



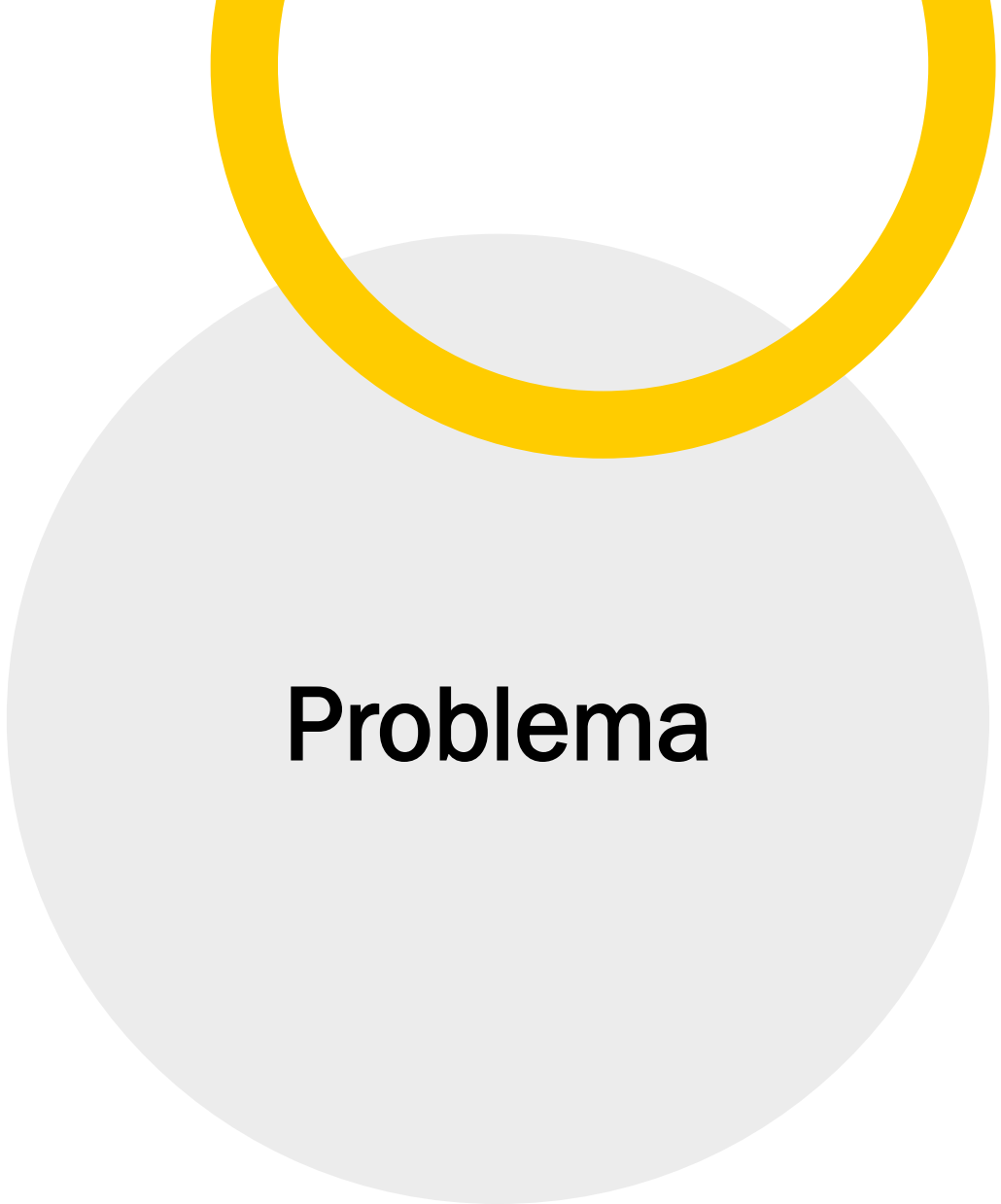
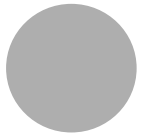
# SHORT

## SIMPLE HTML ON REMOTE

António Marques

Orientado por:

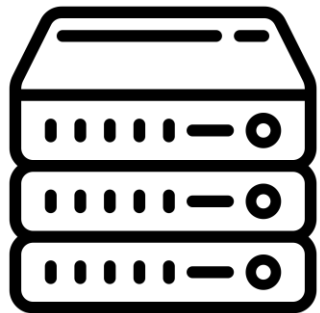
Miguel Gamboa Carvalho



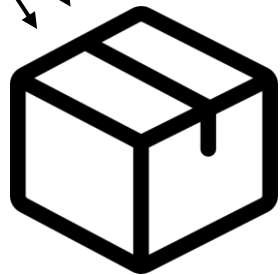
 Cliente

 Servidor

```
@Page("game/{id}")
fun GamePage() =
  Div {
    @Page("/")
    fun HomePage() =
      Div {
        Text("Hello World!")
      }
  }
}
```



Servidor

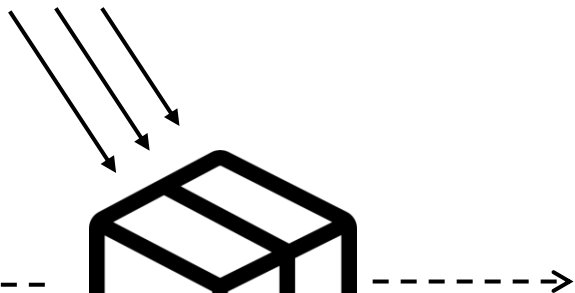


Web App



Cliente

# Visão Geral



The background features several decorative elements: a large yellow circle on the left edge, a smaller grey circle in the upper left, a large grey circle in the center containing the text, a thick yellow arc on the right edge, a smaller grey circle in the lower right, and a yellow circle at the bottom center. A dashed yellow line forms an L-shape in the bottom left corner.

