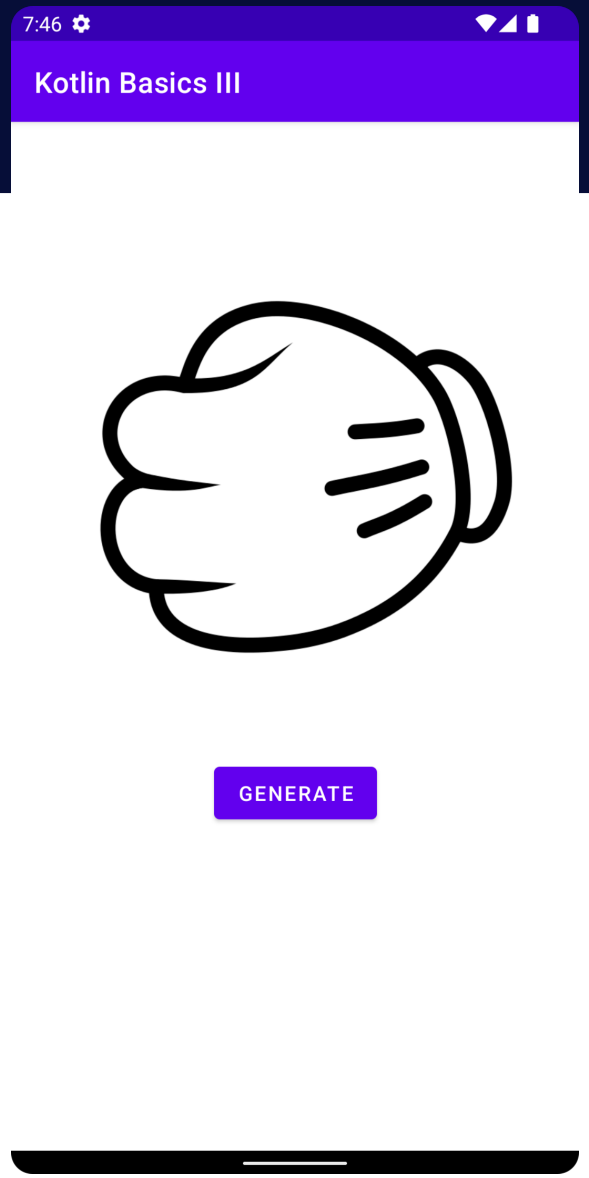
mit **super** wird die Funktion des Elternteils abgerufen

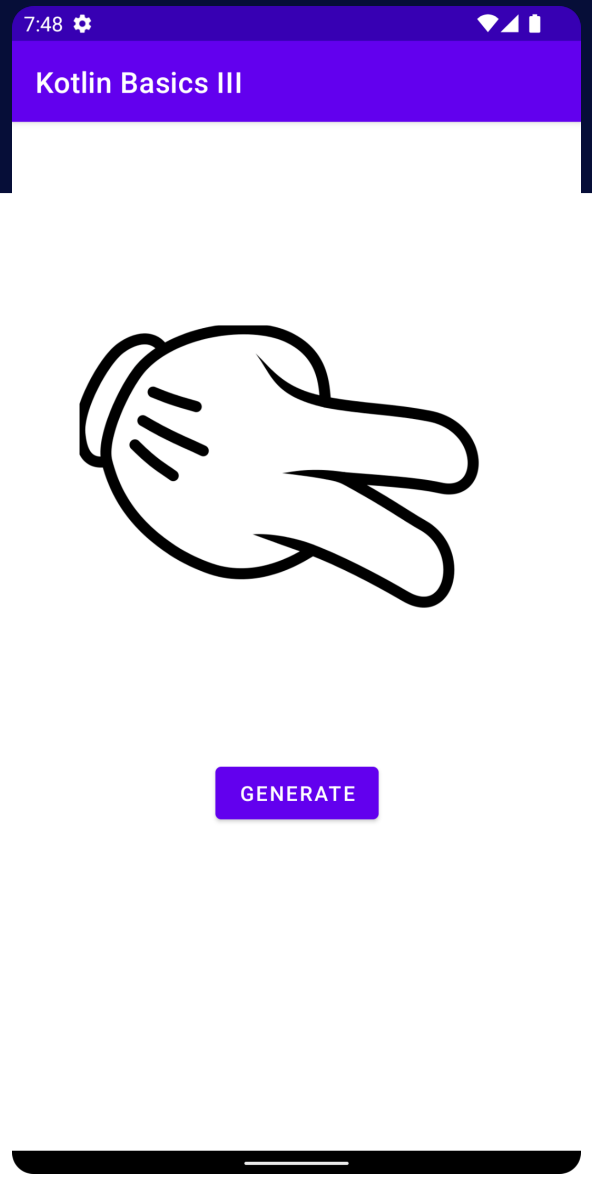
```
open class Vehicle(...) {
    open fun drive() {

        //riding the vehicle

    }
}
```

```
class Car(...) : Vehicle(brandName, colo

    override fun drive() {
        if (hasLicense) {
            super.drive()
        }
    }

}
```

```kotlin
package com.example.myapplication

import ...

/**
 * Das ist unsere MainActivity die wir jetzt voll und ganz verstehen :)
 */
class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        // hier wird der Button namens button der Variable zugeordnet
        val button = findViewById<Button>(R.id.button)

        // wenn der Button geklickt wird ändert sich sein Text
        button.setOnClickListener {  it: View!
            button.text = "schon gedrückt"
        }

    }
}
```

Beispiel


7:46
Kotlin Basics III
GENERATE


7:48
Kotlin Basics III
GENERATE

Was kommt noch?

- User Input
- App Icon & App Themes
- Recycler View
- Mehrere Screens und Navigation
- MVVM Architektur Muster
- Live Data
- Coroutines
- Webservices und API Calls
- Caching Data

Quelle: https://www.asfinag.at/verkehr-sicherheit/tunnelsicherheit/

Offene Fragen

Quelle: https://healthblog.uofmhealth.org/cancer-care/what-did-my-doctor-say-what-to-do-when-you-dont-understand

Feedback

Quelle: https://www.business2community.com/mobile-apps/fight-app-feedback-perception-gap-01798445

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Viel spaß!