



**Kotlin**

# What is Kotlin?

- Programming Language
- Created by JetBrains
- Released in 2016
- Compiles to Java compatible bytecode
- Object oriented and Functional



```
class Card constructor(color: Color, value: Int){  
    val color = color  
    val value = value  
}  
  
enum class Color {  
    SPADES, DIAMONDS, HEARTHS, CLUBS;  
  
    fun toChar(): Char{  
        return when(this){  
            CLUBS      -> 'c'  
            DIAMONDS   -> 'd'  
            SPADES     -> 's'  
            HEARTHS    -> 'h'  
        }  
    }  
}
```

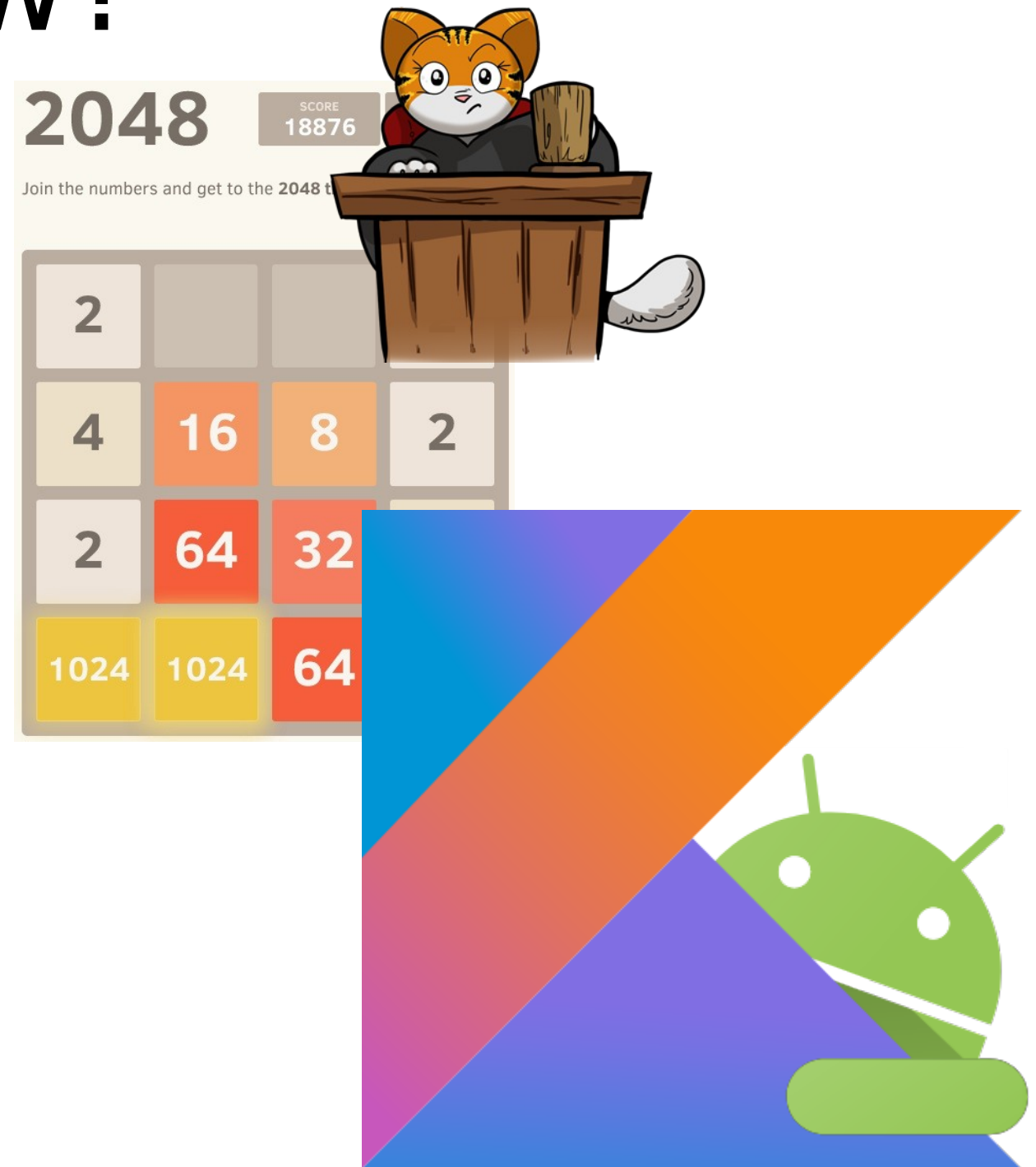
# What is Kotlin used for?

- Fully compatible with Android.
- Because it compiles to JVM, it is compatible with existing java code.
- Can be used for everything java is used for.



# What we have done until now?

- Getting comfortable with the Kotlin syntax.
- Implemented some algorithms from the INF234 course using Kotlin
- Solved the 2048 problem on Kattis using Kotlin.
- Set up a Android-Studio Project using Kotlin as back-end.
- Implemented entities and some logic for a Blackjack application.



# How we intend to do proceed?

- Finish The Blackjack android application
- Create Kotlin REST-service for highscores and communication between app and server
- Ktor, Kotlin web backend



# Sources and references

- Images:
  - [https://kotlinlang.org/assets/images/twitter-card/kotlin\\_800x320.png](https://kotlinlang.org/assets/images/twitter-card/kotlin_800x320.png)
  - <https://developer.android.com/images/home/kotlin-android.svg>
  - <https://open.kattis.com/images/kattis/judge.png?7f7dbf>
  - <https://open.kattis.com/problems/2048/file/statement/en/img-0001.jpg>
  - <https://upload.wikimedia.org/wikipedia/commons/3/33/Blackjack21.jpg>
  - <https://cdn.worldvectorlogo.com/logos/kotlin-2.svg>
  - [http://blog.safedk.com/wp-content/uploads/2017/01/kotlin\\_blog\\_img.jpg](http://blog.safedk.com/wp-content/uploads/2017/01/kotlin_blog_img.jpg)