**Progresso**



Servidor Web

Http4k

Jetty, TomCat, Spring Boot...

Servidor Padrão: Jetty

Início Rápido

Página de Carregamento

### Exemplo

```
fun main() {  
    runSHORT<TicTacToeApp>(args)  
}
```

### Resultado

```
INFO Initializer {} Initializer.kt:85 - Temporary server started at port 9000.  
INFO Initializer {} Initializer.kt:139 - Server started at port 9000.
```

## Agregador páginas

Analisa todo o classpath

Agrega uma única vez

Modo Funções/modelos

Modo depende do cliente

### Exemplo

```
@Page("game/{id}")
fun GamePage() =
    Div {
        @Page("/")
        fun HomePage() =
            Div {
                Text("Hello World!")
            }
    }
}
```

### Resultado

```
<!DOCTYPE HTML>
<html>
  <head>
    <script src="/scripts/router.js">
    <template id="page-/">...</template>
    <template id="page-game/{id}">...</template>
  </head>
```

[WIP]

# Interpretador Componentes

Reutilização

1 Instância 1 Data set

Modos de agregação

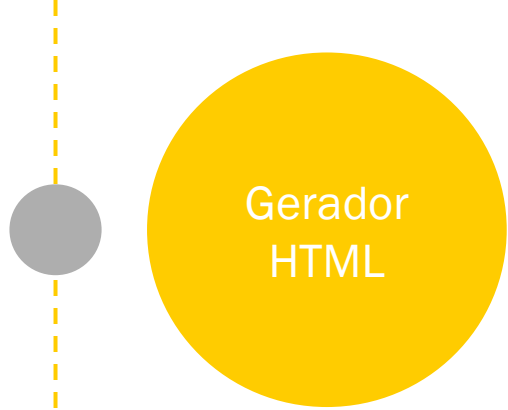
Sem estado

## Exemplo

```
@Component
fun Tag.Leaf() =
    Div(
        @Component
        fun Tag.Button(text: String) =
            Div(
                attributes =
                    Attribute.id("button")
            ) {
                Text(text)
            }
    )
```

## Resultado

```
<head>
  <template id="component-Button">...</template>
</head>
<body>
  <component id="component-Button" dataset="1"></component>
</body>
```



Outro pacote

Gera ficheiros .kt

1 elemento 1 ficheiro

Fonte: Mozilla

Elementos com descrição

### Exemplo

Elemento

`<address>`

Descrição

Indicates that the enclosed HTML provides contact information for a person or people, or for an organization.

### Resultado

```
package pt.isel.SHORT.html.element
```

```
import pt.isel.SHORT.html.Attribute
import pt.isel.SHORT.html.Tag
```

```
/**
```

```
 * Represents the HTML <address> tag.
```

```
 * Description: Indicates that the enclosed HTML provides contact information for a person or people, or for an organization.
```

```
 */
```

```
fun Tag.Address(attributes: List<Attribute> = emptyList(), content:
HtmlReceiver? = null): Tag = apply {
    appendChild(prototype("address", attributes, content))
}
```





Gerador  
HTML



Outro pacote



Gera ficheiros .kt



1 atributo 1 ficheiro



Fonte: Mozilla



Descrição e elementos

### Exemplo

Atributo

Elementos

Descrição

accept

<form>, <input>

List of types the server accepts,  
typically a file type.

[WIP]

### Resultado

```
package pt.isel.SHORT.html. attribute
```

```
import pt.isel.SHORT.html.Attribute
```

```
import pt.isel.SHORT.html.add
```

```
/**
```

```
* Represents the HTML accept attribute.
```

```
* Description: List of types the server accepts, typically a file type.
```

```
* Supported tags: <form>, <input>
```

```
*/
```

```
fun Attribute.Companion.accept (value: String) = add("accept ", value)
```

```
fun List<Attribute>. accept(value: String) = add("accept ", value)
```

# Próximos Passos



Gerador  
JavaScript

Injetor  
Dependências

Web App

Funcionalidades  
Opcionais

- Integração browser
- Acesso a variáveis
- Computação no cliente



**Gerador  
JavaScript**

- Jogo do Galo
- Router cliente embutido
- Comunicação servidor



**Web App**

Tic Tic Tac Tac Toe Toe

1C2C3A 1F3D4E 21425A 2A536E 326788

Tic Tic Tac Tac Toe Toe

246142 2C7650 389464 47A072 57A77F

Tic Tic Tac Tac Toe Toe

E4A935 E8B34C EAB95C EAC071 EAC98A

Tic Tic Tac Tac Toe Toe  
Arial Rounded MT Bold

# Tic Tac Toe

---

PLAY

SIGN IN

SIGN IN

LEADERBOARD





LEADERBOARD josidknfsk,gs dsvk ndfogn sgssknfosfs knf

# Tic Tac Toe

---

USERNAME: \_\_\_\_\_

PASSWORD: \_\_\_\_\_

VERIFYPASSWORD: \_\_\_\_\_

SIGNIN



# Tic Tac Toe

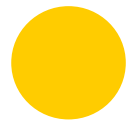
---

PLAY

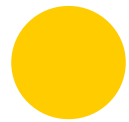
ONLINE

• • •


LEADERBOARD



API



Android



# Funcionalidades Opcionais

