



Swift in the Browser with ElementaryUI

Simon Leeb

HTML



HTML

+CSS



Browser



Server

Browser

Server

<https://hi-mom.cloud>

Hi Mom!

GET

HTML

```
<h1>Hi Mom!</h1>
```

CSS

```
color: rebeccapurple;
```

Browser

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Hi Mom!

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<h1>Hi Mom!</h1>
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<button>Leave</button>
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onclick="this  
  .previousElementSibling  
  .textContent = 'Bye Mom!'  
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Server



```
import Elementary
```

```
struct MomView: HTML {  
    var name = "Mom"
```

```
    var body: some HTML {  
        h1 { "Hi \ (name)!" }  
        button(.on(.click, onClickJS)) { "Leave" }  
    }
```

```
    private var onClickJS: String {  
        "this.previousElementSibling.textContent = 'Bye \ (name)!'"  
    }
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}
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struct MomView: HTML {  
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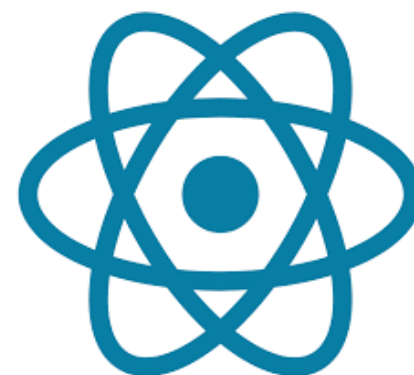
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<https://hi-mom.cloud>

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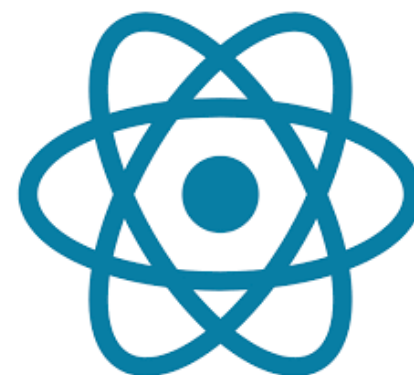
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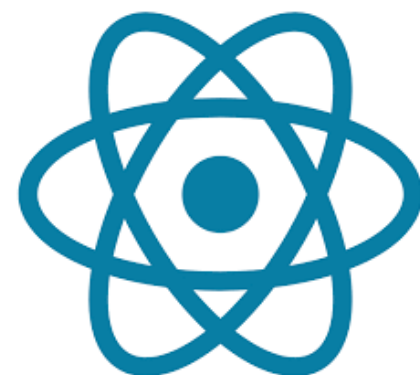
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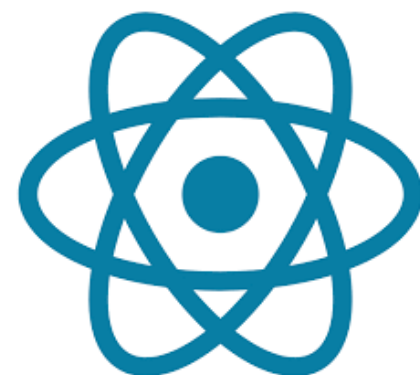
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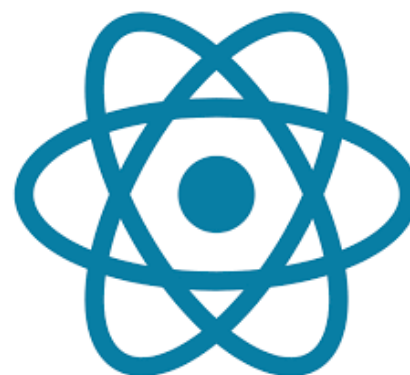
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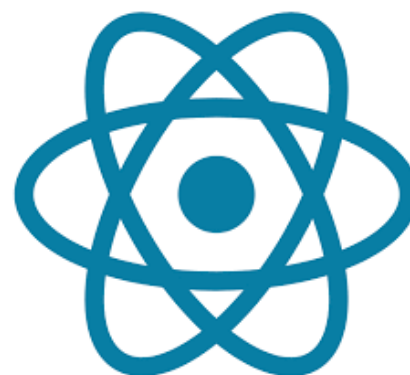
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Use the right tool for the job

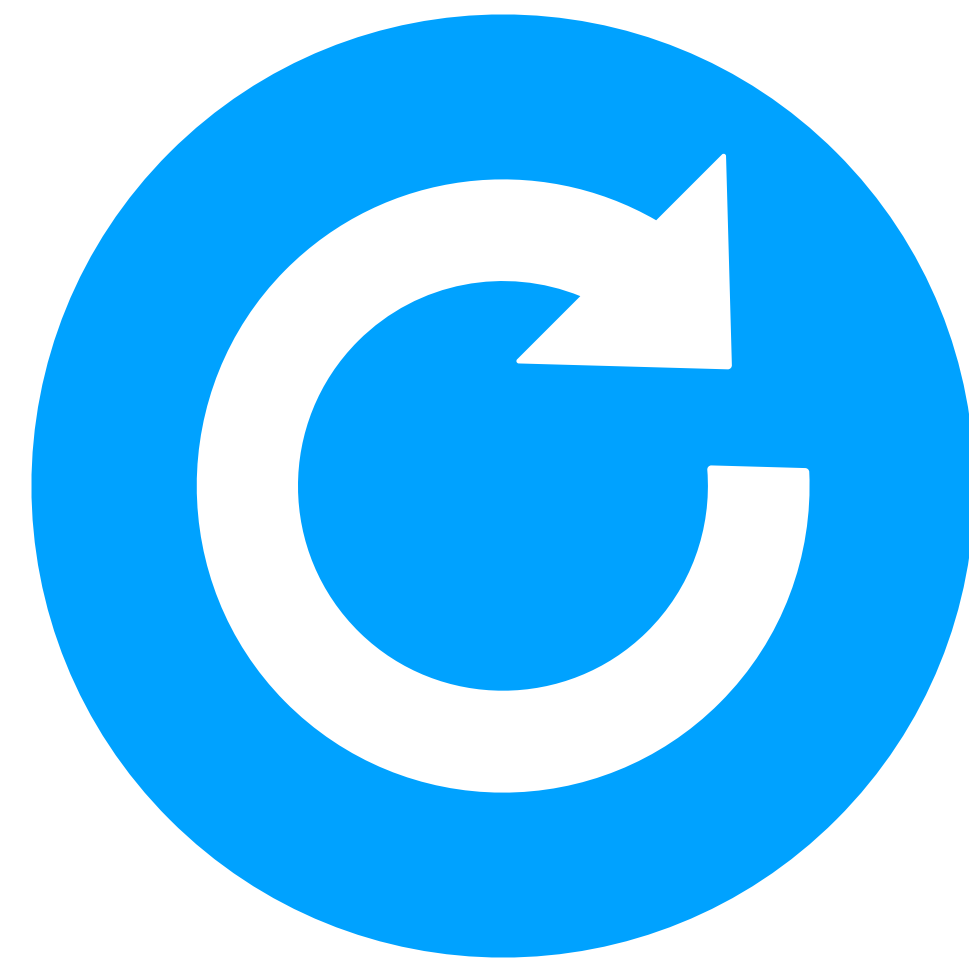


Uncaught TypeError:

Cannot read properties of undefined (reading 'nextSlide')



Uncaught TypeError:
nextSlide is not a function



Use the right tool for the job

Use the right tool for the job

An error occurred:
[object Object]

An error occurred:
[object Object]

Use the right tool for the job

Use the right tool for the job

Use the right ~~tool~~ ^{Swift} for the job

Swift
Use the right ~~tool~~ for the job



WebAssembly



WA

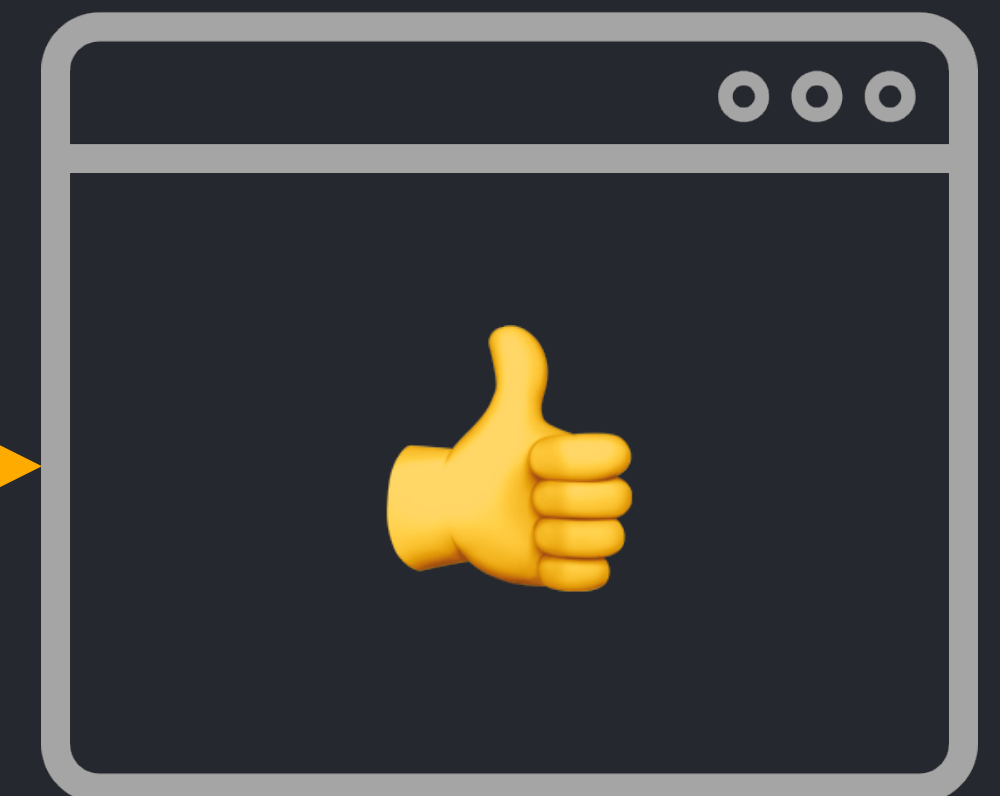
WebAssembly



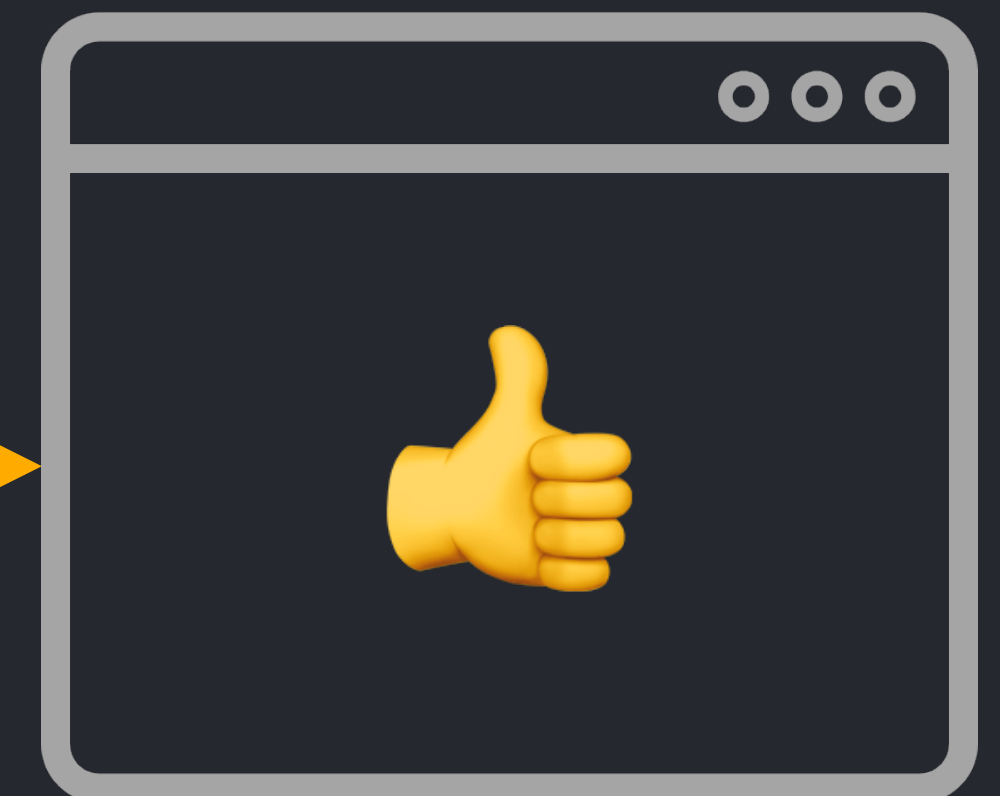
Swift SDK for WebAssembly



Swift SDK for WebAssembly



Swift SDK for WebAssembly



Web APIs

Swift SDK for WebAssembly



Swift SDK for WebAssembly



Swift SDK for WebAssembly



Swift SDK for WebAssembly



Swift SDK for WebAssembly



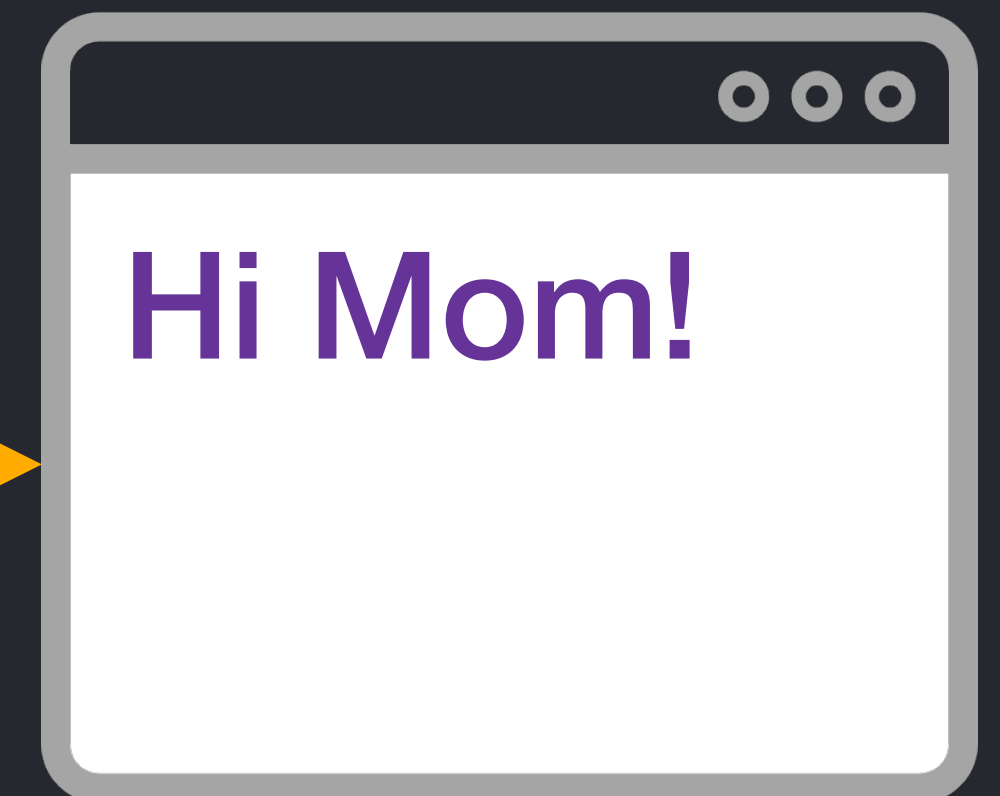
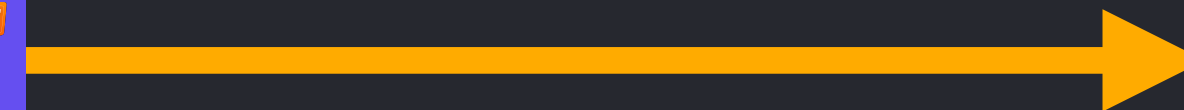
Embedded Swift SDK for WebAssembly



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    var body: some HTML {  
        h1 { isLeaving ? "Bye \ (name) !" : "Hi \ (name) !" }  
        button { "Leave" }  
            .onClick { isLeaving = true }  
    }
```

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}
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```
import ElementaryUI

@View
struct MomView: HTML {
    var name = "Mom"

    @State var isLeaving = false

    var body: some HTML {
        h1 { isLeaving ? "Bye \ (name) !" : "Hi \ (name) !" }
        button { "Leave" }
            .onClick { isLeaving = true }
    }
}
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struct MomView {
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    var body: some HTML {
        h1 { isLeaving ? "Bye \ (name) !" : "Hi \ (name) !" }
        button { "Leave" }
            .onClick { isLeaving = true }
    }
}
```

Demo Time

The Road to 1.0

Fetch API

@FocusState

Router

OpenAPI

SSG + Islands

WebAssembly Reference Types

Navigation

SSR + Hydration

Web Storage API

JavaScriptKit 1.0

PhaseAnimator

SVG

BridgeJS

Web Components

The to 1.0

Fetch API

@Focus

Router

OpenAPI

WebAssembly Refe

Islands

Navigation

SSR + Hydration

PI

JavaScriptKit 1.0

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Bridges

Web Components



Swift in the Browser

Swift in the Browser

Let's make it happen!



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